

BW - 8

ANNUAL REPORTS

Chavez, Carl J, EMNRD

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Sent: Tuesday, May 1, 2018 2:33 PM
To: Chavez, Carl J, EMNRD
Cc: Pieter Bergstein (pieter@bergsteinenterprises.com); susan@thestandardenergy.com; McVey, Mike
Subject: 2017 Annual Class III Well Report - Salty Dog Brine Station
Attachments: Salty Dog 2017 Annual Report_5-1-2018.pdf

Carl,

Attached is an electronic copy of the 2017 Annual Class III Well Report for the Salty Dog brine station. The report was prepared in accordance with the requirements of discharge permit (DP) BW-8.

Please let me know if you would like a hardcopy mailed to you or OCD, and if you need us to upload the file to the OCD Imaging online system.

Please let Mike or I know if you have questions.

Thanks,

John P. Ayarbe

Senior Hydrogeologist

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2017 Annual Class III Well Report

Salty Dog Brine Station

DP BW-8, API No. 30-025-26307

Lea County, New Mexico

Prepared for

**New Mexico Energy, Minerals and
Natural Resources Department
Oil Conservation Division**

May 1, 2018



Daniel B. Stephens & Associates, Inc.

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2017 Annual Class III Well Report

Salty Dog Brine Station

DP BW-8, API No. 30-025-26307

Lea County, New Mexico

1. Introduction

Daniel B. Stephens & Associates, Inc. (DBS&A) has prepared this annual Class III well report for submission to the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD) Environmental Bureau on behalf of PAB Services, Inc. (PAB) for the operation of a brine well (Brine Supply Well #1 [API No. 30-025-26307]) at the Salty Dog Brine Station (the site). The site is located in Lea County, New Mexico, approximately 11 miles west of Hobbs, New Mexico along U.S. Highway 62/180 (US 62/80) (Figure 1). This report summarizes operational and monitoring activities conducted at the site in 2017, and was prepared in accordance with the requirements of discharge permit (DP) BW-8, last renewed on November 8, 2013 (NMEMNRD, 2013). The submittal of this report meets Condition 2.J of the permit.

Appendix A provides an annual certification signed by Mr. Pieter Bergstein stating that continued salt solution mining will not cause cavern collapse, surface subsidence, property damage, or otherwise threaten public health and the environment based on geologic and engineering data.

Salty Dog is a brine water production and loading station, consisting of fresh water supply wells, a brine production well, and a concrete truck loading pad with two brine filling stations. Fresh water is stored in two 1,000-barrel (bbl) aboveground storage tanks (ASTs). Produced brine is pumped from the brine well to a bermed tank battery consisting of six 750-bbl ASTs, where the brine is stored for sale. The brine well is located approximately 0.5 mile southwest of the brine filling station (Figure 1). Figure 2 presents a 2017 aerial photograph of the brine station showing the layout of the current facility infrastructure.



Brine is produced from the in situ extraction of salt at the brine well, a UIC Class III well (Brine Supply Well #1 [API No. 30-025-26307]). The brine well is approximately 3,000 feet deep and has been in operation since the early 1980s. The Salty Dog brine well is configured for reverse circulation brine recovery, where fresh water is circulated down the casing annulus into the Salado Formation—a Permian Age sedimentary rock unit composed of halite (salt) and other evaporative beds. Fresh water dissolves the salt, and the brine is extracted through the center tubing of the well. Figure 3 provides a generalized schematic of the brine well showing its construction, current tubing depth, and the penetrated geologic units.

The physical location of the brine well is 1,980 feet from south line (FSL) and 1,980 feet from east line (FEL) (NW/4 SE/4, Unit Letter J) in Section 5, Township 19 South, Range 36 East, New Mexico Principal Meridian (NMPM). The brine well was installed in June 1979. The original discharge permit for the brine well (GWB-2) appears to have been issued on December 18, 1982 (OCD, 1994). The discharge permit was last renewed on November 8, 2013 (NMEMNRD, 2013).

Injection water used in brine production is obtained from the Ogallala Aquifer by pumping from two fresh water supply wells (FWS-1 and FWS-2) and groundwater remediation well RW-2. Well FWS-1 is the main fresh water supply well. Well FWS-2, located near the brine well, is used as an auxiliary fresh water well during periods of high brine demand. Well RW-2 is used to remove and provide hydraulic containment of chloride-impacted groundwater in the brine well area; groundwater extracted from this well is used for brine production. Chloride-impacted groundwater in the former brine pond area is contained and removed by pumping from FWS-1. Depth to regional groundwater is approximately 60 feet below ground surface (bgs). Figure 4 shows the locations of the wells.

2. Brine Well Operational Activities

The following subsections report fluid injection and brine production volumes and well maintenance activities.



2.1 Fluid Injection and Brine Production

Except for an approximately 2-year shutdown between 2011 and 2013 and temporary interruptions for routine maintenance and testing (e.g., February 2009 sonar survey [SOCON, 2009]), the brine well has been in continuous operation since 1980, producing an average of approximately 10,500 barrels per month (bbl/mo) of brine between 1980 and 2009. This production rate is based on 1987, 1996–1999, and 2009 brine production and sales records (Salty Dog, 1988, 1999, and Undated).

Both fluid injection and brine production volumes are metered, and daily volumes are recorded on monthly fresh and brine water report forms (Appendix B). Table 1 summarizes monthly injection and production volumes for the reporting period. Injection water for the brine well comes from two fresh water wells (FWS-1 and FWS-2) and a groundwater remediation well (RW-2) (Figure 4). In 2017, monthly ratios of injected water to produced brine ranged from 0.97 to 1.08.

Table 1. Monthly Water Injection and Brine Production Volumes, 2017

Month	Volume (bbl)		Ratio (injection:production)
	Water Injection	Brine Production	
January	56,015	54,959	1.02
February	45,679	42,556	1.07
March	57,170	55,689	1.03
April	53,925	50,131	1.08
May	51,520	51,083	1.01
June	45,752	46,009	0.99
July	64,910	64,007	1.01
August	57,886	57,863	1.00
September	81,711	80,409	1.02
October	48,785	47,366	1.03
November	50,360	48,747	1.03
December	15,753	16,321	0.97
Annual total	629,466	615,140	—

bbl = Barrels



Based on the data reported in Table 1 and previously reported production records (Salty Dog, 1988, 1999, and Undated; DBS&A, 2014), the estimated cumulative volume of brine production is 6,096,795 bbl.

In 2017, brine production activities at the site dissolved an estimated 89,500 bbl of Salado Formation. This estimate is based on the brine production data reported in Table 1, the average total dissolved solids (TDS) concentrations of the produced brine and injection water reported in Table 2, and an assumed density of the Salado Formation of 2.17 grams per cubic centimeter (g/cm^3). The total estimated size of the brine solution cavern is approximately 883,300 bbl, based on the historical and present brine production data. In 2012, OCD estimated a volume of 1,022,196 bbl for the Salty Dog solution cavern (NMEMNRD, 2012).

Table 2. Injection Water and Produced Brine Chemical and Physical Characteristics

Constituent	Average Concentration (mg/L ^a)	
	Injection Water	Produced Brine
pH (s.u.)	7.76	7.37
Specific gravity (unitless)	0.997	1.19
Chloride	270	180,000 ^b
Sodium	NM	79,500
TDS	775	316,500

^a Unless otherwise noted

^b During the second semiannual monitoring event, the chloride concentration of the brine water was not analyzed.

mg/L = milligram per liter

nm = Not measured

s.u. = Standard units

TDS = Total dissolved solids

2.2 Injection Pressure

Pressure is monitored on the well tubing and on the annulus between the inner tubing and outer casing. These measurements are recorded on the monthly fresh and brine water report forms (Appendix B). In 2017, recorded daily tubing pressure was 100 pounds per square inch (psi), while annulus pressure was 375 psi.



2.3 Chemical and Physical Analyses

Condition 2.A of DP BW-8 requires quarterly monitoring of the chemical and physical characteristics of the injection water and produced brine, including pH, density, and TDS and chloride concentrations. The permit also requires that the sodium concentration of the produced brine be analyzed. Since DP BW-8 was issued, PAB requested that the monitoring frequency be reduced from quarterly to semiannually. In consultation with OCD, PAB initiated semiannual monitoring in 2017.

Table 2 reports average constituent concentrations calculated from the 2017 semiannual monitoring data. Samples of the injection water were collected in June and December 2017. Samples of the produced brine were collected in June 2017 and February 2018. Because the brine well was down during the December 2017 monitoring event, the second semiannual brine sample was collected in February 2018, when the brine well was back in operation. Dissolution of the Salado Formation increases the constituent concentrations and specific gravity of the produced brine relative to the injection water. The average TDS concentration and average specific gravity of the injection water are 775 milligrams per liter (mg/L) and 0.997, respectively, while the same properties of the produced brine are 316,500 mg/L and 1.19, respectively. Appendix C provides the laboratory analytical reports associated with semiannual monitoring events.

Historical water quality analyses show TDS concentrations of the fresh water and produced brine to be approximately 600 mg/L and 320,000 to 350,000 mg/L, respectively (Martin, 1982; Unichem, 1987).

2.4 Deviations from Normal Operations

In December 2017, the brine well was damaged because anhydrite had collapsed the well tubing, stopping brine production (Sayre, 2017). Between December 2017 and February 2018, PAB had the well repaired. The existing well, which was originally drilled to 2,958 feet bgs, was redrilled and cleaned out to 2,791 feet bgs. New tubing was then installed to a depth of 2,610 feet bgs. The tubing was perforated with 0.20-inch-diameter holes from 2,590 to



2,592 feet bgs (Figure 3). Appendix D contains the drilling and repair log and C-103 forms that were submitted to OCD. The brine well was operational again in February 2018.

2.5 Leaks and Spills

There were no leaks or spills in 2017.

2.6 Area of Review

Condition 3.L of DP BW-8 requires Salty Dog to report within 72 hours the discovery of any new wells, conduits, or other devices that are both within a 1-mile radius and may penetrate to the injection zone of the brine well.

Figure 5 shows the area within a 1-mile radius of the brine well presented on a 2017 aerial photograph. The brine station is located on private property in rural southeastern New Mexico, approximately 11 miles west of Hobbs. The majority of the area surrounding the site is undeveloped and owned by the State of New Mexico; however, a property to the west of Salty Dog and within a 1-mile radius of the brine well has undergone recent development. This property is located at the intersection of Highway 529 and Highway 62. The recent development includes the installation of several tanks and pipelines. On March 30, 2017, DBS&A spoke to the Salty Dog operations manager, Jim Sayre, regarding the property. Mr. Sayre said that the property is currently used as a water station and that the owner may seek to use the property for brine production and/or waste disposal by injection. Both brine production and injection disposal have the potential to place new wells within a 1-mile radius of the brine well, and these new wells could penetrate to the Salado Formation.

2.7 Mechanical Integrity Test

In December 2017, the brine well was damaged because anhydrite had collapsed the well tubing. The well was subsequently repaired and operational again in February 2018 (see Section 2.4). On February 9, 2018, before placing the well back in operation, PAB conducted a mechanical integrity test (MIT) on the well; it passed the test. Gary Robinson of OCD was present during the MIT. A record of the MIT is provided in Appendix E.



Prior to the February 2018 MIT, the last MIT was performed on October 31, 2013, when Salty Dog conducted a Bradenhead test on the brine well. The test showed no problems with the integrity of the well casing. Results of this test were reported to OCD on November 15, 2013.

Pursuant to 20.6.2.5204 New Mexico Administrative Code (NMAC), PAB is required to demonstrate mechanical integrity of the brine well at least once every five years.

3. Other Facility Activities

During the first 2017 semiannual groundwater monitoring event, DBS&A discovered damage to the totalizer flow meter at groundwater remediation well RW-2. The meter had been damaged by cattle. PAB staff replaced the totalizer flow meter in November 2017, and then installed a fence around the well to prevent future damage to the well head and meter.

4. Subsidence Monitoring and Cavern Characterization

A work plan to satisfy Conditions 2.B.1 and 2.B.2 of the renewed DP BW-8 was submitted to OCD on September 17, 2014 (DBS&A, 2014). This work plan describes the proposed technical approach to be used to satisfy the two permit conditions: (1) the design of survey monuments and establishment of a program to monitor for potential surface subsidence, and (2) investigation activities to characterize the size and shape of the solution cavern created by brine production. During a December 9, 2016 phone call between DBS&A (on behalf of PAB) and OCD (Jim Griswold and Carl Chavez), the following actions were agreed to regarding surface subsidence monitoring and solution cavern characterization:

- Five surface subsidence monitoring points would be installed in the brine well area. Four of the monitoring points would be installed at the locations and according to the specifications provided in the work plan. The fifth monitoring point would consist of a metal tab welded to the casing of the brine well.
- The five surface subsidence monitoring points would be surveyed semiannually in accordance with the work plan. Geodetic control would be brought in from outside the potential area of influence of the brine well.



- Solution cavern characterization would only be conducted if surface subsidence was detected during semiannual surveying of the subsidence monitoring points.

The five surface subsidence monitoring points were installed in March 2018.

5. Groundwater Conditions

Salty Dog is addressing groundwater impacts resulting from releases at the brine well and a former brine pond. A hole in the casing of the brine well at 250 feet bgs was discovered in 1999 (Salty Dog, 1999). The hole released brine, impacting groundwater, and was repaired in August 1999 by installing a casing liner (Salty Dog, 1999). In October 2008, the brine pond was removed and impacted soil was excavated and disposed of (DBS&A, 2008). The area of the former brine pond is shown in Figures 1 and 2.

Two chloride plumes currently exist at the site: one in the area of the brine station (i.e., the former brine pond area) and a second near the brine well. In 2009, PAB initiated groundwater extraction to remove and provide hydraulic containment of brine-impacted groundwater at the brine station and near the brine well (DBS&A, 2009). Groundwater abatement and monitoring activities are being conducted to satisfy an administrative compliance order issued by OCD (ACO 2008-02) and settlement agreement and stipulated revised final order (NM-OCD 2008-2A) between OCD and Mr. Bergstein.

Groundwater monitoring and extraction data are reported and evaluated in reports submitted to OCD (DBS&A, 2018). The data include water levels and water quality at the site monitor wells. Site monitor wells are shown in Figure 4.

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Oil Conservation Division, New Mexico Energy, Minerals and Natural Resources Department (OCD). 1994. Letter from Roger C. Anderson to Larry Squires, Salty Dog, regarding Discharge plan BW-08 renewal, Salty Dog Inc. water station, Lea County, New Mexico. March 4, 1994.



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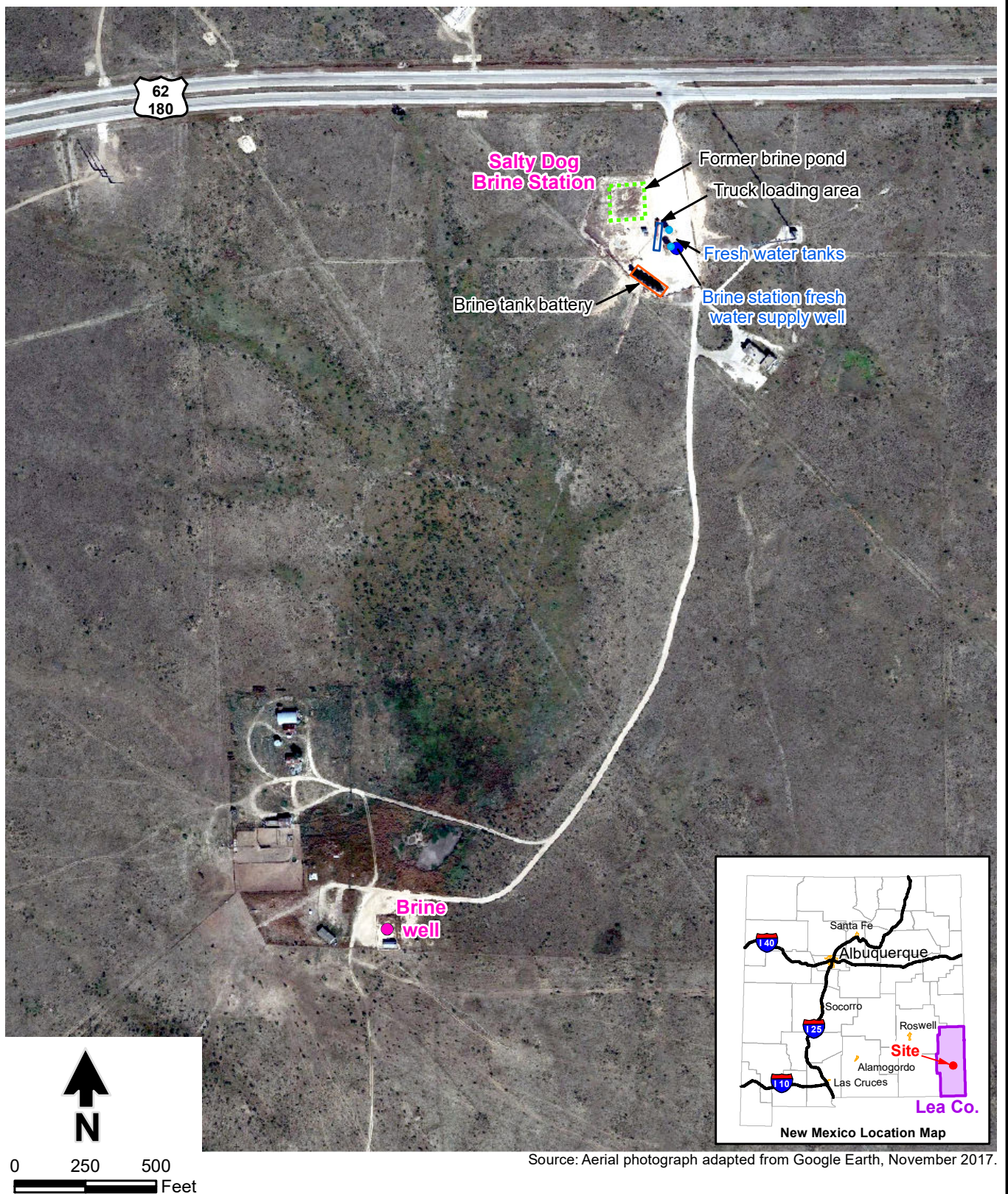
Sayre, J. 2017. Personal communication between Jim Sayre, PAB Services, Inc., and Daniel B. Stephens & Associates, Inc. December 2017.

SOCON Sonar Well Services, Inc. (SOCON). 2009. *ECHO-LOG, Salty Dog, Inc. Brine well No: 1, Hobbs, New Mexico: First SOCON Sonar Well Services survey.* February 5, 2009.

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Figures

S:\PROJECTS\ES08.0118.05_SALTY_DOG_DP_BW-8\GIS\MXD\ANNUAL RPT\ANNUAL_2017\FIG01_SITE_LOCATION_AND_FACILITIES.MXD



Source: Aerial photograph adapted from Google Earth, November 2017.

Explanation

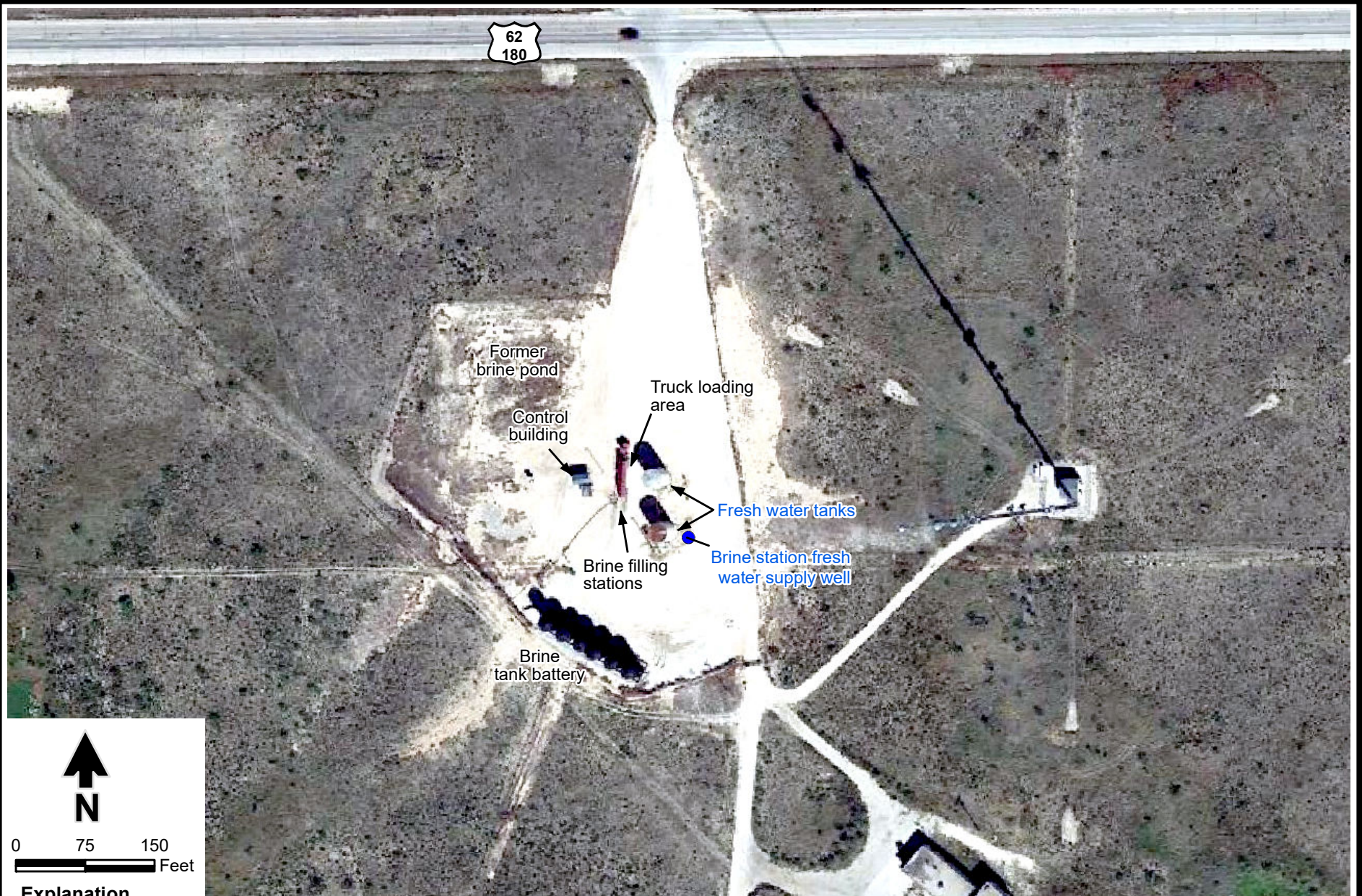
- Water supply well
- Brine well
- Fresh water tank



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3/2/2018 JN ES08.0118.06

SALTY DOG BRINE STATION Site Location and Facilities

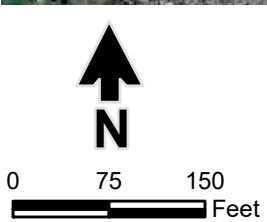
Figure 1



Source: Aerial photograph adapted from Google Earth, November 2017.

SALTY DOG BRINE STATION 2017 Aerial Photograph of Salty Dog Brine Station

Figure 2



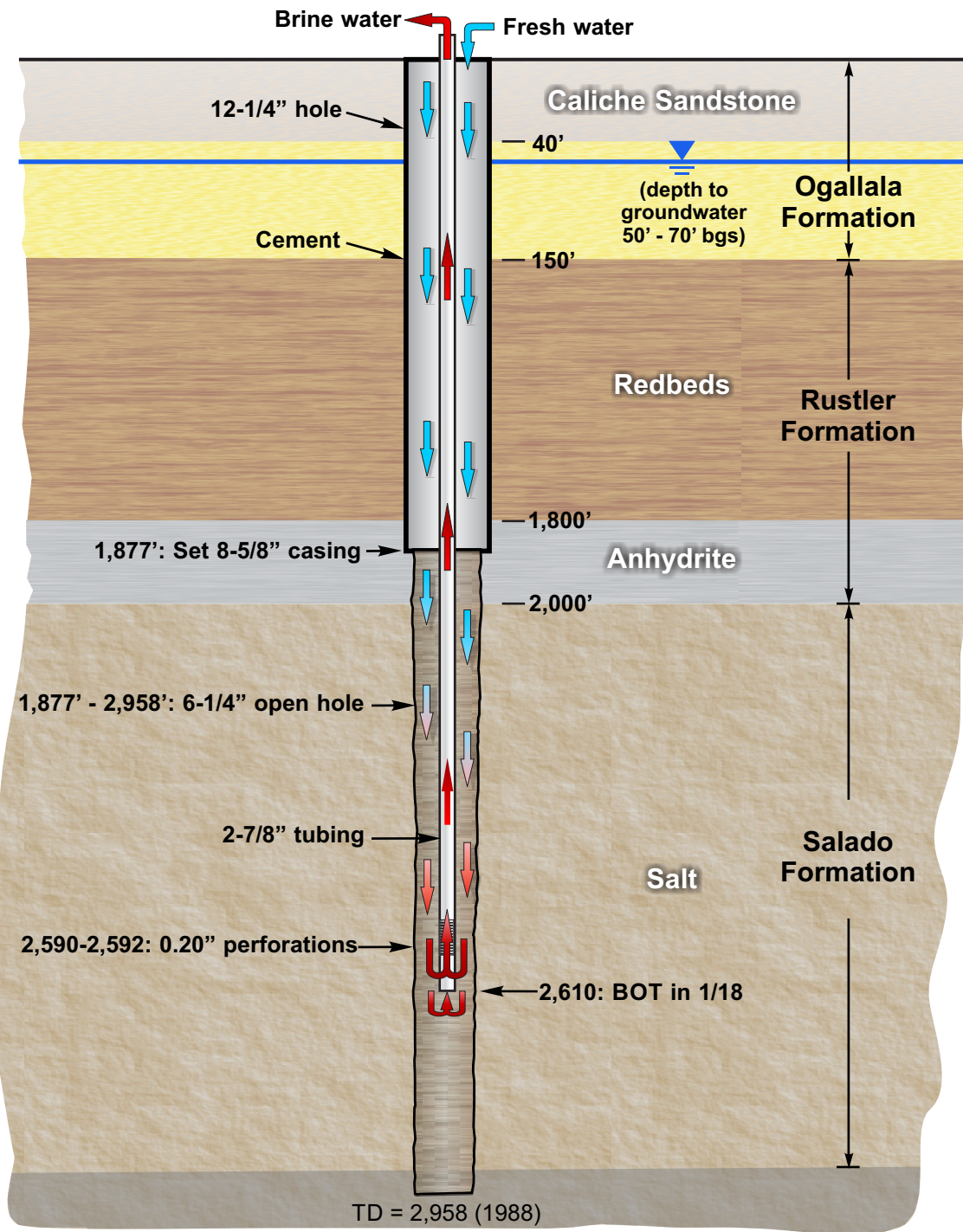
Explanation

- Water supply well



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Salty Dog Brine Well



Notes:

1. BOT = Bottom of tubing
2. Figure not to scale

Sources:

1. Completion data based on OCD well reports
2. Lithology from Salty Dog (1988)

Daniel B. Stephens & Associates, Inc.

4-30-18

JN ES08.0118.06

**SALTY DOG BRINE STATION
Generalized Brine Well Schematic**

Figure 3





Source: Aerial photograph adapted from Google Earth, November 2017.

Explanation

- | | |
|---------------------------|----------------------|
| ● Fresh water supply well | ● Brine well |
| ⊕ Monitor well | □ Brine tank battery |
| ⊕ Recovery well | □ Truck loading area |
| ⊙ Well destroyed | □ Former brine pond |



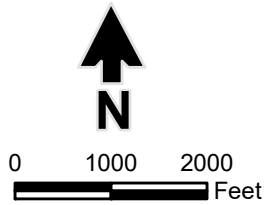
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SALTY DOG BRINE STATION Monitor and Extraction Well Locations

Figure 4



Source: 1. Aerial photograph adapted from Google Earth, November 2017.
2. BLM New Mexico Surface Ownership, 2016



Explanation

- Brine well
- Area within a 1-mile radius

Figure 5



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3/2/2018 JN ES08.0118.06

**SALTY DOG BRINE STATION
Area of Review**

Appendix A
Annual Certification

Annual Certification

PAB Services, Inc. certifies that continued salt solution mining will not cause cavern collapse, surface subsidence, property damage, or otherwise threaten public health and the environment based on geologic and engineering data.

RICHARD BEURSTEN

Name

President

Title

[Signature]

Signature

4/30/18

Date

Appendix B

2017 Monthly Fresh and Brine Water Report Forms

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION *SALTY Dog*
MONTH/YEAR *JAN 2017*

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BBLs SOLD	PSI	PSI	SOLD
1	980	900	100	325	90
2	400	330			190
3	2750	2695			505
4	2375	2335			
5	2350	2346			80
6	1100	1065			
7	900	875			
8	600	560			
9	1000	952			560
10	2900	2885			740
11	2300	2235			335
12	900	824			42
13	1450	1410			285
14	1150	1130			390
15	1500	1485			65
16	1200	1125			435
17	2595	2580			390
18	1625	1605			455
19	1010	1000			280
20	3575	3522			50
21	1325	1350			130
22	1250	1210			
23	2630	2600			120
24	1760	1760			130
25	2250	2210			30 30
26	1490	1470			60
27	2630	2600			
28	2110	2095			
29	3675	3655			
30	1805	1790			80
31	2360	2310			
TOTALS					

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION SALTY DOG
 MONTH/YEAR FEB 2017

15,270

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLS	BBLS SOLD	PSI	PSI	SOLD
1	840	800	100	375	160
2	3720	3610			30
3	1970	1945			
4	2590	2570			
5	2000	1990			
6	700	575			125
7	2075	1910			195
8	3250	3175 1220			90
9	720	670			30
10	1010	950			130
11	1120	1000			
12	500	300			
13	0	130			70
14	2310	2225			55
15	1870	1735			60
16	2120	2040			70
17	1710	1660			230
18	830	795			
19	2999	2890			
20	3795	3680			125
21	1720	1620			275
22	2080	1905 1450			
23	1000	850			30
24	2020	1896			50
25	800	660			
26	210	175			
27	1270	1230			
28	450	370			130
29					
30					
31					
TOTALS					

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION	SALTY DOG
MONTH/YEAR	MARCH

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BRLS SOLD	PSI	PSI	SOLD
1	850	810	100	325	30
2	480	468			100
3	400	360			90
4	1200	1120			150 100
5	2570	2500			
6	3000	2900			95
7	1070	1030			195
8	3590	3545			210
9	2050	2001 2000			50 100
10	3200	3150			
11	1400	1335			
12	600	530			
13	1290	1245			105
14	600	500			345
15	1050	1010			40
16	1200	1170			170
17	900	815			90
18	1395	1355			520
19	2900	2880			
20	5250	5160			30
21	3120	3085 3000			30
22	2390	2345			
23	1695	1630			
24	1400	1350			30
25	230	230			
26	4100	4091			
27	0	0			35
28	2400	2360			60
29	4000	3927			50
30	1310	1297			60
31	1530	1490			80
TOTALS					

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION	SALT P Dog
MONTH/YEAR	APRIL 17

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BBLs SOLD	PSI	PSI	SOLD
1	680	660	100	325	
2	200	200			
3	2060	2030			30
4	1010	910			
5	2400	2380			340
6	1990	1960			290
7	820	770			170
8	1100	1050			
9	800	720			
10	3170	3103			30
11	1620	1585			280
12	2070	2007			60
13	400	780			250
14	1250	1240			242
15	1160	1120			0
16	1500	1480			0
17	2900	2806			245
18	24061 3300	3260			125
19	2256	2200			165
20	2800	2743			180
21	2720	2692			
22	1930	1900			70
23	1500	1470			
24	2280	2260			830
25	1760	1730			160
26	700	640			
27	1995	1946			230
28	3000	2829			290
29	3000	3020			
30	1160	1040			
31					
TOTALS					

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION SALT Dog
 MONTH/YEAR MAY 2017

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BBLs SOLD	PSI	PSI	SOLD
1	2300	2150			330
2	1985	1955			350
3	2110	2098			195
4	3000	2975 440			250
5	2380	2340			30
6	1250	1210			260
7	600	580			430
8	2040	2000			155
9	700	680			210
10	960	925			36
11	780	745			65
12	2470	2422			30
13	0	230			80
14	700	670			
15	1470	1440 620			260
16	2659 4230	4171			405
17	910	860			215
18	1375	1340			20
19	1680	1620			25
20	1380	1370			
21	910	890			
22	2470	2410			126
23	2365	2347			240
24	1875	1830			540
25	4610	4585			170
26	1595	1556			225
27	0	435			80
28	1765	1780			
29	700	630 500			
30	700	680			285
31	2210	2180			40
TOTALS					

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION SALTY Dog
 MONTH/YEAR JUNE 2017

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BBLs SOLD	PSI	PSI	SOLD
1	780	756	100	375	500
2	600	556			70
3	470	450			30
4	0	135			0
5	1280	1250			50
6	900	875			200
7	1600	1580 ⁴¹⁰			310 ²⁵
8	710	689			30
9	1580	1510			90
10	600	590			155
11	350	250			110
12	1900	1860			30
13	2180	2134			140
14	820	770			150
15	3640	3595			65
16	1770	1705			75
17	820	710			25
18	1980	1920			
19	3690	3665			350
20	3020	2990 ³⁰⁰			30
21	3070	2924 ³⁰⁰			245
22	2810	2750 ¹⁵⁰⁰			240
23	0	339			275
24	0	300			0
25	1800	1770			0
26	1280	1265			270
27	1920	1905			235
28	2182	2169			505
29	3150	3125			155
30	1500	1470			230
31					
TOTALS					

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION SALT DOG
 MONTH/YEAR July 2017

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BBLs SOLD	PSI	PSI	SOLD
1	2550	2520	100	375	
2	1900	1880	100	375	
3	2395	2380	100	375	125
4	2105	2084	100	375	130
5	4190	4145	100	375	60
6	2670	2640	100	375	130
7	1950	1930	100	350	30
8	800	778	100	375	
9	1120	1150	100	375	
10	2710	2690	100	375	255
11	2455	2437	100	375	60
12	1860	1820	100	375	60
13	1660	1640	100	350	
14	2690	2669	100	350	105
15	5045	5005	100	350	55
16	2400	2380	100	375	
17	2045	2006	100	375	60
18	1975	1915	100	375	60
19	1280	1259	100	375	80
20	1390	1350	100	375	100
21	1620	1594	100	375	80
22	1380	1350	100	375	
23	1515	1490	100	350	
24	4095 4095	4060	100	350	230
25	1165	1135	100	375	120
26	1685	1655	100	375	
27	2800	2775	100	375	140
28	1050	1010	100	375	35
29	1210	1180	100	375	310
30	1050	1010	100	375	50
31	2100	2070	100	375	100
TOTALS		62,145			

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION SALT 4 Dog
 MONTH/YEAR August 2017

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BBLs SOLD	PSI	PSI	SOLD
1	1245	1320	100	375	155
2	4360	4340	100	375	130
3	1320	1310	100	375	
4	1500	1490	100	375	
5	1860	1850	100	375	
6	275	260	100	375	120
7	1840	1825	100	375	280
8	5895	5485	100	375	
9	1720	1705	100	375	190
10	1240	1220	100	375	106
11	1810	1800	100	375	27
12	1950	1940	100	375	120
13	1425	1410	100	375	130
14	1500	1495	100	375	160
15	1100	1090	100	375	520
16	2215	2200	100	375	155
17	2315	2305	100	375	180
18	1775	1760	100	375	
19	0	100	100	375	190
20	0	260	100	375	
21	0	340	100	375	
22	2595	2580	100	375	410
23	1475	1460	100	375	175
24	860	840	100	375	60
25	1180	1160	100	375	
26	1075	1045	100	375	250
27	2150	2120	100	375	
28 th	2746	2706	100	375	323
29	50916 2910	3000	100	375	491
30	54586 3670	3610	100	375	210
31	3380	3337			
TOTALS		57966			

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION SALT Y Dog
 MONTH/YEAR Sept 17

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BBLs SOLD	PSI	PSI	SOLD
1	4520	4505	100	375	
2	3100	3050	100	375	
3	1645	1600	100	375	
4	1000	1970	100	375	100
5	2965	2920	100	375	30
16585 6	2590	2540	100	375	180
7	4275	4254	100	375	280
8	1460	1425	100	375	100
9	2880	2810	100	375	360
27534 10	2495	2460	100	375	130
11	2386	2344	100	375	87
12	3150	3115	100	375	810
13	3340	3312	100	375	280
37660 14	1390	1365	100	375	840
15	3080	3050	100	375	355
16	800	770	100	375	
44090 17	2650	2600	100	375	
18	1290	1745	100	375	700
19	4700	4682	100	375	90
20	2095	2045	100	375	
21	1680	1620	100	375	70
22	3595	3355	100	375	25
23	2870	2800	100	375	130
63867 24	3580	3538	100	375	130
25	2175	2135	100	375	40
26	3350	3303	100	375	162
27	3195	3165	100	375	25
28	2475	2439	100	375	186
29	3720	3790	100	375	30
30	1760	1710	100	375	
31					
TOTALS		80,409			

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION *SALT Y Dog*
 MONTH/YEAR *Oct 2017*

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BBLs SOLD	PSI	PSI	SOLD
1	620	600	100	375	25
2	2100	2055	100	375	121
3	1375	1335	100	375	200
4	1250	1220	100	375	208
5	2570	2540	100	375	30
6	3200	3170	100	375	285
7	2900	2880	100	375	
8	510	440	100	375	
9	3370	3310	100	375	165
10	1895	1860	100	375	225
11	1360	1320	100	375	190
12	1000	910	100	375	30
13	700	550	100	375	30
14	610	560	100	375	130
15	615	520	100	375	
16	2420	2405	100	375	140
17	1950	1915	100	375	60
18	420	395	100	375	30
19	1760	1730	100	375	30
20	1340	1315	100	375	168
21	2080	2040	100	375	50
22	1530	1500	100	375	
23	2065	2035	100	375	28
24	1700	1656	100	375	650
25	1950	1923	100	375	366
26	2340	2311	100	375	30
27	600	500	100	375	290
28	710	690	100	375	
29	2150	2130	100	375	
30	895	840	100	375	30
31 ^{4/6/2017}	800	717	100	375	160 ⁰⁰⁰
TOTALS		47366			

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION	SALTY Dog
MONTH/YEAR	NOV 2017

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLS	BBLS SOLD	PSI	PSI	SOLD
1	2500	2450	100	375	290
2	1050	1007	100	375	330
3	830	703	100	375	200
4	560	500	100	375	400
5	690	660	100	375	0
6	1480	1408	100	375	160
7	1210	1152	100	375	570
8	1260	1700	100	375	790
9	1380	1351	100	375	60
10	2200	1930	100	375	90
11	1290	1230	100	375	130
12	500	440	100	375	
13	1970	1930	100	375	250
14	3030	3000	100	375	430
15	1310	1286	100	375	225
16	4000	3720	100	375	120
17	1785	1760	100	375	240
18	1850	1820	100	375	185
19	1795	1780	100	375	40
20	3220	3210	100	375	415
21	2600	2580	100	375	320
22	1245	1230	100	375	
23	2525	2500	100	375	
24	800	780	100	375	
25	1920	1900	100	375	240
26	1040	1010	100	375	
27	1500	1470	100	375	90
28	1170	1155	100	375	320
29	1150	1110	100	375	120
30	2000	1925	100	375	30
31					
TOTALS		48827			

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION	SALT Dog
MONTH/YEAR	December 2017

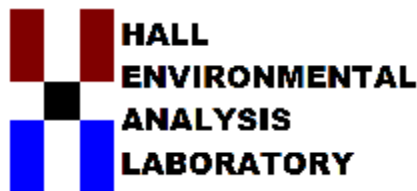
	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLS	BBLS SOLD	PSI	PSI	SOLD
1	2056	2010	100	325	60
2	2040	2010	100		
3	1360	1340			
4	1000	955			55
5	920	855			285
6	1870	1855			
7	1610	1570			90
8	2620	2590			
9	680	640			
10	200	120			
11	700	611			230
12	300	210			
13	0	100			630
14	333	325			
15	0	110			130
16	0	0			
17	0	0			80
18	70	60			240
19	0	0			290
20	0	130			30
21	0	0			
22	0	0			60
23	0	0			
24	0	0			
25	0	350			
26	0	220			
27	0	260			
28	0	0			
29	0	0			
30	0	0			
31	0	0			
TOTALS					

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

Appendix C

**Laboratory
Analytical Reports**



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 17, 2017

John Ayarbe

Daniel B. Stephens & Assoc.
6020 Academy NE Suite 100
Albuquerque, NM 87109
TEL: (505) 822-9400
FAX (505) 822-8877

RE: Salty Dog

OrderNo.: 1706B95

Dear John Ayarbe:

Hall Environmental Analysis Laboratory received 13 sample(s) on 6/21/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: PMW-1

Project: Salty Dog

Collection Date: 6/20/2017 2:30:00 PM

Lab ID: 1706B95-001

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	13000	500	*	mg/L	1E	7/3/2017 7:36:52 PM	R43998

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-1R

Project: Salty Dog

Collection Date: 6/20/2017 3:17:00 PM

Lab ID: 1706B95-002

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	320	50	*	mg/L	100	6/29/2017 1:02:14 PM	R43888

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-2

Project: Salty Dog

Collection Date: 6/20/2017 3:50:00 PM

Lab ID: 1706B95-003

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	59	5.0		mg/L	10	6/29/2017 1:14:38 PM	R43888

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-4

Project: Salty Dog

Collection Date: 6/20/2017 4:15:00 PM

Lab ID: 1706B95-004

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: MRA	
Chloride	35	5.0		mg/L	10	6/29/2017 1:39:27 PM	R43888

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-5

Project: Salty Dog

Collection Date: 6/20/2017 4:50:00 PM

Lab ID: 1706B95-005

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	170	5.0		mg/L	10	6/29/2017 2:04:17 PM	R43888

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-3

Project: Salty Dog

Collection Date: 6/20/2017 5:15:00 PM

Lab ID: 1706B95-006

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	39	5.0		mg/L	10	6/29/2017 2:53:56 PM	R43888

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-9

Project: Salty Dog

Collection Date: 6/21/2017 7:40:00 AM

Lab ID: 1706B95-007

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	200	50		mg/L	100	6/29/2017 3:31:10 PM	R43888

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-6

Project: Salty Dog

Collection Date: 6/21/2017 8:10:00 AM

Lab ID: 1706B95-008

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	240	50		mg/L	100	6/29/2017 3:55:59 PM	R43888

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-8

Project: Salty Dog

Collection Date: 6/21/2017 9:05:00 AM

Lab ID: 1706B95-009

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	33	5.0		mg/L	10	6/29/2017 4:08:23 PM	R43888

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: MW-3

Project: Salty Dog

Collection Date: 6/21/2017 10:55:00 AM

Lab ID: 1706B95-010

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	10000	500	*	mg/L	1E	7/3/2017 7:49:16 PM	R43998

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: MW-5

Project: Salty Dog

Collection Date: 6/21/2017 10:15:00 AM

Lab ID: 1706B95-011

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	870	50	*	mg/L	100	6/29/2017 6:00:04 PM	R43888

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: **7/17/2017**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: Injection

Project: Salty Dog

Collection Date: 6/21/2017 11:20:00 AM

Lab ID: 1706B95-012

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	0.9944		0		1	6/28/2017 1:27:00 PM	R43862
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	270	50	*	mg/L	100	6/29/2017 6:24:54 PM	R43888
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	773	20.0	*	mg/L	1	6/25/2017 1:47:00 PM	32462
SM4500-H+B: PH							Analyst: JRR
pH	7.93		H	pH units	1	6/27/2017 1:13:43 PM	R43848

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: Brine

Project: Salty Dog

Collection Date: 6/21/2017 11:15:00 AM

Lab ID: 1706B95-013

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	1.200		0		1	6/28/2017 1:27:00 PM	R43862
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	180000	10000	*	mg/L	2E	6/29/2017 6:49:43 PM	R43888
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	324000	2000	*D	mg/L	1	6/25/2017 1:47:00 PM	32462
SM4500-H+B: PH							Analyst: JRR
pH	7.57		H	pH units	1	6/27/2017 1:18:06 PM	R43848
EPA METHOD 200.7: METALS							Analyst: pmf
Sodium	100000	2000		mg/L	2E	7/5/2017 5:41:32 PM	A44011

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706B95

17-Jul-17

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB-A		SampType: MBLK		TestCode: EPA Method 200.7: Metals					
Client ID:	PBW		Batch ID: A44011		RunNo: 44011					
Prep Date:			Analysis Date: 7/5/2017		SeqNo: 1387942		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID	LCSLL-A		SampType: LCSLL		TestCode: EPA Method 200.7: Metals					
Client ID:	BatchQC		Batch ID: A44011		RunNo: 44011					
Prep Date:			Analysis Date: 7/5/2017		SeqNo: 1387943		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0	0.5000	0	98.2	50	150			

Sample ID	LCS-A		SampType: LCS		TestCode: EPA Method 200.7: Metals					
Client ID:	LCSW		Batch ID: A44011		RunNo: 44011					
Prep Date:			Analysis Date: 7/5/2017		SeqNo: 1387944		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	49	1.0	50.00	0	97.0	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706B95

17-Jul-17

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB	SampType: mblk			TestCode: EPA Method 300.0: Anions						
Client ID:	PBW	Batch ID: R43888			RunNo: 43888						
Prep Date:		Analysis Date: 6/29/2017			SeqNo: 1383528		Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	0.50								

Sample ID	LCS	SampType:	lcs	TestCode:	EPA Method 300.0: Anions						
Client ID:	LCSW	Batch ID:	R43888	RunNo:	43888						
Prep Date:		Analysis Date:	6/29/2017	SeqNo:	1383529	Units:	mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		4.7	0.50	5.000	0	94.9	90	110			

Sample ID	MB	SampType: mblk			TestCode: EPA Method 300.0: Anions						
Client ID:	PBW	Batch ID: R43998			RunNo: 43998						
Prep Date:		Analysis Date: 7/3/2017			SeqNo: 1387038		Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	0.50								

Sample ID	LCS	SampType:	Ics	TestCode:	EPA Method 300.0: Anions						
Client ID:	LCSW	Batch ID:	R43998	RunNo:	43998						
Prep Date:		Analysis Date:	7/3/2017	SeqNo:	1387039	Units:	mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		4.8	0.50	5.000	0	95.8	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706B95

17-Jul-17

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	1706B95-012ADUP	SampType:	DUP	TestCode:	Specific Gravity					
Client ID:	Injection	Batch ID:	R43862	RunNo:	43862					
Prep Date:		Analysis Date:	6/28/2017	SeqNo:	1382491	Units:				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Specific Gravity	0.9947	0						0.0302	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706B95

17-Jul-17

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB-32462	SampType:	MBLK	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	PBW	Batch ID:	32462	RunNo:	43772					
Prep Date:	6/23/2017	Analysis Date:	6/25/2017	SeqNo:	1378753	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	LCS-32462	SampType:	LCS	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	LCSW	Batch ID:	32462	RunNo:	43772					
Prep Date:	6/23/2017	Analysis Date:	6/25/2017	SeqNo:	1378754	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	987	20.0	1000	0	98.7	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: DBS

Work Order Number: 1706B95

RcptNo: 1

Received By: Erin Melendrez

6/21/2017 4:29:00 PM

UM

Completed By: Erin Melendrez

6/22/2017 8:33:59 AM

UM

Reviewed By:

AS

6/22/17

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐
- # of preserved bottles checked for pH: 1
(<2 or >12 unless noted)
Adjusted? NO
Checked by: Re

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.8	Good	Not Present			

Chain-of-Custody Record

Client: DBS & A

Mailing Address: 6020 Academy RD NE
Suite 100

Phone #: _____

email or Fax#: JAYARBE@DBSTEPHENS.COM

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

SALTY DOG

Project #:

ES08.0118.06

Project Manager:

J. AYARBE

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.8



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

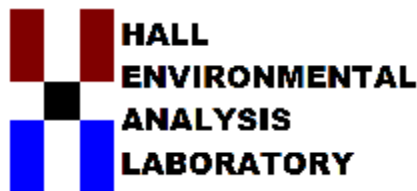
Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride	TVS, Specific Gravity, pH	Na Sodium	Air Bubbles (Y or N)
6.20.17	1430	GW	PMW-1	1 Poly	none	-001															
6.20.17	1517		PM DBS-1R			-002															
6.20.17	1550		DBS-2			-003															
6.20.17	1615		DBS-4			-004															
6.20.17	1650		DBS-5			-005															
6.20.17	1715		DBS-3			-006															
6.21.17	0740		DBS-9			-007															
6.21.17	0810		DBS-6			-008															
6.21.17	0905		DBS-8			-009															
6.21.17	1055		MW-3			-010															
6.21.17	1015		MW-5			-011															
6.21.17	1120		INJECTION			-012															
6.21.17	1115		BRINE	2 Poly	None/HW	-013															

Date: 6.21.17 Time: 1639 Relinquished by: [Signature] Received by: [Signature] Date: 6/21/17 Time: 1629

Date: _____ Time: _____ Relinquished by: _____ Received by: _____ Date: _____ Time: _____

Remarks:



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 01, 2018

John Ayarbe

Daniel B. Stephens & Assoc.
6020 Academy NE Suite 100
Albuquerque, NM 87109
TEL:
FAX

RE: Salty Dog

OrderNo.: 1802942

Dear John Ayarbe:

Hall Environmental Analysis Laboratory received 1 sample(s) on 2/16/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1802942**

Date Reported: **3/1/2018**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: Brine

Project: Salty Dog

Collection Date: 2/15/2018 1:00:00 PM

Lab ID: 1802942-001

Matrix: AQUEOUS

Received Date: 2/16/2018 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	1.185		0		1	2/20/2018 12:44:00 PM	R49250
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	309000	2000	*D	mg/L	1	2/21/2018 7:01:00 PM	36630
SM4500-H+B: PH							Analyst: JRR
pH	7.16		H	pH units	1	2/19/2018 11:44:03 AM	R49228
EPA 6010B: TOTAL RECOVERABLE METALS							Analyst: MED
Sodium	59000	1000		mg/L	1E	2/23/2018 10:50:04 AM	36576

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1802942

02-Mar-18

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB-36576		SampType:	MBLK		TestCode:	EPA 6010B: Total Recoverable Metals				
Client ID:	PBW		Batch ID:	36576		RunNo:	49241				
Prep Date:	2/16/2018		Analysis Date:	2/20/2018		SeqNo:	1588828		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Sodium	ND	1.0									

Sample ID	LCS-36576		SampType: LCS		TestCode: EPA 6010B: Total Recoverable Metals					
Client ID:	LCSW		Batch ID: 36576		RunNo: 49241					
Prep Date:	2/16/2018		Analysis Date: 2/20/2018		SeqNo: 1588829		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	46	1.0	50.00	0	92.6	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1802942

02-Mar-18

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	1802942-001ADUP	SampType:	DUP	TestCode:	Specific Gravity						
Client ID:	Brine	Batch ID:	R49250	RunNo:	49250						
Prep Date:		Analysis Date:	2/20/2018	SeqNo:	1588971	Units:					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Specific Gravity	1.183	0						0.118	20		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1802942

02-Mar-18

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB-36630		SampType: MBLK		TestCode: SM2540C MOD: Total Dissolved Solids					
Client ID:	PBW		Batch ID: 36630		RunNo: 49297					
Prep Date:	2/20/2018		Analysis Date: 2/21/2018		SeqNo: 1590748		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	LCS-36630		SampType:	LCS		TestCode:	SM2540C MOD: Total Dissolved Solids				
Client ID:	LCSW		Batch ID:	36630		RunNo:	49297				
Prep Date:	2/20/2018		Analysis Date:	2/21/2018		SeqNo:	1590749		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Total Dissolved Solids	1010	20.0	1000	0	101	80	120				

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

Sample Log-In Check List

Client Name: DBS

Work Order Number: 1802942

RcptNo: 1

Received By: Sophia Campuzano 2/16/2018 9:30:00 AM

Completed By: Erin Melendrez 2/16/2018 11:23:26 AM

Reviewed By: see 02/16/18

labeled: MW 2/16/18

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels? Yes ☒ No ☐
 (Note discrepancies on chain of custody)
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met? Yes ☒ No ☐
 (If no, notify customer for authorization.)
- # of preserved bottles checked for pH: 1 (<2 or >12 unless noted)
 Adjusted? no
 Checked by: AE

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____ Date: _____
 By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
 Regarding: _____
 Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:
Client: <u>DBSA</u>		<input type="checkbox"/> Standard <input type="checkbox"/> Rush _____
Mailing Address: <u>Albuquerque N.M. 87109</u>		Project Name: <u>SALTY Dog</u>
<u>6020 Academy Road NE Suite 100</u>		Project #: <u>ES080118.16</u>
Phone #: <u>505-822-9400</u>		Project Manager: <u>JPJARC@dhstephens.com</u>
email or Fax#:		
QA/QC Package:		
<input type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		
Accreditation		
<input type="checkbox"/> NELAP <input type="checkbox"/> Other _____		
<input type="checkbox"/> EDD (Type)		
		Sampler:
		On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Sample Temperature: <u>16</u>

☐ Standard ☐ Rush

Project Name:

Project #:

Project Manager:

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 16

Container
Type and #Preservative
Type

HEAL No.

1802942

BTEX + MTBE + TMB's (8021)

BTEX + MTBE + TPH (Gas only)

TPH 8015B (GRO / DRO / MRO)

TPH (Method 418.1)

EDB (Method 504.1)

PAH's (8310 or 8270 SIMS)

RCRA 8 Metals

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

3260B (VOA)

270 (Semi-VOA)

Air Bubbles (Y or N)



www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID
------	------	--------	-------------------

15 per John	see 02/16/18
-------------	--------------

2-16-18	1 PM	W	BRNP
---------	------	---	------

Container
Type and #Preservative
Type

HEAL No.

18070

TD 5	SPECIFIC GRAVITY				
PH & METALS					
SODIUM NA					

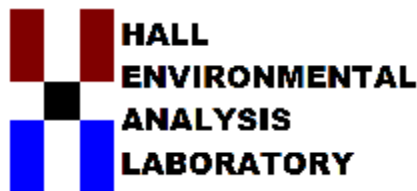
Date:	Time:	Relinquished by:
-16-18	1600	Jim SAYRE

Date:	Time:	Relinquished by:
1/15/18	9:00	[Signature]

Received by: *[Signature]* Date: 2/15/18 Time: 1600
Received by: *Soph C* Courier Date: 02/16/18 Time: 0930

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 11, 2018

John Ayarbe

Daniel B. Stephens & Assoc.
6020 Academy NE Suite 100
Albuquerque, NM 87109
TEL:
FAX

RE: Salty Dog

OrderNo.: 1712D25

Dear John Ayarbe:

Hall Environmental Analysis Laboratory received 12 sample(s) on 12/21/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-6

Project: Salty Dog

Collection Date: 12/19/2017 2:15:00 PM

Lab ID: 1712D25-001

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: MRA	
Chloride	200	50		mg/L	100	12/29/2017 11:06:16 PM	R48148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-8

Project: Salty Dog

Collection Date: 12/19/2017 3:10:00 PM

Lab ID: 1712D25-002

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: MRA	
Chloride	28	5.0		mg/L	10	12/29/2017 11:18:40 PM	R48148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: MW-5

Project: Salty Dog

Collection Date: 12/19/2017 3:45:00 PM

Lab ID: 1712D25-003

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	850	50	*	mg/L	100	12/29/2017 11:55:54 PM	R48148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: Injection

Project: Salty Dog

Collection Date: 12/19/2017 4:35:00 PM

Lab ID: 1712D25-004

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	1.000		0		1	12/27/2017 2:04:00 PM	R48036
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	270	50	*	mg/L	100	12/30/2017 12:20:44 AM	R48148
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	776	40.0	*D	mg/L	1	12/27/2017 6:16:00 PM	35709
SM4500-H+B: PH							Analyst: JRR
pH	7.59		H	pH units	1	12/27/2017 12:16:12 PM	R48063

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: MW-3

Project: Salty Dog

Collection Date: 12/20/2017 9:00:00 AM

Lab ID: 1712D25-005

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	8300	500	*	mg/L	1E	1/6/2018 11:36:49 PM	R48275

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-9

Project: Salty Dog

Collection Date: 12/20/2017 9:35:00 AM

Lab ID: 1712D25-006

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	230	50		mg/L	100	12/30/2017 2:24:50 AM	A48148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-4

Project: Salty Dog

Collection Date: 12/20/2017 10:00:00 AM

Lab ID: 1712D25-007

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	32	5.0		mg/L	10	12/30/2017 2:37:15 AM	A48148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-2

Project: Salty Dog

Collection Date: 12/20/2017 10:35:00 AM

Lab ID: 1712D25-008

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	37	5.0		mg/L	10	12/30/2017 3:26:54 AM	A48148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-5

Project: Salty Dog

Collection Date: 12/20/2017 10:50:00 AM

Lab ID: 1712D25-009

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	170	5.0		mg/L	10	12/30/2017 3:51:44 AM	A48148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-3

Project: Salty Dog

Collection Date: 12/20/2017 11:05:00 AM

Lab ID: 1712D25-010

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	42	5.0		mg/L	10	12/30/2017 4:16:33 AM	A48148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-1R

Project: Salty Dog

Collection Date: 12/20/2017 11:40:00 AM

Lab ID: 1712D25-011

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	190	50		mg/L	100	12/30/2017 4:53:47 AM	A48148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: PMW-1

Project: Salty Dog

Collection Date: 12/20/2017 12:10:00 PM

Lab ID: 1712D25-012

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	12000	500	*	mg/L	1E	12/30/2017 5:18:36 AM	A48148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712D25

11-Jan-18

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R48148	RunNo:	48148					
Prep Date:		Analysis Date:	12/29/2017	SeqNo:	1544631	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS-b	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R48148	RunNo:	48148					
Prep Date:		Analysis Date:	12/29/2017	SeqNo:	1544634	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.4	90	110			

Sample ID	MB	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	A48148	RunNo:	48148					
Prep Date:		Analysis Date:	12/30/2017	SeqNo:	1544693	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	A48148	RunNo:	48148					
Prep Date:		Analysis Date:	12/30/2017	SeqNo:	1544694	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	91.7	90	110			

Sample ID	MB	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R48275	RunNo:	48275					
Prep Date:		Analysis Date:	1/6/2018	SeqNo:	1550433	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R48275	RunNo:	48275					
Prep Date:		Analysis Date:	1/6/2018	SeqNo:	1550434	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.9	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712D25

11-Jan-18

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	1712D25-004ADUP	SampType:	DUP	TestCode:	Specific Gravity						
Client ID:	Injection	Batch ID:	R48036	RunNo:	48036						
Prep Date:		Analysis Date:	12/27/2017	SeqNo:	1539533	Units:					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Specific Gravity	0.9988	0						0.170	20		

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712D25

11-Jan-18

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB-35709		SampType:	MBLK		TestCode:	SM2540C MOD: Total Dissolved Solids				
Client ID:	PBW		Batch ID:	35709		RunNo:	48046				
Prep Date:	12/26/2017		Analysis Date:	12/27/2017		SeqNo:	1539713		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Total Dissolved Solids	ND	20.0									

Sample ID	LCS-35709		SampType:	LCS		TestCode:	SM2540C MOD: Total Dissolved Solids				
Client ID:	LCSW		Batch ID:	35709		RunNo:	48046				
Prep Date:	12/26/2017		Analysis Date:	12/27/2017		SeqNo:	1539714		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Total Dissolved Solids	1010	20.0	1000	0	101	80	120				

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: DBS

Work Order Number: 1712D25

RcptNo: 1

Received By: Sophia Campuzano 12/21/2017 10:18:00 AM

Completed By: Dennis Suazo 12/21/2017 2:27:14 PM

Reviewed By: SKL 12/21/17

Sophia Campuzano

Dennis Suazo

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log in

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 5.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.7	Good	Not Present			

Chain-of-Custody Record

Client: DBSA

Mailing Address: 6020 Academy RD NE
Suite 100

Phone #: 505-822-9400

email or Fax#: JAYARBE@DBSTEPHENS.COM

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: SALTY DOG

Project #: ES08-0118.16

Project Manager: J. Ayarbe

Sampler: M. Zborek

On Ice: ☒ Yes ☐ No

Sample Temperature: 5.7



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	TDs, Spec Grav, pH	Air Bubbles (Y or N)
12.19.17	1415	GW	DBS-6	1 poly		001								X					
	1510		DBS-8			002								X					
	1545		MW-5			003								X					
	1635		Injection			004								X			X		
12.20.17	0900		MW-3			005								X					
	0935		DBS-9			006								X					
	1000		DBS-4			007								X					
	1035		DBS-2			008								X					
	1050		DBS-5			009								X					
	1105		DBS-3			010								X					
	1140		DBS-1R			011								X					
	1210		PMW-1			012								X					

Date: 12/21/17 Time: 1019 Relinquished by: [Signature]

Date: 12/21/17 Time: 1018 Received by: [Signature]

Remarks:

Appendix D

December Well Remediation C-103 Request and Drillers Log

Submit 1 Copy To Appropriate District
Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM
87505

HOBBS OCD
DEC 18 2017
RECEIVED

State of New Mexico
Energy, Minerals and Natural Resources
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised August 1, 2011

WELL API NO. 30-025-26307	
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>	
6. State Oil & Gas Lease No. 25087	
7. Lease Name or Unit Agreement Name BRINE SUPPLY Well	
8. Well Number 001	
9. OGRID Number 184208	
10. Pool name or Wildcat BSW & SALADO	
11. Elevation (Show whether DR, RKB, RT, GR, etc.)	
SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other <u>Brine Well</u>	
2. Name of Operator SALTY Dog Inc	
3. Address of Operator PO Box 190 Lubbock TX 79408	
4. Well Location Unit Letter <u>J</u> : <u>1980</u> feet from the <u>South</u> line and <u>1980</u> feet from the <u>EAST</u> line Section <u>5</u> Township <u>19 S</u> Range <u>36 E</u> NMPM County <u>LEA</u>	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☒ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Rig up pulling unit swab well to find salt plug

Spud Date:

12-18-17

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

Jim Sayre

TITLE

MANAGER

DATE

12-18-17

Type or print name

JIM SAYRE

E-mail address:

jim@the-standard-energy.com

PHONE:

575-393-8352

For State Use Only

APPROVED BY:

Mary Brown

TITLE

AO/II

DATE

12-18-2017

Conditions of Approval (if any):

Submit 1 Copy To Appropriate District Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised August 1, 2011

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-025-26307
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other <u>Brine Well</u>		5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
2. Name of Operator <u>PAB Services DBA SALTY Dog INC</u>		6. State Oil & Gas Lease No. 25087
3. Address of Operator <u>PO Box 190 Lubbock Texas 79408</u>		7. Lease Name or Unit Agreement Name <u>Brine Supply Well</u>
4. Well Location Unit Letter <u>J</u> : <u>1980</u> feet from the <u>SOUTH</u> line and <u>1980</u> feet from the <u>EAST</u> line Section <u>5</u> Township <u>19S</u> Range <u>36E</u> NMPM <u>LEA</u> County		8. Well Number <u>801</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.)		9. OGRID Number <u>184208</u>
		10. Pool name or Wildcat <u>BSW + SALADO</u>

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:
PERFORM REMEDIAL WORK ☒ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐

SUBSEQUENT REPORT OF:
REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Rig up pulling Unit
Pull tubing
Replace Damaged Tubing
go back into hole

C.O.A. - CHART TEST -
RUN PK 1800' - TEST
CASING TO 300' + FOR
30 mins.
OR DO CAVERN TEST OF
300' + FOR 4 Hours.

Condition of Approval: notify

OCD Hobbs office 24 hours

prior of running MIT Test & Chart

Spud Date:

1-9-18

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

Jim Sayre

TITLE MANAGER

DATE 1-8-18

Type or print name

JIM SAYRE

E-mail address:

jim@hstandardenergy.com

PHONE: 575-393-8352

For State Use Only

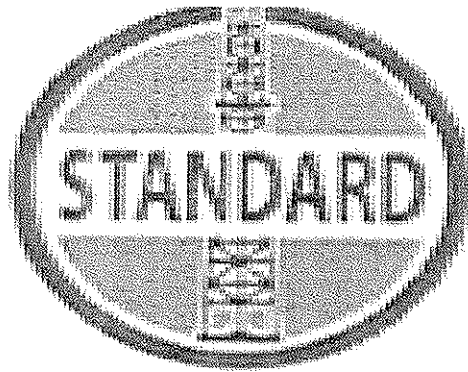
APPROVED BY:

Accepted for Record Only

DATE

Conditions of Approval (if any):

MS Brown 1/8/2018



816 West County Road
Hobbs, NM 88240
Office – 575-393-8352
Fax – 575-393-8353

Feb. 27, 2018

To Mike Zbrocek

SALTY DOG BRINE

Jim Sayre

Patsy Hunt
Billing clerk
patsy@thestandardenergy.com

Standard Energy Services

Salty Dog Brine Station

Lea County, NM

Prod. Csg.: 5-1/2" liner (1999) to 1829'. 8-5/8" csg. surf-1877'.
 Prod. Tbg.: 3000' (chem-cut bottom 3 DC's---EOT approx. 2910')
 Bottom Salt: 2900' +/-

12/26/17 07:45 Arrive on location. SICP=400#. Open well to brine tanks to bleed pressure.
 09:45 Met w/ Jim Sayers-Standard Supt. Discussed workover plan. Drove to Standard yard-Hobbs. Found 12 jts. additional 2-7/8" PH-6 production tbg.

Daily Cost:

Supervision: (1 x \$1000) \$1000

Daily Cost \$1,000

Cum Cost \$1,000

12/27-1/8 Continue to flow well down to bleed pressure.

Daily Cost: \$0

Total Cost \$1,000

1/9/18

10:30-11:30 MIRU Standard Energy Services well service rig.

11:30-13:30 MIRU Rotary Wireline for chemical cut on 2-7/8" prod. tbg. Open up well, casing flowing.

BHA: 2-1/8" jet cutter, 1' shock sub, 18" CCL, 7' wt. bar (1-7/16"), 1' rope socket

Zero at GL. RIH. Tagged up at 1036' (little sticky). Latch elevators and pull 20K into tbg., tagged at 1036'. Pulled 70K into tbg., tagged at 1036'. POOH LD 2-1/8" jet cutter. PU 1-7/8" jet cutter, RIH. No tag or weight loss at 1036'. Tagged up at 1870' (collars at 1863', 1832').

Note: Previous Rotary wireline report from before Christmas showed tag at 1900' with 1-9/16" perf gun.

Pulled 70K into tbg., tagged at 1891'. Slacked off to 35K (15K over string wt.). Made jet cut at 1888'. Tbg. started flowing. POOH RD Rotary Wireline. Pulled 70K into tbg., no part. Slack off. Pulled 35K into tbg., parted.

13:30-15:15 WO slip-type elevators. LD 8' tbg. sub & 2-7/8" EUE x PH-6 XO. Confirmed PH-6 box looking up. POOH standing back;
16 stds. 2-7/8" PH-6
XO (PH-6 box s 2-7/8" AOH pin)
12 stds. 2-7/8" PH-6
1 jt. 2-7/8" cutoff (28.00')

16:15-18:00 RBIH 1 std. tbg. & valve. SI well. Tally 15 stands PH-6. Spot drill collar trailer outside firewall to winch line in. Fuel rig.

18:00-19:45 PU 4-3/4" bit, bit sub & 3 x 3-1/2" DC's (Total BHA=93.26'). RIH w/ 6 stds PH-6. SI well due to firewall being full.

19:45-21:30 Continue to vacuum water inside firewall. Unload separate reverse pit from Hobbs.

21:30-22:00 Continue RIH w/ remaining 11 stds. PH-6. SI BOP. SI top tbg. valve.

22:00-22:30 RU reverse pit to pump. Release rig crew.

Daily Costs:

Supervision	\$1800
Pulling Unit: 8:00 am-12:00 am; 16 hrs.	\$4800
Reverse Pit delivery	\$1000
Reverse Pit rental	\$1000
Reverse Unit Swivel	\$N/C
Reverse Unit Pump	\$N/C
Reverse Unit Operator: (2 x \$900)	\$1800
Reverse Unit Operator Mileage: (2 x \$200)	\$400
Downhole tools- Purchase:	
Bit	\$500
Bit sub	\$1200
XO	\$1200
3 x 3-1/2" Drill Collars (\$900/ea)	\$2700
Rental Tools: Drill Collar Lift Subs	\$50

Workstring, 65 jts. 2-7/8" PH-6: \$6.00/ft * 2022.15'	\$12,133
Tbg. delivery	\$1000
Light Plant delivery	\$250
Light plant rental	\$200
Total Cost:	\$30,033
Cum Cost:	\$31,033

1/10/17

06:00-09:45	Firewall water levels pumped down. Rig crew and Yellowjacket fisherman arrived on location. WO forklift and pipe racks.
09:45-11:00	Break out firewall. Set piperacks. Move 65 jts. 2-7/8" 8.70 PH-6 yellow-band inspected pipe from Saguaro Petroleum inventory onto racks. Tally 65 jts. Push back up firewall. Spot vacuum truck.
11:00-12:50	PU 24 jts. 2-7/8" PH-6. RIH. Tagged up on jt. #25 20' in at 1896'. PU 1 jt. NU BIW stripper on top of BOP. PU swivel. RU floor.
12:50-16:40	Drill last 11' of jt. #25 tag joint to 1907'. 2K WOB. Jumping and torqueing on bottom, sticky on pick-ups.
16:40-05:45	Make connection. Drill f/ 1907'-1937'. Top 20' of Kelly drilled fairly quickly, bottom 10' much slower. While drilling at 1827' (slowest drilling), worked pipe to try to make hole. Lost 6' hole. Had to rotate ¼ turns to regain made hole.
05:45-6:00	Make connection. Drill f/ 1937'-1938'.

Daily Costs:

Supervision	\$1800
Pulling Unit: 06:00 1/10- 06:00 1/11, (24 hrs.)	\$7200
Reverse Pit rental	\$500
Reverse Unit Swivel	\$3000
Reverse Unit Pump	\$2600
Reverse Unit Operator: (2 x \$900)	\$1800
Reverse Unit Mileage: (2 x \$200)	\$400
Rental Tools: BIW stripper, BOP	\$300

Light plant rental	\$200
Pipe rack delivery	\$500
Pipe rack rental	\$100
Backhoe	\$320
Total Cost:	\$18,630
Cum Cost:	\$49,663

1/11/17

06:00-10:50 Cont. Drlg. 1938'-1964.

10:50-17:20 Make connection. Drill f/ 1964'-2000'.

Str. Wt.=15k, PU Wt.=16K-17K, Slackoff Wt.=11K-12K.

17:20-06:00 Make connection, (Jt. #29). Drill f/ 2000'-2417' (Jt. # 42 half-way down), made 417' in 24 hrs. Drilling improved on Jts. #30-#36. Jts. #37-#38 slid in hole with rotation. Jt. #39 drilled much slower than previous jts., bottom of Jt. #39 drilled with a lot of torque until last 3'—free fall. Flow from well has decreased significantly and went to zero for a short time before regaining.

Daily Costs:

Supervision	\$1800
Pulling Unit: 06:00 1/11- 06:00 1/12, (24 hrs.)	\$7200
Reverse Pit rental	\$0
Reverse Unit Swivel	\$3000
Reverse Unit Pump	\$2600
Reverse Unit Operator: (2 x \$900)	\$1800
Reverse Unit Mileage: (2 x \$200)	\$400
Rental Tools: BIW stripper, BOP	\$300
Light plant rental	\$170
Trash Trailer/Porta-Potty	\$195
Trash Trailer Delivery	\$200

Pipe rack rental	\$100
Total Cost:	\$17,765
Cum Cost:	\$67,428

1/12/17

06:00-06:35 Drill f/ 2417'-2464' (Jt. #43). Last 10' of Jt. #43 stalled out swivel w/ only 2 points on bit. Able to slide ahead with full returns. Attempt to work pipe 10' up and down to work out torque, no success.

06:35-07:00 PUH 50' to 2414' and regained rotation with some torque.

07:00-09:50 Attempt to rotate/drill back to bottom w/ 2 points on bit, gained all torque back in 10'. Stopped rotation. Slid back to original TD with full returns.

09:50-11:00 Continue sliding in hole w/ full circulation to 2810' (Jt. #54).
Hanging wt= 15K Slackoff wt= 11K-13K

11:00-13:00 Circulate well 15 mins. RU Sandline for no-go run. PU 1-3/4" mandrel 1-1/4" sinker bar, 1-9/16" spang jars, and lift sub (22' BHA). RIH & tag top of DC's at 2717'. POOH. No lost weight GIH and no gained wt. POOH.

13:00-14:45 WO Phoenix Technology Services for inclination/azimuth survey.

14:45-17:45 RU PTS. RIH w/ 1'3/4" OD x 18' centralized survey tool. Tagged up at 2120' (Jt. #32 from workstring tally)

<u>Depth</u>	<u>Inclination</u>	<u>Azimuth</u>	<u>DLS</u>
1800'	1.61°	267°	0
1900'	1.75°	62°	3.2
2000'	2.69°	251°	4.4
2100	5.7°	323°	5.7

POOH w/ survey tool. Break out both 2' centralizer subs on top and bottom of tool assembly. RIH. Tool tagged at same 2120'. POOH. RD wireline.

17:45-18:15 Make up new swabbing assembly.

18:15-21:00 RU floor and LD 12 stds. of original 2-7/8" AOH prod. tbg.

21:00-23:00 RU for swab for brine quality test at current 2810' SLM TD.

2-7/8" swab cups would not fit in 8.70# pipe. PU 2-3/8" cups. 1st Run dry. 2nd run fluid sample from end of swab run weighed 9.9# but had lots of iron from swab line and contaminated the sample and didn't appear to have sufficient chlorides. Parted sandline on 3rd run at approx. 1500'. Secure tbg. end of sandline to blocks. Left tbg. open. Shut in csg. SDON.

Daily Costs:

Supervision	\$1800
Pulling Unit: 06:00 1/12- 24:00 1/12, (18 hrs.)	\$5400
Reverse Pit rental	\$0
Reverse Unit Swivel	\$3000
Reverse Unit Pump	\$2600
Reverse Unit Operator: (2 x \$900)	\$1800
Reverse Unit Mileage: (2 x \$200)	\$400
Rental Tools: BIW stripper, BOP	\$300
Light plant rental	\$170
Trash Trailer/Porta-Potty	\$65
Pipe rack rental	\$100
Total Cost:	\$15,635
Cum Cost:	\$83,063

1/13/17

06:00-11:00	Daylight crew arrived on location. WO daylight. Pull sandline out of 2-7/8" tbg. Pull 3500'+ sandline off of drum—no good. Can't get cable spooler until Monday. Decided to move ahead with replacing Larkin tbg. head.
11:00-11:30	Break for lunch.
11:30-13:30	Prepare floor and RU to run 5-1/2" pkr. into top joint of 5-1/2" csg. to isolate flow to be able to cut off old 5-1/2" Larkin 2K tbg. head and weld on new bell nipple and tbg. head. Strip BOP & tbg. slips over top jt. tbg.
13:30-17:15	PU 32-A tension pkr. on new jt. 2-7/8" PH-6. Screw into top jt. of PH-6 workstring. RIH 15' & set pkr. Stopped flow from csg. Terry Abernathy-Welder arrived on location. Clean/grind areas around bottom of tubing head. Discovered that female wellhead was not made up on to top of 5-1/2" bell

nipple pin but straight onto 5-1/2" csg. pin looking up and not welded up. Backed off existing Larkin 2K female tbg. head. Cleaned threads. Found that top 1-2 threads were corroded on 5-1/2" csg. pin. Screw on new WSI 2K female Larkin head onto Teflon and thread sealant 5-1/2" csg. pin. Screw on adapter flange onto bowl of tbg. head. NU BOP. Release 32-A pkr. POOH LD pkr. & XO's. SI pipe rams. Stab tbg. valve and close. Clean up tools.

Shut down until Monday afternoon to spool new sandline onto drum.

Daily Costs:

Supervision	\$1200
Pulling Unit: 06:00 - 17:15 (11-1/4 hrs)	\$3375
Reverse Pit rental	\$0
Reverse Unit Swivel	\$0
Reverse Unit Pump	\$
Reverse Unit Operator: (1 x \$900)	\$900
Reverse Unit Mileage: (2 x \$200)	\$0
Rental Tools: BIW stripper, BOP	\$300
Light plant rental	\$170
Trash Trailer/Porta-Potty	\$65
Pipe rack rental	\$100
Welder	\$500
Tbg. Head: 5-1/2" x 2-7/8"	\$900
Rental Pkr. & XO's	\$800
Packer Man & Mileage	\$1000
Wireline: Tbg. Cut (Service Charge)	\$1000
Total Cost:	\$10,310
Cum Cost:	\$93,373

1/14/17

Day off.

1/15/17

12:00-14:00 Horizon re-spooled 8000' sandline onto drum.
 14:00-16:00 Made 8 swab runs approximately of approx. 9.9# brine, black water. SDON.

Daily Costs:

Supervision	\$0
Pulling Unit: 12:00 – 19:00, (7 hrs)	\$2100
Reverse Pit rental	\$0
Reverse Unit Swivel (released on 1/14)	\$0
Reverse Unit Pump (released on 1/14)	\$0
Reverse Unit Operator: (released on 1/14)	\$0
Reverse Unit Mileage:	\$0
Rental Tools: BIW stripper, BOP	\$100
Light plant rental	\$170
Trash Trailer/Porta-Potty	\$65
Pipe rack rental	\$100
Total Cost:	\$2,535
Cum Cost:	\$95,908

1/16/17

07:30 Arrived on location.

07:30-13:15 Made 18 swab runs. Water still black until 10th run and started clearing up. ChemTech chemical man said that black coloration was not iron or biologicals. Water clarifier clear up sample and dropped out very fine tan-colored sand. Last 4 run samples weighed 10.15#.

13:15-13:30 Call into and decision from Peter to proceed ahead with shooting off pipe to complete well.

13:45-15:15 MIRU Rotary Wireline. PU 2-1/16" tbg. cutter. RIH to cut off collars at approx. 2720'. Tagged up at 2145'. Worked to 2180' with no further progress. POOH. LD 2-1/16" cutter and PU 1-7/8" cutter. RIH. Tagged up at 2175'.

15:15-16:15 WO hot oiler to help pump cutter further down.

- 16:15-16:30 RU hot oiler. Pressure up to 500# on tbg. No further additional hole made on 1-7/8" tbg. cutter. POOH w/ cutter. RD hot oiler and release. Decided to skip cutting tubing and attempt to perforate tbg.
- 16:30-17:00 PU 1-9/16" OD x 3', (4spf, 8 holes) tbg. perforating gun. RIH. Tagged up at 2135'. POOH.
- 17:00-17:30 Remove wireline sheave from rig blocks and hand from derrick. PU 1-7/16" rope socket and CCL (2' 2" overall BHA). RIH. Tagged up at 2138'. Latched elevators on tbg. & PU 10'. Worked wireline tools to 2136' (made 8' hole). PU additional 10'. Worked wireline tools to 2141' (made 15' hole). Pulled full joint into derrick. Worked wireline tools to 2140'. POOH.
- 17:30-19:30 POOH standing back 2 stands 2-7/8" tbg. RU wireline. RIH w/ same wireline BHA. Tagged up at 2140' (WLM).

*proves that joint of tbg. 2 stds. Up was not crimped

*proves that there is no obstruction (junk) inside tbg.

POOH RD Rotary Wireline. Released rig crew. SDON.

Daily Costs:

Supervision	\$1200
Pulling Unit: 07:30 – 19:30, (12 hrs)	\$3600
Reverse Pit rental	\$0
Reverse Unit Swivel (released on 1/14)	\$0
Reverse Unit Pump (released on 1/14)	\$0
Reverse Unit Operator: (released on 1/14)	\$0
Reverse Unit Mileage:	\$0
Rental Tools: BIW stripper, BOP	\$100
Light plant rental	\$170
Trash Trailer/Porta-Potty	\$65
Pipe rack rental	\$100
Wireline: Tbg. cut / perforate attempt	\$6,200
Total Cost:	\$11,520
Cum Cost:	\$107,428

1/17/18

07:30-09:30 Crew arrived on location. POOH standing back 15 stds. (16 stds out total) PH-6 YB. Shut down to catch up on water flow.

09:30-10:15 Haul off water in reserve pit.

10:15-10:45 POOH standing back 27 stds (54 jts. that were PU) PH-6 YB, 1 std. old PH-6 (28 stds. total).

10:45-16:00 POOH LD old PH-6 in singles.

Note: 18 jts. of 32 jts. total of old PH-6 prod. tbg. found bent or corkscrewed.

Stand back 1 std DC's. Pull to 4-3/4" bit. Bit in good shape.

16:00-19:30 RBIH w/ DC's. Tally & PU 26 jts. original 2-7/8" AOH. PU AOH x PH-6 XO. RIH w/ 16 stds. of PH-6 YB tbg.

19:30-22:00 POOH LD 12 stds PH-6 YB tbg. in singles. RIH w/ 12 stds. remaining new PH-6 YB tbg. in derrick. Tagged up w/ 15' out on last stand (12 stds. RIH were longer than 12 stds. of singles LD). LD 1 jt.

Rig crew soaked and no change of dry clothes. 20°F overnight.

Stab tbg. valve on tbg. SI pipe rams. SDON. Release rig crew.

Daily Costs:

Supervision	\$1800
Pulling Unit: 06:00, 17th – 22:00 (17 hrs)	\$4800
Reverse Pit rental	\$0
Reverse Unit Swivel (released on 1/14, start 1/17)	\$3000
Reverse Unit Pump (released on 1/14, start 1/17)	\$2500
Reverse Unit Pump Delivery	\$1,000
Reverse Unit Operator: (released on 1/14, start 1/17)	\$1800
Reverse Unit Mileage: (2 x \$200)	\$400
Rental Tools: BIW stripper, BOP	\$100
Light plant rental	\$170
Trash Trailer/Porta-Potty	\$65
Pipe rack rental	\$100

Total Cost:	\$15,735
-------------	----------

Cum Cost:

\$123,163

1/18/18

06:00 -09:30 Crew arrived on location. PU power swivel. RU floor to start drilling. Tagged 15' in on jt. #58 (1894'). Previous tag was 1926'.

09:30-11:45 Jt. #58 down (1910'). PU jt. #59. Rotate slowly down w/ 500# torque, 2 pts.

11:45-11:55 Jt. #59 down (1941'). PU jt. #60. Rotate slowly down w/ 500# torque, 2 pts.

11:55-12:20 Jt. #60 down (1972'). PU back to top of jt. due to torquing at bottom. Slid/rotated back down.

12:20-12:40 Jt. #61 down (2003'). PU jt. #62. Rotate slowly down w/ 500# torque, 2 pts.

12:40-12:50 Jt. #62 down (2034). PU jt. #63. Rotate slowly down w/500# torque, 2 pts.

12:50-17:05 Jt. #63 down (2066'). PU jt. #64. Rotate slowly down w/ 500# torque, 2 pts.

17:05-18:35 Jt. #64 down (2097'). PU jt. #65. Rotate slowly down w/ 500# torque, 2 pts.

Note: No night crew available, daylight crew staying over.

18:35-19:05 Jt. #65 down (2128'). PU jt. #66. Rotate slowly down w/ 500# torque, 2 pts.

19:05-19:30 Jt. #66 down (2159'). PU jt. #67. Rotate slowly down w/ 500# torque, 2 pts.

19:30-19:45 Jt. #67 down (2190'). PU jt. #68. Rotate slowly down w/ 500# torque, 2 pts.

19:45-21:10 Jt. #68 down (2221') PU jt. #69. Rotate slowly down w/ 500# torque, 2 pts.

21:10-22:00 Made a few feet w/ jt. #69. Pull jt. out of hole, break out. SI pipe rams. Stab tbg. valve. SDON.

Daily Costs:

Supervision	\$1800
Pulling Unit: 06:00, 17th – 22:00 (16 hrs)	\$4800
Reverse Pit rental	\$0
Reverse Unit Swivel	\$3000
Reverse Unit Pump: (2 x \$700)	\$1400
Reverse Unit Operator: (2 x \$900)	\$1800
Reverse Unit Mileage: (2 x \$200)	\$400
Rental Tools: BIW stripper, BOP	\$100
Light plant rental	\$170

Slip-type elevators	\$740
Trash Trailer/Porta-Potty	\$65
Pipe rack rental	\$100
Roustabouts: (pick up bent pipe)	\$400
Total Cost:	\$14,775
Cum Cost:	\$137,938

1/19/18

07:00-09:10 Make up jt. #69. Reconnect pump hoses. Tag 2' in on jt. Drlg. w/ 2-3 pts., 700# torque.

09:10-10:10 Jt. #69 down (2252'). PU jt. #70. Top 15' drilled slow to 2237', then took off.

10:10-10:25 Jt. #70 down (2283'). PU jt. #71.

10:25-16:00 Jt. #71 down (2314'). PU jt. #72. Drlg. w/ 2-3 pts., 400#-600# torque.

16:00-16:05 Jt. #72 down (2346'). PU jt. #73. Slide/rotate jt. #73 down.

16:05-16:15 Jt. #73 down (2377'). PU jt. #74. Slide/rotate jt. #74 down.

16:15-16:25 Jt. #74 down (2408'). PU jt. #75. Slide/rotate jt. #75 down.

16:25-16:30 Jt. #75 down (2439'). PU jt. #76. Slide/rotate jt. #76 down.

16:30-18:45 Jt. #76 down (2470'). PU jt. #77. Slid jt. 20' in, then drlg. w/ 600# torque.

18:45-20:15 Jt. #77 down (2501'). PU jt. #78. Slid top 15' of jt. in. Drlg. ahead.

20:15-20:50 Jt. #78 down (2532'). PU jt. #79. Drill/rotate down w/ 500# torque, 2 pts.

20:50-04:00 Jt. #79 down (2563'). PU Jt. #80. Drill Jts. #80-#86 (2781') down w/ 450#-600# torque. Str. wt.=22K. Intermittent ledges, slackoffs up to 5-6'.

04:00-04:30 PU Jt. #87. Drill 1st 10' in at 450#-600# torque, torque increased to 600#-1100#.

04:30-05:10 PU off bottom, did not lose torque. Break out and LD Jt. #87. PU 10' on jt. #86 dragging 6K over. Start rotation. Torque=500#-800#. Stop rotation. Slid 10' back to floor taking 4 pts. coming back down. Decision to not risk bending pipe at satisfactory depth.

Crew change at 05:00.

05:10-05:45 RU for swab for brine test.

05:45-06:00 RIH for 1st swab run.

Daily Costs:

Supervision	\$1800
Pulling Unit: 06:00, 17th – 06:00, 18th (24 hrs)	\$7200
Reverse Pit rental	\$0
Reverse Unit Swivel	\$3000
Reverse Unit Pump: (2 x \$700)	\$1400
Reverse Unit Operator: (2 x \$900)	\$1800
Reverse Unit Mileage: (2 x \$200)	\$400
Rental Tools: BIW stripper, BOP	\$100
Light plant rental	\$170
Slip-type elevators	\$90
Trash Trailer/Porta-Potty	\$65
Pipe rack rental	\$100
Total Cost:	\$16,125
Cum Cost:	\$154,063

1/20/17

06:00-09:00 Make 7 total swab runs. Runs #4, #5, #6=10.1 ppg brine, rusty. Run #7 dry run. Run #8 made dry run to bottom with only 1-3/4" swab mandrel hanger on weight bar. RIH measuring raps. Calculated TD=2670' to top of DC's.

09:00-10:30 Rotary Wireline arrived on location. RD swab. RU wireline. PU 1-7/8" tbg. cutter. RIH. Tagged up at 2615'. Cut tbg. @ 2610'. POOH. PU 2' x 1-9/16" tbg. gun (8 holes w/ 0.2" hole diameter). RIH. Tagged up at 2615'. Collar @ 2595'. PU to 2590' & shoot 8 holes at 2590'-2592'. POOH RD wireline.

10:30-12:00 RD floor. Land tbg. in 2-7/8" x 5-1/2" Larkin tbg. head. Release rental equipment. Clean up location.

END OF REPORT

Appendix E

Mechanical Integrity Test Record

6 AM

5

4

7

8

9

10

11

NOON

1

2

3

4

5

6 PM

7

PRINTED IN U.S.A.

Brine Well Test
Salty Dog Inc.
Brine Supply Well #1

30-025-~~26307-00-00~~
J 5-195-36E

Cal date 1-31-18
Ser. # 15698
1000 #
12 Hour

Gary Robinson - OCS
Dir of Standard



CHART NO. MC MP-1000

METER

CHART PUT ON

LOCATION

TAKEN OFF

REMARKS

2-9-18

End 12:01 PM

American Valve & Meter, Inc.

1113 W. BROADWAY

P.O. BOX 166 HOBBS,
NM 88240

FEB 26 2018 PM 03:16

To: Rental

DATE: 01/31/18

This is to certify that:

I, RLLarmon, Technician for American Valve & Meter Inc. has checked the calibration of the following instrument. These points

12 " Pressure recorder

Ser#15698

Pressure #			* Pressure #		
Test	Found	Left	Test	Found	Left
- 0	-	- 0	-	-	-
- 500	- S	- 500	-	-	-
- 700	- A	- 700	-	-	-
- 1000	- M	- 1000	-	-	-
- 200	- E	- 200	-	-	-
- 0	-	- 0	-	-	-

Remarks: _____

Signature:  _____

Chavez, Carl J, EMNRD

From: McVey, Mike <mmcvey@geo-logic.com>
Sent: Wednesday, April 4, 2018 12:08 PM
To: Chavez, Carl J, EMNRD
Cc: pieter@bergsteinenterprises.com; susan@bergsteinenterprises.com; Ayarbe, John
Subject: 2nd Semiannual GWM and O&M report - Salty Dog Brine Station, Hobbs, NM
Attachments: Salty Dog Second 2017 Semiannual Rpt_3-30-2018.pdf

Carl,

Attached is the second semiannual (July 1 through December 31, 2017) groundwater monitoring and O&M report for the Salty Dog brine station. Please give me or John a call at (505) 822-9400 if you have any questions.

Thanks,

Michael D. McVey, P.G.
Senior Hydrogeologist

Daniel B. Stephens & Associates, Inc.

a Geo-Logic Company

6020 Academy Road NE, Suite 100

Albuquerque, New Mexico 87109

Office: (505) 822-9400

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March 30, 2018

Mr. Carl Chavez
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505-4225

Re: Semiannual Groundwater Monitoring and O&M Report,
July 1 through December 31, 2017,
Salty Dog Brine Station, Lea County, New Mexico

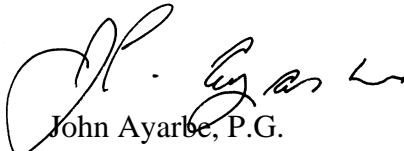
Dear Mr. Chavez:

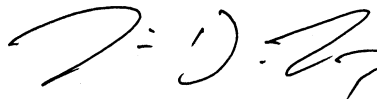
On behalf of PAB Services, Inc., Daniel B. Stephens & Associates, Inc. (DBS&A) is pleased to submit the enclosed groundwater monitoring and operation and maintenance (O&M) report for the Salty Dog brine station located in Lea County, New Mexico. Groundwater monitoring and O&M activities were completed at the site on December 19 and 20, 2017.

Please call us at (505) 822-9400 if you have any questions or require additional information.

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.


John Ayarce, P.G.
Senior Hydrogeologist


Michael D. McVey, P.G.
Senior Hydrogeologist

JA/MDM/rpf
Enclosure
cc: Pieter Bergstein, PAB Services, Inc.
Jim Sayre, Salty Dog, Inc.

Daniel B. Stephens & Associates, Inc.

6020 Academy NE, Suite 100

505-822-9400

Semiannual Groundwater Monitoring and

O&M Report

July 1 through December 31, 2017

Salty Dog Brine Station

Lea County, New Mexico

Prepared for

**New Mexico Energy, Minerals and
Natural Resources Department
Oil Conservation Division**

March 30, 2018



Daniel B. Stephens & Associates, Inc.

6020 Academy NE, Suite 100 • Albuquerque, New Mexico 87109



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December 2017



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Semiannual Groundwater Monitoring and O&M Report

July 1 through December 31, 2017

Salty Dog Brine Station, Lea County, New Mexico

1. Introduction

Daniel B. Stephens & Associates, Inc. (DBS&A) has prepared this groundwater monitoring and operation and maintenance (O&M) report for submission to the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD) Environmental Bureau on behalf of PAB Services, Inc. (PAB) for the Salty Dog brine station (the site) located in Lea County, New Mexico (Figure 1). The report summarizes activities conducted at the site during the reporting period of July 1 through December 31, 2017. Semiannual groundwater monitoring was conducted on December 19 and 20, 2017.

The site consists of a northern portion, where the brine pond was located prior to closure in October 2008, and a southern portion, where the brine well is located. The brine pond area and the brine well area are separated by approximately 2,500 feet, joined by a dirt road (Figure 1). Injection water for the brine well comes from two fresh water supply wells (FWS-1 and FWS-2) and from remedial pumping at recovery wells in both the former brine pond area (RW-1) and brine well area (RW-2), although groundwater production at RW-1 is limited due to pumping from FWS-1.

Brine that is produced for sale is stored at a tank battery on the southern boundary of the former brine pond area. The tank battery consists of six 750-barrel aboveground storage tanks (ASTs) surrounded by a berm (Figure 1). A concrete truck loading pad with two brine filling stations is located north of the tank battery. An operations shed is located adjacent to the loading pad to the west.

Six monitor wells (PMW-1, DBS-1R, and DBS-2 through DBS-5), one nested well (NW-1), one fresh water supply well (FWS-1), and one recovery well (RW-1) are located in the former brine pond area. Nine monitor wells (MW-2 through MW-6, DBS-6 through DBS-9), one nested well



(NW-2), one fresh water supply well (FWS-2), and one recovery well (RW-2) are located in the brine well area (Figure 1).

DBS&A installed groundwater extraction systems at the site in early April 2012 to provide hydraulic containment and removal of chloride-impacted groundwater in the former brine pond and brine well areas. The extraction systems consist of submersible pumps, conveyance lines, electrical power, and controls to extract impacted groundwater from the recovery wells. Extracted groundwater is conveyed to the on-site ASTs for reinjection at the brine well. Although groundwater extraction at RW-1 is limited due to pumping from FWS-1, pumping at FWS-1 provides hydraulic containment and removal of chloride-impacted groundwater in the former brine pond area. Pumping at RW-2 provides hydraulic containment and removal of chloride-impacted groundwater in the brine well area.

2. Scope of Work

The scope of work for groundwater monitoring consisted of (1) measuring fluid levels in and collecting groundwater samples from 11 monitor wells, and (2) performing maintenance on the groundwater extraction systems, as necessary. Groundwater samples were submitted to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico for chloride analysis using U.S. Environmental Protection Agency (EPA) method 300.0. The monitor wells included in the sampling were selected in consultation with Jim Griswold on October 4, 2010; Mr. Griswold was the OCD Project Manager for the site at that time. The selected monitor wells are shown in Figures 2 through 5.

3. Monitoring Activities

3.1 Fluid Level Measurement

On December 19, 2017, DBS&A measured water levels in monitor wells DBS-1R, DBS-2 through DBS-5, and PMW-1 in the former brine pond area (Figure 2) and DBS-6, DBS-8, DBS-9, MW-3, and MW-5 in the brine well area (Figure 3) using a properly decontaminated



electronic water level meter. Table 1 reports water level measurements and groundwater elevations.

During this monitoring event, the average depths to water beneath the former brine pond area and brine well area were 69.00 feet below ground surface (bgs) and 63.84 feet bgs, respectively. On average, water levels in the former brine pond area increased by approximately 0.81 foot since the last monitoring event in June 2017, while water levels in the brine well area declined by 0.57 foot.

Figures 2 and 3 present potentiometric surface maps for the former brine pond area and the brine well area, respectively. The direction of groundwater flow beneath the former brine pond area remains to the southeast at a gradient of approximately 0.005 foot per foot (ft/ft) (Figure 2), decreasing from 0.009 ft/ft during the previous monitoring event. The direction of groundwater flow beneath the brine well area remains to the southeast at a gradient of approximately 0.005 ft/ft (Figure 3), increasing from 0.004 ft/ft during the previous monitoring event. A cone of depression was not observed during the December 2017 monitoring event because pumping from FWS-1 was temporarily stopped while repairs were made to the brine production well. Pumping from FWS-1 was resumed in February 2018.

3.2 Groundwater Sampling

On December 19 and 20, 2017, groundwater samples were collected from monitor wells DBS-1R, DBS-2 through DBS-6, DBS-8, DBS-9, MW-3, MW-5, and PMW-1 following standard sampling procedures developed from EPA guidance. Before sampling, each well was purged of a minimum of three casing volumes using a submersible pump so that a representative groundwater sample was collected. While purging, DBS&A measured water quality field parameters consisting of temperature, specific conductance, and pH. Samples were collected once three casing volumes were purged. Sample containers were then filled, labeled, and placed in an ice-filled cooler. Groundwater samples were submitted under chain of custody to HEAL for chloride analysis.



Samples of the brine well injection water and the produced brine were also collected to meet requirements under discharge permit BW-8. Injection water was sampled during the December 2017 monitoring event; however, during this event, the brine well was inoperable, precluding the collection of a brine sample. PAB resumed brine well production in February 2018 and collected a brine sample on February 15, 2018. Analytical results of these samples will be presented in the 2017 Annual Class III Well Report.

4. Analytical Results

Table 2 summarizes chloride analytical results for the 11 groundwater samples. Figures 4 and 5 show the distribution of chloride in groundwater beneath the former brine pond area and the brine well area, respectively. The laboratory report and chain of custody documentation are provided in Appendix A. Field notes recorded during groundwater monitoring activities are provided in Appendix B.

4.1 Former Brine Pond Area Wells

Since the last monitoring event in June 2017, minor to no changes in chloride concentrations were observed at monitor wells DBS-2 through DBS-5 (Table 2). Well PMW-1 continues to exhibit chloride concentrations above the New Mexico Water Quality Control Commission (NMWQCC) standard of 250 milligrams per liter (mg/L) (Figure 4). The chloride concentration at well DBS-1R, located downgradient of well PMW-1, decreased from 320 mg/L to 190 mg/L, which is below the NMWQCC standard for chloride.

The chloride plume in the former brine pond area remains bounded by the existing monitor well network (Figure 4). The chloride concentration at downgradient monitor well DBS-4 remains below the NMWQCC standard, as do chloride concentrations at the two cross-gradient monitor wells, DBS-2 and DBS-3. During this reporting period, the chloride concentration at well DBS-1R was also below the NMWQCC standard for the first time since sampling at the well began in May 2012.



4.2 Brine Well Area Wells

Since the last monitoring event in June 2017, minor changes in chloride concentrations were observed at most of the monitor wells in the brine well area (Table 2). Monitor wells MW-3 (the well closest to extraction well RW-2) and MW-5 (the farthest downgradient well) continue to exhibit chloride concentrations above the NMWQCC standard (Figure 5). The chloride concentration at MW-3 decreased from 10,000 mg/L to 8,300 mg/L. The chloride concentration at MW-5 decreased slightly from 870 mg/L to 850 mg/L. The chloride concentration at monitor well DBS-6, which had exceeded the NMWQCC standard until the last monitoring event, continued to decline, decreasing from 240 mg/L to 200 mg/L.

During previous monitoring events, monitor well DBS-9 (an upgradient monitor well) has exhibited chloride concentrations above the NMWQCC standard. During this reporting period, the chloride concentration at DBS-9 was 230 mg/L, below the NMWQCC standard (Table 2). DBS-9 was installed in the playa located northeast of the brine well to help characterize groundwater impacts from documented releases in 2002 and 2005.

5. Groundwater Extraction System O&M

Remedial groundwater extraction in the former brine pond and brine well areas began in April 2012 by pumping from recovery wells RW-1 and RW-2. Groundwater extraction rates at RW-1 and RW-2 are reported in Table 3.

Production from the fresh water supply well (FWS-1) also supports hydraulic containment and removal of chloride-impacted groundwater in the former brine pond area. Groundwater extraction rates at FWS-1 are also reported in Table 3.

5.1 Former Brine Pond Area

Pumping from the nearby fresh water supply well (FWS-1) prevents RW-1 from being used as an extraction well because FWS-1 lowers groundwater levels in the former brine pond area when it is operating. PAB attempted to set the pump at RW-1 to a deeper depth in the well so



that pumping from RW-1 could continue, but the pump is already set near the bottom of the well. Although pumping from RW-1 has ceased, pumping at FWS-1 provides containment of the chloride plume in the former brine pond area. The average pumping rate at FWS-1 from June 2017 to December 2017 was approximately 37.3 gallons per minute (gpm).

Well FWS-1 was not pumping at the time water level measurements were recorded, so a cone of depression was not observed in the vicinity of FWS-1 during the December 2017 monitoring event (Figure 2). Pumping from FWS-1 was temporarily stopped while repairs were made to the brine production well. Brine production resumed in February 2018.

Monitor well PMW-1 was the only well to exhibit a chloride concentration above the NMWQCC standard in the former brine pond area during this reporting period (Figure 4). Pumping of the fresh water supply well is preventing the downgradient migration of the chloride groundwater plume. The chloride concentration at well DBS-1R, located downgradient of well PMW-1, was below the NMWQCC standard this reporting period for the first time since sampling at the well began (Figure 4), and the chloride concentration at downgradient monitor well DBS-4 remains well below the NMWQCC standard (Table 2).

5.2 Brine Well Area

During the previous monitoring event, DBS&A discovered that the wires leading to the totalizer flow meter at well RW-2 had been damaged by cattle. PAB replaced the totalizer flow meter in November 2017. The estimated average pumping rate at RW-2 from June 2017 to December 2017 was approximately 12.4 gpm (Table 3). This estimate is based on PAB fresh water injection volumes.

A cone of depression was not observed in the vicinity of RW-2 during the December 2017 monitoring event (Figure 3) because pumping from RW-2 was stopped at the time water level measurements were recorded. Pumping of RW-2 was temporarily stopped while repairs were made to the brine production well. Brine production resumed in February 2018.



The chloride plume remains undefined downgradient and cross-gradient to the north of the recovery well (RW-2) (Figure 5); however, water quality conditions have improved at both the nearest downgradient well (MW-5) and the nearest cross-gradient well (DBS-6). Since April 2009, chloride concentrations at the northernmost cross-gradient well (DBS-6) have declined, decreasing from a high of 410 mg/L in May 2011 to 200 mg/L during this reporting period. Since February 2008, chloride concentrations in the downgradient well (MW-5) have also declined, decreasing from a high of 1,500 mg/L during monitoring events in 2011 and 2012 to 850 mg/L this reporting period (Table 2).

5.3 Facility and System Maintenance

During the previous monitoring event, the totalizer flow meter at RW-2 had been damaged by cattle. PAB replaced the meter in November 2017 and installed fencing around the perimeter of the well to protect the wellhead and the new meter from future damage.

In the week preceding the December 2017 monitoring event, the brine production well was damaged due to anhydrite collapsing on the well's tubing (Sayre, 2017). PAB had the tubing replaced, and the well was operating again in February 2018. Before the well was operated again, PAB had a mechanical integrity test (MIT) conducted on the well; it passed the test. Gary Robinson of OCD was present during the MIT.

5.4 Future Extraction System Operation

Pumping of the fresh water supply well (FWS-1) has lowered groundwater levels at RW-1, precluding groundwater extraction at this well. Pumping of FWS-1 provides hydraulic containment and removal of the chloride plume in the former brine pond area, as evidenced by the chloride concentration at downgradient monitor well DBS-4 remaining well below the NMWQCC standard. Future monitoring data will be used to evaluate the effectiveness of FWS-1 in providing hydraulic containment and removal of chloride-impacted groundwater in the former brine pond area.



Pumping of extraction well RW-2 will continue. Pumping of RW-2 provides hydraulic containment and removal of the chloride plume in the brine well area, as evidenced by improved water quality conditions at downgradient monitor well MW-5 and cross-gradient monitor well DBS-6. DBS&A will work with PAB in 2018 to develop a plan for more consistent pumping from RW-2.

6. Recommendations

Based on the current groundwater monitoring results and site O&M activities, DBS&A has the following recommendations:

- Continue groundwater extraction at FWS-1 to provide hydraulic containment and removal of the chloride plume in the former brine pond area.
- Work with PAB to improve pumping from RW-2.

In addition, DBS&A and PAB will complete the following activities at the site in 2018 to meet OCD requests and the requirements of DP BW-8:

- Continue to conduct semiannual groundwater monitoring and O&M of the extraction systems at the site.
- Install one new downgradient monitor well approximately 300 feet southeast of MW-5 in the brine well area to determine the downgradient extent of chloride-impacted groundwater.
- Install survey monuments and establish a program to monitor for potential surface subsidence. Five survey monuments will be installed near the brine well. Four monuments will be installed in a 200-foot radius around the brine well, and a fifth monument will be fixed to the wellhead of the brine well. A baseline survey will be conducted after installation of the new monitor well and five survey monuments to establish elevations and x-y coordinates relative to state plane coordinates. The



Daniel B. Stephens & Associates, Inc.

monuments will then be surveyed in conjunction with semiannual groundwater monitoring to monitor for potential subsidence.

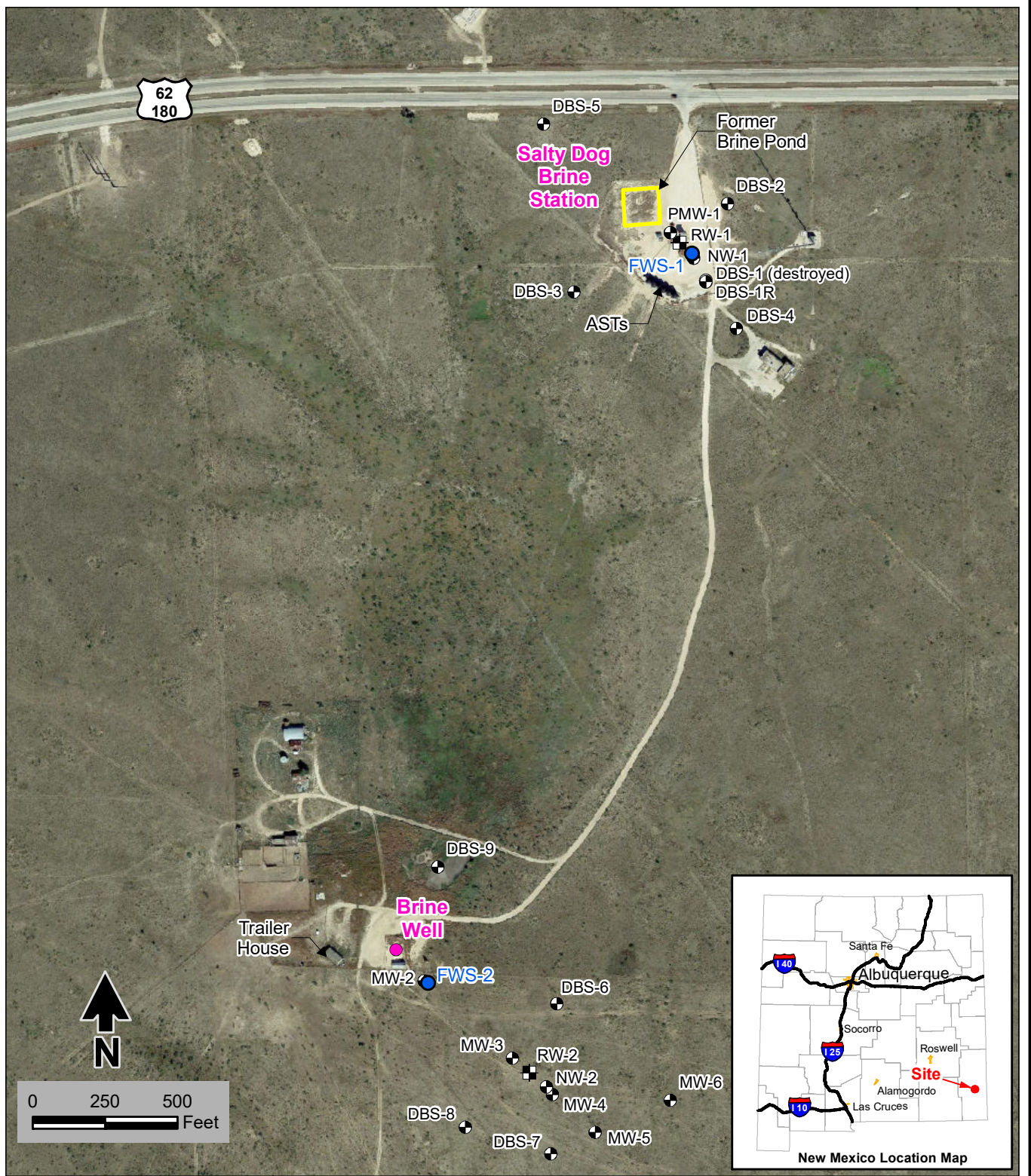
- Prepare a 2017 Annual Class III Well report for submittal to OCD.

Reference

Sayre, J. 2017. Personal communication between Jim Sayre, PAB Services, Inc., and Daniel B. Stephens & Associates, Inc. December 2017.

Figures

S:\PROJECTS\ES08.0118.01_SALTY_DOG_INC\GIS\MXDS\REPORT2017_4Q\FIG01_SITE_LOCATION_MAP.MXD



Explanation

- Fresh water supply well
- ⊕ Monitor well
- ⊞ Recovery well
- Well destroyed

Note: AST = Aboveground storage tank

Source: Google Earth aerial imagery dated November 2, 2017



Daniel B. Stephens & Associates, Inc.
3/2/2018
JN ES08.0118.06

SALTY DOG BRINE STATION Site Location Map

Figure 1

\\SS6BQ\DATA\PROJECTS\ES08.0118.01_SALTY_DOG_INC\GIS\MXD\REPORT\2017_4Q\FIG02_GWE_201712_BRINE_STATION.MXD



Source: Google Earth aerial imagery dated November 2, 2017

Explanation

- | | | | |
|---------|-------------------------------|---|---|
| DBS-3 | Well designation | | |
| 3751.12 | Groundwater elevation, ft msl | | |
| ⊕ | Monitor well | — | Potentiometric surface elevation contour (ft msl),
dashed where inferred |
| ⊕ | Recovery well | → | Groundwater flow direction |
| ● | Fresh water supply well | | |

SALTY DOG BRINE STATION
Former Brine Pond Area
Potentiometric Surface Elevations
December 2017



Daniel B. Stephens & Associates, Inc.
3/22/2018 JN ES08.0118.06

Figure 2



Source: Google Earth aerial imagery dated November 2, 2017

Explanation

- MW-5 Well designation
- 3743.94 Groundwater elevation, ft msl
- ⊕ Monitor well
- ⊞ Recovery well
- Fresh water supply well
- Potentiometric surface elevation contour (ft msl), dashed where inferred
- ➔ Groundwater flow direction

SALTY DOG BRINE STATION
Playa Lake and Brine Well Area
Potentiometric Surface Elevations
December 2017



Daniel B. Stephens & Associates, Inc.
 3/5/2018 JN ES08.0118.06

Figure 3



Source: Google Earth aerial imagery dated November 2, 2017

Explanation

- DBS-5 Well designation
- 170 Chloride concentration (mg/L)
- ⊕ Monitor well
- ⊞ Recovery well

Red indicates concentration equal to or greater than the NMWQCC standard.

SALTY DOG BRINE STATION Former Brine Pond Area Chloride Concentrations in Groundwater December 2017



Daniel B. Stephens & Associates, Inc.
3/5/2018 JN ES08.0118.06

Figure 4



Source: Google Earth aerial imagery dated November 2, 2017

Explanation

- DBS-8 Well designation
- 28 Chloride concentration (mg/L)
- ⊕ Monitor well
- ⊞ Recovery well

Red indicates concentration equal to or greater than the NMWQCC standard.



Daniel B. Stephens & Associates, Inc.
3/2/2018 JN ES08.0118.06

SALTY DOG BRINE STATION Playa Lake and Brine Well Area Chloride Concentrations in Groundwater December 2017

Figure 5

Tables



**Table 1. Historical Fluid Level Measurements
Salty Dog Brine Station, Lea County, New Mexico
Page 1 of 8**

Monitor Well	Screen Interval (ft bgs)	Top of Casing Elevation ^a (ft msl)	Date Measured	Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
DBS-1	56.0–76.0	3,817.09	4/08/2009	62.38	3,754.71
			5/11/2011	64.70	3,752.39
			10/04/2011	Well destroyed	
DBS-1R	58.0–78.0	3,817.00 ^b	4/30/2012	63.60	3,753.40
			9/10/2012	65.65	3,751.35
			6/23/2013	64.40	3,752.60
			1/09/2014	67.23	3,749.77
			4/07/2014	66.36	3,750.64
			3/20/2015	67.17	3,749.83
			7/01/2015	67.92	3,749.08
			9/29/2015	67.07	3,749.93
			12/16/2015	67.54	3,749.46
			3/22/2016	66.61	3,750.39
			6/08/2016	66.23	3,750.77
			9/13/2016	67.43	3,749.57
			12/01/2016	67.31	3,749.69
			6/20/2017	69.60	3,747.40
			12/19/2017	67.80	3,749.20
DBS-2	58.0–78.0	3,820.50	4/08/2009	65.45	3,755.05
			5/11/2011	66.80	3,753.70
			10/04/2011	65.87	3,754.63
			2/08/2012	65.96	3,754.54
			4/30/2012	66.26	3,754.24
			9/10/2012	67.45	3,753.05
			6/23/2013	67.03	3,753.47
			1/09/2014	69.08	3,751.42
			4/07/2014	68.67	3,751.83
			3/20/2015	69.32	3,751.18
			6/30/2015	69.29	3,751.21
			9/29/2015	69.41	3,751.09
			12/16/2015	69.71	3,750.79
			3/22/2016	69.13	3,751.37

^a Top of casing elevations surveyed by Pettigrew & Assoc. on May 28, 2009.

^b Top of casing elevation surveyed by Pettigrew & Assoc. on June 13, 2012.

ft bgs = Feet below ground surface
ft msl = Feet above mean sea level

ft btoc = Feet below top of casing
NA = Not available



**Table 1. Historical Fluid Level Measurements
Salty Dog Brine Station, Lea County, New Mexico
Page 2 of 8**

Monitor Well	Screen Interval (ft bgs)	Top of Casing Elevation ^a (ft msl)	Date Measured	Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
DBS-2 (cont.)	58.0–78.0	3,820.50	6/08/2016	68.91	3,751.59
			9/13/2016	69.76	3,750.74
			12/01/2016	69.73	3,750.77
			6/20/2017	71.33	3,749.17
			12/19/2017	70.42	3,750.08
DBS-3	56.0–76.72	3,816.66	4/08/2009	60.67	3,755.99
			5/11/2011	61.25	3,755.41
			10/04/2011	61.25	3,755.41
			2/08/2012	61.11	3,755.55
			4/30/2012	61.41	3,755.25
			9/10/2012	61.81	3,754.85
			6/23/2013	62.08	3,754.58
			1/09/2014	63.30	3,753.36
			4/07/2014	63.43	3,753.23
			3/20/2015	63.93	3,752.73
			6/30/2015	63.99	3,752.67
			9/29/2015	64.17	3,752.49
			12/16/2015	64.41	3,752.25
			3/22/2016	63.88	3,752.78
			6/08/2016	63.92	3,752.74
			9/13/2016	64.56	3,752.10
			12/01/2016	64.59	3,752.07
			6/20/2017	65.52	3,751.14
			12/19/2017	65.54	3,751.12
DBS-4	56.0–76.0	3,820.37	4/08/2009	66.27	3,754.10
			5/11/2011	67.23	3,753.14
			10/04/2011	66.67	3,753.70
			2/08/2012	66.76	3,753.61
			4/30/2012	67.02	3,753.35
			9/10/2012	67.78	3,752.59
			6/23/2013	67.70	3,752.67

^a Top of casing elevations surveyed by Pettigrew & Assoc. on May 28, 2009.

^b Top of casing elevation surveyed by Pettigrew & Assoc. on June 13, 2012.

ft bgs = Feet below ground surface

ft btoc = Feet below top of casing

ft msl = Feet above mean sea level

NA = Not available



**Table 1. Historical Fluid Level Measurements
Salty Dog Brine Station, Lea County, New Mexico
Page 3 of 8**

Monitor Well	Screen Interval (ft bgs)	Top of Casing Elevation ^a (ft msl)	Date Measured	Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
DBS-4 (cont.)	56.0–76.0	3,820.37	1/09/2014	69.37	3,751.00
			4/07/2014	69.23	3,751.14
			3/20/2015	69.81	3,750.56
			6/30/2015	69.85	3,750.52
			9/29/2015	70.00	3,750.37
			12/16/2015	70.25	3,750.12
			3/22/2016	69.74	3,750.63
			6/08/2016	69.62	3,750.75
			9/13/2016	70.35	3,750.02
			12/01/2016	70.38	3,749.99
			6/20/2017	71.67	3,748.70
			12/19/2017	71.08	3,749.29
DBS-5	56.9–76.9	3,820.66	4/08/2009	62.99	3,757.67
			5/11/2011	63.45	3,757.21
			10/04/2011	63.41	3,757.25
			2/08/2012	63.46	3,757.20
			4/30/2012	63.70	3,756.96
			9/10/2012	63.92	3,756.74
			6/23/2013	64.30	3,756.36
			1/09/2014	65.28	3,755.38
			4/07/2014	65.48	3,755.18
			3/20/2015	65.9	3,754.76
			7/01/2015	66.18	3,754.48
			9/29/2015	66.25	3,754.41
			12/16/2015	66.47	3,754.19
			3/22/2016	66.08	3,754.58
			6/08/2016	66.16	3,754.50
			9/13/2016	66.64	3,754.02
			12/01/2016	66.72	3,753.94
			6/20/2017	67.60	3,753.06
			12/19/2017	67.88	3,752.78

^a Top of casing elevations surveyed by Pettigrew & Assoc. on May 28, 2009.

^b Top of casing elevation surveyed by Pettigrew & Assoc. on June 13, 2012.

ft bgs = Feet below ground surface

ft btoc = Feet below top of casing

ft msl = Feet above mean sea level

NA = Not available



**Table 1. Historical Fluid Level Measurements
Salty Dog Brine Station, Lea County, New Mexico
Page 4 of 8**

Monitor Well	Screen Interval (ft bgs)	Top of Casing Elevation ^a (ft msl)	Date Measured	Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
DBS-6	56.7–76.7	3,812.65	4/07/2009	62.75	3,749.90
			5/11/2011	63.11	3,749.54
			10/04/2011	63.16	3,749.49
			2/08/2012	63.20	3,749.45
			4/30/2012	63.43	3,749.22
			9/10/2012	63.60	3,749.05
			6/23/2013	63.74	3,748.91
			1/09/2014	64.00	3,748.65
			4/07/2014	64.22	3,748.43
			3/19/2015	64.78	3,747.87
			7/01/2015	64.81	3,747.84
			9/29/2015	65.48	3,747.17
			12/16/2015	65.26	3,747.39
			3/22/2016	65.38	3,747.27
			6/08/2016	65.37	3,747.28
			9/13/2016	65.51	3,747.14
			12/01/2016	65.51	3,747.14
DBS-7	55.1–75.1	3,810.21	4/07/2009	61.74	3,748.47
			6/20/2017	65.81	3,746.84
DBS-8	55.2–75.2	3,810.70	12/19/2017	66.29	3,746.36
			4/07/2009	61.20	3,749.50
			5/11/2011	61.67	3,749.03
			10/04/2011	61.71	3,748.99
			2/08/2012	61.77	3,748.93
			4/30/2012	62.00	3,748.70
			9/10/2012	62.15	3,748.55
			6/23/2013	62.28	3,748.42
			1/09/2014	62.47	3,748.23
			4/07/2014	62.67	3,748.03
			3/19/2015	63.19	3,747.51
			6/30/2015	63.25	3,747.45

^a Top of casing elevations surveyed by Pettigrew & Assoc. on May 28, 2009.

^b Top of casing elevation surveyed by Pettigrew & Assoc. on June 13, 2012.

ft bgs = Feet below ground surface
ft msl = Feet above mean sea level

ft btoc = Feet below top of casing
NA = Not available



**Table 1. Historical Fluid Level Measurements
Salty Dog Brine Station, Lea County, New Mexico
Page 5 of 8**

Monitor Well	Screen Interval (ft bgs)	Top of Casing Elevation ^a (ft msl)	Date Measured	Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
DBS-8 (cont.)	55.2–75.2	3,810.70	9/29/2015	63.82	3,746.88
			12/16/2015	63.58	3,747.12
			3/22/2016	63.76	3,746.94
			6/08/2016	63.72	3,746.98
			9/13/2016	63.83	3,746.87
			12/01/2016	63.79	3,746.91
			6/20/2017	64.09	3,746.61
			12/19/2017	64.53	3,746.17
DBS-9	48.0–68.0	3,806.26	4/08/2009	53.93	3,752.33
			5/11/2011	54.39	3,751.87
			10/04/2011	54.59	3,751.67
			2/08/2012	54.53	3,751.73
			4/30/2012	54.68	3,751.58
			9/10/2012	54.77	3,751.49
			6/23/2013	55.04	3,751.22
			1/09/2014	55.27	3,750.99
			4/07/2014	55.56	3,750.70
			3/19/2015	55.95	3,750.31
			7/01/2015	56.14	3,750.12
			9/29/2015	56.49	3,749.77
			12/16/2015	56.52	3,749.74
			3/22/2016	56.51	3,749.75
			6/08/2016	56.64	3,749.62
			9/13/2016	56.81	3,749.45
			12/01/2016	56.88	3,749.38
			6/20/2017	57.28	3,748.98
			12/19/2017	57.67	3,748.59
NW-1s	52.95–72.95	3,817.33	4/08/2009	62.35	3,754.98
NW-1m	99.31–119.31	3,817.35	4/08/2009	62.25	3,755.10
NW-1d	149.45–169.45	3,817.35	4/08/2009	62.04	3,755.31
NW-2s	53.35–73.35	3,812.50	4/08/2009	63.08	3,749.42

^a Top of casing elevations surveyed by Pettigrew & Assoc. on May 28, 2009.

^b Top of casing elevation surveyed by Pettigrew & Assoc. on June 13, 2012.

ft bgs = Feet below ground surface

ft msl = Feet above mean sea level

ft btoc = Feet below top of casing

NA = Not available



**Table 1. Historical Fluid Level Measurements
Salty Dog Brine Station, Lea County, New Mexico
Page 6 of 8**

Monitor Well	Screen Interval (ft bgs)	Top of Casing Elevation ^a (ft msl)	Date Measured	Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
NW-2m	93.72–113.72	3,812.45	4/08/2009	63.27	3,749.18
NW-2d	126.87–146.87	3,812.46	4/08/2009	66.41	3,746.05
PMW-1	63–78	3,821.17	6/23/2008	67.51	3,753.66
			4/08/2009	65.97	3,755.20
			5/11/2011	68.70	3,752.47
			10/04/2011	66.95	3,754.22
			2/08/2012	66.69	3,754.48
			4/30/2012	67.27	3,753.90
			9/10/2012	69.77	3,751.40
			6/23/2013	68.40	3,752.77
			1/09/2014	71.24	3,749.93
			4/07/2014	69.97	3,751.20
			3/20/2015	70.78	3,750.39
			7/01/2015	71.41	3,749.76
			9/29/2015	70.76	3,750.41
			12/16/2015	71.03	3,750.14
			3/22/2016	70.30	3,750.87
			6/08/2016	69.65	3,751.52
			9/13/2016	71.08	3,750.09
			12/01/2016	70.97	3,750.20
			6/20/2017	73.06	3,748.11
			12/19/2017	71.19	3,749.98
MW-1	120–140	NA	6/23/2008	59.90	NA
MW-2	127–147	3,812.68	6/23/2008	61.42	3,751.26
			4/07/2009	61.65	3,751.03
MW-3	NA	3,812.05	6/23/2008	62.06	3,749.99
			4/07/2009	62.02	3,750.03
			5/11/2011	62.91	3,749.14
			10/04/2011	62.91	3,749.14
			2/08/2012	62.95	3,749.10
			4/30/2012	63.39	3,748.66

^a Top of casing elevations surveyed by Pettigrew & Assoc. on May 28, 2009.

^b Top of casing elevation surveyed by Pettigrew & Assoc. on June 13, 2012.

ft bgs = Feet below ground surface
ft msl = Feet above mean sea level

ft btoc = Feet below top of casing
NA = Not available



**Table 1. Historical Fluid Level Measurements
Salty Dog Brine Station, Lea County, New Mexico
Page 7 of 8**

Monitor Well	Screen Interval (ft bgs)	Top of Casing Elevation ^a (ft msl)	Date Measured	Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
MW-3 (cont.)	NA	3,812.05	9/10/2012	63.50	3,748.55
			6/23/2013	63.36	3,748.69
			1/09/2014	63.55	3,748.50
			4/07/2014	63.88	3,748.17
			3/19/2015	64.27	3,747.78
			7/01/2015	64.34	3,747.71
			9/29/2015	67.94	3,744.11
			12/16/2015	64.75	3,747.30
			3/22/2016	64.84	3,747.21
			6/08/2016	64.89	3,747.16
			9/13/2016	66.33	3,745.72
			12/01/2016	66.66	3,745.39
			6/20/2017	65.56	3,746.49
			12/19/2017	65.70	3,746.35
MW-4	111–131	3,811.33	6/23/2008	62.12	3,749.21
			4/07/2009	62.51	3,748.82
MW-5	112–132	3,808.96	6/23/2008	60.60	3,748.36
			4/07/2009	60.79	3,748.17
			5/11/2011	61.17	3,747.79
			10/04/2011	61.72	3,747.24
			2/08/2012	61.23	3,747.73
			4/30/2012	61.50	3,747.46
			9/10/2012	61.65	3,747.31
			6/23/2013	61.75	3,747.21
			1/09/2014	61.90	3,747.06
			4/07/2014	62.18	3,746.78
			3/19/2015	62.96	3,746.00
			6/30/2015	62.71	3,746.25
			9/29/2015	63.92	3,745.04
			12/16/2015	63.02	3,745.94
			3/22/2016	63.14	3,745.82

^a Top of casing elevations surveyed by Pettigrew & Assoc. on May 28, 2009.

^b Top of casing elevation surveyed by Pettigrew & Assoc. on June 13, 2012.

ft bgs = Feet below ground surface
ft msl = Feet above mean sea level

ft btoc = Feet below top of casing
NA = Not available



**Table 1. Historical Fluid Level Measurements
Salty Dog Brine Station, Lea County, New Mexico
Page 8 of 8**

Monitor Well	Screen Interval (ft bgs)	Top of Casing Elevation ^a (ft msl)	Date Measured	Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
MW-5 (cont.)	112–132	3,808.96	6/08/2016	63.47	3,745.49
			9/13/2016	63.66	3,745.30
			12/01/2016	63.70	3,745.26
			6/21/2017	63.62	3,745.34
			12/19/2017	65.02	3,743.94
MW-6	NA	3,810.17	6/23/2008	62.17	3,748.00
			4/07/2009	62.41	3,747.76

^a Top of casing elevations surveyed by Pettigrew & Assoc. on May 28, 2009.

^b Top of casing elevation surveyed by Pettigrew & Assoc. on June 13, 2012.

ft bgs = Feet below ground surface

ft btoc = Feet below top of casing

ft msl = Feet above mean sea level

NA = Not available



**Table 2. Chloride Groundwater Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 1 of 8**

Monitor Well	Date	Chloride Concentration (mg/L) ^a
<i>NMWQCC Standard</i>		<i>250</i>
DBS-1	4/08/2009	320
	5/12/2011	940
	10/04/2011	Well destroyed
DBS-1R	5/01/2012	3,000
	9/11/2012	3,200
	6/25/2013	3,300
	1/10/2014	1,000
	4/08/2014	1,700
	3/20/2015	1,200
	7/01/2015	860
	9/30/2015	670
	12/17/2015	760
	3/23/2016	560
	6/09/2016	570
	09/14/2016	360
	12/01/2016	360
	6/20/2017	320
	12/20/2017	190
DBS-2	4/08/2009	14
	5/12/2011	25
	10/05/2011	18
	2/09/2012	22
	5/01/2012	24
	9/11/2012	44
	6/25/2013	36
	1/10/2014	45
	4/08/2014	22
	3/20/2015	29
	6/30/2015	28
	9/30/2015	40
	12/17/2015	35

Bold indicates that value exceeds the applicable standard.

^a All samples analyzed using EPA method 300.0, unless otherwise noted.

^b Samples analyzed using Standard Method 4500-Cl B.

mg/L = Milligrams per liter



**Table 2. Chloride Groundwater Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 2 of 8**

Monitor Well	Date	Chloride Concentration (mg/L) ^a
<i>NMWQCC Standard</i>		<i>250</i>
DBS-2 (cont.)	3/23/2016	46
	6/09/2016	41
	9/14/2016	41
	12/02/2016	53
	6/20/2017	59
	12/20/2017	37
DBS-3	4/08/2009	36
	5/12/2011	35
	10/05/2011	34
	2/09/2012	34
	5/01/2012	33
	9/11/2012	34
	6/24/2013	32
	1/10/2014	34
	4/08/2014	32
	3/20/2015	35
	6/30/2015	35
	9/30/2015	34
	12/17/2015	34
	3/23/2016	36
	6/09/2016	35
	9/14/2016	37
	12/02/2016	37
	6/20/2017	39
	12/20/2017	42
DBS-4	4/08/2009	38
	5/12/2011	33
	10/05/2011	32
	2/09/2012	32
	5/01/2012	31
	9/11/2012	32

Bold indicates that value exceeds the applicable standard.

^a All samples analyzed using EPA method 300.0, unless otherwise noted.

^b Samples analyzed using Standard Method 4500-Cl B.

mg/L = Milligrams per liter



**Table 2. Chloride Groundwater Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 3 of 8**

Monitor Well	Date	Chloride Concentration (mg/L) ^a
<i>NMWQCC Standard</i>		<i>250</i>
DBS-4 (cont.)	6/25/2013	31
	1/10/2014	32
	4/08/2014	30
	3/20/2015	33
	6/30/2015	31
	9/30/2015	33
	12/17/2015	35
	3/23/2016	38
	6/09/2016	35
	9/14/2016	37
	12/02/2016	41
	6/20/2017	35
	12/20/2017	32
DBS-5	4/08/2009	65
	5/12/2011	140
	10/05/2011	140
	2/09/2012	140
	4/30/2012	150
	9/11/2012	160
	6/24/2013	160
	1/10/2014	180
	4/08/2014	160
	3/20/2015	140
	7/01/2015	140
	9/30/2015	150
	12/17/2015	160
	3/23/2016	150
	6/09/2016	150
	9/14/2016	170
	12/02/2016	170
	6/20/2017	170

Bold indicates that value exceeds the applicable standard.

^a All samples analyzed using EPA method 300.0, unless otherwise noted.

^b Samples analyzed using Standard Method 4500-Cl B.

mg/L = Milligrams per liter



**Table 2. Chloride Groundwater Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 4 of 8**

Monitor Well	Date	Chloride Concentration (mg/L) ^a
<i>NMWQCC Standard</i>		<i>250</i>
DBS-5 (cont.)	12/20/2017	170
DBS-6	4/07/2009	380
	5/12/2011	410
	10/05/2011	400
	2/09/2012	380
	4/30/2012	400
	9/11/2012	390
	6/24/2013	340
	1/10/2014	390
	4/07/2014	400
	3/19/2015	370
	7/01/2015	360
	9/30/2015	370
	12/17/2015	380
	3/23/2016	310
	6/09/2016	300
	9/14/2016	290
	12/02/2016	300
	6/21/2017	240
	12/19/2017	200
DBS-7	4/07/2008	570
DBS-8	4/07/2009	58
	5/12/2011	36
	10/05/2011	140
	2/09/2012	41
	4/30/2012	41
	9/10/2012	42
	6/24/2013	45
	1/09/2014	38
	4/07/2014	36
	3/19/2015	36

Bold indicates that value exceeds the applicable standard.

^a All samples analyzed using EPA method 300.0, unless otherwise noted.

^b Samples analyzed using Standard Method 4500-Cl B.

mg/L = Milligrams per liter



**Table 2. Chloride Groundwater Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 5 of 8**

Monitor Well	Date	Chloride Concentration (mg/L) ^a
<i>NMWQCC Standard</i>		<i>250</i>
DBS-8 (cont.)	7/01/2015	34
	9/30/2015	35
	12/17/2015	33
	3/23/2016	35
	6/09/2016	34
	9/14/2016	34
	12/02/2016	33
	6/21/2017	33
	12/19/2017	28
DBS-9	4/08/2009	210
	5/12/2011	600
	10/05/2011	440
	2/09/2012	290
	4/30/2012	330
	9/11/2012	320
	6/24/2013	200
	1/10/2014	170
	4/07/2014	220
	3/19/2015	260
	7/01/2015	210
	9/30/2015	260
	12/17/2015	230
	3/23/2016	200
	6/09/2016	190
	9/14/2016	190
	12/02/2016	180
	6/21/2017	200
	12/20/2017	230
NW-1s	4/08/2009	630
NW-1m	4/08/2009	57
NW-1d	4/08/2009	38

Bold indicates that value exceeds the applicable standard.

^a All samples analyzed using EPA method 300.0, unless otherwise noted.

^b Samples analyzed using Standard Method 4500-Cl B.

mg/L = Milligrams per liter



**Table 2. Chloride Groundwater Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 6 of 8**

Monitor Well	Date	Chloride Concentration (mg/L) ^a
<i>NMWQCC Standard</i>		<i>250</i>
NW-2s	4/08/2009	410
NW-2m	4/08/2009	570
NW-2d	4/08/2009	4,700
PMW-1	2/27/2008	9,500 ^b
	5/30/2008	8,600 ^b
	6/23/2008	12,700
	4/08/2009	11,000
	5/12/2011	13,000
	10/05/2011	12,000
	2/09/2012	12,000
	5/01/2012	12,000
	9/11/2012	14,000
	6/25/2013	14,000
	1/10/2014	11,000
	4/08/2014	12,000
	3/20/2015	8,500
	7/01/2015	8,600
	9/30/2015	9,700
	12/17/2015	9,800
	3/23/2016	8,200
	6/09/2016	8,500
	9/14/2016	9,300
	12/01/2016	8,300
	6/20/2017	13,000
	12/20/2017	12,000
MW-1	5/30/2008	75 ^b
	6/23/2008	243
MW-2	2/27/2008	120 ^b
	5/30/2008	80 ^b
	6/23/2008	1,480
	4/07/2009	1,200

Bold indicates that value exceeds the applicable standard.

^a All samples analyzed using EPA method 300.0, unless otherwise noted.

^b Samples analyzed using Standard Method 4500-Cl B.

mg/L = Milligrams per liter



**Table 2. Chloride Groundwater Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 7 of 8**

Monitor Well	Date	Chloride Concentration (mg/L) ^a
<i>NMWQCC Standard</i>		<i>250</i>
MW-3	2/27/2008	348 ^b
	5/30/2008	360 ^b
	6/23/2008	1,090
	4/07/2009	17,000
	5/12/2011	16,000
	10/05/2011	14,000
	2/09/2012	15,000
	4/30/2012	14,000
	9/10/2012	16,000
	6/24/2013	12,000
	1/10/2014	10,000
	4/07/2014	12,000
	3/19/2015	9,700
	7/01/2015	10,000
	9/30/2015	9,600
	12/17/2015	5,100
	3/23/2016	8,200
	6/09/2016	9,400
	9/14/2016	9,100
	12/02/2016	11,000
	6/21/2017	10,000
	12/20/2017	8,300
MW-4	2/27/2008	476 ^b
	5/30/2008	512 ^b
	6/23/2008	5,730
	4/07/2009	6,600
MW-5	2/27/2008	1,280 ^b
	5/30/2008	1,220 ^b
	6/23/2008	1,260
	4/07/2009	1,300
	5/12/2011	1,500

Bold indicates that value exceeds the applicable standard.

^a All samples analyzed using EPA method 300.0, unless otherwise noted.

^b Samples analyzed using Standard Method 4500-Cl B.

mg/L = Milligrams per liter



**Table 2. Chloride Groundwater Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 8 of 8**

Monitor Well	Date	Chloride Concentration (mg/L) ^a
<i>NMWQCC Standard</i>		<i>250</i>
MW-5 (cont.)	10/05/2011	1,500
	2/09/2012	1,500
	4/30/2012	1,400
	9/10/2012	1,500
	6/24/2013	1,300
	1/10/2014	1,300
	4/07/2014	1,300
	3/19/2015	1,200
	7/01/2015	1,200
	9/30/2015	1,000
	12/17/2015	1,000
	3/23/2016	980
	6/09/2016	970
	9/14/2016	1,000
	12/02/2016	710
	6/21/2017	870
	12/19/2017	850
MW-6	2/27/2008	32 ^b
	5/30/2008	36 ^b
	6/23/2008	31.4
	4/07/2009	25
Ranch Headquarters Supply Well	6/23/2008	35.4
Brine Station Fresh Water Supply Well	2/27/2008	630^b
	5/30/2008	590^b
	6/23/2008	650

Bold indicates that value exceeds the applicable standard.

^a All samples analyzed using EPA method 300.0, unless otherwise noted.

^b Samples analyzed using Standard Method 4500-Cl B.

mg/L = Milligrams per liter



**Table 3. Average Groundwater Extraction Rates
Salty Dog Brine Station, Lea County, New Mexico**

Recovery Well	Date	Average Extraction Rate ^a (gpm)
RW-1	4/07/2012	Groundwater extraction started
	5/01/2012	2.1
	9/11/2012	2.9
	6/25/2013	4.1
	11/15/2013	3.6
	3/20/2015 ^b	2.4
	6/30/2015	—
FWS-1	12/17/2015	—
	3/22/2016	12.8
	6/08/2016	33.9
	9/13/2016	5.4
	12/02/2016	39.7
	6/20/2017	32.7
	12/19/2017	37.3
RW-2	4/06/2012	Groundwater extraction started
	5/01/2012	2.5
	9/11/2012	4.3
	12/14/2012	3.9
	6/25/2013 ^c	—
	9/21/2013 ^d	2.9
	9/30/2015	68
	12/17/2015	44
	3/22/2016	32
	6/08/2016	9.0
	9/13/2016	5.7
	12/01/2016 ^e	—
	6/20/2017 ^e	—
	12/19/2017	12.4

^a Average extraction rates based on totalizer flow meter readings and/or fresh water production records.

^b Pumping at RW-1 stopped because pumping of FWS-1 has lowered groundwater levels at RW-1. Pumping at FWS-1 provides hydraulic containment and removal of chloride-impacted groundwater in the former brine pond area.

^c New pump installed in RW-2 and started on June 25, 2013.

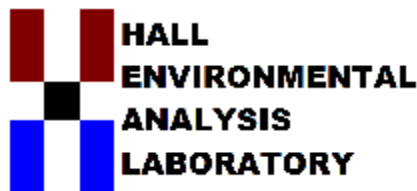
^d Meter and pump were removed from RW-2 on approximately September 21, 2013 by facility manager to install a new, larger-capacity pump.

^e Meter was inoperable because it was damaged. Meter was replaced in November 2017.

gpm = Gallons per minute

Appendix A

**Laboratory Analytical
Report**



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 11, 2018

John Ayarbe

Daniel B. Stephens & Assoc.
6020 Academy NE Suite 100
Albuquerque, NM 87109
TEL:
FAX

RE: Salty Dog

OrderNo.: 1712D25

Dear John Ayarbe:

Hall Environmental Analysis Laboratory received 12 sample(s) on 12/21/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-6

Project: Salty Dog

Collection Date: 12/19/2017 2:15:00 PM

Lab ID: 1712D25-001

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: MRA	
Chloride	200	50		mg/L	100	12/29/2017 11:06:16 PM	R48148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-8

Project: Salty Dog

Collection Date: 12/19/2017 3:10:00 PM

Lab ID: 1712D25-002

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: MRA	
Chloride	28	5.0		mg/L	10	12/29/2017 11:18:40 PM	R48148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: MW-5

Project: Salty Dog

Collection Date: 12/19/2017 3:45:00 PM

Lab ID: 1712D25-003

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	850	50	*	mg/L	100	12/29/2017 11:55:54 PM	R48148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: Injection

Project: Salty Dog

Collection Date: 12/19/2017 4:35:00 PM

Lab ID: 1712D25-004

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	1.000		0		1	12/27/2017 2:04:00 PM	R48036
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	270	50	*	mg/L	100	12/30/2017 12:20:44 AM	R48148
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	776	40.0	*D	mg/L	1	12/27/2017 6:16:00 PM	35709
SM4500-H+B: PH							Analyst: JRR
pH	7.59		H	pH units	1	12/27/2017 12:16:12 PM	R48063

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: MW-3

Project: Salty Dog

Collection Date: 12/20/2017 9:00:00 AM

Lab ID: 1712D25-005

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	8300	500	*	mg/L	1E	1/6/2018 11:36:49 PM	R48275

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-9

Project: Salty Dog

Collection Date: 12/20/2017 9:35:00 AM

Lab ID: 1712D25-006

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	230	50		mg/L	100	12/30/2017 2:24:50 AM	A48148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-4

Project: Salty Dog

Collection Date: 12/20/2017 10:00:00 AM

Lab ID: 1712D25-007

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	32	5.0		mg/L	10	12/30/2017 2:37:15 AM	A48148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-2

Project: Salty Dog

Collection Date: 12/20/2017 10:35:00 AM

Lab ID: 1712D25-008

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	37	5.0		mg/L	10	12/30/2017 3:26:54 AM	A48148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-5

Project: Salty Dog

Collection Date: 12/20/2017 10:50:00 AM

Lab ID: 1712D25-009

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	170	5.0		mg/L	10	12/30/2017 3:51:44 AM	A48148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-3

Project: Salty Dog

Collection Date: 12/20/2017 11:05:00 AM

Lab ID: 1712D25-010

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	42	5.0		mg/L	10	12/30/2017 4:16:33 AM	A48148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-1R

Project: Salty Dog

Collection Date: 12/20/2017 11:40:00 AM

Lab ID: 1712D25-011

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	190	50		mg/L	100	12/30/2017 4:53:47 AM	A48148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D25

Date Reported: 1/11/2018

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: PMW-1

Project: Salty Dog

Collection Date: 12/20/2017 12:10:00 PM

Lab ID: 1712D25-012

Matrix: AQUEOUS

Received Date: 12/21/2017 10:18:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	12000	500	*	mg/L	1E	12/30/2017 5:18:36 AM	A48148

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712D25

11-Jan-18

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID MB	SampType: mblk			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R48148			RunNo: 48148						
Prep Date:	Analysis Date: 12/29/2017			SeqNo: 1544631		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID LCS-b	SampType: lcs			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R48148			RunNo: 48148						
Prep Date:	Analysis Date: 12/29/2017			SeqNo: 1544634		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.4	90	110			

Sample ID MB	SampType: mblk			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: A48148			RunNo: 48148						
Prep Date:	Analysis Date: 12/30/2017			SeqNo: 1544693		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID LCS	SampType: lcs			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: A48148			RunNo: 48148						
Prep Date:	Analysis Date: 12/30/2017			SeqNo: 1544694		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	91.7	90	110			

Sample ID MB	SampType: mblk			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R48275			RunNo: 48275						
Prep Date:	Analysis Date: 1/6/2018			SeqNo: 1550433		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID LCS	SampType: lcs			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R48275			RunNo: 48275						
Prep Date:	Analysis Date: 1/6/2018			SeqNo: 1550434		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.9	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL Practical Quantitative Limit	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712D25

11-Jan-18

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	1712D25-004ADUP	SampType:	DUP	TestCode:	Specific Gravity						
Client ID:	Injection	Batch ID:	R48036	RunNo:	48036						
Prep Date:		Analysis Date:	12/27/2017	SeqNo:	1539533	Units:					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Specific Gravity	0.9988	0						0.170	20		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712D25

11-Jan-18

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB-35709		SampType:	MBLK		TestCode:	SM2540C MOD: Total Dissolved Solids				
Client ID:	PBW		Batch ID:	35709		RunNo:	48046				
Prep Date:	12/26/2017		Analysis Date:	12/27/2017		SeqNo:	1539713		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Total Dissolved Solids	ND	20.0									

Sample ID	LCS-35709		SampType:	LCS		TestCode:	SM2540C MOD: Total Dissolved Solids				
Client ID:	LCSW		Batch ID:	35709		RunNo:	48046				
Prep Date:	12/26/2017		Analysis Date:	12/27/2017		SeqNo:	1539714		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Total Dissolved Solids	1010	20.0	1000	0	101	80	120				

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: DBS

Work Order Number: 1712D25

RcptNo: 1

Received By: Sophia Campuzano 12/21/2017 10:18:00 AM

Completed By: Dennis Suazo 12/21/2017 2:27:14 PM

Reviewed By: SKL 12/21/17

Sophia Campuzano

Dennis Suazo

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log in

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 5.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.7	Good	Not Present			

Chain-of-Custody Record

Client: DBSA

Mailing Address: 6020 Academy RD NE
Suite 100

Phone #: 505-822-9400

email or Fax#: JAYARBE@DBSTEPHENS.COM

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: SALTY DOG

Project #: ES08-0118.16

Project Manager: J. Ayarbe

Sampler: M. Zborek

On Ice: ☒ Yes ☐ No

Sample Temperature: 5.7



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

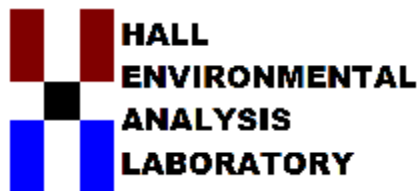
Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	<u>TDs, Spec grav, pH</u>	Air Bubbles (Y or N)
12.19.17	1415	GW	DBS-6	1 poly		001								X					
	1510		DBS-8			002								X					
	1545		MW-5			003								X					
	1635		Injection			004								X				X	
12.20.17	0900		MW-3			005								X					
	0935		DBS-9			006								X					
	1000		DBS-4			007								X					
	1035		DBS-2			008								X					
	1050		DBS-5			009								X					
	1105		DBS-3			010								X					
	1140		DBS-1R			011								X					
	1210		PMW-1			012								X					

Date: 12/21/17 Time: 1019 Relinquished by: [Signature]

Date: 12/21/17 Time: 1018 Received by: [Signature]

Remarks:



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 01, 2018

John Ayarbe

Daniel B. Stephens & Assoc.
6020 Academy NE Suite 100
Albuquerque, NM 87109
TEL:
FAX

RE: Salty Dog

OrderNo.: 1802942

Dear John Ayarbe:

Hall Environmental Analysis Laboratory received 1 sample(s) on 2/16/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1802942**

Date Reported: **3/1/2018**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: Brine

Project: Salty Dog

Collection Date: 2/15/2018 1:00:00 PM

Lab ID: 1802942-001

Matrix: AQUEOUS

Received Date: 2/16/2018 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	1.185		0		1	2/20/2018 12:44:00 PM	R49250
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	309000	2000	*D	mg/L	1	2/21/2018 7:01:00 PM	36630
SM4500-H+B: PH							Analyst: JRR
pH	7.16		H	pH units	1	2/19/2018 11:44:03 AM	R49228
EPA 6010B: TOTAL RECOVERABLE METALS							Analyst: MED
Sodium	59000	1000		mg/L	1E	2/23/2018 10:50:04 AM	36576

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1802942

02-Mar-18

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB-36576		SampType:	MBLK		TestCode:	EPA 6010B: Total Recoverable Metals				
Client ID:	PBW		Batch ID:	36576		RunNo:	49241				
Prep Date:	2/16/2018		Analysis Date:	2/20/2018		SeqNo:	1588828		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Sodium	ND	1.0									

Sample ID	LCS-36576		SampType: LCS		TestCode: EPA 6010B: Total Recoverable Metals					
Client ID:	LCSW		Batch ID: 36576		RunNo: 49241					
Prep Date:	2/16/2018		Analysis Date: 2/20/2018		SeqNo: 1588829		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	46	1.0	50.00	0	92.6	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1802942

02-Mar-18

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	1802942-001ADUP	SampType:	DUP	TestCode:	Specific Gravity						
Client ID:	Brine	Batch ID:	R49250	RunNo:	49250						
Prep Date:		Analysis Date:	2/20/2018	SeqNo:	1588971	Units:					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Specific Gravity	1.183	0						0.118	20		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1802942

02-Mar-18

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB-36630		SampType:	MBLK		TestCode:	SM2540C MOD: Total Dissolved Solids				
Client ID:	PBW		Batch ID:	36630		RunNo:	49297				
Prep Date:	2/20/2018		Analysis Date:	2/21/2018		SeqNo:	1590748		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Total Dissolved Solids	ND	20.0									

Sample ID	LCS-36630		SampType: LCS		TestCode: SM2540C MOD: Total Dissolved Solids					
Client ID:	LCSW		Batch ID: 36630		RunNo: 49297					
Prep Date:	2/20/2018		Analysis Date: 2/21/2018		SeqNo: 1590749		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	20.0	1000	0	101	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: DBS

Work Order Number: 1802942

RcptNo: 1

Received By: Sophia Campuzano 2/16/2018 9:30:00 AM

Completed By: Erin Melendrez 2/16/2018 11:23:26 AM

Reviewed By: see 02/16/18

labeled: MW 2/16/18

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐
of preserved bottles checked for pH: 1 (<2 or >12 unless noted)
Adjusted? no
Checked by: RE

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Client: DBSA

☐ Standard ☐ Rush

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

[illegible]

If necessary, samples submitted to Hall Environments may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly noted on the analytical report.

Appendix B

Field Notes



Daniel B. Stephens & Associates, Inc

GROUNDWATER ELEVATION DATA SHEET

Project Name Salty Dog Sampler M. Zbrozek
 Project # ES08.0118.06 Sample Date 12.19.2017
 Project Manager John Ayarbe Sheet # 1 of 1

Well ID	Depth to NAPL	Depth to Water	Total Depth	Comments: (well dia, sampled, condition)
DBS-1R	/	67.80	74.42	
DBS-2	/	70.42	75.35	
DBS-3	/	65.54	74.76	
DBS-4	/	71.08	78.81	
DBS-5	/	67.88	75.38	
DBS-6	/	66.29	76.02	
DBS-7	/	65.10		WL only
DBS-8	/	64.53	69.91	
DBS-9	/	67.67	67.55	
MW-3	/	65.70	147.13	
MW-4	/	65.80		WL only
MW-5	/	65.02	128.78	
MW-6	/	65.76		WL only
PMW-1	/	71.19	77.73	
NW-1	/			WL only

Comments:



GROUNDWATER MONITORING DATA SHEET

Project Name Salty Dog Sampler M Zbrozek
Project # ES08.0118.06 Sample Date: 12.20.2017
Project Manager John Ayarbe Sample Time: 1415

Well # DBS-6

Well Diameter: 2" (inches) Height of Water Column: 9.73 (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: 1.57 (gal)
Depth to Water: 66.29 (feet btoc) Purge Volume: 4.67 (gal)
Total Depth of Well: 76.02 (feet) Purge Method Grab

Note:

One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (μS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	6.72	18.4	924	122.7	9.38	-
1	6.93	18.9	1046	99.4	6.70	-
1.5	6.95	19.0	1079	90.3	5.83	
2	6.94	19.0	1101	87.3	5.80	
2.5	6.94	19.1	1123	88.8	5.82	
3	6.94	19.1	1133	81.3	5.84	
3.5						
4						
4.5						
5						

Sample Description 1 poly

Physical Observations

Analytical Method(s) Chloride



GROUNDWATER MONITORING DATA SHEET

Project Name Salty Dog Sampler M. Zbrozek
Project # ES08.0118.06 Sample Date: 12.20.2017
Project Manager: John Ayarbe Sample Time: 1510

Well # DBS-8

Well Diameter: 2" (inches) Height of Water Column: 5.38 (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: 0.86 (gal)
Depth to Water: 64.53 (feet btoc) Purge Volume: 2.58 (gal)
Total Depth of Well: 69.91 (feet) Purge Method Grab

Note:

One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	7.42	18.6	548.5	88.2	6.12	
1	7.27	20.0	549.6	85.3	6.09	
1.5	7.26	19.6	534.9	81.6	5.95	
2	7.26	19.6	533.0	82.2	5.96	
2.5	7.26	19.5	531.1	77.8	6.08	
3						
3.5						
4						
4.5						
5						

Sample Description 1 poly

Physical Observations. _____

Analytical Method(s): Chloride



Daniel B. Stephens & Associates, Inc.

GROUNDWATER MONITORING DATA SHEET

Project Name Salty Dog Sampler M. Zbrozek
Project # ES08.0118.06 Sample Date: 12.20.2017
Project Manager John Ayarbe Sample Time: 1545

Well # MW-5

Well Diameter: 2" (inches) Height of Water Column: 63.76 (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: 10.20 (gal)
Depth to Water: 65.02 (feet btoc) Purge Volume: 30.60 (gal)
Total Depth of Well: 128.78 (feet) Purge Method Grab

Note:

One casing volume (SCH 40 PVC): 2 0" ID casing = 0 16 gal/ft; 4 0" = 0 65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (μS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	<u>6.94</u>	<u>19.2</u>	<u>1866</u>	<u>115.3</u>	<u>3.61</u>	
1	<u>6.84</u>	<u>19.2</u>	<u>2758</u>	<u>92.7</u>	<u>3.54</u>	
1.5	<u>6.89</u>	<u>19.2</u>	<u>27.7</u>	<u>85.7</u>	<u>3.73</u>	
2	<u>6.87</u>	<u>19.2</u>	<u>2612</u>	<u>61.9</u>	<u>3.58</u>	
2.5	<u>6.91</u>	<u>19.2</u>	<u>2650</u>	<u>66.2</u>	<u>3.61</u>	
3	<u>6.91</u>	<u>19.2</u>	<u>2593</u>	<u>70.7</u>	<u>3.55</u>	
3.5						
4						
4.5						
5						

Sample Description 1 poly

Physical Observations

Analytical Method(s) Chloride



Daniel B. Stephens & Associates, Inc.

GROUNDWATER MONITORING DATA SHEET

Project Name Salty Dog Sampler M. Zbrozek
Project # ES08.0118.06 Sample Date 12.20.2017
Project Manager John Ayarbe Sample Time 0900

Well # MW-3

Well Diameter: 2" (inches) Height of Water Column: 81.43 (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: 13.02 (gal)
Depth to Water: 65.70 (feet btoc) Purge Volume: 39.08 (gal)
Total Depth of Well: 147.13 (feet) Purge Method: Grab

Note:

One casing volume (SCH 40 PVC). 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	<u>7.31</u>	<u>18.8</u>	<u>1552</u>	<u>116.9</u>	<u>5.49</u>	
1	<u>7.11</u>	<u>19.0</u>	<u>5147</u>	<u>103.2</u>	<u>4.38</u>	
1.5	<u>6.87</u>	<u>19.1</u>	<u>19686</u>	<u>93.0</u>	<u>2.88</u>	
2	<u>6.86</u>	<u>19.1</u>	<u>21744</u>	<u>83.3</u>	<u>2.85</u>	
2.5	<u>6.86</u>	<u>19.1</u>	<u>22166</u>	<u>78.3</u>	<u>2.83</u>	
3	<u>6.86</u>	<u>19.1</u>	<u>22248</u>	<u>77.8</u>	<u>2.61</u>	
3.5						
4						
4.5						
5						

Sample Description 1 poly

Physical Observations. _____

Analytical Method(s) Chloride



Daniel B. Stephens & Associates, Inc.

GROUNDWATER MONITORING DATA SHEET

Project Name Salty Dog Sampler M. Zbrozek
Project # ES08.0118.06 Sample Date: 12.20.2017
Project Manager John Ayarbe Sample Time: 0935

Well #: DBS-9

Well Diameter: 2" (inches) Height of Water Column: 9.88 (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: 1.58 (gal)
Depth to Water: 57.67 (feet btoc) Purge Volume: 4.74 (gal)
Total Depth of Well: 67.55 (feet) Purge Method Grab

Note:

One casing volume (SCH 40 PVC): 2 0" ID casing = 0.16 gal/ft; 4 0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	<u>7.35</u>	<u>18.0</u>	<u>1129</u>	<u>48.3</u>	<u>10.68</u>	
1	<u>7.28</u>	<u>18.1</u>	<u>1006</u>	<u>48.8</u>	<u>9.76</u>	
1.5	<u>7.23</u>	<u>18.2</u>	<u>1008</u>	<u>50.6</u>	<u>9.41</u>	
2	<u>7.21</u>	<u>18.2</u>	<u>936</u>	<u>51.7</u>	<u>9.15</u>	
2.5	<u>7.19</u>	<u>18.3</u>	<u>935</u>	<u>52.7</u>	<u>9.02</u>	
3	<u>7.15</u>	<u>18.3</u>	<u>935</u>	<u>54.5</u>	<u>8.05</u>	
3.5	<u>7.12</u>	<u>18.3</u>	<u>903</u>	<u>56.3</u>	<u>7.22</u>	
4						
4.5						
5						

Sample Description: 1 poly

Physical Observations

Analytical Method(s) Chloride



GROUNDWATER MONITORING DATA SHEET

Project Name Salty Dog Sampler M. Zbrozek
Project # ES08.0118.06 Sample Date: 12.20.2017
Project Manager John Ayarbe Sample Time: 1000

Well #: DBS-4

Well Diameter: 2" (inches) Height of Water Column: 7.73 (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: 1.24 (gal)
Depth to Water: 71.08 (feet btoc) Purge Volume: 3.71 (gal)
Total Depth of Well: 78.81 (feet) Purge Method Grab

Note:

One casing volume (SCH 40 PVC). 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	7.68	18.7	474.9	93.7	9.54	
1	7.49	18.9	472.8	89.6	9.16	
1.5	7.47	19.0	473.6	88.4	8.93	
2	7.46	19.0	474.8	86.2	8.27	
2.5	7.46	19.0	474.2	85.5	8.11	
3	7.46	19.0	474.5	85.4	7.45	
3.5						
4						
4.5						
5						

Sample Description 1 poly

Physical Observations

Analytical Method(s) Chloride



Daniel B. Stephens & Associates, Inc.

GROUNDWATER MONITORING DATA SHEET

Project Name: Salty Dog Sampler: M Zbrozek
Project #: ES08.0118.06 Sample Date: 12.20.2017
Project Manager: John Ayarbe Sample Time: 1035

Well #: DBS-2

Well Diameter: 2" (inches) Height of Water Column: 4.93 (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: 0.78 (gal)
Depth to Water: 70.42 (feet btoc) Purge Volume: 2.36 (gal)
Total Depth of Well: 75.35 (feet) Purge Method Grab

Note:

One casing volume (SCH 40 PVC). 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D O (mg/L)	Turbidity (NTU)
Initial	<u>7.60</u>	<u>18.2</u>	<u>461.7</u>	<u>113.6</u>	<u>6.37</u>	
1	<u>7.27</u>	<u>18.7</u>	<u>495.9</u>	<u>109.6</u>	<u>5.78</u>	
1.5	<u>7.25</u>	<u>18.9</u>	<u>495.4</u>	<u>106.2</u>	<u>7.89</u>	
2	<u>7.25</u>	<u>19.0</u>	<u>495.1</u>	<u>105.5</u>	<u>8.02</u>	
2.5	<u>7.25</u>	<u>19.1</u>	<u>495.2</u>	<u>102.3</u>	<u>7.90</u>	
3	<u>7.25</u>	<u>19.1</u>	<u>495.2</u>	<u>101.9</u>	<u>7.79</u>	
3.5						
4						
4.5						
5						

Sample Description 1 poly

Physical Observations

Analytical Method(s) Chloride



GROUNDWATER MONITORING DATA SHEET

Project Name Salty Dog Sampler M Zbrozek
Project # ES08.0118.06 Sample Date 12.20.2017
Project Manager John Ayarbe Sample Time: 1050

Well #: DBS-5

Well Diameter: 2" (inches) Height of Water Column: 7.5 (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: 1.2 (gal)
Depth to Water: 67.88 (feet btoc) Purge Volume: 3.6 (gal)
Total Depth of Well: 75.38 (feet) Purge Method Grab

Note:

One casing volume (SCH 40 PVC) 2 0" ID casing = 0.16 gal/ft; 4 0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	<u>6.89</u>	<u>18.4</u>	<u>1129</u>	<u>135.0</u>	<u>6.14</u>	
1	<u>6.85</u>	<u>19.2</u>	<u>1128</u>	<u>128.2</u>	<u>5.93</u>	
1.5	<u>6.85</u>	<u>19.2</u>	<u>1118</u>	<u>127.3</u>	<u>5.88</u>	
2	<u>6.86</u>	<u>19.2</u>	<u>1105</u>	<u>126.5</u>	<u>5.74</u>	
2.5	<u>6.87</u>	<u>19.3</u>	<u>1091</u>	<u>125.6</u>	<u>5.84</u>	
3	<u>6.88</u>	<u>19.3</u>	<u>1069</u>	<u>123.1</u>	<u>5.90</u>	
3.5						
4						
4.5						
5						

Sample Description 1 poly

Physical Observations

Analytical Method(s) Chloride



GROUNDWATER MONITORING DATA SHEET

Project Name Salty Dog Sampler M. Zbrozek
Project # ES08.0118.06 Sample Date: 12.20.2017
Project Manager John Ayarbe Sample Time: 1105

Well #: DBS-3

Well Diameter: 2" (inches) Height of Water Column: 9.22 (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: 1.48 (gal)
Depth to Water: 65.54 (feet btoc) Purge Volume: 4.43 (gal)
Total Depth of Well: 74.76 (feet) Purge Method: Grab

Note:

One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	<u>7.50</u>	<u>18.9</u>	<u>504.2</u>	<u>138.0</u>	<u>7.34</u>	
1	<u>7.34</u>	<u>19.1</u>	<u>504.9</u>	<u>128.8</u>	<u>6.94</u>	
1.5	<u>7.33</u>	<u>19.1</u>	<u>490.2</u>	<u>128.0</u>	<u>6.87</u>	
2	<u>7.33</u>	<u>19.1</u>	<u>480.1</u>	<u>127.2</u>	<u>6.94</u>	
2.5	<u>7.33</u>	<u>19.1</u>	<u>477.8</u>	<u>126.7</u>	<u>6.94</u>	
3	<u>7.32</u>	<u>19.2</u>	<u>480.4</u>	<u>124.5</u>	<u>6.97</u>	
3.5						
4						
4.5						
5						

Sample Description 1 poly

Physical Observations

Analytical Method(s) Chloride



Daniel B. Stephens & Associates, Inc.

GROUNDWATER MONITORING DATA SHEET

Project Name Salty Dog Sampler M. Zbrozek
Project # ES08.0118.06 Sample Date: 12.20.2017
Project Manager John Ayarbe Sample Time: 1140

Well # DBS-1R

Well Diameter: 2" (inches) Height of Water Column: 6.62 (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: 1.06 (gal)
Depth to Water: 67.80 (feet btoc) Purge Volume: 3.18 (gal)
Total Depth of Well: 74.42 (feet) Purge Method Grab

Note:

One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	<u>7.52</u>	<u>18.7</u>	<u>1030</u>	<u>145.8</u>	<u>8.10</u>	
1	<u>7.47</u>	<u>18.7</u>	<u>1069</u>	<u>143.3</u>	<u>7.52</u>	
1.5	<u>7.48</u>	<u>18.7</u>	<u>1070</u>	<u>142.1</u>	<u>7.46</u>	
2	<u>7.46</u>	<u>18.7</u>	<u>1067</u>	<u>141.3</u>	<u>7.03</u>	
2.5	<u>7.45</u>	<u>18.7</u>	<u>1055</u>	<u>140.1</u>	<u>7.03</u>	
3	<u>7.43</u>	<u>18.7</u>	<u>1053</u>	<u>139.5</u>	<u>7.04</u>	
3.5						
4						
4.5						
5						

Sample Description 1 poly

Physical Observations _____

Analytical Method(s) Chloride



Daniel B. Stephens & Associates, Inc.

GROUNDWATER MONITORING DATA SHEET

Project Name Salty Dog Sampler M Zbrozek
Project # ES08.0118.06 Sample Date 12.20.2017
Project Manager John Ayarbe Sample Time: 1210

Well # PMW-1

Well Diameter: 2" (inches) Height of Water Column: 6.54 (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: 1.05 (gal)
Depth to Water: 71.19 (feet btoc) Purge Volume: 3.14 (gal)
Total Depth of Well: 77.73 (feet) Purge Method Grab

Note:

One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	<u>7.10</u>	<u>19.2</u>	<u>40999</u>	<u>179.2</u>	<u>6.32</u>	<u>-</u>
1	<u>7.05</u>	<u>18.9</u>	<u>25527</u>	<u>167.6</u>	<u>6.80</u>	
1.5	<u>7.04</u>	<u>18.9</u>	<u>24441</u>	<u>163.6</u>	<u>6.71</u>	
2	<u>7.0</u>	<u>18.9</u>	<u>24505</u>	<u>163.0</u>	<u>6.63</u>	
2.5	<u>6.99</u>	<u>18.9</u>	<u>24729</u>	<u>161.0</u>	<u>6.54</u>	
3	<u>6.99</u>	<u>18.9</u>	<u>24891</u>	<u>160.2</u>	<u>6.52</u>	
3.5						
4						
4.5						
5						

Sample Description 1 poly

Physical Observations. _____

Analytical Method(s) Chloride

Chain-of-Custody Record

Client: DBSA

Mailing Address: 6020 Academy RD NE
Suite 100

Phone #: 505-822-7400

email or Fax#: JAYARBE@DBSTEPHENS

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: SALTY DOG

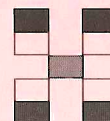
Project #: ES08-0113.16

Project Manager: J. Ayarbe

Sampler: M. Zwick

On Ice: ☒ Yes ☐ No

Sample Temperature: 5.7



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	TD ₅ Spec Grav, pH					Air Bubbles (Y or N)
							X									
							X									
							X									
							X				X					
							X									
							X									
							X									
							X									
							X									
							X									
							X									

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
12.17.17	1415	GW	DBS-6	12017		
	1510		DBS-8			
	1545		MW-5			
	1635		Injection			
12.20.17	0900		MW-3			
	0935		DBS-9			
	1000		DBS-4			
	1035		DBS-2			
	1050		DBS-5			
	1105		DBS-3			
	1140		DBS-1R			
	1210		PMW-1			

Date: 12/21/17 Time: 1019 Relinquished by: [Signature]

Date: _____ Time: _____ Relinquished by: _____

Received by: [Signature] Date: 12/21/17 Time: 1018

Received by: _____ Date: _____ Time: _____

Remarks:

12/19/17 Salty dog 2nd Semi M. Zborozek

1205 M. Zborozek onsite, survey and recon. No new development observed.

1226 Begin Gauging wells

# Well	DTW	TD	Notes
DBS-1R	67.80	74.42	
DBS-2	70.42	75.35	
DBS-3	65.54	74.76	
DBS-4	71.08	78.91	
DBS-5	67.88	75.38	
DBS-6	66.29 65.70	76.02	
DBS-7	65.10		
DBS-8	64.53	69.91	
DBS-9	57.67	67.55	New 3 plug
MW-3	65.70	147.13	
MW-4	65.80		
MW-5	65.02	128.78	
MW-6	65.76		
PMW-1	71.19	77.73	
MW-7			

1228 Meter reading FWS-1

32901.3 Barrels

2324 BPD Pumping

1320 Meter Reading RW2

756.7 BBI

0.0 BPD

not pumping

M. Zborozek Salty dog 2nd Semi 12.19.17

1320 New cage around well to prevent cattle from chewing wires.
RW-2

1336 Calibrate YSI

pH	4	pre 3.96	post 4.00	T°C 14.2°
	7	6.91	7.00	13.1°
	10	10.12	10.01	12.6°

SpC 1413 15.194/ps 141345/ps 12.9°

ORP 220mV 240.7 220mV 13.9°

DO mg/L 662 mnhg 8.12 9.76 13.4°

1349 set up at DBS-6 Sample @ 1415

1510 Sample DBS-4

1545 SAMPLE MW-5

1635 Sample Injection

~~1645 SAMPLE Bore~~ TAP Entry m-3

1700 SITE SECURE, M. Zborozek
OFFSITE

1. 12.20.17 2nd Semi M.76102ek

0800 M.76102ek continue GWM

0815 Set up at MW-3

0900 Sample at MW-3

0920 Metering reading at FW-2

24.8 B131

0 BPD New Fencing 4
Meter connected

0935 SAMPLE @ DBS-9

1000 Sample @ DBS-4

1035 Sample @ DBS-2

1050 Sample @ DBS-5

1105 Sample @ DBS-3

1140 Sample @ DBS-1R


1145 call to STANDARD OIL

No Brine, system OFFLINE
awaiting Diagnosis, precludes
brine sample

1210 Sample @ PMW-1

Deconn equipment, samples
on Ice site secure

1250 M.76102ek OFFSITE


12.20.17

Chavez, Carl J, EMNRD

From: McVey, Michael <mmcvey@dbstephens.com>
Sent: Monday, September 18, 2017 1:49 PM
To: Chavez, Carl J, EMNRD
Cc: susan@thestandardenergy.com; 'jim@thestandardenergy.com';
vincent@thestandardenergy.com; Ayarbe, John
Subject: First Semiannual 2017 GWM and O&M Report
Attachments: Salty Dog_1st Semiannual 2017_9-15-2017.pdf

Carl,

Attached is the first semiannual 2017 groundwater monitoring and O&M report for the Salty Dog brine facility. Please give me or John a call at (505) 822-9400 if you have any questions.

Thanks,

Michael D. McVey

Senior Hydrogeologist

Daniel B. Stephens & Associates, Inc.

Hydrology | Engineering | Geoscience

Providing solutions for water, natural resources, and the environment

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[Facebook](#) | [LinkedIn](#) | [YouTube](#) | [Google+](#)



September 15, 2017

Mr. Carl Chavez
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505-4225

Re: First Semiannual 2017 Groundwater Monitoring and O&M Report
Salty Dog Brine Station, Lea County, New Mexico

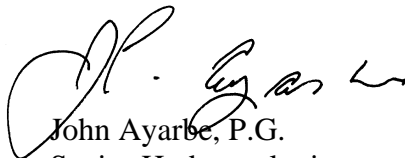
Dear Mr. Chavez:


On behalf of PAB Services, Inc., Daniel B. Stephens & Associates, Inc. (DBS&A) is pleased to submit the enclosed groundwater monitoring and operation and maintenance (O&M) report for the Salty Dog brine station located in Lea County, New Mexico. Groundwater monitoring and O&M activities were completed at the site on June 20 and 21, 2017.

Please do not hesitate to call us at (505) 822-9400 if you have any questions or require additional information.

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.


John Ayarce, P.G.
Senior Hydrogeologist


Michael D. McVey, P.G.
Senior Hydrogeologist

JA/MDM/rpf
Enclosure
cc: Pieter Bergstein, PAB Services, Inc.
Jim Sayre, Salty Dog, Inc.

Daniel B. Stephens & Associates, Inc.

6020 Academy NE, Suite 100 505-822-9400

Albuquerque, NM 87109 FAX 505-822-8877

First Semiannual 2017
Groundwater Monitoring and
O&M Report

Salty Dog Brine Station
Lea County, New Mexico

Prepared for

**New Mexico Energy, Minerals and
Natural Resources Department
Oil Conservation Division**

September 15, 2017



Daniel B. Stephens & Associates, Inc.

6020 Academy NE, Suite 100 • Albuquerque, New Mexico 87109



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June 2017



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First Semiannual 2017 Groundwater Monitoring and O&M Report Salty Dog Brine Station, Lea County, New Mexico

1. Introduction

Daniel B. Stephens & Associates, Inc. (DBS&A) has prepared this groundwater monitoring and operations and maintenance (O&M) report for submission to the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD) Environmental Bureau on behalf of PAB Services, Inc. (PAB) for the Salty Dog brine station (the site) located in Lea County, New Mexico (Figure 1). The report summarizes activities conducted at the site on June 20 and 21, 2017.

The site consists of a northern portion, where the brine pond was located prior to closure in October 2008, and a southern portion, where the brine well is located. The brine pond area and the brine well area are separated by approximately 2,500 feet, joined by a dirt road (Figure 1). Injection water for the brine well comes from two fresh water supply wells (FWS-1 and FWS-2) and remedial pumping at recovery wells in both the former brine pond area (RW-1) and brine well area (RW-2). Groundwater extraction at RW-1 is limited due to pumping from FWS-1. However, pumping at FWS-1 provides hydraulic containment and removal of chloride-impacted groundwater in the former brine pond area.

Brine that is produced for sale is stored at a tank battery on the southern boundary of the former brine pond area. The tank battery consists of six 750-barrel aboveground storage tanks (ASTs) surrounded by a berm. A concrete truck loading pad with two brine filling stations is located north of the tank battery. An operations shed is located adjacent to the loading pad to the west.

Six monitor wells (PMW-1, DBS-1R, and DBS-2 through DBS-5), one nested well (NW-1), one fresh water supply well (FWS-1), and one recovery well (RW-1) are located in the former brine pond area. Nine monitor wells (MW-2 through MW-6, DBS-6 through DBS-9), one nested well (NW-2), one fresh water supply well (FWS-2), and one recovery well (RW-2) are located in the brine well area (Figure 1).



DBS&A installed groundwater extraction systems at the site in early April 2012 to provide hydraulic containment and removal of chloride-impacted groundwater in the former brine pond and brine well areas. The extraction systems consist of submersible pumps, conveyance lines, electrical power, and controls to extract impacted groundwater from the recovery wells. Extracted groundwater is conveyed to the on-site ASTs for reinjection at the brine well.

2. Scope of Work

PAB services, Inc. began semiannual groundwater monitoring and system O&M in 2017. The scope of work for groundwater monitoring consisted of (1) measuring fluid levels in and collecting groundwater samples from 11 monitor wells, and (2) performing maintenance on the groundwater extraction systems, as necessary. Groundwater samples were submitted to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico for chloride analysis using U.S. Environmental Protection Agency (EPA) method 300.0. The monitor wells included in the quarterly sampling were selected in consultation with Jim Griswold on October 4, 2010; Mr. Griswold was the OCD Project Manager for the site at that time. The selected monitor wells are shown in Figures 2 through 5.

3. Monitoring Activities

3.1 Fluid Level Measurement

On June 20, 2017, DBS&A measured water levels in monitor wells DBS-1R, DBS-2 through DBS-5, and PMW-1 in the former brine pond area (Figure 2) and DBS-6, DBS-8, DBS-9, MW-3, and MW-5 in the brine well area (Figure 3) using a properly decontaminated electronic water level meter. Table 1 reports water level measurements and groundwater elevations.

During this monitoring event, the average depths to water beneath the former brine pond area and brine well area were 69.8 feet below ground surface (bgs) and 63.3 feet bgs, respectively. On average, water levels in the former brine pond area declined by approximately 1.51 feet since the last monitoring event in December 2016, while water levels in the brine well area increased by 0.04 foot.



Figures 2 and 3 present potentiometric surface maps for the former brine pond area and the brine well area, respectively. The direction of groundwater flow beneath the former brine pond area remains to the southeast at a gradient of approximately 0.009 foot per foot (ft/ft) (Figure 2), increasing from 0.005 ft/ft since the previous monitoring event. A broad cone of depression was observed in the vicinity of the fresh water supply well (FWS-1) due to continued pumping of the well. The direction of groundwater flow beneath the brine well area remains to the southeast at a gradient of approximately 0.004 ft/ft (Figure 3)—consistent with the previous monitoring event.

3.2 Groundwater Sampling

On June 20 and 21, 2017, groundwater samples were collected from monitor wells DBS-1R, DBS-2 through DBS-6, DBS-8, DBS-9, MW-3, MW-5, and PMW-1 following standard sampling procedures developed from EPA guidance. Before sampling, each well was purged of a minimum of three casing volumes using a submersible pump so that a representative groundwater sample was collected. While purging, DBS&A measured water quality field parameters consisting of temperature, specific conductance, and pH. Samples were collected once three casing volumes were purged. Sample containers were then filled, labeled, and placed in an ice-filled cooler. Groundwater samples were submitted under chain of custody to HEAL for chloride analysis.

Samples of the brine well injection water and the produced brine were also collected to meet requirements under discharge permit BW-8. Analytical results of these samples will be reported in the 2017 Annual Class III Well Report.

4. Analytical Results

Table 2 summarizes chloride analytical results for the 11 groundwater samples. Figures 4 and 5 show the distribution of chloride in groundwater beneath the former brine pond area and the brine well area, respectively. The laboratory report and chain of custody documentation are provided in Appendix A. Field notes recorded during groundwater monitoring activities are provided in Appendix B.



4.1 Former Brine Pond Area Wells

Since the last monitoring event in December 2016, minor to no changes in chloride concentrations were observed at monitor wells DBS-2 through DBS-5 (Table 2). DBS-1R and PMW-1 continue to exhibit chloride concentrations above the New Mexico Water Quality Control Commission (NMWQCC) standard of 250 milligrams per liter (mg/L) (Figure 4). The chloride concentration at DBS-1R decreased from 360 mg/L to 320 mg/L, while the concentration at PMW-1 increased from 8,300 mg/L to 13,000 mg/L.

The chloride plume in the former brine pond area remains bounded by the existing monitor well network (Figure 4). Pumping from PAB's fresh water supply well FSW-1 provides hydraulic containment of the chloride plume. The chloride concentration at downgradient monitor well DBS-4 remains below the NMWQCC standard, as do chloride concentrations at the two cross-gradient monitor wells, DBS-2 and DBS-3.

4.2 Brine Well Area Wells

Since the last monitoring event in December 2016, minor changes in chloride concentrations were observed at most of the monitor wells in the brine well area (Table 2). Monitor wells MW-3 (the well closest to extraction well RW-2) and MW-5 (the farthest downgradient well) continue to exhibit chloride concentrations above the NMWQCC standard (Figure 5). The chloride concentration at MW-3 decreased from 11,000 mg/L to 10,000 mg/L. The chloride concentration at MW-5 increased from 710 mg/L to 870 mg/L. The chloride concentration in monitor well DBS-6, which exceeded the NMWQCC standard during the last monitoring event, decreased from 300 mg/L to 240 mg/L.

During previous monitoring events, monitor well DBS-9 (an upgradient monitor well) has exhibited chloride concentrations above the NMWQCC standard; however, during this reporting period, the chloride concentration at DBS-9 was 200 mg/L, below the NMWQCC standard (Table 2). DBS-9 was installed in the playa located northeast of the brine well to help characterize groundwater impacts from documented releases in 2002 and 2005.



5. Groundwater Extraction System O&M

Remedial groundwater extraction in the former brine pond and brine well areas began in April 2012 by pumping from recovery wells RW-1 and RW-2. Extracted groundwater volumes at RW-1 and RW-2 are reported in Table 3.

Production from the fresh water supply well (FWS-1) also supports hydraulic containment and removal of chloride-impacted groundwater in the former brine pond area.

5.1 Former Brine Pond Area

Other than some brief shutdowns to address a few maintenance issues, the groundwater extraction system at RW-1 operated continually until approximately March 2015 (Table 3). Pumping from the nearby fresh water supply well (FWS-1) is inhibiting the effectiveness of RW-1 as an extraction well by lowering groundwater levels at this well. PAB attempted to set the pump at RW-1 to a deeper depth in the well so that pumping from RW-1 could continue, but the pump is already set near the bottom of the well. Although pumping from RW-1 has ceased, pumping at FWS-1 provides containment of the chloride plume in the former brine pond area. The average pumping rate at FWS-1 from December 2016 to June 2017 was approximately 32.7 gallons per minute (gpm).

Monitor wells DBS-1R and PMW-1 are the only wells that exhibit chloride concentrations above the NMWQCC standard. Pumping of the fresh water supply well is preventing the downgradient migration of the chloride groundwater plume. Although the chloride concentrations in wells DBS-1R and PMW-1 remain elevated, they have decreased from historical highs (Table 2) and are expected to continue to decrease through time with continued pumping at the fresh water supply well. The chloride concentration at downgradient monitor well DBS-4 is well below the NMWQCC standard.



5.2 Brine Well Area

The groundwater extraction system at RW-2 has been operated continually since April 6, 2012 with the exception of addressing a few maintenance issues. An estimated total of 22,059,396 gallons of chloride-impacted groundwater have been pumped from RW-2 (Table 3); this value reflects the total recorded at the meter on June 20, 2017 when the wires were found to have been chewed through by cattle. PAB staff is aware of the issue with cattle in the area and are working with DBS&A on a solution to prevent future damage to the meter wiring. Historical pumping of recovery well RW-2 at flow rates of 2.5 to 4.3 gpm produced little drawdown in the brine well area. However, after increasing the average pumping rate to 68 gpm after the second quarter 2015 monitoring event (Table 3), a cone of depression became evident, thereby improving hydraulic containment and removal of the chloride plume. DBS&A is working with PAB to optimize the pumping rate in the brine well area.

Due to damage of the RW-2 totalizer, the average pumping rate at RW-2 during this reporting period was estimated to be approximately 12.5 gpm based on PAB fresh water injection volumes. A cone of depression was not observed during this monitoring event (Figure 3); RW-2 was not pumping at the time water level measurements were recorded.

The chloride plume remains undefined downgradient and cross-gradient to the north of the recovery well (RW-2). Since April 2009, chloride concentrations in the northernmost cross-gradient well (DBS-6) have fluctuated between 240 and 410 mg/L. Since February 2008, chloride concentrations in the downgradient well (MW-5) have fluctuated between 710 and 1,500 mg/L. The chloride concentration in monitor well MW-3, the well closest to the extraction well (RW-2), decreased by almost half between September and December 2015, but has been showing a slight rebound since that time (Table 2).

5.3 Facility and System Maintenance

On June 13, 2016 the pump at RW-2 was damaged during a lightning storm. Operations manager Jim Sayre promptly replaced the pump on June 15, 2016. The pump at FWS-2, upgradient from RW-2 (Figure 1), was also damaged and subsequently replaced.



On June 20, 2017, DBS&A field staff discovered that the wire from the pump at RW-2 to the totalizer had been chewed through by cattle sometime between the fourth quarter 2016 monitoring event and the first semiannual 2017 monitoring event. The totalizer was not recording while the pump was active. DBS&A contacted the Salty Dog facility manager to inform him of the issue. DBS&A is working with Salty PAB to develop a solution to prevent future damage. DBS&A staff are working with PAB site management to replace the totalizer as soon as possible.

5.4 Future Extraction System Operation

Pumping of the fresh water supply well (FWS-1) has lowered groundwater levels at RW-1, precluding groundwater extraction at this well. Pumping of FWS-1 provides hydraulic containment and removal of the chloride plume. Future monitoring data will be used to evaluate the effectiveness of FWS-1 in providing hydraulic containment and removal of chloride-impacted groundwater in the former brine pond area.

Pumping of extraction well RW-2 will continue. Increased pumping at RW-2 in 2015 provided improved hydraulic containment and removal of the chloride plume in the brine well area; however, the average flow rates during pumping have been inconsistent and pumping has been irregular. OCD has indicated that greater hydraulic containment is required. DBS&A will work with PAB in 2017 to develop a plan for enhanced groundwater extraction in the brine well area to optimize hydraulic containment and removal of the chloride plume.

6. Recommendations

Based on the current groundwater monitoring results, site O&M activities, and discussions with OCD, DBS&A has the following recommendations:

- Continue groundwater extraction at FWS-1 to provide hydraulic containment and removal of the chloride plume in the former brine pond area.
- Work with PAB to optimize groundwater extraction at RW-2 to provide better hydraulic containment and removal of the chloride plume in the brine well area.

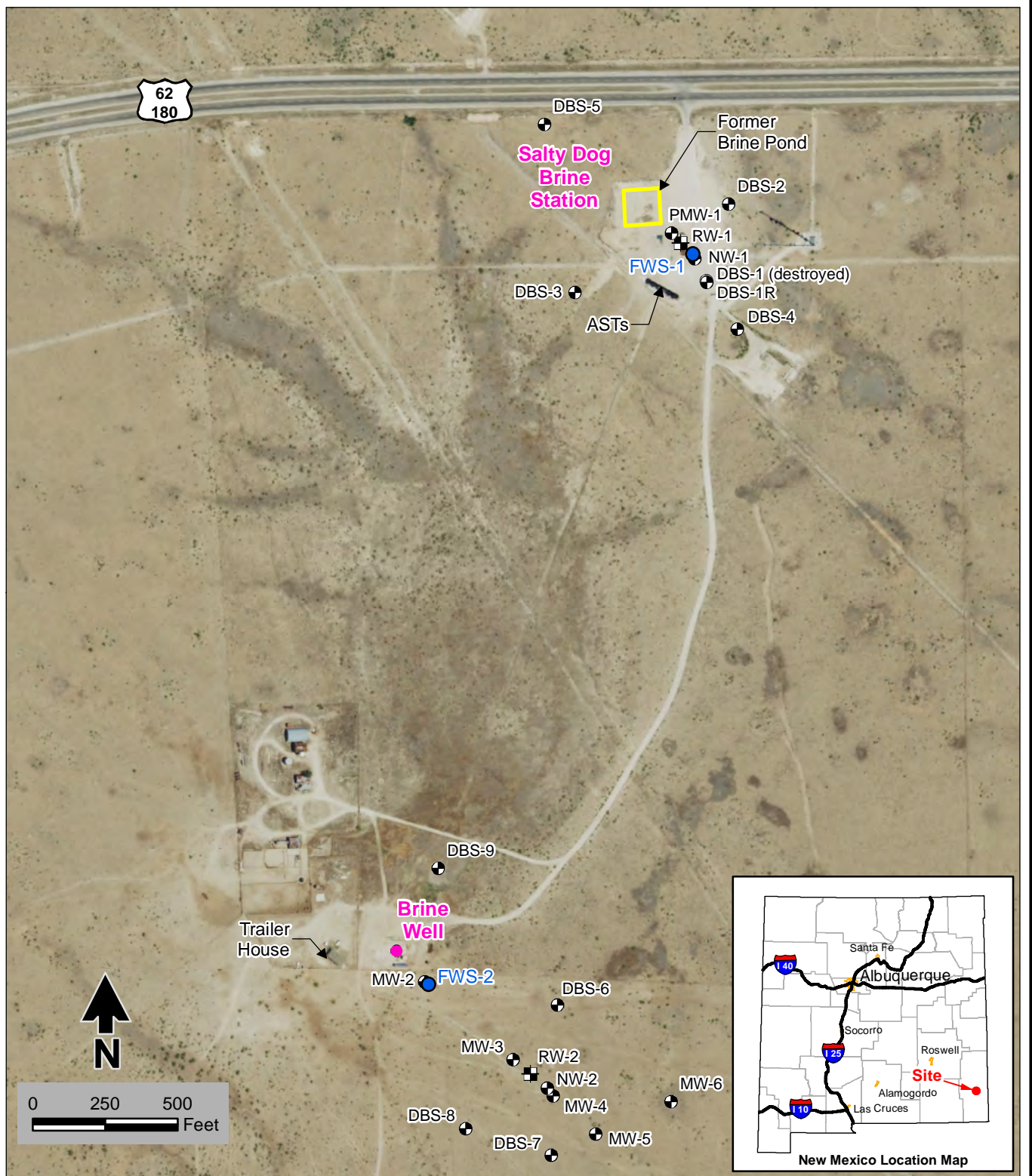


In addition, DBS&A and PAB will complete the following activities at the site in 2017 to meet OCD requests and requirements of DP BW-8:

- Conduct semiannual groundwater monitoring and O&M of the extraction systems at the site.
- Install one new downgradient monitor well approximately 300 feet southeast of MW-5 in the brine well area to determine the downgradient extent of chloride-impacted groundwater.
- Install survey monuments and establish a program to monitor for potential surface subsidence. Four survey monuments will be installed near the brine well. One survey monument will be placed about 50 feet from the brine well; the other three monuments will be placed about 200 feet from the brine well. The 2009 sonar survey identified a maximum radius of a solution cavern along an azimuth of 200 degrees. Two of the proposed survey monuments will be positioned along this direction. A fifth monument, consisting of a metal tab or steel plate, will be welded onto the brine wellhead.
- A baseline survey will be conducted after installation of the new monitor well and five survey monuments to establish elevations and x-y coordinates relative to state plane coordinates. The monuments will then be surveyed in conjunction with semiannual groundwater monitoring to monitor for potential subsidence.
- Prepare a 2017 Annual Class III Well report for submittal to OCD.

Figures

S:\PROJECTS\ES08.0118.01_SALTY_DOG_INCGIS\MXDS\REPORT\2017_20\FIG01_SITE_LOCATION_MAP.MXD



Explanation

- Fresh water supply well
- ⊕ Monitor well
- ⊞ Recovery well
- Well destroyed

Note: AST = Aboveground storage tank

Source: National Agriculture Imagery Program (NAIP), May 10, 2014



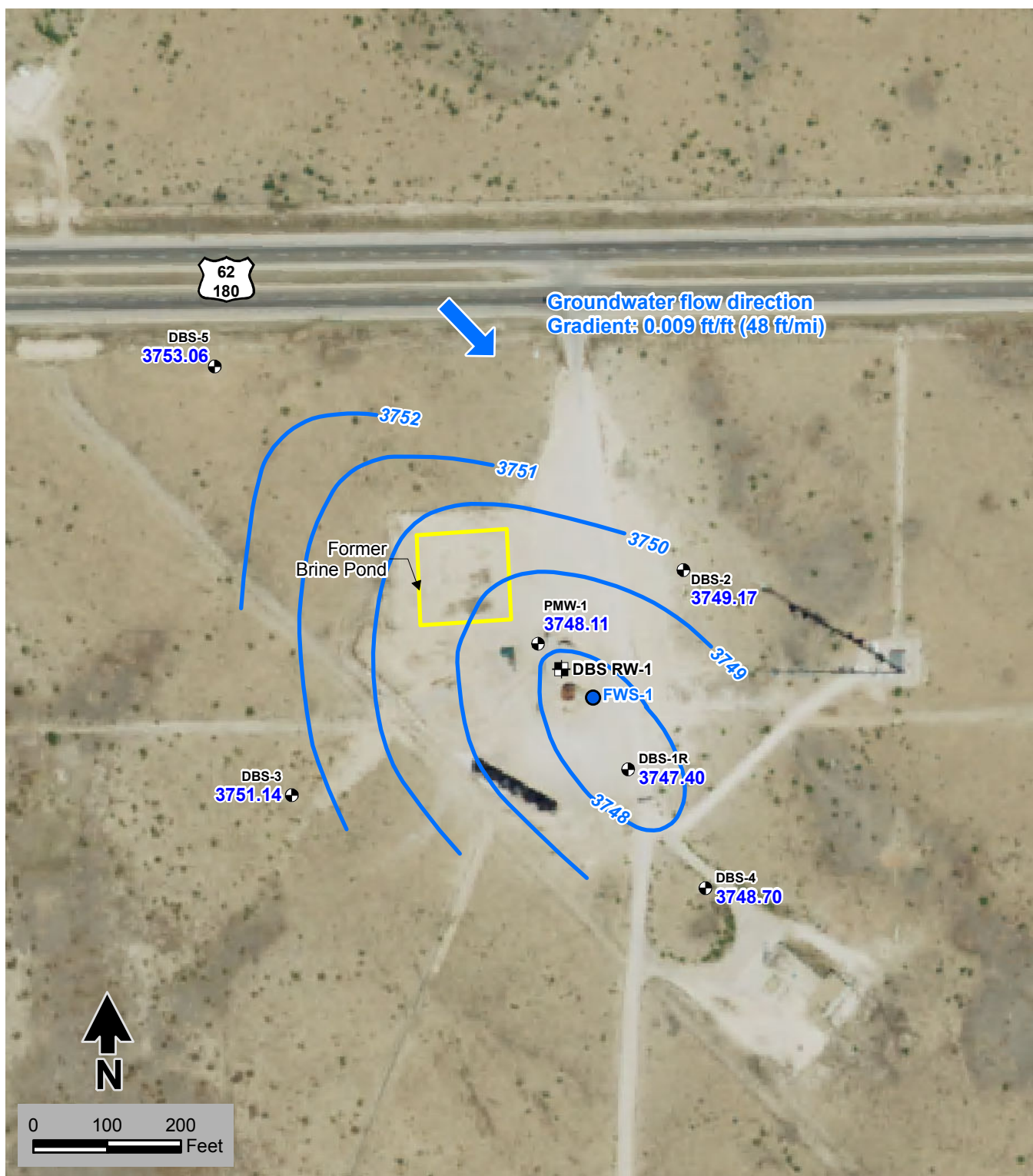
Daniel B. Stephens & Associates, Inc.
8/24/2017

JN ES08.0118.06

SALTY DOG BRINE STATION Site Location Map

Figure 1

S:\PROJECTS\ES08.0118.01_SALTY DOG_INC\GIS\MXDS\REPORT\2017_20FIG02_GWE_201706_BRINE_STATION.MXD



Source: National Agriculture Imagery Program (NAIP), May 10, 2014

Explanation

DBS-3 Well designation

3751.14 Groundwater elevation, ft msl

⊕ Monitor well

⊞ Recovery well

● Fresh water supply well

— Potentiometric surface elevation contour (ft msl),
dashed where inferred

➔ Groundwater flow direction



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9/13/2017

JN ES08.0118.06

SALTY DOG BRINE STATION
Former Brine Pond Area
Potentiometric Surface Elevations
June 2017

Figure 2



Source: National Agriculture Imagery Program (NAIP), May 10, 2014

Explanation

MW-5 Well designation

3745.34 Groundwater elevation, ft msl

⊕ Monitor well

⊞ Recovery well

● Fresh water supply well

— Potentiometric surface elevation contour (ft msl),
dashed where inferred

→ Groundwater flow direction

SALTY DOG BRINE STATION

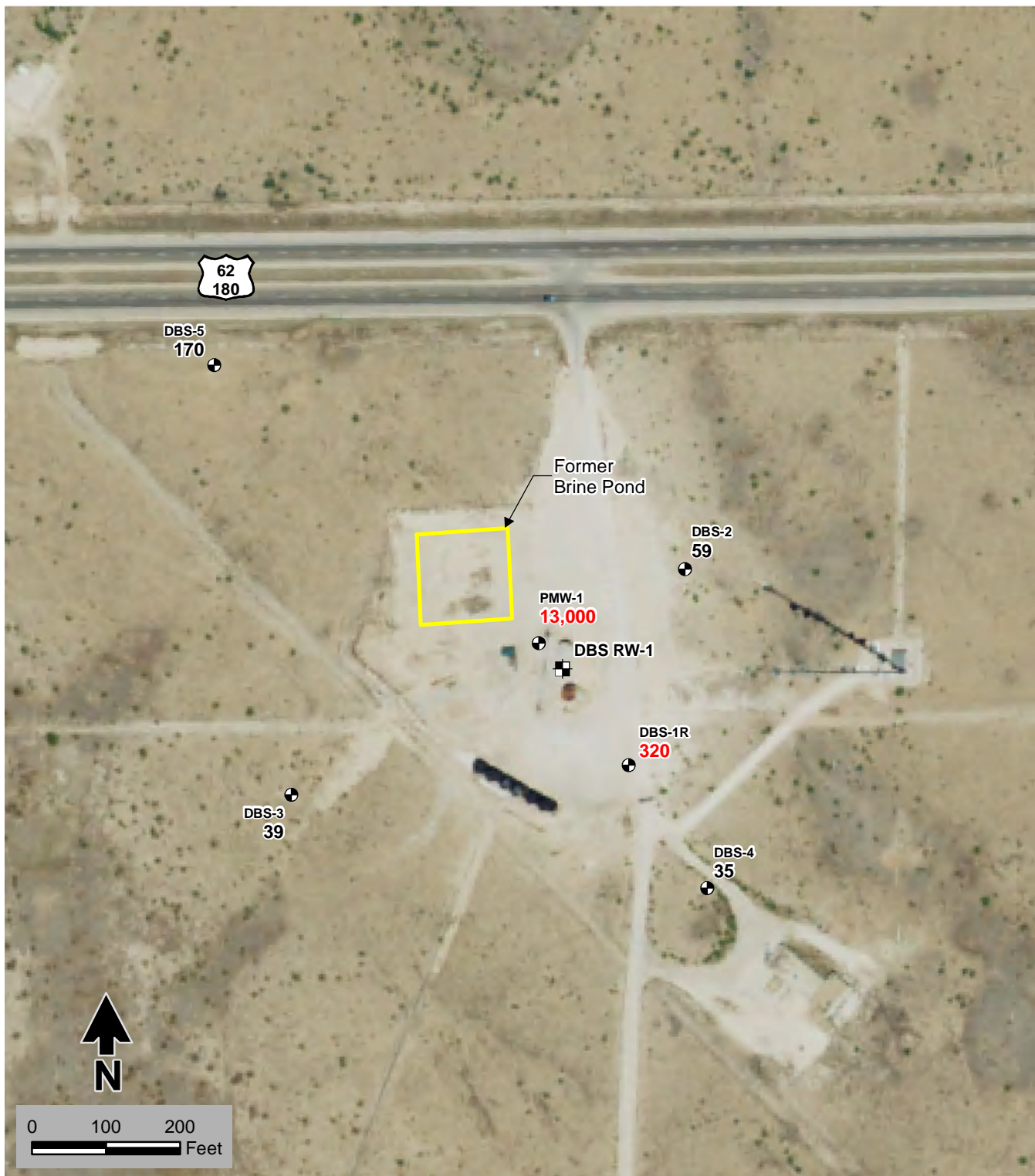
Playa Lake and Brine Well Area Potentiometric Surface Elevations June 2017



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Figure 3

S:\PROJECTS\ES08.0118.01_SALTY DOG_INC\GIS\MXDS\REPORT\2017_20FIG04_CL_GW_201706_BRINE_STATION.MXD



Source: National Agriculture Imagery Program (NAIP), May 10, 2014

Explanation

- DBS-5 Well designation
- 170 Chloride concentration (mg/L)
- ⊕ Monitor well
- ⊞ Recovery well

Red indicates concentration equal to or greater than the NMWQCC standard.



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SALTY DOG BRINE STATION Former Brine Pond Area Chloride Concentrations in Groundwater June 2017

Figure 4

S:\PROJECTS\ES08.0118.01_SALTY DOG_INC\GIS\MXDS\REPORT\2017_20\FIG05_CL_GW_201706_BRINE_WELL.MXD



Source: National Agriculture Imagery Program (NAIP), May 10, 2014

Explanation

- DBS-8 Well designation
- 33 Chloride concentration (mg/L)
- ⊕ Monitor well
- ⊞ Recovery well

Red indicates concentration equal to or greater than the NMWQCC standard.



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SALTY DOG BRINE STATION Playa Lake and Brine Well Area Chloride Concentrations in Groundwater June 2017

Figure 5

Tables



**Table 1. Historical Fluid Level Measurements
Salty Dog Brine Station, Lea County, New Mexico
Page 1 of 7**

Monitor Well	Screen Interval (ft bgs)	Top of Casing Elevation ^a (ft msl)	Date Measured	Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
DBS-1	56.0–76.0	3,817.09	4/08/2009	62.38	3,754.71
			5/11/2011	64.70	3,752.39
			10/04/2011	Well destroyed	
DBS-1R	58.0–78.0	3,817.00 ^b	4/30/2012	63.60	3,753.40
			9/10/2012	65.65	3,751.35
			6/23/2013	64.40	3,752.60
			1/09/2014	67.23	3,749.77
			4/07/2014	66.36	3,750.64
			3/20/2015	67.17	3,749.83
			7/01/2015	67.92	3,749.08
			9/29/2015	67.07	3,749.93
			12/16/2015	67.54	3,749.46
			3/22/2016	66.61	3,750.39
			6/08/2016	66.23	3,750.77
			9/13/2016	67.43	3,749.57
			12/01/2016	67.31	3,749.69
			6/20/2017	69.60	3,747.40
DBS-2	58.0–78.0	3,820.50	4/08/2009	65.45	3,755.05
			5/11/2011	66.80	3,753.70
			10/04/2011	65.87	3,754.63
			2/08/2012	65.96	3,754.54
			4/30/2012	66.26	3,754.24
			9/10/2012	67.45	3,753.05
			6/23/2013	67.03	3,753.47
			1/09/2014	69.08	3,751.42
			4/07/2014	68.67	3,751.83
			3/20/2015	69.32	3,751.18
			6/30/2015	69.29	3,751.21
			9/29/2015	69.41	3,751.09
			12/16/2015	69.71	3,750.79
			3/22/2016	69.13	3,751.37
			6/08/2016	68.91	3,751.59

^a Top of casing elevations surveyed by Pettigrew & Assoc. on May 28, 2009.

^b Top of casing elevation surveyed by Pettigrew & Assoc. on June 13, 2012.

ft bgs = Feet below ground surface
ft msl = Feet above mean sea level

ft btoc = Feet below top of casing
NA = Not available



**Table 1. Historical Fluid Level Measurements
Salty Dog Brine Station, Lea County, New Mexico
Page 2 of 7**

Monitor Well	Screen Interval (ft bgs)	Top of Casing Elevation ^a (ft msl)	Date Measured	Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
DBS-2 (cont.)	58.0–78.0	3,820.50	9/13/2016	69.76	3,750.74
			12/01/2016	69.73	3,750.77
			6/20/2017	71.33	3,749.17
DBS-3	56.0–76.72	3,816.66	4/08/2009	60.67	3,755.99
			5/11/2011	61.25	3,755.41
			10/04/2011	61.25	3,755.41
			2/08/2012	61.11	3,755.55
			4/30/2012	61.41	3,755.25
			9/10/2012	61.81	3,754.85
			6/23/2013	62.08	3,754.58
			1/09/2014	63.30	3,753.36
			4/07/2014	63.43	3,753.23
			3/20/2015	63.93	3,752.73
			6/30/2015	63.99	3,752.67
			9/29/2015	64.17	3,752.49
			12/16/2015	64.41	3,752.25
			3/22/2016	63.88	3,752.78
			6/08/2016	63.92	3,752.74
			9/13/2016	64.56	3,752.10
			12/01/2016	64.59	3,752.07
			6/20/2017	65.52	3,751.14
DBS-4	56.0–76.0	3,820.37	4/08/2009	66.27	3,754.10
			5/11/2011	67.23	3,753.14
			10/04/2011	66.67	3,753.70
			2/08/2012	66.76	3,753.61
			4/30/2012	67.02	3,753.35
			9/10/2012	67.78	3,752.59
			6/23/2013	67.70	3,752.67
			1/09/2014	69.37	3,751.00
			4/07/2014	69.23	3,751.14
			3/20/2015	69.81	3,750.56
			6/30/2015	69.85	3,750.52

^a Top of casing elevations surveyed by Pettigrew & Assoc. on May 28, 2009.

^b Top of casing elevation surveyed by Pettigrew & Assoc. on June 13, 2012.

ft bgs = Feet below ground surface
ft msl = Feet above mean sea level

ft btoc = Feet below top of casing
NA = Not available



**Table 1. Historical Fluid Level Measurements
Salty Dog Brine Station, Lea County, New Mexico
Page 3 of 7**

Monitor Well	Screen Interval (ft bgs)	Top of Casing Elevation ^a (ft msl)	Date Measured	Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
DBS-4 (cont.)	56.0–76.0	3,820.37	9/29/2015	70.00	3,750.37
			12/16/2015	70.25	3,750.12
			3/22/2016	69.74	3,750.63
			6/08/2016	69.62	3,750.75
			9/13/2016	70.35	3,750.02
			12/01/2016	70.38	3,749.99
			6/20/2017	71.67	3,748.70
DBS-5	56.9–76.9	3,820.66	4/08/2009	62.99	3,757.67
			5/11/2011	63.45	3,757.21
			10/04/2011	63.41	3,757.25
			2/08/2012	63.46	3,757.20
			4/30/2012	63.70	3,756.96
			9/10/2012	63.92	3,756.74
			6/23/2013	64.30	3,756.36
			1/09/2014	65.28	3,755.38
			4/07/2014	65.48	3,755.18
			3/20/2015	65.9	3,754.76
			7/01/2015	66.18	3,754.48
			9/29/2015	66.25	3,754.41
			12/16/2015	66.47	3,754.19
			3/22/2016	66.08	3,754.58
			6/08/2016	66.16	3,754.50
			9/13/2016	66.64	3,754.02
			12/01/2016	66.72	3,753.94
			6/20/2017	67.60	3,753.06
DBS-6	56.7–76.7	3,812.65	4/07/2009	62.75	3,749.90
			5/11/2011	63.11	3,749.54
			10/04/2011	63.16	3,749.49
			2/08/2012	63.20	3,749.45
			4/30/2012	63.43	3,749.22
			9/10/2012	63.60	3,749.05

^a Top of casing elevations surveyed by Pettigrew & Assoc. on May 28, 2009.

^b Top of casing elevation surveyed by Pettigrew & Assoc. on June 13, 2012.

ft bgs = Feet below ground surface

ft btoc = Feet below top of casing

ft msl = Feet above mean sea level

NA = Not available



**Table 1. Historical Fluid Level Measurements
Salty Dog Brine Station, Lea County, New Mexico
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Monitor Well	Screen Interval (ft bgs)	Top of Casing Elevation ^a (ft msl)	Date Measured	Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
DBS-6 (cont.)	56.7–76.7	3,812.65	6/23/2013	63.74	3,748.91
			1/09/2014	64.00	3,748.65
			4/07/2014	64.22	3,748.43
			3/19/2015	64.78	3,747.87
			7/01/2015	64.81	3,747.84
			9/29/2015	65.48	3,747.17
			12/16/2015	65.26	3,747.39
			3/22/2016	65.38	3,747.27
			6/08/2016	65.37	3,747.28
			9/13/2016	65.51	3,747.14
			12/01/2016	65.51	3,747.14
			6/20/2017	65.81	3,746.84
DBS-7	55.1–75.1	3,810.21	4/07/2009	61.74	3,748.47
DBS-8	55.2–75.2	3,810.70	4/07/2009	61.20	3,749.50
			5/11/2011	61.67	3,749.03
			10/04/2011	61.71	3,748.99
			2/08/2012	61.77	3,748.93
			4/30/2012	62.00	3,748.70
			9/10/2012	62.15	3,748.55
			6/23/2013	62.28	3,748.42
			1/09/2014	62.47	3,748.23
			4/07/2014	62.67	3,748.03
			3/19/2015	63.19	3,747.51
			6/30/2015	63.25	3,747.45
			9/29/2015	63.82	3,746.88
			12/16/2015	63.58	3,747.12
			3/22/2016	63.76	3,746.94
			6/08/2016	63.72	3,746.98
			9/13/2016	63.83	3,746.87
			12/01/2016	63.79	3,746.91
			6/20/2017	64.09	3,746.61

^a Top of casing elevations surveyed by Pettigrew & Assoc. on May 28, 2009.

^b Top of casing elevation surveyed by Pettigrew & Assoc. on June 13, 2012.

ft bgs = Feet below ground surface

ft btoc = Feet below top of casing

ft msl = Feet above mean sea level

NA = Not available



**Table 1. Historical Fluid Level Measurements
Salty Dog Brine Station, Lea County, New Mexico
Page 5 of 7**

Monitor Well	Screen Interval (ft bgs)	Top of Casing Elevation ^a (ft msl)	Date Measured	Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
DBS-9	48.0–68.0	3,806.26	4/08/2009	53.93	3,752.33
			5/11/2011	54.39	3,751.87
			10/04/2011	54.59	3,751.67
			2/08/2012	54.53	3,751.73
			4/30/2012	54.68	3,751.58
			9/10/2012	54.77	3,751.49
			6/23/2013	55.04	3,751.22
			1/09/2014	55.27	3,750.99
			4/07/2014	55.56	3,750.70
			3/19/2015	55.95	3,750.31
			7/01/2015	56.14	3,750.12
			9/29/2015	56.49	3,749.77
			12/16/2015	56.52	3,749.74
			3/22/2016	56.51	3,749.75
			6/08/2016	56.64	3,749.62
			9/13/2016	56.81	3,749.45
			12/01/2016	56.88	3,749.38
			6/20/2017	57.28	3,748.98
NW-1s	52.95–72.95	3,817.33	4/08/2009	62.35	3,754.98
NW-1m	99.31–119.31	3,817.35	4/08/2009	62.25	3,755.10
NW-1d	149.45–169.45	3,817.35	4/08/2009	62.04	3,755.31
NW-2s	53.35–73.35	3,812.50	4/08/2009	63.08	3,749.42
NW-2m	93.72–113.72	3,812.45	4/08/2009	63.27	3,749.18
NW-2d	126.87–146.87	3,812.46	4/08/2009	66.41	3,746.05
PMW-1	63–78	3,821.17	6/23/2008	67.51	3,753.66
			4/08/2009	65.97	3,755.20
			5/11/2011	68.70	3,752.47
			10/04/2011	66.95	3,754.22
			2/08/2012	66.69	3,754.48
			4/30/2012	67.27	3,753.90
			9/10/2012	69.77	3,751.40

^a Top of casing elevations surveyed by Pettigrew & Assoc. on May 28, 2009.

^b Top of casing elevation surveyed by Pettigrew & Assoc. on June 13, 2012.

ft bgs = Feet below ground surface
ft msl = Feet above mean sea level

ft btoc = Feet below top of casing
NA = Not available



**Table 1. Historical Fluid Level Measurements
Salty Dog Brine Station, Lea County, New Mexico
Page 6 of 7**

Monitor Well	Screen Interval (ft bgs)	Top of Casing Elevation ^a (ft msl)	Date Measured	Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
PMW-1 (cont.)	63–78	3,821.17	6/23/2013	68.40	3,752.77
			1/09/2014	71.24	3,749.93
			4/07/2014	69.97	3,751.20
			3/20/2015	70.78	3,750.39
			7/01/2015	71.41	3,749.76
			9/29/2015	70.76	3,750.41
			12/16/2015	71.03	3,750.14
			3/22/2016	70.30	3,750.87
			6/08/2016	69.65	3,751.52
			9/13/2016	71.08	3,750.09
			12/01/2016	70.97	3,750.20
			6/20/2017	73.06	3,748.11
MW-1	120–140	NA	6/23/2008	59.90	NA
MW-2	127–147	3,812.68	6/23/2008	61.42	3,751.26
			4/07/2009	61.65	3,751.03
MW-3	NA	3,812.05	6/23/2008	62.06	3,749.99
			4/07/2009	62.02	3,750.03
			5/11/2011	62.91	3,749.14
			10/04/2011	62.91	3,749.14
			2/08/2012	62.95	3,749.10
			4/30/2012	63.39	3,748.66
			9/10/2012	63.50	3,748.55
			6/23/2013	63.36	3,748.69
			1/09/2014	63.55	3,748.50
			4/07/2014	63.88	3,748.17
			3/19/2015	64.27	3,747.78
			7/01/2015	64.34	3,747.71
			9/29/2015	67.94	3,744.11
			12/16/2015	64.75	3,747.30
			3/22/2016	64.84	3,747.21
			6/08/2016	64.89	3,747.16

^a Top of casing elevations surveyed by Pettigrew & Assoc. on May 28, 2009.

^b Top of casing elevation surveyed by Pettigrew & Assoc. on June 13, 2012.

ft bgs = Feet below ground surface
ft msl = Feet above mean sea level

ft btoc = Feet below top of casing
NA = Not available



**Table 1. Historical Fluid Level Measurements
Salty Dog Brine Station, Lea County, New Mexico
Page 7 of 7**

Monitor Well	Screen Interval (ft bgs)	Top of Casing Elevation ^a (ft msl)	Date Measured	Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
MW-3 (cont.)	NA	3,812.05	9/13/2016	66.33	3,745.72
			12/01/2016	66.66	3,745.39
			6/20/2017	65.56	3,746.49
MW-4	111–131	3,811.33	6/23/2008	62.12	3,749.21
			4/07/2009	62.51	3,748.82
MW-5	112–132	3,808.96	6/23/2008	60.60	3,748.36
			4/07/2009	60.79	3,748.17
			5/11/2011	61.17	3,747.79
			10/04/2011	61.72	3,747.24
			2/08/2012	61.23	3,747.73
			4/30/2012	61.50	3,747.46
			9/10/2012	61.65	3,747.31
			6/23/2013	61.75	3,747.21
			1/09/2014	61.90	3,747.06
			4/07/2014	62.18	3,746.78
			3/19/2015	62.96	3,746.00
			6/30/2015	62.71	3,746.25
			9/29/2015	63.92	3,745.04
			12/16/2015	63.02	3,745.94
			3/22/2016	63.14	3,745.82
			6/08/2016	63.47	3,745.49
			9/13/2016	63.66	3,745.30
			12/01/2016	63.70	3,745.26
			6/21/2017	63.62	3,745.34
MW-6	NA	3,810.17	6/23/2008	62.17	3,748.00
			4/07/2009	62.41	3,747.76

^a Top of casing elevations surveyed by Pettigrew & Assoc. on May 28, 2009.

^b Top of casing elevation surveyed by Pettigrew & Assoc. on June 13, 2012.

ft bgs = Feet below ground surface

ft btoc = Feet below top of casing

ft msl = Feet above mean sea level

NA = Not available



**Table 2. Chloride Groundwater Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 1 of 8**

Monitor Well	Date	Chloride Concentration (mg/L) ^a
<i>NMWQCC Standard</i>		<i>250</i>
DBS-1	4/08/2009	320
	5/12/2011	940
	10/04/2011	Well destroyed
DBS-1R	5/01/2012	3,000
	9/11/2012	3,200
	6/25/2013	3,300
	1/10/2014	1,000
	4/08/2014	1,700
	3/20/2015	1,200
	7/01/2015	860
	9/30/2015	670
	12/17/2015	760
	3/23/2016	560
	6/09/2016	570
	09/14/2016	360
	12/01/2016	360
	6/20/2017	320
DBS-2	4/08/2009	14
	5/12/2011	25
	10/05/2011	18
	2/09/2012	22
	5/01/2012	24
	9/11/2012	44
	6/25/2013	36
	1/10/2014	45
	4/08/2014	22
	3/20/2015	29
	6/30/2015	28
	9/30/2015	40
	12/17/2015	35
	3/23/2016	46

Bold indicates that value exceeds the applicable standard.

^a All samples analyzed using EPA method 300.0, unless otherwise noted.

^b Samples analyzed using Standard Method 4500-Cl B.

mg/L = Milligrams per liter



**Table 2. Chloride Groundwater Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 2 of 8**

Monitor Well	Date	Chloride Concentration (mg/L) ^a
<i>NMWQCC Standard</i>		<i>250</i>
DBS-2 (cont.)	6/09/2016	41
	9/14/2016	41
	12/02/2016	53
	6/20/2017	59
DBS-3	4/08/2009	36
	5/12/2011	35
	10/05/2011	34
	2/09/2012	34
	5/01/2012	33
	9/11/2012	34
	6/24/2013	32
	1/10/2014	34
	4/08/2014	32
	3/20/2015	35
	6/30/2015	35
	9/30/2015	34
	12/17/2015	34
	3/23/2016	36
	6/09/2016	35
	9/14/2016	37
	12/02/2016	37
	6/20/2017	39
DBS-4	4/08/2009	38
	5/12/2011	33
	10/05/2011	32
	2/09/2012	32
	5/01/2012	31
	9/11/2012	32
	6/25/2013	31
	1/10/2014	32
	4/08/2014	30

Bold indicates that value exceeds the applicable standard.

^a All samples analyzed using EPA method 300.0, unless otherwise noted.

^b Samples analyzed using Standard Method 4500-Cl B.

mg/L = Milligrams per liter



**Table 2. Chloride Groundwater Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 3 of 8**

Monitor Well	Date	Chloride Concentration (mg/L) ^a
<i>NMWQCC Standard</i>		<i>250</i>
DBS-4 (cont.)	3/20/2015	33
	6/30/2015	31
	9/30/2015	33
	12/17/2015	35
	3/23/2016	38
	6/09/2016	35
	9/14/2016	37
	12/02/2016	41
	6/20/2017	35
DBS-5	4/08/2009	65
	5/12/2011	140
	10/05/2011	140
	2/09/2012	140
	4/30/2012	150
	9/11/2012	160
	6/24/2013	160
	1/10/2014	180
	4/08/2014	160
	3/20/2015	140
	7/01/2015	140
	9/30/2015	150
	12/17/2015	160
	3/23/2016	150
	6/09/2016	150
	9/14/2016	170
	12/02/2016	170
	6/20/2017	170
DBS-6	4/07/2009	380
	5/12/2011	410
	10/05/2011	400
	2/09/2012	380

Bold indicates that value exceeds the applicable standard.

^a All samples analyzed using EPA method 300.0, unless otherwise noted.

^b Samples analyzed using Standard Method 4500-Cl B.

mg/L = Milligrams per liter



**Table 2. Chloride Groundwater Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 4 of 8**

Monitor Well	Date	Chloride Concentration (mg/L) ^a
<i>NMWQCC Standard</i>		<i>250</i>
DBS-6 (cont.)	4/30/2012	400
	9/11/2012	390
	6/24/2013	340
	1/10/2014	390
	4/07/2014	400
	3/19/2015	370
	7/01/2015	360
	9/30/2015	370
	12/17/2015	380
	3/23/2016	310
	6/09/2016	300
	9/14/2016	290
	12/02/2016	300
	6/21/2017	240
DBS-7	4/07/2008	570
DBS-8	4/07/2009	58
	5/12/2011	36
	10/05/2011	140
	2/09/2012	41
	4/30/2012	41
	9/10/2012	42
	6/24/2013	45
	1/09/2014	38
	4/07/2014	36
	3/19/2015	36
	7/01/2015	34
	9/30/2015	35
	12/17/2015	33
	3/23/2016	35
	6/09/2016	34
	9/14/2016	34

Bold indicates that value exceeds the applicable standard.

^a All samples analyzed using EPA method 300.0, unless otherwise noted.

^b Samples analyzed using Standard Method 4500-Cl B.

mg/L = Milligrams per liter



**Table 2. Chloride Groundwater Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 5 of 8**

Monitor Well	Date	Chloride Concentration (mg/L) ^a
<i>NMWQCC Standard</i>		<i>250</i>
DBS-8 (cont.)	12/02/2016	33
	6/21/2017	33
DBS-9	4/08/2009	210
	5/12/2011	600
	10/05/2011	440
	2/09/2012	290
	4/30/2012	330
	9/11/2012	320
	6/24/2013	200
	1/10/2014	170
	4/07/2014	220
	3/19/2015	260
	7/01/2015	210
	9/30/2015	260
	12/17/2015	230
	3/23/2016	200
	6/09/2016	190
	9/14/2016	190
	12/02/2016	180
	6/21/2017	200
NW-1s	4/08/2009	630
NW-1m	4/08/2009	57
NW-1d	4/08/2009	38
NW-2s	4/08/2009	410
NW-2m	4/08/2009	570
NW-2d	4/08/2009	4,700
PMW-1	2/27/2008	9,500^b
	5/30/2008	8,600^b
	6/23/2008	12,700
	4/08/2009	11,000
	5/12/2011	13,000

Bold indicates that value exceeds the applicable standard.

^a All samples analyzed using EPA method 300.0, unless otherwise noted.

^b Samples analyzed using Standard Method 4500-Cl B.

mg/L = Milligrams per liter



**Table 2. Chloride Groundwater Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 6 of 8**

Monitor Well	Date	Chloride Concentration (mg/L) ^a
<i>NMWQCC Standard</i>		<i>250</i>
PMW-1 (cont.)	10/05/2011	12,000
	2/09/2012	12,000
	5/01/2012	12,000
	9/11/2012	14,000
	6/25/2013	14,000
	1/10/2014	11,000
	4/08/2014	12,000
	3/20/2015	8,500
	7/01/2015	8,600
	9/30/2015	9,700
	12/17/2015	9,800
	3/23/2016	8,200
	6/09/2016	8,500
	9/14/2016	9,300
	12/01/2016	8,300
	6/20/2017	13,000
MW-1	5/30/2008	75 ^b
	6/23/2008	243
MW-2	2/27/2008	120 ^b
	5/30/2008	80 ^b
	6/23/2008	1,480
	4/07/2009	1,200
MW-3	2/27/2008	348^b
	5/30/2008	360^b
	6/23/2008	1,090
	4/07/2009	17,000
	5/12/2011	16,000
	10/05/2011	14,000
	2/09/2012	15,000
	4/30/2012	14,000
	9/10/2012	16,000

Bold indicates that value exceeds the applicable standard.

^a All samples analyzed using EPA method 300.0, unless otherwise noted.

^b Samples analyzed using Standard Method 4500-Cl B.

mg/L = Milligrams per liter



**Table 2. Chloride Groundwater Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 7 of 8**

Monitor Well	Date	Chloride Concentration (mg/L) ^a
<i>NMWQCC Standard</i>		<i>250</i>
MW-3 (cont.)	6/24/2013	12,000
	1/10/2014	10,000
	4/07/2014	12,000
	3/19/2015	9,700
	7/01/2015	10,000
	9/30/2015	9,600
	12/17/2015	5,100
	3/23/2016	8,200
	6/09/2016	9,400
	9/14/2016	9,100
	12/02/2016	11,000
	6/21/2017	10,000
MW-4	2/27/2008	476 ^b
	5/30/2008	512 ^b
	6/23/2008	5,730
	4/07/2009	6,600
MW-5	2/27/2008	1,280 ^b
	5/30/2008	1,220 ^b
	6/23/2008	1,260
	4/07/2009	1,300
	5/12/2011	1,500
	10/05/2011	1,500
	2/09/2012	1,500
	4/30/2012	1,400
	9/10/2012	1,500
	6/24/2013	1,300
	1/10/2014	1,300
	4/07/2014	1,300
	3/19/2015	1,200
	7/01/2015	1,200
	9/30/2015	1,000

Bold indicates that value exceeds the applicable standard.

^a All samples analyzed using EPA method 300.0, unless otherwise noted.

^b Samples analyzed using Standard Method 4500-Cl B.

mg/L = Milligrams per liter



**Table 2. Chloride Groundwater Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 8 of 8**

Monitor Well	Date	Chloride Concentration (mg/L) ^a
<i>NMWQCC Standard</i>		<i>250</i>
MW-5 (cont.)	12/17/2015	1,000
	3/23/2016	980
	6/09/2016	970
	9/14/2016	1,000
	12/02/2016	710
	6/21/2017	870
MW-6	2/27/2008	32 ^b
	5/30/2008	36 ^b
	6/23/2008	31.4
	4/07/2009	25
Ranch Headquarters Supply Well	6/23/2008	35.4
Brine Station Fresh Water Supply Well	2/27/2008	630 ^b
	5/30/2008	590 ^b
	6/23/2008	650

Bold indicates that value exceeds the applicable standard.

^a All samples analyzed using EPA method 300.0, unless otherwise noted.

^b Samples analyzed using Standard Method 4500-Cl B.

mg/L = Milligrams per liter



**Table 3. Cumulative Extracted Groundwater Volumes
Salty Dog Brine Station, Lea County, New Mexico**

Recovery Well	Date	Days of Operation	Average Flow Rate (gpm)	Extracted Volume (gallons)
RW-1	4/07/2012	Groundwater extraction started		
	5/01/2012	24	2.1	73,740
	9/11/2012	154	2.9	636,237
	6/25/2013	441	4.1	2,599,392
	11/15/2013 ^a	585	3.6	3,060,181
	3/20/2015	1,075	2.4	3,668,511
	6/30/2015 ^b	1,167	—	3,668,511
	9/30/2015	1,259	—	3,668,511
FWS-1	12/17/2015	—	—	1,232,787
	3/22/2016	359	12.8	3,011,469
	6/08/2016	437	33.9	6,818,179
	9/13/2016	534	5.4	7,578,404
	12/02/2016	614	39.7	12,149,596
	6/20/2017	814	32.7	21,571,233
RW-2	4/06/2012	Groundwater extraction started		
	5/01/2012	25	2.5	91,450
	9/11/2012	158	4.3	963,789
	12/14/2012 ^c	252	3.9	1,406,748
	6/25/2013 ^d	—	—	—
	9/21/2013 ^e	335	2.9	1,407,005
	9/30/2015 ^f	1,074	68 ^f	7,313,515
	12/17/2015	1,152	44	12,266,210
	3/22/2016	1,248	32	16,657,635
	6/08/2016	1,326	9.0	17,661,576
	9/13/2016	1,423	5.7	18,453,822
	12/01/2016 ^b	—	—	18,453,447
	6/20/2017 ^g	—	—	18,461,096

^a Pump went down in RW-1 on approximately November 15, 2013.

^b Meter appears to not be functioning correctly, but the pumping well is functioning.

^c Pump in RW-2 went down on December 14, 2012 due to a blown inner shaft motor seal.

^d New pump installed in RW-2 and started on June 25, 2013.

^e Meter and pump were removed from RW-2 on approximately September 21, 2013 by facility manager to install a new, larger-capacity pump.

^f Meter reinstalled and pumping increased after the June 30 and July 1, 2015 monitoring event; flowrate assumes 60 days of operation (August 1 through September 30, 2015) based on personal communication with Jim Sayre (PAB).

^g Meter was inoperable at time of sampling on 6/20/17; wires chewed through by cattle.

gpm = Gallons per minute

Appendix A

**Laboratory Analytical
Report**



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 17, 2017

John Ayarbe

Daniel B. Stephens & Assoc.
6020 Academy NE Suite 100
Albuquerque, NM 87109
TEL: (505) 822-9400
FAX (505) 822-8877

RE: Salty Dog

OrderNo.: 1706B95

Dear John Ayarbe:

Hall Environmental Analysis Laboratory received 13 sample(s) on 6/21/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: PMW-1

Project: Salty Dog

Collection Date: 6/20/2017 2:30:00 PM

Lab ID: 1706B95-001

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	13000	500	*	mg/L	1E	7/3/2017 7:36:52 PM	R43998

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-1R

Project: Salty Dog

Collection Date: 6/20/2017 3:17:00 PM

Lab ID: 1706B95-002

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	320	50	*	mg/L	100	6/29/2017 1:02:14 PM	R43888

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-2

Project: Salty Dog

Collection Date: 6/20/2017 3:50:00 PM

Lab ID: 1706B95-003

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	59	5.0		mg/L	10	6/29/2017 1:14:38 PM	R43888

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-4

Project: Salty Dog

Collection Date: 6/20/2017 4:15:00 PM

Lab ID: 1706B95-004

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	35	5.0		mg/L	10	6/29/2017 1:39:27 PM	R43888

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-5

Project: Salty Dog

Collection Date: 6/20/2017 4:50:00 PM

Lab ID: 1706B95-005

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: MRA	
Chloride	170	5.0		mg/L	10	6/29/2017 2:04:17 PM	R43888

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-3

Project: Salty Dog

Collection Date: 6/20/2017 5:15:00 PM

Lab ID: 1706B95-006

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	39	5.0		mg/L	10	6/29/2017 2:53:56 PM	R43888

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-9

Project: Salty Dog

Collection Date: 6/21/2017 7:40:00 AM

Lab ID: 1706B95-007

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	200	50		mg/L	100	6/29/2017 3:31:10 PM	R43888

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-6

Project: Salty Dog

Collection Date: 6/21/2017 8:10:00 AM

Lab ID: 1706B95-008

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	240	50		mg/L	100	6/29/2017 3:55:59 PM	R43888

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-8

Project: Salty Dog

Collection Date: 6/21/2017 9:05:00 AM

Lab ID: 1706B95-009

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: MRA	
Chloride	33	5.0		mg/L	10	6/29/2017 4:08:23 PM	R43888

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: MW-3

Project: Salty Dog

Collection Date: 6/21/2017 10:55:00 AM

Lab ID: 1706B95-010

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	10000	500	*	mg/L	1E	7/3/2017 7:49:16 PM	R43998

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: MW-5

Project: Salty Dog

Collection Date: 6/21/2017 10:15:00 AM

Lab ID: 1706B95-011

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	870	50	*	mg/L	100	6/29/2017 6:00:04 PM	R43888

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: **7/17/2017**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: Injection

Project: Salty Dog

Collection Date: 6/21/2017 11:20:00 AM

Lab ID: 1706B95-012

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	0.9944		0		1	6/28/2017 1:27:00 PM	R43862
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	270	50	*	mg/L	100	6/29/2017 6:24:54 PM	R43888
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	773	20.0	*	mg/L	1	6/25/2017 1:47:00 PM	32462
SM4500-H+B: PH							Analyst: JRR
pH	7.93		H	pH units	1	6/27/2017 1:13:43 PM	R43848

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1706B95**

Date Reported: 7/17/2017

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: Brine

Project: Salty Dog

Collection Date: 6/21/2017 11:15:00 AM

Lab ID: 1706B95-013

Matrix: AQUEOUS

Received Date: 6/21/2017 4:29:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	1.200		0		1	6/28/2017 1:27:00 PM	R43862
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	180000	10000	*	mg/L	2E	6/29/2017 6:49:43 PM	R43888
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	324000	2000	*D	mg/L	1	6/25/2017 1:47:00 PM	32462
SM4500-H+B: PH							Analyst: JRR
pH	7.57		H	pH units	1	6/27/2017 1:18:06 PM	R43848
EPA METHOD 200.7: METALS							Analyst: pmf
Sodium	100000	2000		mg/L	2E	7/5/2017 5:41:32 PM	A44011

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706B95

17-Jul-17

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB-A		SampType: MBLK		TestCode: EPA Method 200.7: Metals					
Client ID:	PBW		Batch ID: A44011		RunNo: 44011					
Prep Date:			Analysis Date: 7/5/2017		SeqNo: 1387942		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID	LCSLL-A		SampType: LCSLL		TestCode: EPA Method 200.7: Metals					
Client ID:	BatchQC		Batch ID: A44011		RunNo: 44011					
Prep Date:			Analysis Date: 7/5/2017		SeqNo: 1387943		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0	0.5000	0	98.2	50	150			

Sample ID	LCS-A		SampType: LCS		TestCode: EPA Method 200.7: Metals					
Client ID:	LCSW		Batch ID: A44011		RunNo: 44011					
Prep Date:			Analysis Date: 7/5/2017		SeqNo: 1387944		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	49	1.0	50.00	0	97.0	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706B95

17-Jul-17

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R43888	RunNo:	43888					
Prep Date:		Analysis Date:	6/29/2017	SeqNo:	1383528	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R43888	RunNo:	43888					
Prep Date:		Analysis Date:	6/29/2017	SeqNo:	1383529	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.9	90	110			

Sample ID	MB	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R43998	RunNo:	43998					
Prep Date:		Analysis Date:	7/3/2017	SeqNo:	1387038	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R43998	RunNo:	43998					
Prep Date:		Analysis Date:	7/3/2017	SeqNo:	1387039	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	95.8	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1706B95****17-Jul-17****Client:** Daniel B. Stephens & Assoc.**Project:** Salty Dog

Sample ID	1706B95-012ADUP	SampType:	DUP	TestCode:	Specific Gravity					
Client ID:	Injection	Batch ID:	R43862	RunNo:	43862					
Prep Date:		Analysis Date:	6/28/2017	SeqNo:	1382491	Units:				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Specific Gravity	0.9947	0						0.0302	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706B95

17-Jul-17

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB-32462	SampType:	MBLK	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	PBW	Batch ID:	32462	RunNo:	43772					
Prep Date:	6/23/2017	Analysis Date:	6/25/2017	SeqNo:	1378753	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	LCS-32462	SampType:	LCS	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	LCSW	Batch ID:	32462	RunNo:	43772					
Prep Date:	6/23/2017	Analysis Date:	6/25/2017	SeqNo:	1378754	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	987	20.0	1000	0	98.7	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: DBS

Work Order Number: 1706B95

RcptNo: 1

Received By: Erin Melendrez

6/21/2017 4:29:00 PM

UM

Completed By: Erin Melendrez

6/22/2017 8:33:59 AM

UM

Reviewed By:

AS

6/22/17

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐
- # of preserved bottles checked for pH: 1
(<2 or >12 unless noted)
Adjusted? NO
Checked by: Re

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.8	Good	Not Present			

Chain-of-Custody Record

Client: DBS & A

Mailing Address: 6020 Academy RD NE
Suite 100

Phone #: _____

email or Fax#: JAYARBE@DBSTEPHENS.COM

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

SALTY DOG

Project #:

ES08.0118.06

Project Manager:

J. AYARBE

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.8



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride	TVS, Specific Gravity, pH	Na Sodium	Air Bubbles (Y or N)
6.20.17	1430	GW	PMW-1	1 Poly	none	-001															
6.20.17	1517		PM DBS-1R			-002															
6.20.17	1550		DBS-2			-003															
6.20.17	1615		DBS-4			-004															
6.20.17	1650		DBS-5			-005															
6.20.17	1715		DBS-3			-006															
6.21.17	0740		DBS-9			-007															
6.21.17	0810		DBS-6			-008															
6.21.17	0905		DBS-8			-009															
6.21.17	1055		MW-3			-010															
6.21.17	1015		MW-5			-011															
6.21.17	1120		INJECTION			-012															
6.21.17	1115		BRINE	2 Poly	None/HW	-013															

Date: 6.21.17 Time: 1639 Relinquished by: [Signature] Received by: [Signature] Date: 6/21/17 Time: 1629

Date: _____ Time: _____ Relinquished by: _____ Received by: _____ Date: _____ Time: _____

Remarks:

Appendix B

Field Notes

6.20.17 M. Zbrozek 1st Semi-Annual
 1200 M. Zbrozek Onsite for semi-annual
 sampling.
 Weather ~ 95° light humidity
 Calm.

1205 Recon, no apparent development
 near sight

1210 Begin Tagging WL

WELLID	DTW	TD	Notes
DBS-1R	69.60	74.42	
DBS-2	71.33	75.35	
DBS-3	65.52	74.76	
DBS-4	71.67	78.82	
DBS-5	67.60	75.38	
DBS-6	65.81	76.02	
DBS-8	64.09	69.91	
DBS-9	57.28	67.55	-NEEDS J-Plug
MW-3	65.56	147.13	
MW-5	63.62	128.78	Hornets ^{measured} 6.21.17
PMW-1	73.06	77.73	

1220 - LARGE Hornets nest observed
 @ MW-5 - LEFT CAP OPEN, will
 Return 6.21.17 to gauge.

1225 Photos @ Recovery well RW-2
 Totalizer = 406055.8 bbl
 0.0 BBL/Day → cont.

... cont. - Pushed clear on totalizer
 status not pumping, wiring in
 discharge Totalizer is not connected to
 pump.

See photos

1235 Return to gauging wells.

1250 Photos @ MW-2 pump
 Totalizer on ground, wires chewed
 619.2 hole 0.0 bbl/day.
 Status locked.

1255 Visit Brine Well

Status pumping - Totalizer
 116069.1 bbl

Rate between 273 - 306 bbl/day
 ~ 400 psi See photos

1302 Gauge wells DBS-9

1330 FWS-1 Totalizer.
 24324.7 bbl Pumping
 2907 BPD See photos

1335 Gauge PMW-1

CALIBRATE YSI

pH	10	10.01	Temp °C	36.3°C
	4	4.00		36.8°C
	7	6.98		36.8°C

SpC	1413 _{ppm}	1413	Temp °C	37.1°C
-----	---------------------	------	---------	--------

ORR difficult calibration 210mV

6.20.17

M. Zbrozek

- 1430 SAMPLE FROM PMW-1
1517 SAMPLE FROM DBS-1R
1550 SAMPLE FROM DBS-2
1615 SAMPLE FROM DBS-4
1650 SAMPLE FROM DBS-5
1715 SAMPLE FROM DBS-3
-

1730 Packing, secure site
M. Zbrozek OFFSITE

~~MZ~~
6.20.17

6.21.17

1st Semi-Annual Sampling M. Zbrozek
0645 M. Zbrozek onsite to complete samples
of Brine Well area

Weather ~80° Clear

- 0705 Set up @ DBS-9
0740 SAMPLE OF DBS-9
0810 SAMPLE OF DBS-6
0905 SAMPLE OF DBS-8
1015 SAMPLE AT MW-5
1055 SAMPLE AT MW-3
1115 SAMPLE AT Brine Well
1120 SAMPLE AT Injection
-

1110 Take From standard oil onsite
to remove broken Totalizers

1132 SITE SECURE, M. Zbrozek
OFFSITE all samples on Ice
for transport To Hall Environmental

~~MZ~~
6.21.17



Daniel B. Stephens & Associates, Inc.

GROUNDWATER ELEVATION DATA SHEET

Project Name: Salty Dog Sampler: M. Zbrozek
 Project #: ES08.0118.06 Sample Date: 06.20.2017
 Project Manager: John Ayarbe Sheet # 1 of 1

Well ID	Depth to NAPL	Depth to Water	Total Depth	Comments: (well dia., sampled, condition)
DBS-1R		69.60	74.42	
DBS-2		71.33	75.35	
DBS-3		65.52	74.76	
DBS-4		71.67	78.82	
DBS-5		67.60	75.38	
DBS-6		65.81	76.02	
DBS-7		64.09 ^{NM}	6	WL only
DBS-8		64.09	69.91	
DBS-9		57.28	67.55	Replace J-plug
MW-3		65.56	147.13	
MW-4		NM		WL only
MW-5		63.62	128.78	Hornets measured 6.21.17
MW-6		NM		WL only
PMW-1		73.06	77.73	
NW-1		NM		WL only

Comments:



GROUNDWATER MONITORING DATA SHEET

Project Name: Salty Dog Sampler: M. Zbrozek
Project #: ES08.0118.06 Sample Date: 06.21.2017
Project Manager: John Ayarbe Sample Time: 20 1430

Well #: PMW-1

Well Diameter: 2" (inches) Height of Water Column: 4.67 (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: 0.747 (gal)
Depth to Water: 73.06 (feet btoc) Purge Volume: 2.24 (gal)
Total Depth of Well: 77.73 (feet) Purge Method: Grab

Note:

One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (μS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	<u>6.24</u>	<u>25.3</u>	<u>25305</u>	<u>-229.4</u>	<u>7.57</u>	<u>Hazy</u>
1	<u>6.67</u>	<u>22.1</u>	<u>25224</u>	<u>-264.3</u>	<u>5.46</u>	
1.5	<u>6.68</u>	<u>21.0</u>	<u>37266</u>	<u>-259.6</u>	<u>5.73</u>	
2	<u>6.26</u>	<u>21.4</u>	<u>25767</u>	<u>-270.7</u>	<u>6.30</u>	<u>Hazy</u>
2.5	<u>~~~~~</u>					
3	<u>6.79</u>	<u>21.0</u>	<u>25660</u>	<u>-274.6</u>	<u>5.92</u>	
3.5						
4						
4.5						
5						

Sample Description: 1 poly

Physical Observations: Hazy slight sulfur odor

Analytical Method(s): Chloride



Daniel B. Stephens & Associates, Inc.

GROUNDWATER MONITORING DATA SHEET

Project Name: Salty Dog Sampler: M. Zbrozek
Project #: ES08.0118.06 Sample Date: 06.21.2017
Project Manager: John Ayarbe Sample Time: 1517

Well #: DBS-1R

Well Diameter: 2" (inches) Height of Water Column: -4.82 (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: 0.77 (gal)
Depth to Water: 69.60 (feet btoc) Purge Volume: 2.31 (gal)
Total Depth of Well: 74.42 (feet) Purge Method: Grab

Note:

One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	<u>7.67</u>	<u>19.6</u>	<u>1092</u>	<u>-221.2</u>	<u>8.54</u>	<u>Hazy</u>
1	<u>7.50</u>	<u>19.3</u>	<u>961</u>	<u>-226.5</u>	<u>8.01</u>	
1.5	<u>7.48</u>	<u>19.2</u>	<u>1070</u>	<u>-225.7</u>	<u>7.86</u>	
2	<u>7.44</u>	<u>19.1</u>	<u>1032</u>	<u>-224.1</u>	<u>7.86</u>	
2.5	<u>7.40</u>	<u>19.1</u>	<u>1114</u>	<u>-222.5</u>	<u>7.91</u>	
3	<u>7.38</u>	<u>19.1</u>	<u>1067</u>	<u>-220.1</u>	<u>7.94</u>	
3.5						
4						
4.5						
5						

Sample Description: 1 poly

Physical Observations: Hazy

Analytical Method(s): Chloride



Daniel B. Stephens & Associates, Inc.

GROUNDWATER MONITORING DATA SHEET

Project Name: Salty Dog Sampler: M. Zbrozek
Project #: ES08.0118.06 Sample Date: 06.21.2017
Project Manager: John Ayarbe Sample Time: 20 1550

Well #: DBS-2

Well Diameter: 2" (inches) Height of Water Column: 4.02 (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: 0.64 (gal)
Depth to Water: 71.33 (feet btoc) Purge Volume: 1.93 (gal)
Total Depth of Well: 75.35 (feet) Purge Method: Grab

Note:

One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	<u>7.24</u>	<u>20.2</u>	<u>610</u>	<u>-189.4</u>	<u>6.52</u>	<u>Hazy</u>
1	<u>7.23</u>	<u>20.1</u>	<u>602</u>	<u>-183.5</u>	<u>6.40</u>	
1.5						
2	<u>7.21</u>	<u>20.1</u>	<u>597</u>	<u>-176.3</u>	<u>6.19</u>	<u>Hazy</u>
2.5	<u>7.17</u>	<u>20.0</u>	<u>583</u>	<u>-176.4</u>	<u>6.06</u>	
3	<u>7.16</u>	<u>20.0</u>	<u>582</u>	<u>-175.0</u>	<u>6.11</u>	
3.5						
4						
4.5						
5						

Sample Description: 1 poly

Physical Observations: _____

Analytical Method(s): Chloride



GROUNDWATER MONITORING DATA SHEET

Project Name: Salty Dog Sampler: M. Zbrozek
Project #: ES08.0118.06 Sample Date: 06.21.2017
Project Manager: John Ayarbe Sample Time: 12:15

Well #: DBS-4

Well Diameter: 2" (inches) Height of Water Column: 7.15 (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: 1.14 (gal)
Depth to Water: 71.67 (feet btoc) Purge Volume: 3.43 (gal)
Total Depth of Well: 78.82 (feet) Purge Method: Grab

Note:

One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	<u>6.97</u>	<u>25.2</u>	<u>498.3</u>	<u>-196.4</u>	<u>8.31</u>	<u>Hazy Brown</u>
1	<u>7.12</u>	<u>20.3</u>	<u>490.3</u>	<u>-203.5</u>	<u>8.16</u>	
1.5	<u>7.20</u>	<u>19.6</u>	<u>486.8</u>	<u>-204.0</u>	<u>7.84</u>	<u>Hazy Tan</u>
2	<u>7.21</u>	<u>19.6</u>	<u>479.6</u>	<u>-203.2</u>	<u>7.83</u>	
2.5	<u>7.21</u>	<u>19.5</u>	<u>477.3</u>	<u>-201.7</u>	<u>7.75</u>	
3	<u>7.22</u>	<u>19.5</u>	<u>475.8</u>	<u>-197.4</u>	<u>7.69</u>	
3.5						
4						
4.5						
5						

Sample Description: 1 poly

Physical Observations: _____

Analytical Method(s): Chloride



GROUNDWATER MONITORING DATA SHEET

Project Name: Salty Dog Sampler: M. Zbrozek
Project #: ES08.0118.06 Sample Date: 06.21.2017
Project Manager: John Ayarbe Sample Time: 20 1650

Well #: DBS-5

Well Diameter: 2" (inches) Height of Water Column: 7.78 (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: 1.24 (gal)
Depth to Water: 67.60 (feet btoc) Purge Volume: 3.73 (gal)
Total Depth of Well: 75.38 (feet) Purge Method: Grab

Note:

One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	<u>6.71</u>	<u>24.3</u>	<u>1111</u>	<u>-202.1</u>	<u>6.63</u>	<u>Hazy Tan</u>
1	<u>6.71</u>	<u>20.7</u>	<u>1082</u>	<u>-211.9</u>	<u>6.53</u>	
1.5	<u>6.71</u>	<u>20.1</u>	<u>1083</u>	<u>-211.4</u>	<u>6.28</u>	<u>Hazy</u>
2	<u>6.71</u>	<u>20.0</u>	<u>1072</u>	<u>-211.5</u>	<u>6.27</u>	
2.5	<u>6.71</u>	<u>19.9</u>	<u>1063</u>	<u>-212.9</u>	<u>6.22</u>	<u>Hazy</u>
3	<u>6.72</u>	<u>19.9</u>	<u>1060</u>	<u>-213.1</u>	<u>6.21</u>	
3.5						
4						
4.5						
5						

Sample Description: 1 poly

Physical Observations: Hazy

Analytical Method(s): Chloride



GROUNDWATER MONITORING DATA SHEET

Project Name: Salty Dog Sampler: M. Zbrozek
Project #: ES08.0118.06 Sample Date: 06.21.2017
Project Manager: John Ayarbe Sample Time: 1715²⁰

Well #: DBS-3

Well Diameter: 2" (inches) Height of Water Column: 9.24 (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: 1.48 (gal)
Depth to Water: 65.52 (feet btoc) Purge Volume: 4.44 (gal)
Total Depth of Well: 74.76 (feet) Purge Method: Grab

Note:

One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (μS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	<u>7.23</u>	<u>23.1</u>	<u>509.9</u>	<u>-213.6</u>	<u>7.99</u>	<u>Hazy Tan</u>
1	<u>7.24</u>	<u>19.8</u>	<u>506.5</u>	<u>-222.0</u>	<u>7.47</u>	
1.5	<u>7.23</u>	<u>19.7</u>	<u>504.9</u>	<u>-222.0</u>	<u>7.33</u>	
2	<u>7.22</u>	<u>19.7</u>	<u>503.7</u>	<u>-218.3</u>	<u>7.19</u>	
2.5	<u>7.22</u>	<u>19.7</u>	<u>502.4</u>	<u>-216.8</u>	<u>7.12</u>	
3	<u>7.21</u>	<u>19.7</u>	<u>499.1</u>	<u>-219.3</u>	<u>7.10</u>	
3.5						
4						
4.5						
5						

Sample Description: 1 poly

Physical Observations: _____

Analytical Method(s): Chloride



GROUNDWATER MONITORING DATA SHEET

Project Name: Salty Dog Sampler: M. Zbrozek
Project #: ES08.0118.06 Sample Date: 06.21.2017
Project Manager: John Ayarbe Sample Time: 0740

Well #: DBS-9

Well Diameter: 2" (inches) Height of Water Column: 10.27 (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: 1.64 (gal)
Depth to Water: 57.28 (feet btoc) Purge Volume: 4.93 (gal)
Total Depth of Well: 67.55 (feet) Purge Method: Grab

Note:

One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	<u>6.91</u>	<u>21.9</u>	<u>1739</u>	<u>-196.3</u>	<u>6.88</u>	<u>Hazy Tan</u>
1	<u>7.04</u>	<u>21.1</u>	<u>1258</u>	<u>-212.1</u>	<u>6.68</u>	
1.5	<u>7.05</u>	<u>21.1</u>	<u>1254</u>	<u>-197.2</u>	<u>6.70</u>	
2	<u>7.04</u>	<u>21.1</u>	<u>1184</u>	<u>-244.1</u>	<u>5.75</u>	
2.5	<u>7.05</u>	<u>21.8</u>	<u>1174</u>	<u>-227.2</u>	<u>5.58</u>	<u>Hazy clear</u>
3	<u>7.04</u>	<u>21.9</u>	<u>1174</u>	<u>-226.6</u>	<u>5.57</u>	
3.5						
4						
4.5						
5						

Sample Description: 1 poly

Physical Observations: Hazy clear.

Analytical Method(s): Chloride



GROUNDWATER MONITORING DATA SHEET

Project Name: Salty Dog Sampler: M. Zbrozek
Project #: ES08.0118.06 Sample Date: 06.21.2017
Project Manager: John Ayarbe Sample Time: 0810

Well #: DBS-6

Well Diameter: 2" (inches) Height of Water Column: 10.21 (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: 1.63 (gal)
Depth to Water: 65.81 (feet btoc) Purge Volume: 4.90 (gal)
Total Depth of Well: 76.02 (feet) Purge Method: Grab

Note:

One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	<u>7.28</u>	<u>20.3</u>	<u>1237</u>	<u>-169.1</u>	<u>6.46</u>	<u>Hazy Tan</u>
1	<u>7.05</u>	<u>19.5</u>	<u>1256</u>	<u>-222.3</u>	<u>6.94</u>	
1.5	<u>7.00</u>	<u>19.5</u>	<u>1255</u>	<u>-224.7</u>	<u>6.77</u>	
2	<u>6.87</u>	<u>19.5</u>	<u>1252</u>	<u>-240.5</u>	<u>6.49</u>	
2.5	<u>6.86</u>	<u>19.4</u>	<u>1250</u>	<u>-241.0</u>	<u>6.45</u>	
3	<u>6.87</u>	<u>19.4</u>	<u>1241</u>	<u>-240.4</u>	<u>6.47</u>	
3.5						
4						
4.5						
5						

Sample Description: 1 poly

Physical Observations: Hazy Tan

Analytical Method(s): Chloride



GROUNDWATER MONITORING DATA SHEET

Project Name: Salty Dog Sampler: M. Zbrozek
Project #: ES08.0118.06 Sample Date: 06.21.2017
Project Manager: John Ayarbe Sample Time: 0905

Well #: DBS-8

Well Diameter: 2" (inches) Height of Water Column: 5.82 (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: 0.93 (gal)
Depth to Water: 64.09 (feet btoc) Purge Volume: 2.79 (gal)
Total Depth of Well: 69.91 (feet) Purge Method: Grab

Note:

One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	<u>7.48</u>	<u>28.6</u>	<u>477</u>	<u>-217.3</u>	<u>5.36</u>	<u>Hazy Red Tan</u>
1	<u>7.22</u>	<u>23.2</u>	<u>587</u>	<u>-208.2</u>	<u>6.35</u>	
1.5	<u>7.21</u>	<u>25.3</u>	<u>588</u>	<u>-211.4</u>	<u>5.69</u>	
2	<u>7.20</u>	<u>26.6</u>	<u>582</u>	<u>-211.9</u>	<u>4.81</u>	
2.5	<u>7.18</u>	<u>24.6</u>	<u>590</u>	<u>-223.4</u>	<u>5.21</u>	<u>Hazy clear</u>
3	<u>7.19</u>	<u>23.9</u>	<u>585</u>	<u>-224.2</u>	<u>5.28</u>	
3.5						
4						
4.5						
5						

Sample Description: 1 poly

Physical Observations: Hazy clear

Analytical Method(s): Chloride



GROUNDWATER MONITORING DATA SHEET

Project Name: Salty Dog Sampler: M. Zbrozek
Project #: ES08.0118.06 Sample Date: 06.21.2017
Project Manager: John Ayarbe Sample Time: 1015

Well #: MW-5

Well Diameter: 2" (inches) Height of Water Column: 65.16 (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: 10.43 (gal)
Depth to Water: 63.62 (feet btoc) Purge Volume: 31.28 (gal)
Total Depth of Well: 128.78 (feet) Purge Method: Grab

Note:

One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	6.64	19.9	3138	-259.4	3.65	clear
1	6.91	20.1	2878	-246.5	3.41	
1.5	6.94	20.7	2807	-252.0	3.56	
2	6.95	20.8	2711	-255.8	3.39	
2.5	6.91	20.8	2690	-237.2	3.70	
3	6.94	20.8	2702	-256.0	3.46	clear
3.5						
4						
4.5						
5						

Sample Description: 1 poly

Physical Observations: clear

Analytical Method(s): Chloride



GROUNDWATER MONITORING DATA SHEET

Project Name: Salty Dog Sampler: M. Zbrozek
Project #: ES08.0118.06 Sample Date: 06.21.2017
Project Manager: John Ayarbe Sample Time: 1055

Well #: MW-3

Well Diameter: 2" (inches) Height of Water Column: 81.57 (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: 13.05 (gal)
Depth to Water: 65.56 (feet btoc) Purge Volume: 39.15 (gal)
Total Depth of Well: 147.13 (feet) Purge Method: Grab

Note:

One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial	<u>7.12</u>	<u>19.6</u>	<u>2485</u>	<u>-241.5</u>	<u>3.51</u>	<u>Clear</u>
1	<u>6.69</u>	<u>19.4</u>	<u>18063</u>	<u>-285.6</u>	<u>3.09</u>	
1.5	<u>6.73</u>	<u>19.5</u>	<u>22161</u>	<u>-280.8</u>	<u>3.10</u>	
2	<u>6.73</u>	<u>19.5</u>	<u>23851</u>	<u>-274.1</u>	<u>3.05</u>	<u>Clear</u>
2.5	<u>6.75</u>	<u>19.5</u>	<u>24472</u>	<u>-273.1</u>	<u>3.05</u>	
3	<u>6.76</u>	<u>19.5</u>	<u>24740</u>	<u>-273.9</u>	<u>3.03</u>	
3.5	<u>6.76</u>	<u>19.5</u>	<u>24811</u>	<u>-24819</u>	<u>3.03</u>	<u>Clear</u>
4	<u>6.77</u>	<u>19.5</u>	<u>24741</u>	<u>-273.5</u>	<u>3.04</u>	
4.5						
5						

Sample Description: 1 poly

Physical Observations: _____

Analytical Method(s): Chloride



Daniel B. Stephens & Associates, Inc.

GROUNDWATER MONITORING DATA SHEET

Project Name: Salty Dog Sampler: M. Zbrozek
Project #: ES08.0118.06 Sample Date: 06.21.2017
Project Manager: John Ayarbe Sample Time: 1115

Well #: Brine

Well Diameter: 2" (inches) Height of Water Column: _____ (feet)

Depth to NAPL: --- (feet btoc) Casing Volume: _____ (gal)

Depth to Water: _____ (feet btoc) Purge Volume: _____ (gal)

Total Depth of Well: _____ (feet) Purge Method: Grab

Note:

One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial						
1						
1.5						
2						
2.5						
3						
3.5						
4						
4.5						
5						

Sample Description: 3 poly

Physical Observations: _____

Analytical Method(s): Sodium, Chloride, TDS, Spec Gravity, pH



GROUNDWATER MONITORING DATA SHEET

Project Name: Salty Dog Sampler: M. Zbrozek
Project #: ES08.0118.06 Sample Date: 06.21.2017
Project Manager: John Ayarbe Sample Time: 1120

Well #: Injection

Well Diameter: 2" (inches) Height of Water Column: _____ (feet)
Depth to NAPL: --- (feet btoc) Casing Volume: _____ (gal)
Depth to Water: _____ (feet btoc) Purge Volume: _____ (gal)
Total Depth of Well: _____ (feet) Purge Method: Grab

Note:

One casing volume (SCH 40 PVC): 2.0" ID casing = 0.16 gal/ft; 4.0" = 0.65 gal/ft; 6.0" = 1.47 gal/ft

Groundwater Parameters:

Casing Volume	pH	Temp (°F)	Conductivity (µS/cm)	ORP (mv)	D.O. (mg/L)	Turbidity (NTU)
Initial						
1						
1.5						
2						
2.5						
3						
3.5						
4						
4.5						
5						

Sample Description: 2 poly

Physical Observations: _____

Analytical Method(s): Chloride, TDS, Spec Gravity, pH

2013 Annual Class III Well Report

Salty Dog Brine Station

DP BW-8, API No. 30-025-26307

Lea County, New Mexico

Prepared for

**New Mexico Energy, Minerals and
Natural Resources Department
Oil Conservation Division**

September 11, 2014



Daniel B. Stephens & Associates, Inc.

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2013 Annual Class III Well Report

Salty Dog Brine Station

DP BW-8, API No. 30-025-26307

Lea County, New Mexico

1. Introduction

Daniel B. Stephens & Associates, Inc. (DBS&A) has prepared this Annual Class III Well report for submission to the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD) Environmental Bureau on behalf of PAB Services, Inc. (PAB) for the operation of a brine well (Brine Supply Well #1 [API No. 30-025-26307]) at the Salty Dog Brine Station (the site) located in Lea County, New Mexico, approximately 11 miles west of Hobbs, New Mexico along U.S. Highway 62/180 (Figure 1). The report summarizes operational and monitoring activities conducted at the site in 2013, and was prepared in accordance with the requirements of discharge permit (DP) BW-8, last renewed on November 8, 2013. The submittal of this report meets Condition 2.J of the permit (NMEMNRD, 2013).

The recently renewed DP BW-8 stipulates several new monitoring and characterization requirements for the site (NMEMNRD, 2013). While PAB has implemented activities to meet most of these requirements, others are still being developed. The status of activities to meet the new requirements is reported herein under the appropriate sections.

Salty Dog is a brine water production and loading station, consisting of a fresh water supply well, a brine production well, and a concrete truck loading pad with two brine filling stations. Fresh water is stored in two 1,000-barrel (bbl) aboveground storage tanks (ASTs). Produced brine is pumped from the brine well to a bermed tank battery consisting of six 750-bbl ASTs, where the brine is stored for sale. The brine well is located approximately 0.5 mile southwest of the brine filling station (Figure 1). Figure 2 presents a 2014 aerial photograph of the brine station showing the layout of the current facility infrastructure.

Brine is produced from the in situ extraction of salt at the brine well, a UIC Class III well (Brine Supply Well #1 [API No. 30-025-26307]). The brine well is approximately 3,000 feet deep and



has been in operation since the early 1980s. The Salty Dog brine well is configured for reverse circulation brine recovery, where fresh water is circulated down the casing annulus into the Salado Formation—a Permian Age sedimentary rock unit composed of halite (salt) and other evaporative beds. Fresh water dissolves the salt, and the brine is extracted through the center tubing of the well. Figure 3 shows a generalized schematic of the brine well illustrating its construction, tubing depths, and the penetrated geologic units.

The physical location of the brine well is 1,980 feet from south line (FSL) and 1,980 feet from east line (FEL) (NW/4 SE/4, Unit Letter J) in Section 5, Township 19 South, Range 36 East, New Mexico Principal Meridian (NMPM) (Figure 1). The brine well was installed in June 1979. The original discharge permit for the brine well (GWB-2) appears to have been issued on December 18, 1982 (OCD, 1994). The discharge permit was last renewed on November 8, 2013 (NMEMNRD, 2013).

Injection water used in brine production is obtained from the Ogallala Aquifer by pumping the fresh water supply well and two on-site groundwater remediation wells (RW-1 and RW-2). The two remediation wells are used to remove and provide hydraulic containment of chloride-impacted groundwater. Depth to regional groundwater is approximately 60 feet below ground surface (bgs). Figure 4 shows the locations of the two extraction wells (RW-1 and RW-2).

2. Brine Well Operational Activities

The following subsections report fluid injection and brine production volumes and well maintenance activities.

2.1 Fluid Injection and Brine Production

The brine well was put back into operation in October 2013 after being shut down for an approximately two-year period. Except for this recent shutdown and temporary interruptions for routine maintenance and testing (e.g., February 2009 sonar survey [SOCON, 2009]), the brine well has been in continuous operation since 1980, producing an average of approximately 10,500 barrels per month (bbl/mo) of brine based on 1987, 1996–1999, and 2009 brine production and sales records (Salty Dog, 1988, 1999, and Undated).



Both fluid injection and brine production volumes are metered and daily volumes are recorded on monthly fresh and brine water report forms (Appendix A). Table 1 reports monthly injection and production volumes for the reporting period. Injection water for the brine well comes from a fresh water well located immediately east of the truck loading pad and two groundwater remediation wells (RW-1 and RW-2) (Figure 4). Ratios of injected water to produced brine ranged from 1.02 to 1.20.

Table 1. Monthly Water Injection and Brine Production Volumes, 2013

Month	Volume (bbl)		Ratio (injection:production)
	Water Injection	Brine Production	
September	8,770	7,325	1.20
October	45,850	44,950	1.02
November	46,300	45,590	1.02
December	31,200	29,135	1.07
Annual Total	132,120	127,000	—

bbl = Barrels

Based on the data reported in Table 1 and previously reported production records (Salty Dog, 1988, 1999, and Undated), the estimated cumulative volume of brine production is 4,127,500 bbl.

The estimated size of the brine solution cavern is approximately 610,000 to 1,022,196 bbl. OCD has estimated a volume of 1,022,196 bbl for the Salty Dog solution cavern (NMEMNRD, 2012). The smaller solution cavern estimate is based on the brine production data presented in this report (i.e., an average brine production rate of 10,500 bbl/mo between 1980 and 2011 and the 2013 brine production data reported in Table 1).

2.2 Injection Pressure

Pressure is monitored on the well tubing and recorded daily on the monthly fresh and brine water report forms (Appendix A). In September through December 2013, daily tubing pressures ranged from 50 to 130 pounds per inch (psi).



PAB has equipped the brine well with a Murphy pressure switch set to a maximum injection pressure of 250 psi. If the injection pressure exceeds 250 psi, the switch automatically shuts off fluid injection at the well.

2.3 Chemical and Physical Analyses

DP BW-8 requires quarterly monitoring of the chemical and physical characteristics of the injection water and produced brine, including pH, density, and total dissolved solids (TDS) and chloride concentrations. The permit also requires that the sodium concentration of the produced brine be analyzed.

These analyses were not performed in 2013 because of the short period of time between the issuing of the permit renewal (November 8, 2013) and the end of the 2013 calendar year. PAB is in the process of establishing a sampling schedule and protocols to meet the requirements of Condition 2.A of DP BW-8.

Historical water quality analyses show TDS concentrations of the fresh water and produced brine of approximately 600 milligrams per liter (mg/L) and 320,000 to 350,000 mg/L, respectively (Martin, 1982; Unichem, 1987).

2.4 Deviations from Normal Operations

There were no deviations from normal operations from the time they commenced in October 2013 to the end of the 2013 calendar year.

2.5 Leaks and Spills

There were no leaks or spills in 2013.

2.6 Area of Review

Salty Dog did not discover any new wells or other conduits within a 1-mile radius of the brine well that penetrate or potentially penetrate to the Salado Formation (i.e., injection zone).



Condition 3.L of DP BW-8 requires Salty Dog to report within 72 hours the discovery of any new wells, conduits, or other devices that are both within a 1-mile radius and may penetrate to the injection zone of the brine well.

Figure 5 shows the area within a 1-mile radius of the brine well presented on a 2014 aerial photograph. The brine station is located on private property in rural southeastern New Mexico, approximately 11 miles west of Hobbs. The majority of the area surrounding the site is undeveloped and owned by the State of New Mexico (BLM, 2014).

2.7 Mechanical Integrity Test

On October 31, 2013, Salty Dog conducted a Bradenhead test on the brine well. The test showed no problems with the integrity of the well casing. Results of this test were reported to OCD on November 15, 2013. Appendix B contains the Bradenhead test report and completed Form C-103 submitted to OCD.

3. Other Facility Activities

In November and December 2013, PAB completed construction of a new brine tank battery located just south of the truck loading area. The new tank battery consists of six 750-barrel ASTs, surrounded by a berm. These tanks serve as storage for the brine that is produced for sale. In addition, a new concrete loading pad with two new brine filling stations was constructed at the truck loading area, and a new control building was installed adjacent to the existing truck loading pad. These new facilities are shown in Figure 2.

4. Subsidence Monitoring and Cavern Characterization

Salty Dog is in the process of preparing a work plan to satisfy Conditions 2.B.1 and 2.B. 2 of the recently renewed DP BW-8. This work plan will describe the proposed technical approach to be used to satisfy the two permit conditions: (1) the design of survey monuments and establishment of a program to monitor for potential surface subsidence, and (2) investigation activities to characterize the size and shape of the solution cavern created by brine production.



5. Groundwater Conditions

Salty Dog is addressing groundwater impacts resulting from releases at the brine well and a former brine pond. The area of the former brine pond is shown in Figures 1 and 2. A hole in the casing of the brine well at 250 feet bgs was discovered in 1999 (Salty Dog, 1999). The hole released brine, impacting groundwater, and was repaired in August 1999 by installing a casing liner (Salty Dog, 1999). In October 2008, the brine pond was removed and impacted soil excavated and disposed of (DBS&A, 2008).

Two chloride plumes currently exist at the site: one in the area of the brine station (i.e., the former brine pond area) and a second near the brine well. In 2009, extraction wells RW-1 and RW-2 were installed at the site to remove and provide hydraulic containment of brine-impacted groundwater at the brine station and near the brine well, respectively (DBS&A, 2009). Groundwater abatement and monitoring activities are being conducted to satisfy an administrative compliance order issued by OCD (ACO 2008-02) and settlement agreement and stipulated revised final order (NM-OCD 2008-2A) between OCD and Mr. Bergstein.

Groundwater monitoring and extraction data are reported and evaluated in reports submitted to OCD. The data include water levels and water quality at site monitor wells (Figure 4) and groundwater pumping rates at the two extraction wells (RW-1 and RW-2). DBS&A (2013) presents an evaluation of the 2013 data.



References

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- DBS&A. 2009. *Recovery well installation and pump test report, Salty Dog Brine Station, Lea County, New Mexico*. Prepared for the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division, Environmental Bureau, Santa Fe, New Mexico. November 20, 2009.
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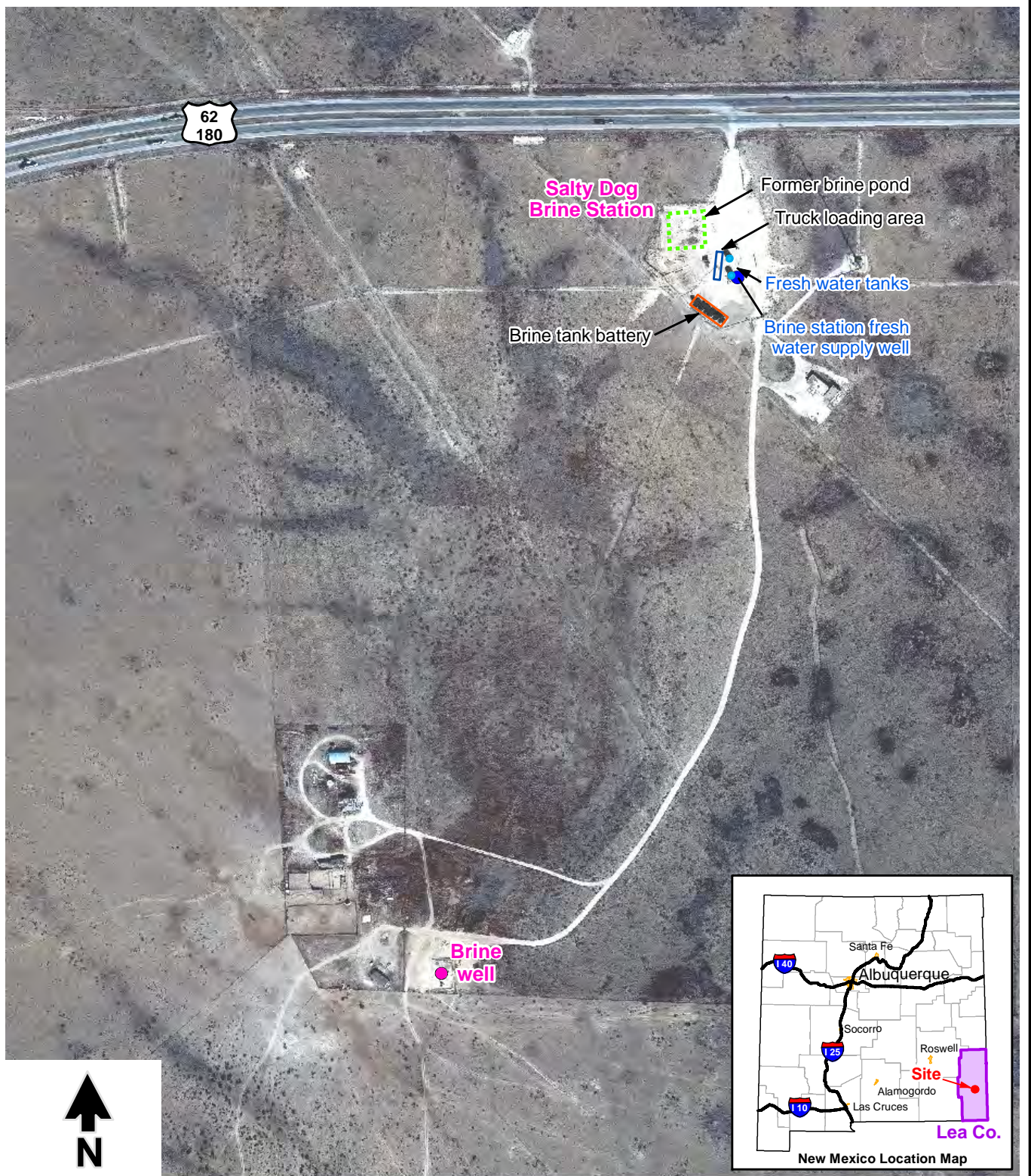
Salty Dog. 1999. Form C-103 report on Brine supply well #1. Submitted September 8, 1999. Approved by OCD December 1, 1999.

Salty Dog. Undated. E-mail from James Millett to Jim Griswald, OCD, regarding Salty Dog 2009 sales.

Unichem International (Unichem). 1987. Laboratory results for water samples collected on November 25, 1987. Prepared for Larry Squires. December 1, 1987.

Figures

S:\PROJECTS\ES08.0118.05_SALTY_DOG_DP_BW-8\GIS\MXD\ANNUAL RPT\FIG01_SITE_LOCATION_AND_FACILITIES.MXD



Source: USDA Farm Service Agency
DigitalGlobe, NMRGIS
February 14, 2014

Explanation

- Water supply well
- Brine well
- Fresh water tank

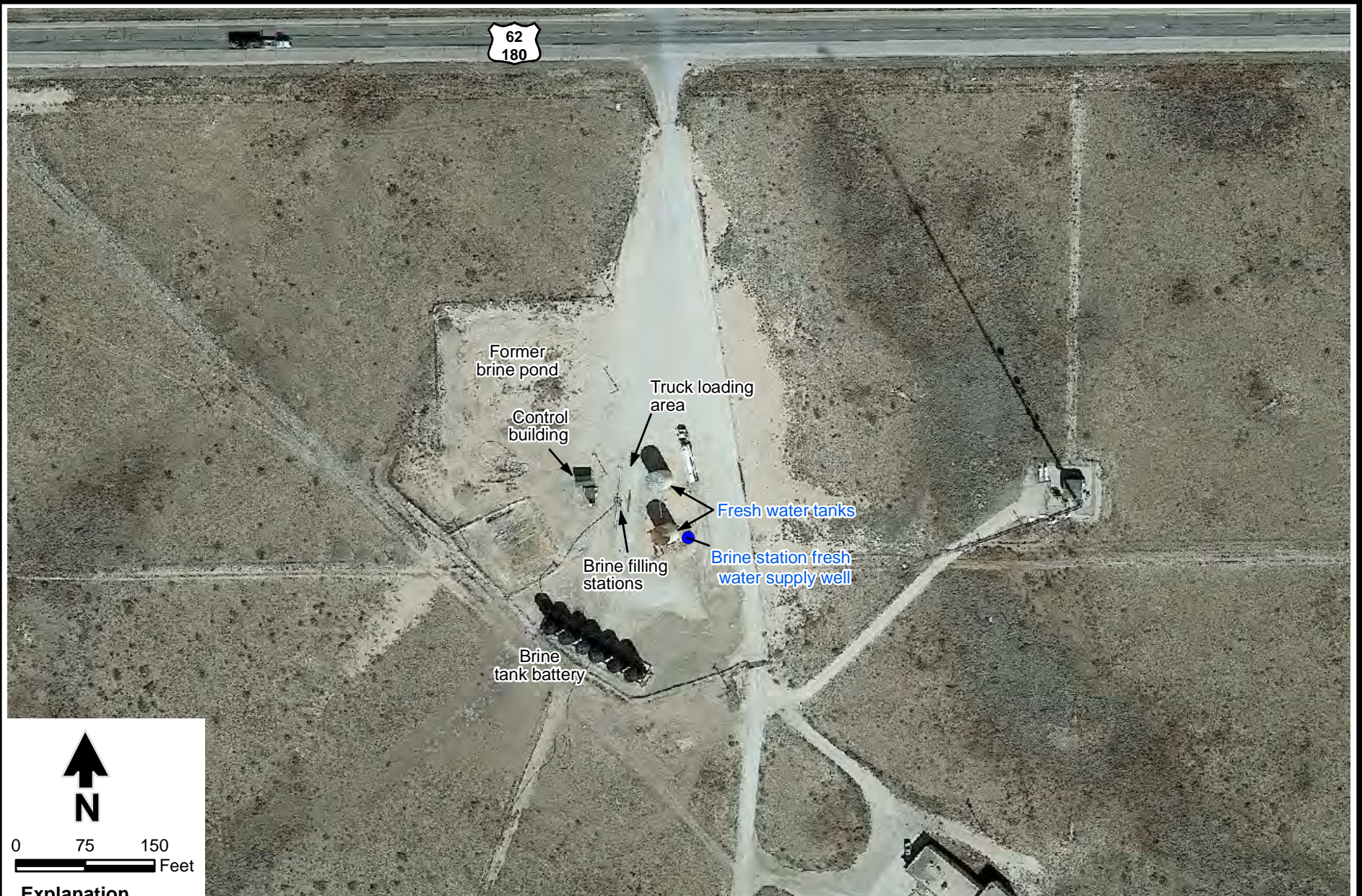


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9/10/2014

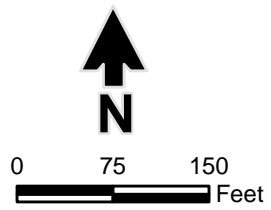
JN ES08.0118.05

SALTY DOG BRINE STATION Site Location and Facilities

Figure 1



Source: USDA Farm Service Agency, DigitalGlobe, NMRGIS, February 14, 2014



Explanation

- Water supply well

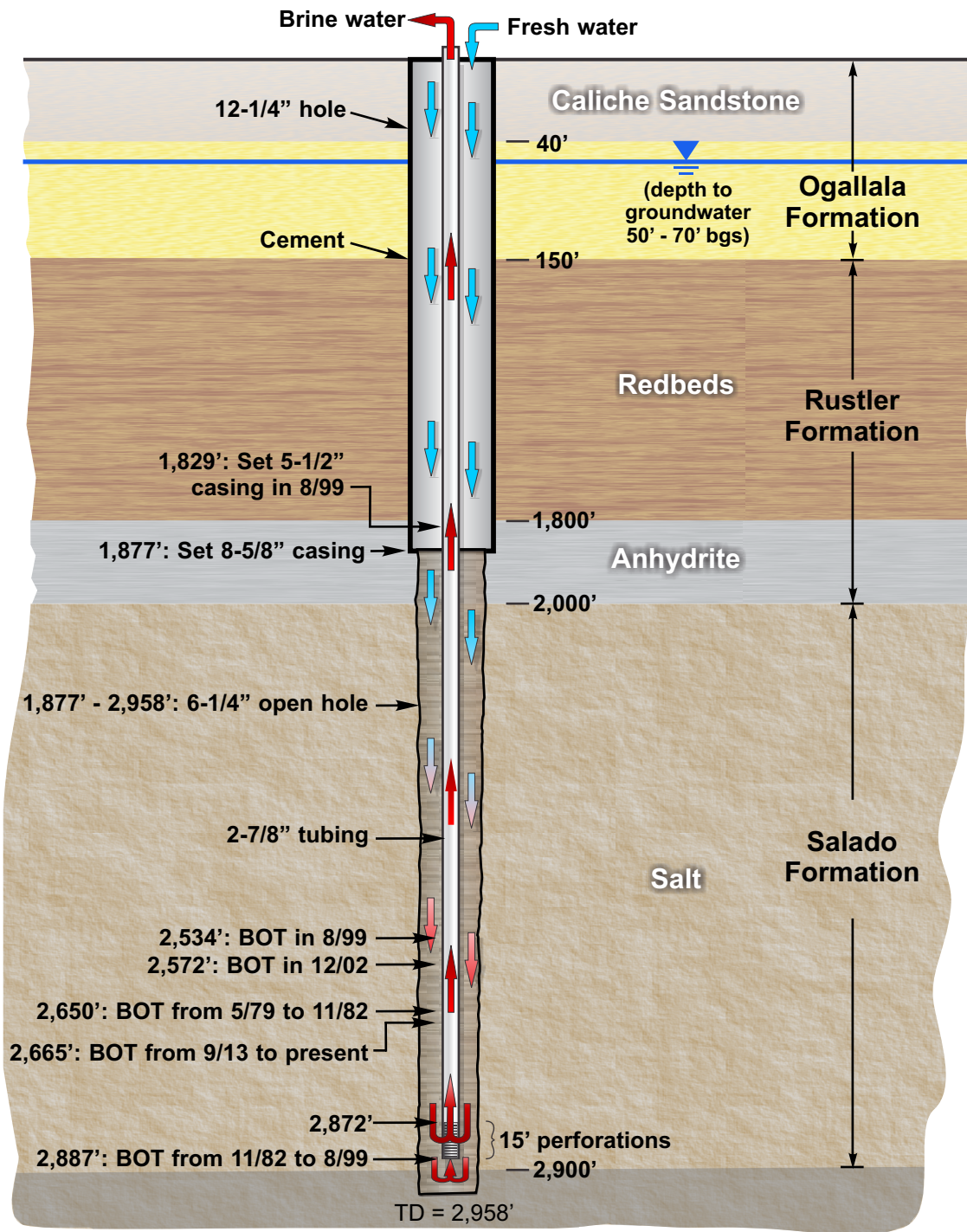
Figure 2



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9/10/2014 JN ES08.0118.05

SALTY DOG BRINE STATION
2014 Aerial Photograph of Salty Dog Brine Station

Salty Dog Brine Well



Notes:

1. BOT = Bottom of tubing
2. Figure not to scale

Sources:

1. Completion data based on OCD well reports
2. Lithology from Salty Dog (1988)

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9-10-14 JN ES08.0118.05

SALTY DOG BRINE STATION
Generalized Brine Well Schematic

Figure 3



S:\PROJECTS\ES08.0118.05_SALTY_DOG_DP_BW-8\GIS\MXD\ANNUAL RPT\FIG04_SITE_MONITOR_AND_EXTRACTION_WELL_LOCS.MXD



Explanation

- | | |
|-------------------|--------------------|
| Monitor well | Brine tank battery |
| Recovery well | Truck loading area |
| Water supply well | Former brine pond |
| Brine well | Fresh water tank |

Source: USDA Farm Service Agency
DigitalGlobe, NMRGIS
February 14, 2014

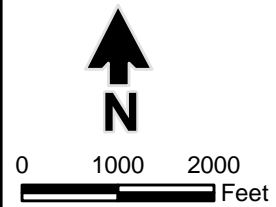


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9/10/2014

JN ES08.0118.05

SALTY DOG BRINE STATION Monitor and Extraction Well Locations

Figure 4



Explanation

- Brine well
- Area within a 1-mile radius

Source: aerial photograph obtained from Google Earth and date February 13, 2014

**SALTY DOG BRINE STATION
Area of Review**



Appendix A

2013 Monthly Fresh and Brine Water Report Forms

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION *SALTY Dog*
 MONTH/YEAR *Sept*

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLS	BBLS SOLD	PSI	PSI	SOLD
1	0	0			1,170
2	0	0			2,210
3	0	0			1,560
4	0	0			520
5	0	0			1,170
6	0	0			2,210
7	0	0			780
8	—	—			1,950
9	—	—			520
10	—	—			2,210
11	—	—			780
12	—	—			—
13	—	—			2,210
14	—	—			1,170
15	650	—			780
16	800	—			520
17	1000	960	120		1,560
18	620	0	80		780
19	475	120	75		110
20	475	720	75		1,950
21	475	960	80		—
22	475	360	90		2,210
23	475	0	75		1,170
24	475	480	100		—
25	475	360	60		1,560
26	475	600	70		520
27	475	960	80		2,210
28	475	480	60		1,170
29	475	720	100		—
30	475	600	70		1,950
31	—	—	—	—	—
TOTALS	8,770	7325			34,870

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION SALLY DOG
 MONTH/YEAR Oct

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLS	BBLS SOLD	PSI	PSI	SOLD
1	1450	1450	80		1,170
2	1450	1450	75		1,040
3	1450	1450	80		1,040
4	1450	1450	80		—
5	1450	1450	80		—
6	1450	1450	70		1,170
7	1450	1450	75		1,040
8	1450	1450	75		1,040
9	1450	1450	90		1,040
10	1450	1450	75		1,170
11	1450	1450	80		1,040
12	1450	1450	80		—
13	1450	1450	80		—
14	1450	1450	70		—
15	1450	1450	85		1,040
16	1450	1450	80		1,170
17	1450	1450	70		1,040
18	1450	1450	75		1,040
19	1450	1450	75		1,170
20	1450	1450	75		1,040
21	1450	1450	100		1,040
22	1450	1450	80		—
23	1450	1450	80		1,040
24	1450	1450	80		1,170
25	1450	1450	75		1,040
26	1450	1450	70		—
27	1450	1450	70		—
28	1450	1450	70		1,170
29	1450	1450	80		1,040
30	1450	1450	80		—
31	1450	1450	85		—
TOTALS	44,950	44,950			22,750

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION *SALT POND*
MONTH/YEAR *NOV*

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLS	BBLS SOLD	PSI	PSI	SOLD
1	1,520	1,520	80		780
2	1,520	1,520	80		520
3	1,520	1,520	80		650
4	1,520	1,520	95		390
5	1,520	1,520	100		520
6	1,520	1,520	100		650
7	1,520	1,520	100		780
8	1,520	1,520	100		520
9	1,520	1,520	100		390
10	1,520	1,520	110		650
11	1,520	1,520	120		396
12	1,520	1,520	100		520
13	1,520	1,510	110		396
14	1,520	1,520	110		780
15	1,520	1,520	110		650
16	1,520	1,520	110		650
17	1,520	1,520	110		520
18	1,520	1,520	120		780
19	1,520	1,520	120		396
20	1,520	1,520	130		780
21	1,520	1,520	120		390
22	1,520	1,520	125		520
23	1,520	1,520	120		780
24	1,520	1,520	125		780
25	1,520	1,520	125		520
26	1,520	1,520	100		650
27	1,520	1,520	100		520
28	1,520	1,520	100		650
29	1,520	1,520	100		780
30	1,520	1,520	100		540
31	—	—	—	—	—
TOTALS	45,600	45,590			17,811

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION *SALTY DOG*

MONTH/YEAR *Dec 2013*

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BBLs SOLD	PSI	PSI	SOLD
1	1,200	2090	75		
2	1,200	1960	75		
3	1,200	980	75		
4	1,200	1450	75		
5	1,200	1985	75		
6	1,200	1210	75		
7	1,200	230	80		
8	—	—	—		
9	—	—	—		
10	—	—	—		
11	—	—	—		
12	1,200	1555	50		
13	1,200	1110	75		
14	1,200	1610	80		
15	1,200	330	75		
16	—	—	—		
17	1,200	820	75		
18	1,200	1680	60		
19	—	—	—		
20	1,200	950	50		
21	1,200	590	75		
22	1,200	2530	70		
23	1,200	530	60		
24	1,200	880	75		
25	1,200	1040	75		
26	1,200	1170	50		
27	1,200	500	75		
28	1,200	910	75		
29	1,200	2130	75		
30	1,200	765	50		
31	1,200	130	80		
TOTALS	31,200	29,135			

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by
	M+S	Build Btly		<i>ABaynes</i>
	11	11		11
	11	11		11
	11	11		11

Appendix B
Bradenhead Test Report

Submit 1 Copy To Appropriate District
Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-025-26307
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other (Brine Well)		5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
2. Name of Operator PIAB SERVICES DBA SALTY DOG INC		6. State Oil & Gas Lease No. 25087
3. Address of Operator PO BOX 190 LUBBOCK TX 79408		7. Lease Name or Unit Agreement Name BRINE SUPPLY WELL
4. Well Location Unit Letter J : 1980 feet from the SOUTH line and 1980' feet from the EAST line Section 5 Township 19S Range 36E NMPM County LEA		8. Well Number 001
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3963		9. OGRID Number 184208
		10. Pool name or Wildcat BSW & SALADO

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
CLOSED-LOOP SYSTEM <input type="checkbox"/>			
OTHER: BRADENHEAD TEST <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

PERFORMED ANNUAL BRADENHEAD TEST
CASING TESTED OK

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

Randy Poston

TITLE

Manager

DATE

11-15-13

Type or print name

Randy Poston

E-mail address:

randyp@aguro.usoperating

PHONE:

806-787-1864

For State Use Only

APPROVED BY:

TITLE

DATE

Conditions of Approval (if any):

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division Hobbs District Office

BRADENHEAD TEST REPORT

Operator Name PAB SERVICES DBA SALTY DOG INC	API Number 30-025-26307
Property Name BRINE SUPPLY WELL	Well No. 001

7. Surface Location

UL - Lot J	Section 5	Township 19S	Range 36E	Feet from 1980	N/S Line S	Feet From 1980	E/W Line E	County LEA
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Well Status

Well Status	SHUT-IN	PRODUCING X	DATE 10-31-13
-------------	---------	-----------------------	-------------------------

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

OBSERVED DATA

If bradenhead flowed water, check all of the descriptions that apply:

	(A)Surf-Interm	(B)Interm(1)-Interm(2)	(C)Interm-Prod	(D)Prod Csg	(E)Tubing
Pressure	0	NA	N/A	N/A	100
Flow Characteristics					
Puff	Y/N	Y/N	Y/N	Y/N	
Steady Flow	Y/N	Y/N	Y/N	Y/N	
Surges	Y/N	Y/N	Y/N	Y/N	
Down to nothing	Y/N	Y/N	Y/N	Y/N	
Gas or Oil	Y/N	Y/N	Y/N	Y/N	
Water	Y/N	Y/N	Y/N	Y/N	

If bradenhead flowed water, check all of the descriptions that apply:

CLEAR	FRESH	SALTY	SULFUR	BLACK
-------	-------	-------	--------	-------

Remarks:

NO PROBLEMS

Signature: Randy Poston	OIL CONSERVATION DIVISION
Printed name: Randy Poston	Entered into RBDMS
Title: Manager	Re-test
E-mail Address: randyp@agupousoperating.com	
Date: 11-15-13	Phone: 806-787-1864
	Witness: N/A



July 24, 2015

Mr. Tomas Oberding
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505-4225

Re: 2014 Annual Class III Well Report
Salty Dog Brine Station

Dear Mr. Oberding:

On behalf of PAB Services, Inc., Daniel B. Stephens & Associates, Inc. (DBS&A) is pleased to submit the enclosed annual Class III well report for the operation of a brine well (API No. 30-025-26307) at the Salty Dog Brine Station in Lea County, New Mexico. The report documents brine production activities at the facility in 2014, and was prepared in accordance with the requirements of discharge permit (DP) BW-8.

Also included as an appendix to the report is an annual certification signed by Mr. Pieter Bergstein.

Please do not hesitate to call me at (505) 353-9137 or Mike at (505) 353-9130 if you have any questions or require additional information.

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.

John Ayarbe, P.G.
Senior Hydrogeologist

Michael D. McVey, C.P.G., P.G.
Senior Hydrogeologist

JA/rpf
Enclosures

cc: Pieter Bergstein, PAB Services, Inc.
Terry Wallace, Salty Dog, Inc.

Daniel B. Stephens & Associates, Inc.

6020 Academy NE, Suite 100

505-822-9400

Albuquerque, NM 87109

FAX 505-822-8877

2014 Annual Class III Well Report

Salty Dog Brine Station

DP BW-8, API No. 30-025-26307

Lea County, New Mexico

Prepared for

**New Mexico Energy, Minerals and
Natural Resources Department
Oil Conservation Division**

July 24, 2015



Daniel B. Stephens & Associates, Inc.

6020 Academy NE, Suite 100 • Albuquerque, New Mexico 87109



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2014 Annual Class III Well Report

Salty Dog Brine Station

DP BW-8, API No. 30-025-26307

Lea County, New Mexico

1. Introduction

Daniel B. Stephens & Associates, Inc. (DBS&A) has prepared this annual Class III well report for submission to the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD) Environmental Bureau on behalf of PAB Services, Inc. (PAB) for the operation of a brine well (Brine Supply Well #1 [API No. 30-025-26307]) at the Salty Dog Brine Station (the site). The site is located in Lea County, New Mexico, approximately 11 miles west of Hobbs, New Mexico along U.S. Highway 62/180 (Figure 1). This report summarizes operational and monitoring activities conducted at the site in 2014, and was prepared in accordance with the requirements of discharge permit (DP) BW-8, last renewed on November 8, 2013 (NMEMNRD, 2013). The submittal of this report meets Condition 2.J of the permit.

The recently renewed DP BW-8 stipulates several new monitoring and characterization requirements for the site (NMEMNRD, 2013). While PAB has implemented activities to meet most of these requirements, implementation of a subsidence monitoring program and brine cavern characterization study are still awaiting OCD work plan approval. A work plan for these two activities was submitted to OCD on September 17, 2014 (DBS&A, 2014b).

Appendix A provides an annual certification signed by Mr. Pieter Bergstein stating that continued salt solution mining will not cause cavern collapse, surface subsidence, property damage, or otherwise threaten public health and the environment based on geologic and engineering data.

Salty Dog is a brine water production and loading station, consisting of a fresh water supply well, a brine production well, and a concrete truck loading pad with two brine filling stations. Fresh water is stored in two 1,000-barrel (bbl) aboveground storage tanks (ASTs). Produced brine is pumped from the brine well to a bermed tank battery consisting of six 750-bbl ASTs,



where the brine is stored for sale. The brine well is located approximately 0.5 mile southwest of the brine filling station (Figure 1). Figure 2 presents a 2014 aerial photograph of the brine station showing the layout of the current facility infrastructure.

Brine is produced from the in situ extraction of salt at the brine well, a UIC Class III well (Brine Supply Well #1 [API No. 30-025-26307]). The brine well is approximately 3,000 feet deep and has been in operation since the early 1980s. The Salty Dog brine well is configured for reverse circulation brine recovery, where fresh water is circulated down the casing annulus into the Salado Formation—a Permian Age sedimentary rock unit composed of halite (salt) and other evaporative beds. Fresh water dissolves the salt, and the brine is extracted through the center tubing of the well. Figure 3 shows a generalized schematic of the brine well illustrating its construction, tubing depths, and the penetrated geologic units.

The physical location of the brine well is 1,980 feet from south line (FSL) and 1,980 feet from east line (FEL) (NW/4 SE/4, Unit Letter J) in Section 5, Township 19 South, Range 36 East, New Mexico Principal Meridian (NMPM) (Figure 1). The brine well was installed in June 1979. The original discharge permit for the brine well (GWB-2) appears to have been issued on December 18, 1982 (OCD, 1994). The discharge permit was last renewed on November 8, 2013 (NMEMNRD, 2013).

Injection water used in brine production is obtained from the Ogallala Aquifer by pumping from the fresh water supply well and two on-site groundwater remediation wells (RW-1 and RW-2). The two remediation wells are used to remove and provide hydraulic containment of chloride-impacted groundwater. Depth to regional groundwater is approximately 60 feet below ground surface (bgs). Figure 4 shows the locations of the two extraction wells (RW-1 and RW-2).

2. Brine Well Operational Activities

The following subsections report fluid injection and brine production volumes and well maintenance activities.



2.1 Fluid Injection and Brine Production

Except for an approximately 2-year shutdown between 2011 and 2013 and temporary interruptions for routine maintenance and testing (e.g., February 2009 sonar survey [SOCON, 2009]), the brine well has been in continuous operation since 1980, producing an average of approximately 10,500 barrels per month (bbl/mo) of brine between 1980 and 2009. This production rate is based on 1987, 1996–1999, and 2009 brine production and sales records (Salty Dog, 1988, 1999, and Undated).

Both fluid injection and brine production volumes are metered, and daily volumes are recorded on monthly fresh and brine water report forms (Appendix B). Table 1 summarizes monthly injection and production volumes for the reporting period. Injection water for the brine well comes from a fresh water well located immediately east of the truck loading pad and two groundwater remediation wells (RW-1 and RW-2) (Figure 4). Ratios of injected water to produced brine ranged from 10.96 to 1.13.

Table 1. Monthly Water Injection and Brine Production Volumes, 2014

Month	Volume (bbl)		Ratio (injection:production)
	Water Injection	Brine Production	
January	47,515	49,570	0.96
February	32,850	32,537	1.01
March	15,810	13,990	1.13
April	26,960	24,035	1.12
May	41,025	39,150	1.05
June ^a	30,001 ^a	28,411 ^a	1.06 ^a
July	35,209	34,487	1.02
August	49,500	49,628	0.99
September	48,600	46,854	1.04
October	55,010	54,520	1.01
November	39,989	39,382	1.02
December	42,500	41,830	1.02
Annual total	464,969	454,394	—

^a A monthly fresh and brine water report form is not available for the month of June; estimated values provided by PAB (Appendix B).
bbl = Barrels



Based on the data reported in Table 1 and previously reported production records (Salty Dog, 1988, 1999, and Undated; DBS&A, 2014a), the estimated cumulative volume of brine production is 4,582,000 bbl.

In 2014, brine production activities at Salty Dog dissolved an estimated 61,000 bbl of Salado Formation. This estimate is based on the brine production data reported in Table 1, the total dissolved solids (TDS) concentrations of the produced brine and injection water reported in Table 2, and an assumed density of the Salado Formation of 2.17 grams per cubic centimeter (g/cm^3). The total estimated size of the brine solution cavern is approximately 670,000 bbl, based on the historical and present brine production data. In 2012, OCD estimated a volume of 1,022,196 bbl for the Salty Dog solution cavern (NMEMNRD, 2012).

2.2 Injection Pressure

Pressure is monitored on the well tubing and recorded daily on the monthly fresh and brine water report forms (Appendix B). In 2014, daily tubing pressures ranged from 25 to 200 pounds per square inch (psi).

PAB has equipped the brine well with a Murphy pressure switch set to a maximum injection pressure of 250 psi. If the injection pressure exceeds 250 psi, the switch automatically shuts off fluid injection at the brine well.

2.3 Chemical and Physical Analyses

Condition 2.A of DP BW-8 requires quarterly monitoring of the chemical and physical characteristics of the injection water and produced brine, including pH, density, and TDS and chloride concentrations. The permit also requires that the sodium concentration of the produced brine be analyzed.

PAB initiated the required quarterly monitoring in March 2015. Because monitoring was not performed in 2014, the March 2015 monitoring data are provided herein (Table 2). Dissolution of the Salado Formation increases the constituent concentrations and specific gravity of the produced brine relative to the injection water. The TDS concentration and specific gravity of the



injection water are 652 milligrams per liter (mg/L) and 0.9861, respectively, while the same properties of the produced brine are 293,000 mg/L and 1.174, respectively. Appendix C provides the laboratory analytical report associated with the March 2015 monitoring event.

Table 2. Injection Water and Produced Brine Chemical and Physical Characteristics

Constituent	Volume (mg/L ^a)	
	Injection Water	Produced Brine
pH (s.u.)	7.80	7.40
Specific gravity (unitless)	0.9861	1.174
Chloride	230	160,000
Sodium	—	110,000
TDS	652	293,000

^a Unless otherwise noted
mg/L = milligram per liter
s.u. = Standard units
TDS = Total dissolved solids

Historical water quality analyses show TDS concentrations of the fresh water and produced brine of approximately 600 mg/L and 320,000 to 350,000 mg/L, respectively (Martin, 1982; Unichem, 1987).

2.4 Deviations from Normal Operations

There were no deviations from normal operations in 2014.

2.5 Leaks and Spills

There were no leaks or spills in 2014.

2.6 Area of Review

Salty Dog did not discover any new wells or other conduits within a 1-mile radius of the brine well that penetrate or potentially penetrate to the Salado Formation (i.e., injection zone).



Condition 3.L of DP BW-8 requires Salty Dog to report within 72 hours the discovery of any new wells, conduits, or other devices that are both within a 1-mile radius and may penetrate to the injection zone of the brine well.

Figure 5 shows the area within a 1-mile radius of the brine well presented on a 2014 aerial photograph. The brine station is located on private property in rural southeastern New Mexico, approximately 11 miles west of Hobbs. The majority of the area surrounding the site is undeveloped and owned by the State of New Mexico (BLM, 2014).

2.7 Mechanical Integrity Test

Mechanical integrity testing was not conducted in 2014. The last mechanical integrity test was performed on October 31, 2013, when Salty Dog conducted a Bradenhead test on the brine well. The test showed no problems with the integrity of the well casing. Results of this test were reported to OCD on November 15, 2013. Pursuant to 20.6.2.5204 New Mexico Administrative Code (NMAC), PAB is required to demonstrate mechanical integrity of the brine well at least once every five years.

3. Other Facility Activities

Other than the standard operating activities described above, there were no other major activities in 2014.

4. Subsidence Monitoring and Cavern Characterization

A work plan to satisfy Conditions 2.B.1 and 2.B.2 of the renewed DP BW-8 was submitted to OCD on September 17, 2014 (DBS&A, 2014b). This work plan describes the proposed technical approach to be used to satisfy the two permit conditions: (1) the design of survey monuments and establishment of a program to monitor for potential surface subsidence, and (2) investigation activities to characterize the size and shape of the solution cavern created by brine production. PAB is awaiting OCD review and approval of the work plan before implementing proposed subsidence monitoring and cavern characterization activities.



5. Groundwater Conditions

Salty Dog is addressing groundwater impacts resulting from releases at the brine well and a former brine pond. The area of the former brine pond is shown in Figures 1 and 2. A hole in the casing of the brine well at 250 feet bgs was discovered in 1999 (Salty Dog, 1999). The hole released brine, impacting groundwater, and was repaired in August 1999 by installing a casing liner (Salty Dog, 1999). In October 2008, the brine pond was removed and impacted soil excavated and disposed of (DBS&A, 2008).

Two chloride plumes currently exist at the site: one in the area of the brine station (i.e., the former brine pond area) and a second near the brine well. In 2009, extraction wells RW-1 and RW-2 were installed at the site to remove and provide hydraulic containment of brine-impacted groundwater at the brine station and near the brine well, respectively (DBS&A, 2009). Groundwater abatement and monitoring activities are being conducted to satisfy an administrative compliance order issued by OCD (ACO 2008-02) and settlement agreement and stipulated revised final order (NM-OCD 2008-2A) between OCD and Mr. Bergstein.

Groundwater monitoring and extraction data are reported and evaluated in reports submitted to OCD (DBS&A, 2013). The data include water levels and water quality at site monitor wells (Figure 4) and groundwater pumping rates at the two extraction wells (RW-1 and RW-2).



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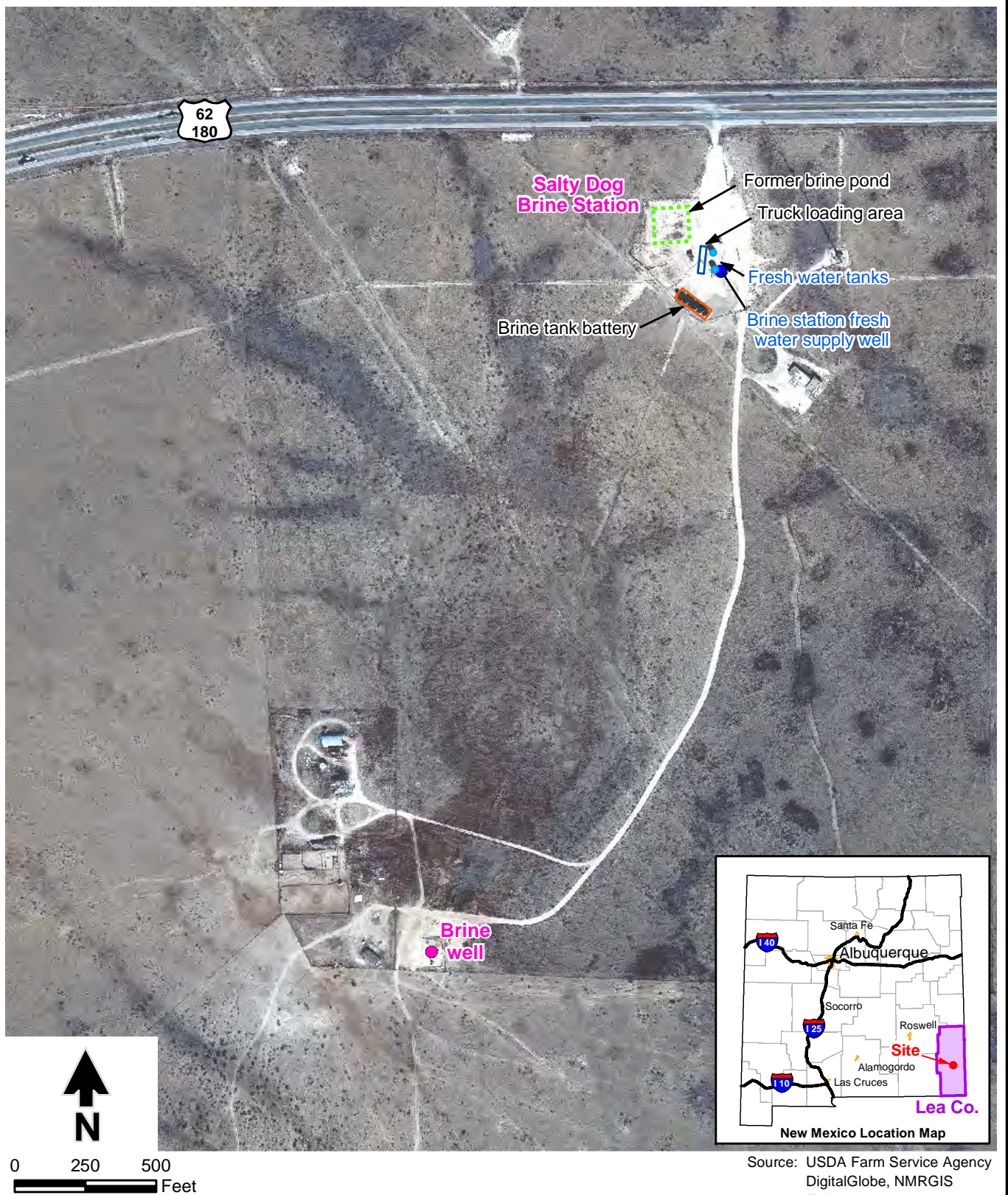
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Figures

S:\PROJECTS\ES08.0118.05_SALTY_DOG_DP_BW-8\GIS\MXD\ANNUAL RPT\FIG01_SITE_LOCATION_AND_FACILITIES.MXD



Source: USDA Farm Service Agency
DigitalGlobe, NMRGIS
February 14, 2014

Explanation

- Water supply well
- Brine well
- Fresh water tank

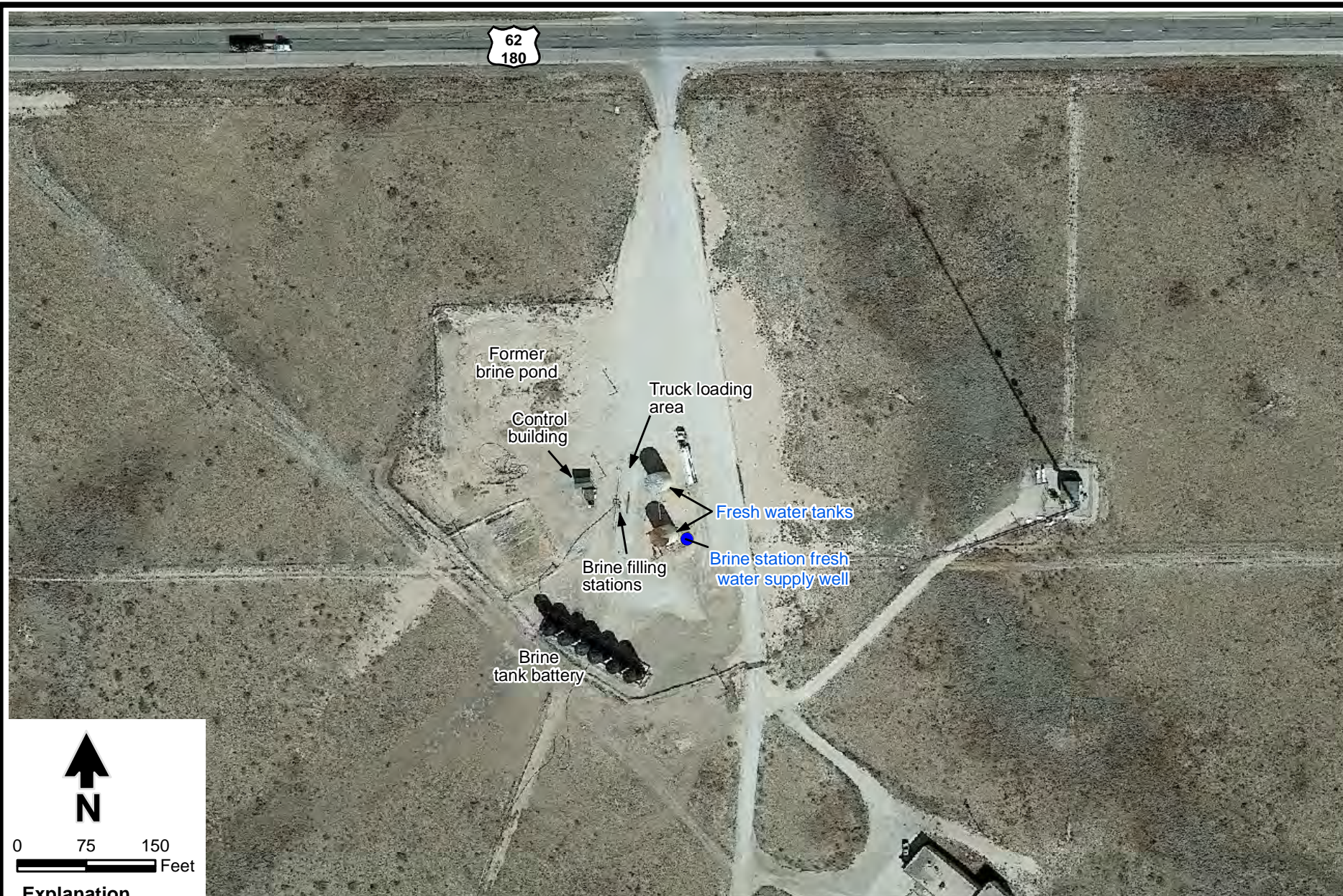


Daniel B. Stephens & Associates, Inc.
9/10/2014

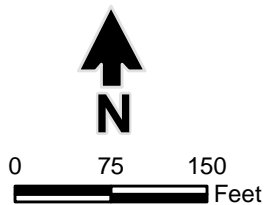
JN ES08.0118.05

SALTY DOG BRINE STATION Site Location and Facilities

Figure 1



Source: USDA Farm Service Agency, DigitalGlobe, NMRGIS, February 14, 2014



Explanation

- Water supply well

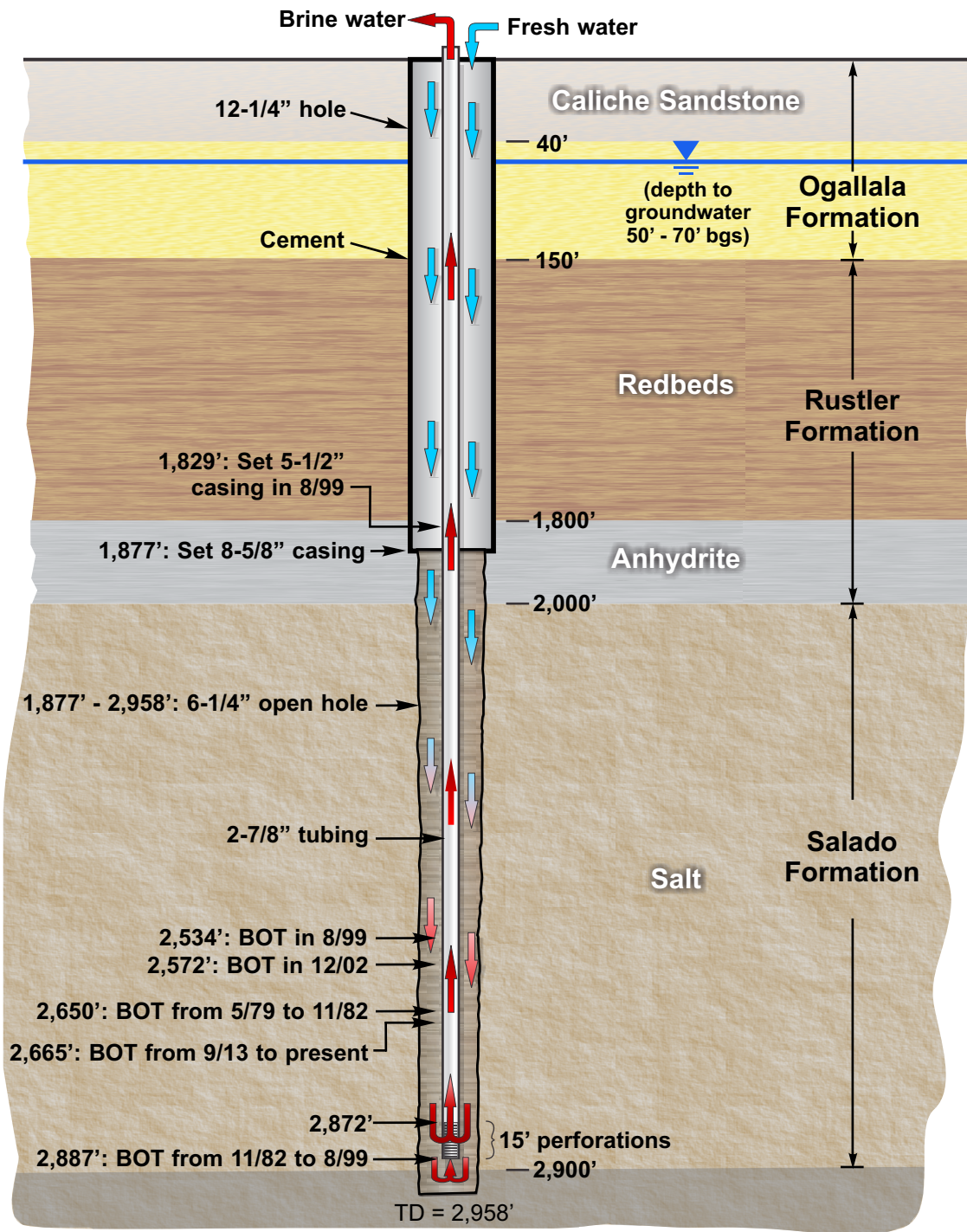
Figure 2



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9/10/2014 JN ES08.0118.05

SALTY DOG BRINE STATION
2014 Aerial Photograph of Salty Dog Brine Station

Salty Dog Brine Well



Notes:

1. BOT = Bottom of tubing
2. Figure not to scale

Sources:

1. Completion data based on OCD well reports
2. Lithology from Salty Dog (1988)

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9-10-14 JN ES08.0118.05

SALTY DOG BRINE STATION
Generalized Brine Well Schematic

Figure 3



S:\PROJECTS\ES08.0118.05_SALTY_DOG_DP_BW-8\GIS\MXD\ANNUAL RPT\FIG04_SITE_MONITOR_AND_EXTRACTION_WELL_LOCS.MXD



Explanation

- | | |
|---------------------|----------------------|
| ⊕ Monitor well | ▭ Brine tank battery |
| ⊕ Recovery well | ▭ Truck loading area |
| ● Water supply well | ▭ Former brine pond |
| ● Brine well | ● Fresh water tank |

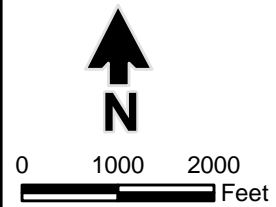
Source: USDA Farm Service Agency
DigitalGlobe, NMRGIS
February 14, 2014



Daniel B. Stephens & Associates, Inc.
9/10/2014 JN ES08.0118.05

SALTY DOG BRINE STATION Monitor and Extraction Well Locations

Figure 4



Explanation

- Brine well
- Area within a 1-mile radius

Source: aerial photograph obtained from Google Earth and date February 13, 2014

**SALTY DOG BRINE STATION
Area of Review**



Appendix A
Annual Certification

Annual Certification

PAB Services, Inc. certifies that continued salt solution mining will not cause cavern collapse, surface subsidence, property damage, or otherwise threaten public health and the environment based on geologic and engineering data.

DEVIN BEUGSTEIN

Name

President

Title



Signature

7/1/15

Date

Appendix B

2014 Monthly Fresh and Brine Water Report Forms

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION

SALTY 006

MONTH/YEAR

JANUARY 2014

Date	AMOUNT OF FRESH WATER PUMPED DOWN HOLE BBLs	AMOUNT OF BRINE WATER OUT OF HOLE BBLs SOLD	DAILY TUBING PRESSURES PSI	DAILY CASING PRESSURES PSI	FRESH WATER SOLD
1	1980	1985	180	325	—
2	1950	2180	120	300	—
3	980	150	120	300	—
4	1030	1390	140	350	—
5	980	1000	120		—
6	1995	2425	120		—
7	2000	2580	140		—
8	1000	1840	200		—
9	1950	2415	200		1250
10	1980	2580	200		1905
11	2000	3100	200		2310
12	1000	875	200		3080
13	1980	2205	200		1700
14	1900	1710	200		1420
15	2010	2300	200		1300
16	1000	1670	200		2100
17	1980	2390	25		1650
18	1980	2430	200		340
19	1980	1080	25		850
20	1000	—	25		2560
21	1000	—	25		585
22	1500	740	25		750
23	1000	1785	25		390
24	1000	1550	75		260
25	1850	1610	120		390
26	1500	1090	75		130
27	1085	2050	75		750
28	1925	2780	75		150
29	1200	—	200		—
30	1850	1080	100		—
31	1080	2280	75		—
TOTALS	52815	49590	—		20870

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION **SALTY DOG**
 MONTH/YEAR **FEBRUARY 2014**

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BBLs SOLD	PSI	PSI	SOLD
1	500	340	75	350	520
2	900	780	100		
3	1500	1140	75		
4	2200	2075-	100		520
5	1500	1277	100		
6	1500	1710	100		
7	1000	965	75		
8	2500	2895-	100		520
9	600	465	75		390-
10	300				
11	1200	1565-	100		130
12	1000	930	100		330
13	1500	1385	100		2030 1340.
14	850	650-	100		2030
15	1800	1710	100		1690
16	750	650	100		1820-
17	1800	1520-	100		710
18	1500	1360	100		1564
19	1750	1585-	100		
20	500	2100 2100	100		1120
21	500	710 710	100		650
22	1600	1410 1410	100		130-
23	700	730	100		
24	1500	1435	100		170
25	2000	1950	100		200
26	2000	2250	100		1240
27			100		1490
28	300	340	100		480
29	500				
30					
31					
TOTALS	32050	32584			19134

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION SALTY DOG
 MONTH/YEAR MARCH 2014

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BBLs SOLD	PSI	PSI	SOLD
1	1,205	1840	100	350	390
2			100		130
3	1,205	1085	100		130-
4					11090
5					3380-
6					3320
7					1490-
8					2435
9					780-
10					2665
11	1,300	470-	100		1080-
12	1,200	1410	100		945
13	1100	120-	100		2135-
14					1365
15					820-
16					
17					1950
18					245-
19					1040
20					390-
21	1400	1010-	100		200
22	1200	605-	100		310-
23	1100	830	100		390
24	1300	1030-	100		190-
25	1200	360	100		750
26	1000	1925-	100		130-
27	1400	765	100		300
28					260-
29					260
30					
31	1200	1940	100		700-
TOTALS	15670	14355	100		28350

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION SALTY DOG
MONTH/YEAR APRIL 2014

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BBLs SOLD	PSI	PSI	SOLD
1	1000 1700	1655	100	350	200
2	1100	1050	100		520
3	700	580	100		25
4	500	420	100		
5			100		
6			100		
7	1900	1880-	100		
8	600	455	100		
9	900	1350-	100		40
10	1000	970	100		175-
11	1000	1190	100		
12	700	500-	100	325	
13	700	775	100		
14		25	100		130
15			100		340
16	900	770-	100		50-
17	1200	1100	100		
18	400	370	100		130
19	400	260-	100		1690-
20	900	740	100		130
21	800	610	100		1800-
22	500	130-	100		40
23	1500	1590	100	350	
24	1500	1190	100		1430-
25	1500	1360-	100		1950
26	1500	1110	100		
27	1500	880	100		1170-
28	2500	2050	100		1040
29	1060	825	100		1530-
30			100		390
31					
TOTALS	26960	24035			12780

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION Salt Dog
MONTH/YEAR May / 2014

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BBLs SOLD	PSI	PSI	SOLD
1	1855	2055	300	300	130
2	920	1070	300	300	440
3	720	625	300	300	260
4	1600	1475	300	300	130
5	1690	1690	300	300	630
6	1720	1645	300	300	1650
7	2825	2715	300	300	1650
8	520	520	300	300	980
9	570	570	300	300	130
10	840	840	300	300	520
11	355	355	300	300	60
12	805	805	300	300	250
13	380	380	300	300	290
14	2340	2340	300	300	760
15	1105	1105	300	300	130
16	860	860	300	300	130
17	100	100	300	300	260
18	720	720	300	300	830
19	1800	1800	300	300	160
20	330	330	300	300	130
21	2610	2610	300	300	115
22	1200	1130	300	300	130
23	1100	1000	300	300	0
24	2000	2090	300	300	0
25	1800	1550	300	300	0
26	2000	835	300	300	0
27	1500	1705	300	300	90
28	1200	740	300	300	50
29	1600	1450	300	300	130
30	2000	1640	300	300	460
31	1960	2400	300	300	0
TOTALS	41025	39150			9365

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

Zbrozek, Michael

From: Elda Pineda <elda@thestandardenergy.com>
Sent: Monday, July 13, 2015 3:57 PM
To: Zbrozek, Michael
Subject: RE: Monthly Fresh and Brine Water Reports

Hello,

I will forward you the email sent to OCD for the month of June. There was not a report turned in at that time. Unfortunately, the previous employee was gone in September and I was unable to locate one for June.

From: Zbrozek, Michael [<mailto:mzbrozek@dbstephens.com>]
Sent: Monday, July 13, 2015 4:46 PM
To: 'elda@thestandardenergy.com'
Cc: Ayarbe, John
Subject: Monthly Fresh and Brine Water Reports

Good afternoon Elda,

Upon review of the 2014 Data sheets, I noticed that the month of June is missing from the reports. Can you help us locate it?

Sorry for the inconvenience,

Michael C. Zbrozek, GIT

Staff Scientist

Daniel B. Stephens & Associates, Inc.

Hydrology | Engineering | Geoscience

Celebrating 30 Years!

6020 Academy Road NE, Suite 100 | Albuquerque, New Mexico 87109
T (505) 822-9400 | F (505) 822-8877
www.dbstephens.com

Zbrozek, Michael

From: Elda Pineda <elda@thestandardenergy.com>
Sent: Monday, July 13, 2015 3:59 PM
To: Zbrozek, Michael
Subject: FW: Salty Dog Totals June & October

Hello,

Please see below.

From: Elda Pineda [<mailto:elda@thestandardenergy.com>]
Sent: Wednesday, November 19, 2014 10:15 AM
To: 'Jim.Griswold@state.nm.us'
Subject: Salty Dog Totals June & October

Hello, .

June – Brine Water - 28411
June - Fresh Water Down Hole – 30001

October – Brine Water - 55010
October– Fresh Water Down Hole – 55020

Thank you,
Elda

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION	Salty Dog
MONTH/YEAR	JULY 2014

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BBLs SOLD	PSI	PSI	SOLD
1	0	—	—	—	490
2	0	—	—	—	260
3	0	—	—	—	—
4	0	—	—	—	—
5	0	—	—	—	260
6	0	—	100	350	130
7	960	960			40
8	2550	2450			460
9	1530	1530			100
10	690	590			485
11	1790	1790			130
12	1040	1040			0
13	980	980			260
14	1100	1000			150
15	1445	1445			150
16	930	930			390
17	1350	1350			520
18	1840	1840			390
19	840	840			1010
20	1615	1615			130
21	1060	1060			780
22	2187	2185			1190
23	2995	2995			520
24	2165	2165			260
25	940	940			0
26	1780	1780			0
27	250	250			780
28	1360	1362			675
29	1660	1660			.
30	1720	1720			910
31	462	460			130
TOTALS	35,287	34,907.00			10,600.00

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION Salty Dog
 MONTH/YEAR Aug/2014

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BBLs SOLD	PSI	PSI	SOLD
1	2000	3000	100	350	2940
2	2500	3060			3705
3	1000	625			650
4	2000	1495			803
5	3000	4170			260
6	2000	830 2020			0
7	2000	3175			56
8	2,000	1880			1,240
9	2,000	2000 2420			130
10	2000	1100			0
11	2000	570			0
12	2000	2000			260
13	2000	2020			390
14	2000	2040			260
15	2000	2645			650
16	2000	1450			130
17	1500	1010			675
18	1500	1175			780
19	1500	2070			1540
20	1500	973			1430
21	1500	340			2080
22	1000	375			1460
23	0	0			390
24	0	240			480
25	500	580			900
26	500	1230			260
27	1500	1860			230
28	2500	2565			980
29	1400	1460			1545
30	1000	750			0
31	1000	1250			2210
TOTALS	49500	49628			26434

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION Salty Dog
MONTH/YEAR Sept. 2014

Date	AMOUNT OF FRESH WATER PUMPED DOWN HOLE BBLs	AMOUNT OF BRINE WATER OUT OF HOLE BBLs SOLD	DAILY TUBING PRESSURES PSI	DAILY CASING PRESSURES PSI	FRESH WATER SOLD
1			100	350	0
2	1300	1350		350	1870
3	1000	1005		300	2850
4	1000	990		300	2855
5	2000	2080		325	2985
6	2000	500		300	3000
7	2000	675		350	1940
8	2000	1070		325	650
9	1000	1200		325	910
10	1000	650		325	1000
11	1000	1120		325	1000
12	1000	1170		325	1040
13	1000	1380		325	390
14	1000	130		325	130
15	1000	1390		325	130
16	3000	3115		325	120
17	3000	2280		350	30
18	3000	2915		350	130
19	2500	2620		350	140
20	1600	1784		325	1120
21	1000	1210		325	520
22	2000	2460		325	50
23	1800	1670		350	
24	2000	1680		350	
25	2000	2090		350	
26	2500	2740		350	310
27	1400	4060		300	130
28	1000	495		300	130
29	2000	975		325	1300
30	2000	2710		325	390
31					
TOTALS	48,600	46,854			25,620

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION	SALT V Dey
MONTH/YEAR	Oct 2014

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLS	BBLS SOLD	PSI	PSI	SOLD
1	1300	1295	100	350	143
2	1800	1590		350	390
3	2000	3870		11	390
4	2000	1885		11	520
5	1800	1630		11	860
6	2000	2240		11	930
7	1000	690		11	390
8	3900	3850		11	868
9	3500	3075		11	260
10	1000	945		11	390
11	3000	3075		11	370
12	1800	1515		300	
13	3000	3685		11	790
14	3000	2675 2675		11	1040
15	2000	1860		11	130
16	1600	1470		325	1,560
17	1900 1710	1900		11	130
18	3000	2980		11	130
19	2000	2270		11	130
20	1700	1735		11	0
21	1800	1740		250	0
22	1000	620		11	0
23	1000	1000		11	0
24	500	340		11	0
25	500	440		300	0
26	400	130		300	0
27	1200	1120		300	0
28	1200	1025		300	0
29	1100	1145		280	0
30	3000	3000		285	0
31	200	235		285	0
TOTALS	55010	55020		2025	4,411.00

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

46346
59242

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION *SALTY D*

MONTH/YEAR *November 2014*

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BBLs SOLD	PSI	PSI	SOLD
1	1333	1860	100	300	
2	1335	640		300	
3	1330	2220		300	
4	1333	1490		300	
5	1333	2300		300	
6	1333	2750		300	
7	1333	1080		300	
8	1333	780		300	
9	1333	1155		300	
10	1333	2485		300	
11	1333	1810		300	
12	1333	1321		300	
13	1333	805		300	
14	1333	1285		300	
15	1333	1185		300	
16	1333	1245		300	
17	1333	778		300	
18	1333	493		300	
19	1333	80		300	
20	1333	985		300	
21	1333	990		300	
22	1333	750		300	
23	1333	1,100		300	
24	1333	1780		300	130
25	1333	1245		300	
26	1333	605		300	
27	1333	1135		300	130
28	1333	3510		300	130
29	1333	1540		300	130
30	1333	380		300	
31					
TOTALS	39,989	39382			520
REPAIRS AND/OR EXPENSES					
Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by	

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION *SALLY Day*
MONTH/YEAR *Dec - 2014*

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BBLs SOLD	PSI	PSI	SOLD
1	1300	1295	160	350	143
2	1800	1590	11	350	390
3	2000	3870	11	11	390
4	2000	1885	11	11	520
5	1800	1630	11	11	860
6	2000	2240	11	11	930
7	1000	690	11	11	390
8	3900	3850	11	11	868
9	3500	3075	11	11	260
10	1000	945	11	11	390
11	3000	3075	11	11	370
12	1800	1515		300	
13	3000	3685		11	790
14	3000	2675 2675		11	1040
15	2000	1850		11	130
16	1600	1470		32.5	1,560
17	1000	900		11	
18	1000	780		11	
19	2000	1670		11	
20				11	
21	1800	1240		250	
22	1000	620		11	
23				11	
24	500	340		11	
25	500	440		300	
26					
27					
28					
29					
30					
31					
TOTALS					

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

Appendix C

**Laboratory
Analytical Report**



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

April 07, 2015

John Ayarbe

Daniel B. Stephens & Assoc.
6020 Academy NE Suite 100
Albuquerque, NM 87109
TEL: (505) 822-9400
FAX (505) 822-8877

RE: Salty Dog

OrderNo.: 1503A28

Dear John Ayarbe:

Hall Environmental Analysis Laboratory received 13 sample(s) on 3/24/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-1R

Project: Salty Dog

Collection Date: 3/20/2015 10:50:00 AM

Lab ID: 1503A28-001

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1200	50	*	mg/L	100	3/25/2015 10:15:59 PM	R25078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 1 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-2

Project: Salty Dog

Collection Date: 3/20/2015 7:40:00 AM

Lab ID: 1503A28-002

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	29	5.0		mg/L	10	3/25/2015 8:49:06 PM	R25078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 2 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-3

Project: Salty Dog

Collection Date: 3/20/2015 10:10:00 AM

Lab ID: 1503A28-003

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	35	5.0		mg/L	10	3/25/2015 10:53:13 PM	R25078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 3 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-4

Project: Salty Dog

Collection Date: 3/20/2015 8:35:00 AM

Lab ID: 1503A28-004

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	33	5.0		mg/L	10	3/25/2015 11:18:02 PM	R25078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-5

Project: Salty Dog

Collection Date: 3/20/2015 9:20:00 AM

Lab ID: 1503A28-005

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	140	5.0		mg/L	10	3/25/2015 11:42:52 PM	R25078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 5 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-6

Project: Salty Dog

Collection Date: 3/19/2015 3:00:00 PM

Lab ID: 1503A28-006

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	370	50	*	mg/L	100	3/26/2015 12:20:06 AM	R25078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 6 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-8

Project: Salty Dog

Collection Date: 3/19/2015 5:30:00 PM

Lab ID: 1503A28-007

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	36	5.0		mg/L	10	3/26/2015 12:32:31 AM	R25078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 7 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-9

Project: Salty Dog

Collection Date: 3/19/2015 6:15:00 PM

Lab ID: 1503A28-008

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	260	50	*	mg/L	100	3/26/2015 1:34:33 AM	R25078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 8 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: MW-3

Project: Salty Dog

Collection Date: 3/19/2015 4:30:00 PM

Lab ID: 1503A28-009

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	9700	500	*	mg/L	1E	3/28/2015 9:39:45 AM	R25138

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 9 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: MW-5

Project: Salty Dog

Collection Date: 3/19/2015 2:05:00 PM

Lab ID: 1503A28-010

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1200	50	*	mg/L	100	3/26/2015 2:24:11 AM	R25078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 10 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: Injection Well

Project: Salty Dog

Collection Date: 3/20/2015 12:35:00 PM

Lab ID: 1503A28-011

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	230	50		mg/L	100	3/26/2015 2:49:00 AM	R25078
SM4500-H+B: PH							Analyst: JRR
pH	7.80	1.68	H	pH units	1	3/26/2015 12:37:00 PM	R25085
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	0.9861	0			1	3/24/2015 12:31:00 PM	R25027
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	652	40.0	*	mg/L	1	3/26/2015 4:44:00 PM	18322

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 11 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: Brine Well

Project: Salty Dog

Collection Date: 3/20/2015 12:20:00 PM

Lab ID: 1503A28-012

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	160000	10000	*	mg/L	2E	3/28/2015 9:52:10 AM	R25138
EPA METHOD 200.7: METALS							Analyst: JLF
Sodium	110000	5000		mg/L	1E	3/31/2015 4:41:50 PM	18395
SM4500-H+B: PH							Analyst: JRR
pH	7.40	1.68	H	pH units	1	3/26/2015 12:37:00 PM	R25085
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	1.174	0			1	3/24/2015 12:31:00 PM	R25027
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	293000	2000	*	mg/L	1	3/26/2015 4:44:00 PM	18322

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 12 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: PMW-1

Project: Salty Dog

Collection Date: 3/20/2015 11:40:00 AM

Lab ID: 1503A28-013

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	8500	500	*	mg/L	1E	3/28/2015 10:04:34 AM	R25138

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 13 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1503A28

07-Apr-15

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB-18395		SampType:	MBLK		TestCode:	EPA Method 200.7: Metals				
Client ID:	PBW		Batch ID:	18395		RunNo:	25178				
Prep Date:	3/28/2015		Analysis Date:	3/30/2015		SeqNo:	744019		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Sodium	ND	1.0									

Sample ID	LCS-18395		SampType: LCS		TestCode: EPA Method 200.7: Metals					
Client ID:	LCSW		Batch ID: 18395		RunNo: 25178					
Prep Date:	3/28/2015		Analysis Date: 3/30/2015		SeqNo: 744020		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	51	1.0	50.00	0	103	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1503A28

07-Apr-15

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R25078	RunNo:	25078					
Prep Date:		Analysis Date:	3/25/2015	SeqNo:	740330	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R25078	RunNo:	25078					
Prep Date:		Analysis Date:	3/25/2015	SeqNo:	740331	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.9	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R25078	RunNo:	25078					
Prep Date:		Analysis Date:	3/25/2015	SeqNo:	740382	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R25078	RunNo:	25078					
Prep Date:		Analysis Date:	3/25/2015	SeqNo:	740383	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	5.1	0.50	5.000	0	103	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R25138	RunNo:	25138					
Prep Date:		Analysis Date:	3/27/2015	SeqNo:	742255	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R25138	RunNo:	25138					
Prep Date:		Analysis Date:	3/27/2015	SeqNo:	742256	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	5.0	0.50	5.000	0	99.1	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1503A28

07-Apr-15

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R25138	RunNo:	25138					
Prep Date:		Analysis Date:	3/27/2015	SeqNo:	742283	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1503A28

07-Apr-15

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID 1503A28-011ADUP		SampType: DUP			TestCode: SM4500-H+B: pH					
Client ID: Injection Well	Batch ID: R25085			RunNo: 25085						
Prep Date:	Analysis Date: 3/26/2015			SeqNo: 740585		Units: pH units				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.80	1.68								H

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1503A28

07-Apr-15

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB-18322		SampType:	MBLK		TestCode:	SM2540C MOD: Total Dissolved Solids				
Client ID:	PBW		Batch ID:	18322		RunNo:	25097				
Prep Date:	3/25/2015		Analysis Date:	3/26/2015		SeqNo:	740843		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Total Dissolved Solids	ND	20.0									

Sample ID	LCS-18322		SampType: LCS		TestCode: SM2540C MOD: Total Dissolved Solids					
Client ID:	LCSW		Batch ID: 18322		RunNo: 25097					
Prep Date:	3/25/2015		Analysis Date: 3/26/2015		SeqNo: 740844		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1030	20.0	1000	0	103	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: DBS

Work Order Number: 1503A28

RcptNo: 1

Received by/date: CS 03/24/15

Logged By: Celina Sessa 3/24/2015 10:35:00 AM

Completed By: Celina Sessa 3/24/2015 10:43:33 AM

Reviewed By: CS/Ag 03/24/15
Celina Sessa
Celina Sessa

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels? Yes ☒ No ☐
(Note discrepancies on chain of custody)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met? Yes ☒ No ☐
(If no, notify customer for authorization.)

For Metals analysis added 1mL HNO₃ to -012B for acceptable pH.

of preserved bottles checked for pH: 1
(≤2 or >12 unless noted)
Adjusted? yes
Checked by: Ag

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.0	Good	Not Present			

Chain-of-Custody Record

Client: Daniel B. Stephens & Associates

Mailing Address: 6020 Academy RD NE

Albuquerque, NM 87109

Phone #: 505-822-9400

email or Fax#: J.Ayarbe@DBStephens.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

CS 03/24/15
☒ Standard ☐ Rush

Project Name:

Salty Dog

Project #:

Project Manager:

J. Ayarbe

Sampler: M. Navar

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.0°C



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Cl ⁻	pH, Density, TDS	Na ⁺	Air Bubbles (Y or N)
3/20/15	1050	A9	DBS-1R	500 ml Poly	None	-001												X			
	0740		DBS-2			-002												X			
	1010		DBS-3			-003												X			
	0835		DBS-4			-004												X			
	0900		DBS-5			-005												X			
3/19/15	1500		DBS-6			-006												X			
	1730		DBS-8			-007												X			
	1815		DBS-9			-008												X			
	1630		MW-3			-009												X			
	1405		MW-5			-010												X			
3/20/15	1235		Injection Well	2x 500ml Poly	None HNO3	-011												X	X		
	1220		Brine Well			-012												X	X	X	

Date: 3/24/15 Time: 1035 Relinquished by: [Signature] Received by: Celina Serna Date: 03/24/15 Time: 1035

Remarks: 1503A28-013: Sample PMW-1 (3/20/15 1140) Analysis: Cl⁻



May 25, 2016

Dr. Tomas Oberding
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505-4225

Re: 2015 Annual Class III Well Report
Salty Dog Brine Station

Dear Dr. Oberding:

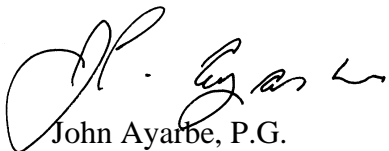
On behalf of PAB Services, Inc., Daniel B. Stephens & Associates, Inc. (DBS&A) is pleased to submit the enclosed annual Class III well report for the operation of a brine well (API No. 30-025-26307) at the Salty Dog Brine Station in Lea County, New Mexico. The report documents brine production activities at the facility in 2015, and was prepared in accordance with the requirements of discharge permit (DP) BW-8.

Also included as an appendix to the report is an annual certification signed by Mr. Pieter Bergstein.

Please do not hesitate to call me at (505) 353-9137 or Mike at (505) 353-9130 if you have any questions or require additional information.

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.



John Ayarbe, P.G.
Senior Hydrogeologist



Michael D. McVey, C.P.G., P.G.
Senior Hydrogeologist

JA/rpf
Enclosures

cc: Pieter Bergstein, PAB Services, Inc.
Jim Sayre, Salty Dog, Inc.

Daniel B. Stephens & Associates, Inc.

6020 Academy NE, Suite 100

505-822-9400

Albuquerque, NM 87109

FAX 505-822-8877

2015 Annual Class III Well Report

Salty Dog Brine Station

DP BW-8, API No. 30-025-26307

Lea County, New Mexico

Prepared for

**New Mexico Energy, Minerals and
Natural Resources Department
Oil Conservation Division**

May 25, 2016



Daniel B. Stephens & Associates, Inc.

6020 Academy NE, Suite 100 • Albuquerque, New Mexico 87109



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- 3 Generalized Brine Well Schematic
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- 5 Area of Review

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- A Annual Certification
- B 2015 Monthly Fresh and Brine Water Report Forms
- C Laboratory Analytical Reports



2015 Annual Class III Well Report

Salty Dog Brine Station

DP BW-8, API No. 30-025-26307

Lea County, New Mexico

1. Introduction

Daniel B. Stephens & Associates, Inc. (DBS&A) has prepared this annual Class III well report for submission to the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD) Environmental Bureau on behalf of PAB Services, Inc. (PAB) for the operation of a brine well (Brine Supply Well #1 [API No. 30-025-26307]) at the Salty Dog Brine Station (the site). The site is located in Lea County, New Mexico, approximately 11 miles west of Hobbs, New Mexico along U.S. Highway 62/180 (Figure 1). This report summarizes operational and monitoring activities conducted at the site in 2015, and was prepared in accordance with the requirements of discharge permit (DP) BW-8, last renewed on November 8, 2013 (NMEMNRD, 2013). The submittal of this report meets Condition 2.J of the permit.

The most recent version of DP BW-8 stipulates several new monitoring and characterization requirements for the site (NMEMNRD, 2013). While PAB has implemented activities to meet most of these requirements, implementation of a subsidence monitoring program and brine cavern characterization study are still awaiting OCD work plan approval. A work plan for these two activities was submitted to OCD on September 17, 2014 (DBS&A, 2014b).

Appendix A provides an annual certification signed by Mr. Pieter Bergstein stating that continued salt solution mining will not cause cavern collapse, surface subsidence, property damage, or otherwise threaten public health and the environment based on geologic and engineering data.

Salty Dog is a brine water production and loading station, consisting of a fresh water supply well, a brine production well, and a concrete truck loading pad with two brine filling stations. Fresh water is stored in two 1,000-barrel (bbl) aboveground storage tanks (ASTs). Produced brine is pumped from the brine well to a bermed tank battery consisting of six 750-bbl ASTs,



where the brine is stored for sale. The brine well is located approximately 0.5 mile southwest of the brine filling station (Figure 1). Figure 2 presents a 2014 aerial photograph of the brine station showing the layout of the current facility infrastructure.

Brine is produced from the in situ extraction of salt at the brine well, a UIC Class III well (Brine Supply Well #1 [API No. 30-025-26307]). The brine well is approximately 3,000 feet deep and has been in operation since the early 1980s. The Salty Dog brine well is configured for reverse circulation brine recovery, where fresh water is circulated down the casing annulus into the Salado Formation—a Permian Age sedimentary rock unit composed of halite (salt) and other evaporative beds. Fresh water dissolves the salt, and the brine is extracted through the center tubing of the well. Figure 3 shows a generalized schematic of the brine well illustrating its construction, tubing depths, and the penetrated geologic units.

The physical location of the brine well is 1,980 feet from south line (FSL) and 1,980 feet from east line (FEL) (NW/4 SE/4, Unit Letter J) in Section 5, Township 19 South, Range 36 East, New Mexico Principal Meridian (NMPM) (Figure 1). The brine well was installed in June 1979. The original discharge permit for the brine well (GWB-2) appears to have been issued on December 18, 1982 (OCD, 1994). The discharge permit was last renewed on November 8, 2013 (NMEMNRD, 2013).

Injection water used in brine production is obtained from the Ogallala Aquifer by pumping from the fresh water supply well and two on-site groundwater remediation wells (RW-1 and RW-2). The two remediation wells are used to remove and provide hydraulic containment of chloride-impacted groundwater. Depth to regional groundwater is approximately 60 feet below ground surface (bgs). Figure 4 shows the locations of the two extraction wells (RW-1 and RW-2).

2. Brine Well Operational Activities

The following subsections report fluid injection and brine production volumes and well maintenance activities.



2.1 Fluid Injection and Brine Production

Except for an approximately 2-year shutdown between 2011 and 2013 and temporary interruptions for routine maintenance and testing (e.g., February 2009 sonar survey [SOCON, 2009]), the brine well has been in continuous operation since 1980, producing an average of approximately 10,500 barrels per month (bbl/mo) of brine between 1980 and 2009. This production rate is based on 1987, 1996–1999, and 2009 brine production and sales records (Salty Dog, 1988, 1999, and Undated).

Both fluid injection and brine production volumes are metered, and daily volumes are recorded on monthly fresh and brine water report forms (Appendix B). Table 1 summarizes monthly injection and production volumes for the reporting period. Injection water for the brine well comes from a fresh water well located immediately east of the truck loading pad and two groundwater remediation wells (RW-1 and RW-2) (Figure 4). Ratios of injected water to produced brine ranged from 1.01 to 1.12.

Table 1. Monthly Water Injection and Brine Production Volumes, 2015

Month	Volume (bbl)		Ratio ^a (injection:production)
	Water Injection	Brine Production	
January	36,600	32,598	1.12
February	14,045	33,473	—
March	—	35,250	—
April	6,250	39,210	—
May	47,700	47,340	1.01
June	45,310	52,000	—
July	71,740	70,987	1.01
August	46,860	46,015	1.02
September	47,500	45,360	1.05
October	39,195	36,868	1.06
November	48,200	45,353	1.06
December	46,350	43,429	1.08
Annual total	449,758	527,883	—

^a Ratios calculated for those months when daily injection and production volumes are provided for the majority of the days within the month (Appendix B).
bbl = Barrels



Based on the data reported in Table 1 and previously reported production records (Salty Dog, 1988, 1999, and Undated; DBS&A, 2014a), the estimated cumulative volume of brine production is 5,109,777 bbl.

In 2015, brine production activities at Salty Dog dissolved an estimated 73,000 bbl of Salado Formation. This estimate is based on the brine production data reported in Table 1, the average total dissolved solids (TDS) concentrations of the produced brine and injection water reported in Table 2, and an assumed density of the Salado Formation of 2.17 grams per cubic centimeter (g/cm^3). The total estimated size of the brine solution cavern is approximately 740,000 bbl, based on the historical and present brine production data. In 2012, OCD estimated a volume of 1,022,196 bbl for the Salty Dog solution cavern (NMEMNRD, 2012).

2.2 Injection Pressure

Pressure is monitored on the well tubing and recorded daily on the monthly fresh and brine water report forms (Appendix B). In 2015, recorded daily tubing pressure was 100 pounds per square inch (psi).

PAB has equipped the brine well with a Murphy pressure switch set to a maximum injection pressure of 250 psi. If the injection pressure exceeds 250 psi, the switch automatically shuts off fluid injection at the brine well.

2.3 Chemical and Physical Analyses

Condition 2.A of DP BW-8 requires quarterly monitoring of the chemical and physical characteristics of the injection water and produced brine, including pH, density, and TDS and chloride concentrations. The permit also requires that the sodium concentration of the produced brine be analyzed.

Table 2 reports average constituent concentrations calculated from the 2015 quarterly monitoring data. Dissolution of the Salado Formation increases the constituent concentrations and specific gravity of the produced brine relative to the injection water. The average TDS concentration and average specific gravity of the injection water are 651 milligrams per liter



(mg/L) and 0.995, respectively, while the same properties of the produced brine are 301,250 mg/L and 1.19, respectively. Appendix C provides the laboratory analytical reports associated with 2015 monitoring.

Table 2. Injection Water and Produced Brine Chemical and Physical Characteristics

Constituent	Average Concentration (mg/L ^a)	
	Injection Water	Produced Brine
pH (s.u.)	7.93	7.41
Specific gravity (unitless)	0.995	1.19
Chloride	215	182,500
Sodium	—	98,750
TDS	651	301,250

^a Unless otherwise noted
mg/L = milligram per liter
s.u. = Standard units
TDS = Total dissolved solids

Historical water quality analyses show TDS concentrations of the fresh water and produced brine of approximately 600 mg/L and 320,000 to 350,000 mg/L, respectively (Martin, 1982; Unichem, 1987).

2.4 Deviations from Normal Operations

There were no deviations from normal operations in 2015.

2.5 Leaks and Spills

There were no leaks or spills in 2015.

2.6 Area of Review

Salty Dog did not discover any new wells or other conduits within a 1-mile radius of the brine well that penetrate or potentially penetrate to the Salado Formation (i.e., injection zone).



Condition 3.L of DP BW-8 requires Salty Dog to report within 72 hours the discovery of any new wells, conduits, or other devices that are both within a 1-mile radius and may penetrate to the injection zone of the brine well.

Figure 5 shows the area within a 1-mile radius of the brine well presented on a 2014 aerial photograph. The brine station is located on private property in rural southeastern New Mexico, approximately 11 miles west of Hobbs. The majority of the area surrounding the site is undeveloped and owned by the State of New Mexico (Figure 5).

2.7 Mechanical Integrity Test

Mechanical integrity testing was not conducted in 2015. The last mechanical integrity test was performed on October 31, 2013, when Salty Dog conducted a Bradenhead test on the brine well. The test showed no problems with the integrity of the well casing. Results of this test were reported to OCD on November 15, 2013. Pursuant to 20.6.2.5204 New Mexico Administrative Code (NMAC), PAB is required to demonstrate mechanical integrity of the brine well at least once every five years.

3. Other Facility Activities

Other than the standard operating activities described above, there were no other major activities in 2015.

4. Subsidence Monitoring and Cavern Characterization

A work plan to satisfy Conditions 2.B.1 and 2.B.2 of the renewed DP BW-8 was submitted to OCD on September 17, 2014 (DBS&A, 2014b). This work plan describes the proposed technical approach to be used to satisfy the two permit conditions: (1) the design of survey monuments and establishment of a program to monitor for potential surface subsidence, and (2) investigation activities to characterize the size and shape of the solution cavern created by brine production. PAB is awaiting OCD review and approval of the work plan before implementing proposed subsidence monitoring and cavern characterization activities.



5. Groundwater Conditions

Salty Dog is addressing groundwater impacts resulting from releases at the brine well and a former brine pond. A hole in the casing of the brine well at 250 feet bgs was discovered in 1999 (Salty Dog, 1999). The hole released brine, impacting groundwater, and was repaired in August 1999 by installing a casing liner (Salty Dog, 1999). In October 2008, the brine pond was removed and impacted soil excavated and disposed of (DBS&A, 2008). The area of the former brine pond is shown in Figures 1 and 2.

Two chloride plumes currently exist at the site: one in the area of the brine station (i.e., the former brine pond area) and a second near the brine well. In 2009, extraction wells RW-1 and RW-2 were installed at the site to remove and provide hydraulic containment of brine-impacted groundwater at the brine station and near the brine well, respectively (DBS&A, 2009). Groundwater abatement and monitoring activities are being conducted to satisfy an administrative compliance order issued by OCD (ACO 2008-02) and settlement agreement and stipulated revised final order (NM-OCD 2008-2A) between OCD and Mr. Bergstein.

Groundwater monitoring and extraction data are reported and evaluated in reports submitted to OCD (DBS&A, 2016). The data include water levels and water quality at site monitor wells (Figure 4).



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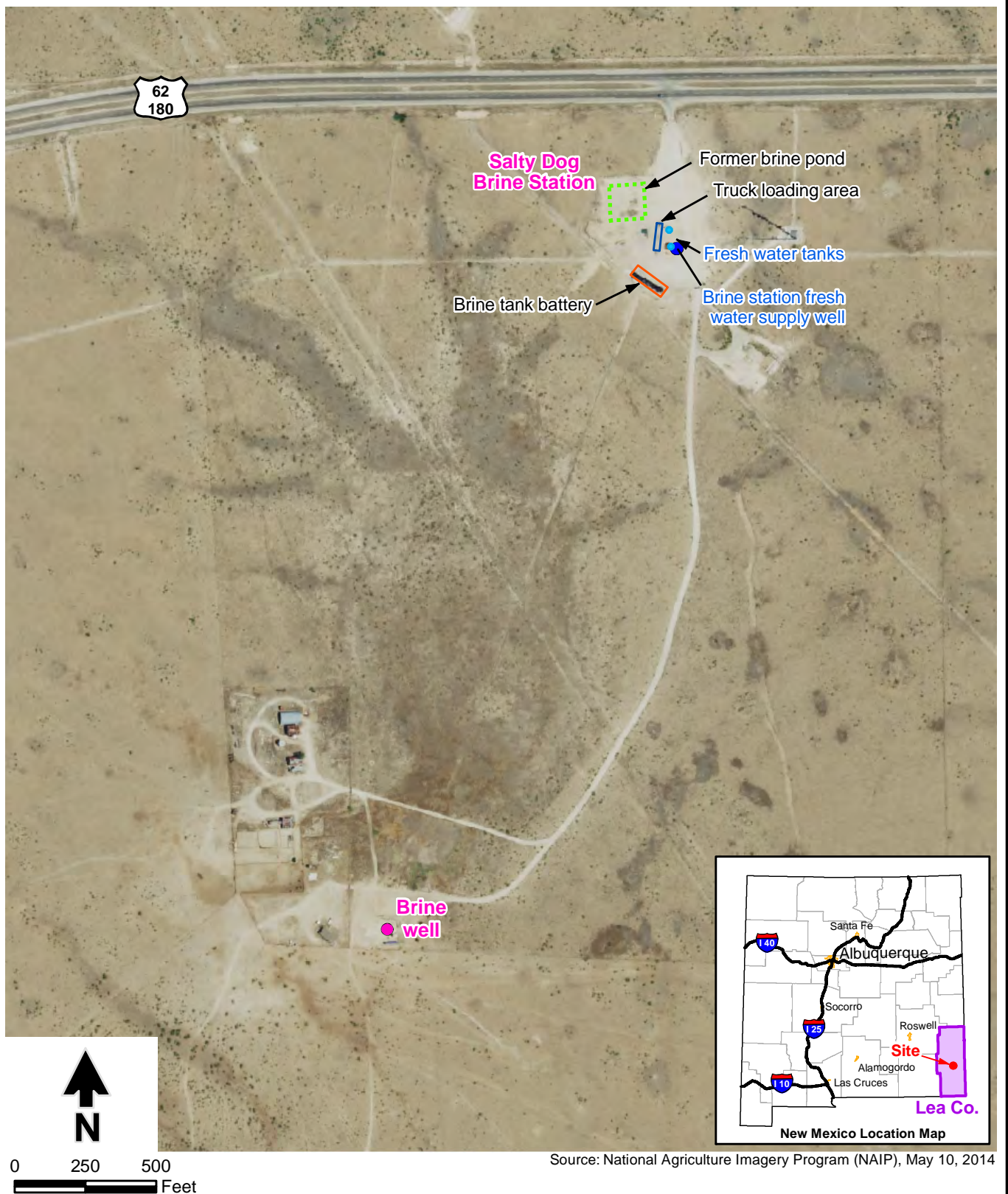
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Figures

S:\PROJECTS\ES08.0118.05_SALTY_DOG_DP_BW-8\GIS\MXD\ANNUAL RPT\ANNUAL_2015\FIG01_SITE_LOCATION_AND_FACILITIES.MXD



Explanation

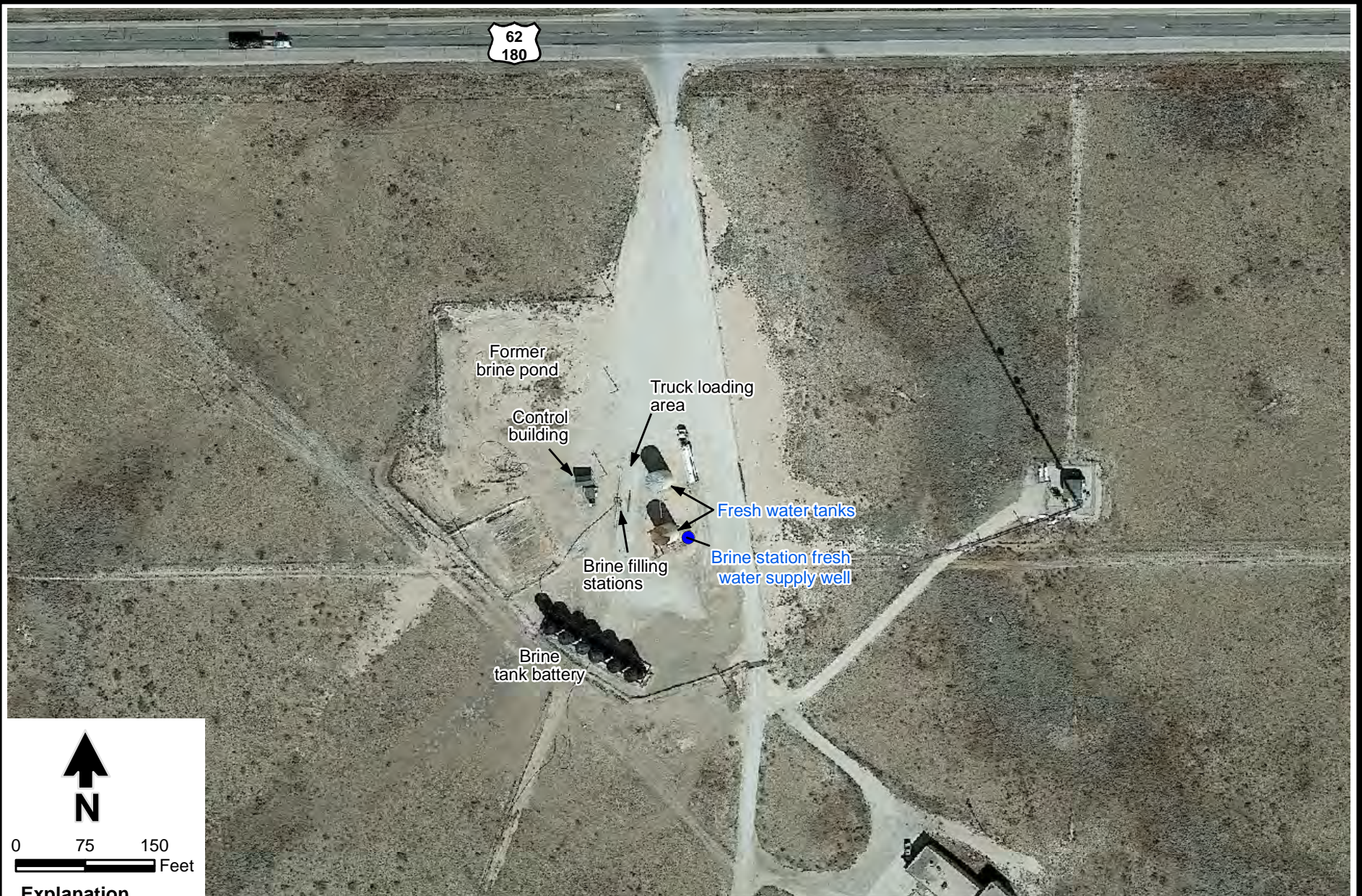
- Water supply well
- Brine well
- Fresh water tank



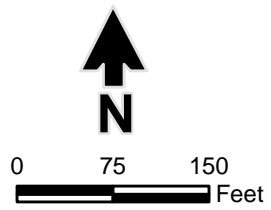
Daniel B. Stephens & Associates, Inc.
5/23/2016 JN ES08.0118.06

SALTY DOG BRINE STATION Site Location and Facilities

Figure 1



Source: USDA Farm Service Agency, DigitalGlobe, NMRGIS, February 14, 2014



Explanation

- Water supply well

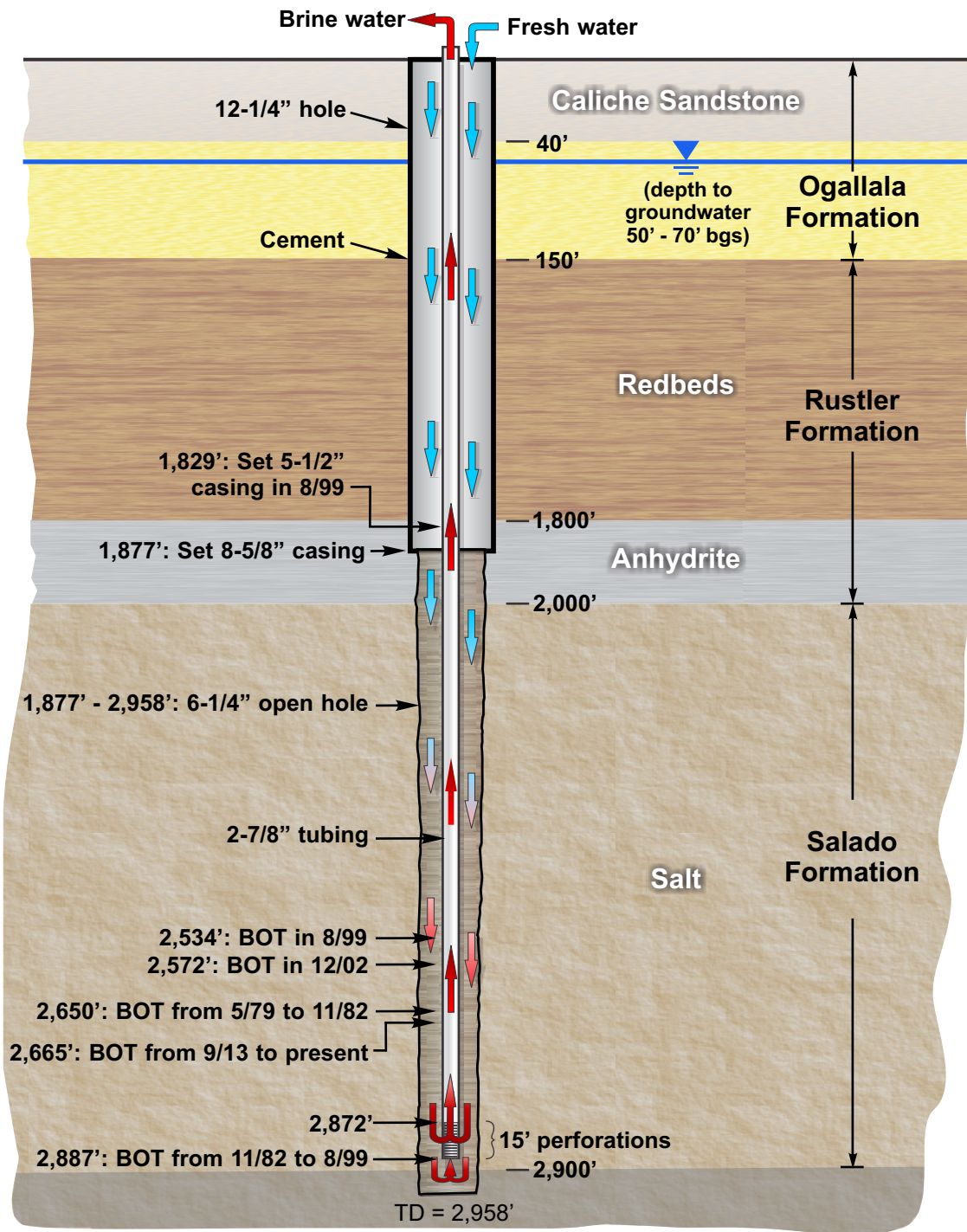
Figure 2



Daniel B. Stephens & Associates, Inc.
5/23/2016 JN ES08.0118.06

SALTY DOG BRINE STATION
2014 Aerial Photograph of Salty Dog Brine Station

Salty Dog Brine Well

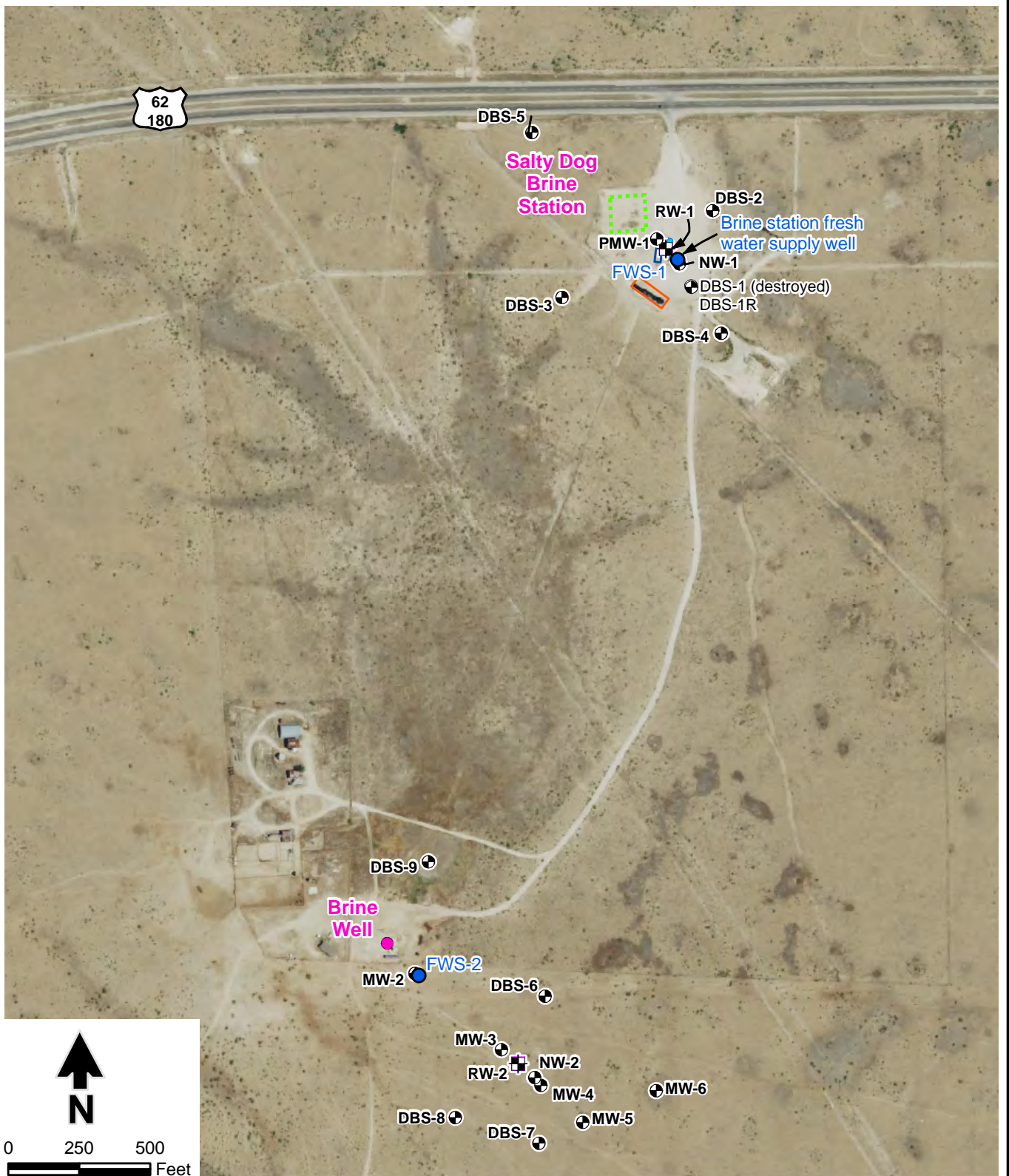


Notes:

1. BOT = Bottom of tubing
2. Figure not to scale

Sources:

1. Completion data based on OCD well reports
2. Lithology from Salty Dog (1988)



Source: National Agriculture Imagery Program (NAIP), May 10, 2014

Explanation

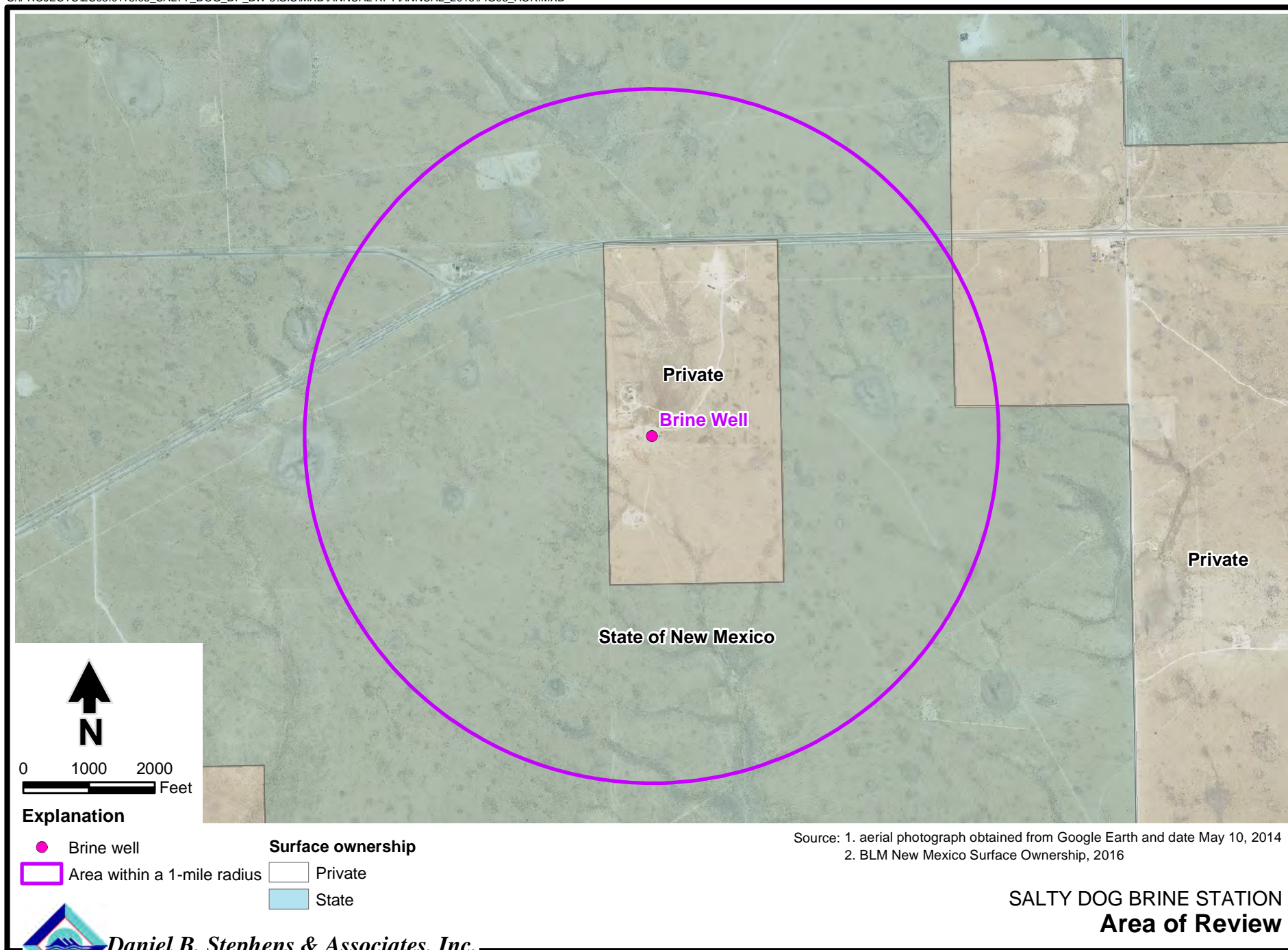
- | | |
|---------------------------|----------------------|
| ● Fresh water supply well | ● Brine well |
| ⊕ Monitor well | ▭ Brine tank battery |
| ⊕ Recovery well | ▭ Truck loading area |
| ⊙ Well destroyed | ▭ Former brine pond |



Daniel B. Stephens & Associates, Inc.
5/23/2016 JN ES08.0118.06

SALTY DOG BRINE STATION Monitor and Extraction Well Locations

Figure 4



Appendix A
Annual Certification

Annual Certification

PAB Services, Inc. certifies that continued salt solution mining will not cause cavern collapse, surface subsidence, property damage, or otherwise threaten public health and the environment based on geologic and engineering data.

Ben Bragstein

Name

President

Title



Signature

5/24/16

Date

Appendix B

2015 Monthly Fresh and Brine Water Report Forms

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION SALTY Dog
 MONTH/YEAR JAN 2015

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BBLs SOLD	PSI	PSI	SOLD
1	1500	1205			
2	800	1555			
3	500	130			
4	500	260			
5	500	130			
6	1500	2055			
7	1800	1286			
8	1800	1285			
9	1500	1430			
10	1000	960			
11	0	0			
12	1000	1295			
13	1500	1900			
14	1800	1995			
15	2000	2180			390
16	1800	2130			130
17	1800	1270			295
18	1800	2050			260
19	1500	1100			130
20	1000	730			130
21	1800	1891			780
22	900	450			
23	500	260			
24	500	250			
25	500	821			
26	1500	1460			520
27	1800	860			40
28	1800	1410			
29	1000	330			95
30	1000	810			
31	500	110			
TOTALS	35600	31,313			2,302

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION	Salty Dog
MONTH/YEAR	Feb. 2015

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLS	BBLS SOLD	PSI	PSI	SOLD
1	450	450			
2	2210	2210			
3	1990	1940			650
4	1865	1865			550
5	2390	2390			390
6	1940	1746			1690
7	1600	1344			
8	1500	1306			
9	0	130			130
10		690			
11		1700 ¹⁷¹⁰			
12		1090			
13		1225			100
14		3075			
15		2110			
16		1485			1010
17		1900			486
18		2035			136
19		1698			
20		2095			
21		480			
22		130			
23		130			
24		245			
25					1540
26					910
27					130
28					
29					
30					
31					
TOTALS	13,985	33,413			

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION SALTY DOG

MONTH/YEAR MARCH

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLS	BBLS SOLD	PSI	PSI	SOLD
1	0	0			0
2	0	260			310 300 600
3		1225 ¹²²⁵			910
4		915			0
5		3210			296
6		1950			26
7		1170			130
8		1885			1040
9		540			605
10		1000			680
11		2365			536
12		1850			0
13		0			90
14		1285			
15		240			
16		1745			
17		2035			
18		1580			
19		1500			
20		1065			
21		570			
22		520			
23		2110			
24		580			30
25		1530			
26		350			136
27		600			390
28		390			
29		0			
30		1140			
31		1640			
TOTALS		35,250			5,185

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION *AD*

MONTH/YEAR *April 2015*

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLS	BBLS SOLD	PSI	PSI	SOLD
1	700	640	100	350	100
2	2500	2965	100	400	38
3	1200	1030	100	350	
4	1850	⁹⁰⁵ 1105	100	350	
5		700			120
6		2690			
7		1080			110
8		2095			290
9		650			190
10		670			480
11		1455			125
12		1450			130
13		1050			50
14		1345			25
15		2305			
16		1550			
17		1375			65
18		2110			130
19		1010			
20		1365 2025			
21		1310			40
22		1460			5
23		1030			380
24		990			195
25		750			280
26		430			
27		1310			375
28		830			750
29		850			425 625
30		350			
31					
TOTALS	6250	39,210			

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION

SALTY Dog

MONTH/YEAR

May 2015

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BBLs SOLD	PSI	PSI	SOLD
1	2000	1930	100	350	30
2	1400	1370	100	350	488
3	3000	3210		350	40
4	1600	1620		350	425
5	2800	2595		350	182
6	2700	2560		350	
7	3500	3980		350	75
8	3400	2310		350	145
9	1800	1795		350	130
10	3500	3180		350	160
11	1200	1185		350	61
12	2100	2070		350	296
13	1000	900		350	
14	2500	2450		350	
15	1000	960		350	76
16	500	420		350	86
17	0	236		350	166
18	1000	890		350	511
19	1400	1320		350	330
20	1200	1150		350	
21	1600	1490		350	130
22	2000	2050		350	610
23	1000	1410		350	1206
24	500	690		350	971
25	500	630		350	100
26	0	420		350	66
27	500	260		350	
28	500	220		350	
29	1500	2110		350	
30	2000	1945		350	226
31					
TOTALS	47,200	47,340			6,467

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION

SALTY Dog

MONTH/YEAR

April 2015

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLS	BBLS SOLD	PSI	PSI	SOLD
1	950 850				230
2	1050 1440				260
3	2050 1780				260
4	1700 1750				260
5	2535				260
6	2095				575
7	1353 1250				370
8	1480 2310				
15	1105				
10	570				
11	2060				30
12	580 690				115
13	1490				
14	900				30
15	600				235
16	850				
17	310				
18	1795				840
19	1455				
20	2355				
21	1705				
22	3225				
23	1040				
24	1030				
25	995				
26	1010				40
27	1650 3770				245
28	1160 1150				170
29	1510				
30	880				
31	610				
TOTALS	45248	52000			4390

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION *SALTY Dog*
 MONTH/YEAR *July 2016*

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BBLs SOLD	PSI	PSI	SOLD
1	2500	2430	100	350	640
2	3800	4050	100	375	406
3	2200	1760	100	350	
4	500	890	100	350	130
5	2400	2220	100	350	286
6	3600	4029	100	350	220
7	4000	3220	100	350	417
8	2100	1915	100	350	385
9	2300	2158	100	350	185
10	3000	3130	100	350	600
11	4000	4280	100	325	30
12	2700	2660	100	325	130
13	2800	2665	100	300	145
14	1750	1785	100	325	30
15	1900	1865	100	300	220
16	2600	2525	100	300	545
17	2090	2090	100	325	310
18	1000	845	100	300	
19	1500	1335	100	325	
20	2000	2035	100	350	
21	1900	1890	100	325	190
22	1200	1170	100	325	
23	2200	2135	100	350	
24	4600	4485	100	325	
25	1900	1920	100	350	
26	1000	1085	100	325	
27	1000	1080 1660	100	350	
28	1900	1820	100	350	
29	1500	1340	100	350	61
30	2400	2260	100	325	186
31	3400	3335	100	325	426
TOTALS	71,740	70,987			5,542

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION *SALTP DOQ*

MONTH/YEAR *August*

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLS	BBLS SOLD	PSI	PSI	SOLD
1	350	345	100	375	130
2	2000	1920	100	375	
3	1700	1670	100	375	130
4	2200	2145	100	375	
5	500	400	100	375	126
6	1800	1940	100	375	366
7	1300	1380	100	375	56
8	1,000	955	100	375	30
9	600	770	100	375	30
10	3500	3370	100	375	60
11	800	610	100	375	
12	3000	3015	100	375	30
13	1500	1270	100	375	36
14	2000	2080	100	375	100
15	2500	2480	100	375	
16	0	0	100	375	
17	2300	2130	100	375	
18	1800	1830	100	375	50
19	2300	2200	100	375	80
20	2200	2195	100	375	30
21	2000	2240	100	375	
22	1400	1230	100	375	
23	1410	1440	100	375	
24	800	650	100	375	110
25	2200	2140	100	375	1016
26	1500	1660	100	375	640
27	900	705	100	375	65
28	1200	1100	100	375	
29	1700	1730	100	375	210
30	0	0	100	375	
31	400	395	100	375	
TOTALS	46,860	46,015			3,284

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION SALTY DOG

MONTH/YEAR SEPT 2015

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BBLs SOLD	PSI	PSI	SOLD
1	1200	1685	100	375	36
2	1900	1780	100	375	
3	1200	1310	100	375	91
4	1000	1070	100	375	58
5	3000	2980	100	375	
6	1100	1030	100	375	
7	1000	940	100	375	
8	1900	1730	100	375	86
9	2000	1795	100	375	36
10	1200	1380	100	375	
11	1600	1520	100	375	166
12	1600	1750	100	375	
13	1000	350	100	375	30
14	1700	1690	100	375	61
15	2200	2170	100	375	275
16	1000	875	100	375	50
17	1200	1135	100	375	247
18	1800	1940	100	375	
19	1800	1800	100	375	
20	1700	1560	100	375	130
21	1000	730	100	375	55
22	1000	980	100	375	91
23	1300	1260	100	375	131
24	1000	700	100	375	25
25	1300	1360	100	375	91
26	800	300	100	375	100
27	1500	1475	100	375	
28	1800	1700	100	375	30
29	3400	3300	100	375	206
30	3200	3105	100	375	146
31					
TOTALS	47,500	45,380			2,158

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION

MONTH/YEAR

Galaxy
01/2015

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLS	BBLS SOLD	PSI	PSI	SOLD
1	900	890	100	300	135
2	1200	1180	100	310	66
3	1500	1690	100	300	240
4	1800	1780	100	320	430
5	2500	2310	100	320	91
6	1000	725	100	350	415
7	2000	2080	100	340	311
8	1400	1290	100	340	120
9	1000	1040	100	340	50
10	500	210	100	340	130
11	0	350	100	340	
12	0	320	100	340	130
13	1000	760	100	340	51
14	1200	1130	100	340	61
15	700	0 630	100	340	
16	400	525	100	340	100
17	1500	200 1333	100	340	70
18	2100	2025	100	340	115
19	0	0	100	340	
20	2000	⁷⁵⁰ 1940	100	340	68
21	1000	700	100	340	61
22	900	635	100	340	276
23	3000	3910	100	350	202
24	2500	2040	100	350	225
25	1400	1080	100	350	0
26	1000	730	100	350	186
27	1000	680	100	360	200
28	1000	650	100	360	45
29	1500	1220	100	360	96
30	1695	1695	100	370	60
31	1500	1320	100	370	
TOTALS	39,195	34,888			3,874

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION *SALTY Dog*
MONTH/YEAR *Nov 2015*

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLS	BBLS SOLD	PSI	PSI	SOLD
1	1500	1430	100	360	135
2	600	490	100	360	80
3	2800	2760	100	360	160
4	2000	1880	100	370	61
5	3250	3190	100	370	50
6	1750	1615	100	375	66
7	1000	770	100	375	
8	1400	1230	100	375	
9	1500	1565	100	375	
10	1000	975	100	375	
11	1000	875	100	375	
12	2000	1710	100	375	
13	2200	2405 ¹⁰²⁰	100	375	575
14	0	320	100	375	
15	700	550	100	375	
16	1600	1295 000	100	375	130
17	800	585	100	375	166
18	2000	1915	100	375	454
19	2000	1985	100	375	331
20	1900	1700	100	375	30
21	800	790	100	375	150
22	1800	1720	100	375	
23	1000	1480	100	375	30
24	2000	1818	100	375	600
25	3000	3015	100	375	38
26	1000	830	100	375	
27	2000	1780	100	375	
28	2800	2545	100	375	
29	1000	610	100	375	
30	1800	1590	100	375	366
31					
TOTALS	46,200	45,355			3,422

9750

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION *SALT DOG*
 MONTH/YEAR *Dec 2015*

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLs	BBLs SOLD	PSI	PSI	SOLD
1	2000	1950	100	375	236
2	3000	3030	100	375	365
3	1700	1615	100	375	265
4	3500	3435	100	375	460
5	500	810	100	375	
6	700	620	100	375	
7	2900	2720	100	375	
8	1000	960	100	375	65
9	1200	1105	100	375	36
10	2200	2160	100	375	135
11	1200	1040	100	375	
12	2200	2100	100	375	106
13	1050	1050	100	375	
14	2500	2290	100	375	50
15	1200	1120	100	375	48
16	1400	1390	100	375	199
17	1300	1280	100	375	204
18	700	550	100	375	
19	1000	710	100	375	155
20	2000	1830	100	375	
21	2200	2020	100	375	30
22	2000	1830	100	375	
23	1400	1220	100	375	120
24	200	100	100	375	
25	200		100	375	
26	400	385	100	375	
27	400	325	100	375	
28	1000	830	100	375	
29	2100	1990	100	375	
30	1000	934	100	375	
31	2200	2030	100	375	
TOTALS	461350	43429			21460

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

MONTHLY FRESH & BRINE WATER REPORT

FACILITY/LOCATION SALTY Dog
 MONTH/YEAR Dec 2014

	AMOUNT OF FRESH WATER PUMPED DOWN HOLE	AMOUNT OF BRINE WATER OUT OF HOLE	DAILY TUBING PRESSURES	DAILY CASING PRESSURES	FRESH WATER
Date	BBLS	BBLS SOLD	PSI	PSI	SOLD
1	1960	1960			
2	1301	1301			130
3	1040	1040			130
4	990	990			
5	300	300			
6	1040	1040			
7	520	520			268
8	1380	1380			
9	1403	1403			
10	3495	3495			
11	2275	2275			
12	1760	1760			130
13	2030	2030			130
14	2394	2394			
15	2960				
16	180	180			215
17	3220	3220			320
18	3495	3495			1240
19	2180	2180			
20	3350	3350			
21	2030	2030			
22	2890	2890			
23	2125	2125			
24	1630	1630			
25	480	480			
26	1310	1310			
27	840	840			
28	2390	2390			
29	1245	1245			
30	1240				
31	240	240			
TOTALS	54293.	60097			

REPAIRS AND/OR EXPENSES

Date	Company Performing Work/Repairs	Description of Work/Repairs	Estimated Cost	Work Authorized by

Appendix C

**Laboratory
Analytical Reports**



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

April 07, 2015

John Ayarbe

Daniel B. Stephens & Assoc.
6020 Academy NE Suite 100
Albuquerque, NM 87109
TEL: (505) 822-9400
FAX (505) 822-8877

RE: Salty Dog

OrderNo.: 1503A28

Dear John Ayarbe:

Hall Environmental Analysis Laboratory received 13 sample(s) on 3/24/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-1R

Project: Salty Dog

Collection Date: 3/20/2015 10:50:00 AM

Lab ID: 1503A28-001

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1200	50	*	mg/L	100	3/25/2015 10:15:59 PM	R25078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 1 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-2

Project: Salty Dog

Collection Date: 3/20/2015 7:40:00 AM

Lab ID: 1503A28-002

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: LGT	
Chloride	29	5.0		mg/L	10	3/25/2015 8:49:06 PM	R25078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 2 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-3

Project: Salty Dog

Collection Date: 3/20/2015 10:10:00 AM

Lab ID: 1503A28-003

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	35	5.0		mg/L	10	3/25/2015 10:53:13 PM	R25078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 3 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-4

Project: Salty Dog

Collection Date: 3/20/2015 8:35:00 AM

Lab ID: 1503A28-004

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	33	5.0		mg/L	10	3/25/2015 11:18:02 PM	R25078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-5

Project: Salty Dog

Collection Date: 3/20/2015 9:20:00 AM

Lab ID: 1503A28-005

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	140	5.0		mg/L	10	3/25/2015 11:42:52 PM	R25078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 5 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-6

Project: Salty Dog

Collection Date: 3/19/2015 3:00:00 PM

Lab ID: 1503A28-006

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	370	50	*	mg/L	100	3/26/2015 12:20:06 AM	R25078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 6 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-8

Project: Salty Dog

Collection Date: 3/19/2015 5:30:00 PM

Lab ID: 1503A28-007

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	36	5.0		mg/L	10	3/26/2015 12:32:31 AM	R25078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 7 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-9

Project: Salty Dog

Collection Date: 3/19/2015 6:15:00 PM

Lab ID: 1503A28-008

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	260	50	*	mg/L	100	3/26/2015 1:34:33 AM	R25078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 8 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: MW-3

Project: Salty Dog

Collection Date: 3/19/2015 4:30:00 PM

Lab ID: 1503A28-009

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	9700	500	*	mg/L	1E	3/28/2015 9:39:45 AM	R25138

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 9 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: MW-5

Project: Salty Dog

Collection Date: 3/19/2015 2:05:00 PM

Lab ID: 1503A28-010

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1200	50	*	mg/L	100	3/26/2015 2:24:11 AM	R25078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 10 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: Injection Well

Project: Salty Dog

Collection Date: 3/20/2015 12:35:00 PM

Lab ID: 1503A28-011

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	230	50		mg/L	100	3/26/2015 2:49:00 AM	R25078
SM4500-H+B: PH							Analyst: JRR
pH	7.80	1.68	H	pH units	1	3/26/2015 12:37:00 PM	R25085
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	0.9861	0			1	3/24/2015 12:31:00 PM	R25027
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	652	40.0	*	mg/L	1	3/26/2015 4:44:00 PM	18322

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 11 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: Brine Well

Project: Salty Dog

Collection Date: 3/20/2015 12:20:00 PM

Lab ID: 1503A28-012

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	160000	10000	*	mg/L	2E	3/28/2015 9:52:10 AM	R25138
EPA METHOD 200.7: METALS							Analyst: JLF
Sodium	110000	5000		mg/L	1E	3/31/2015 4:41:50 PM	18395
SM4500-H+B: PH							Analyst: JRR
pH	7.40	1.68	H	pH units	1	3/26/2015 12:37:00 PM	R25085
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	1.174	0			1	3/24/2015 12:31:00 PM	R25027
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	293000	2000	*	mg/L	1	3/26/2015 4:44:00 PM	18322

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 12 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1503A28**

Date Reported: **4/7/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: PMW-1

Project: Salty Dog

Collection Date: 3/20/2015 11:40:00 AM

Lab ID: 1503A28-013

Matrix: AQUEOUS

Received Date: 3/24/2015 10:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	8500	500	*	mg/L	1E	3/28/2015 10:04:34 AM	R25138

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1503A28

07-Apr-15

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB-18395		SampType: MBLK		TestCode: EPA Method 200.7: Metals					
Client ID:	PBW		Batch ID: 18395		RunNo: 25178					
Prep Date:	3/28/2015		Analysis Date: 3/30/2015		SeqNo: 744019		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID	LCS-18395		SampType: LCS		TestCode: EPA Method 200.7: Metals					
Client ID:	LCSW		Batch ID: 18395		RunNo: 25178					
Prep Date:	3/28/2015		Analysis Date: 3/30/2015		SeqNo: 744020		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	51	1.0	50.00	0	103	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1503A28

07-Apr-15

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R25078	RunNo:	25078					
Prep Date:		Analysis Date:	3/25/2015	SeqNo:	740330	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R25078	RunNo:	25078					
Prep Date:		Analysis Date:	3/25/2015	SeqNo:	740331	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.9	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R25078	RunNo:	25078					
Prep Date:		Analysis Date:	3/25/2015	SeqNo:	740382	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R25078	RunNo:	25078					
Prep Date:		Analysis Date:	3/25/2015	SeqNo:	740383	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	5.1	0.50	5.000	0	103	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R25138	RunNo:	25138					
Prep Date:		Analysis Date:	3/27/2015	SeqNo:	742255	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R25138	RunNo:	25138					
Prep Date:		Analysis Date:	3/27/2015	SeqNo:	742256	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	5.0	0.50	5.000	0	99.1	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1503A28

07-Apr-15

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R25138	RunNo:	25138					
Prep Date:		Analysis Date:	3/27/2015	SeqNo:	742283	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1503A28

07-Apr-15

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID		1503A28-011ADUP		SampType: DUP		TestCode: SM4500-H+B: pH									
Client ID:		Injection Well		Batch ID: R25085		RunNo: 25085									
Prep Date:				Analysis Date: 3/26/2015		SeqNo: 740585		Units: pH units							
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH		7.80		1.68											H

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1503A28

07-Apr-15

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB-18322	SampType:	MBLK	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	PBW	Batch ID:	18322	RunNo:	25097					
Prep Date:	3/25/2015	Analysis Date:	3/26/2015	SeqNo:	740843	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	LCS-18322	SampType:	LCS	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	LCSW	Batch ID:	18322	RunNo:	25097					
Prep Date:	3/25/2015	Analysis Date:	3/26/2015	SeqNo:	740844	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1030	20.0	1000	0	103	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: DBS

Work Order Number: 1503A28

RcptNo: 1

Received by/date: CS 03/24/15

Logged By: Celina Sessa 3/24/2015 10:35:00 AM

Completed By: Celina Sessa 3/24/2015 10:43:33 AM

Reviewed By: CS/AY 03/24/15
Celina Sessa
Celina Sessa

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
For Metals analysis add 1 mL HNO₃ to -0.12B for acceptable pH.
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
 (Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
 (If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

1 (<2 or >12 unless noted)

Adjusted? (1.8)

Checked by: AY

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.0	Good	Not Present			

Chain-of-Custody Record

Client: Daniel B. Stephens & Associates

Mailing Address: 6020 Academy RD NE

Albuquerque, NM 87109

Phone #: 505-822-9400

email or Fax#: J.Ayarbe@DBStephens.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

CS 03/24/15
☒ Standard ☐ Rush

Project Name:

Project #:

Project Manager:

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.0°C



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Cl ⁻	pH, Density, TDS	Na ⁺	Air Bubbles (Y or N)
3/20/15	1050	A9	DBS-1R	500 mL Poly	None	-001												X			
	0740		DBS-2			-002												X			
	1010		DBS-3			-003												X			
	0835		DBS-4			-004												X			
	0700		DBS-5			-005												X			
3/19/15	1500		DBS-6			-006												X			
	1730		DBS-8			-007												X			
	1815		DBS-9			-008												X			
	1630		MW-3			-009												X			
	1405		MW-5			-010												X			
3/20/15	1235		Injection Well	2x 500 mL Poly	None HNO3	-011												X	X		
	1220		Brine Well			-012												X	X	X	

Date: 3/24/15 Time: 1035 Relinquished by: [Signature]

Date: 3/24/15 Time: 1035 Received by: Celine Serna

Date: 3/24/15 Time: 1035 Relinquished by: [Signature]

Date: 3/24/15 Time: 1035 Received by: Celine Serna

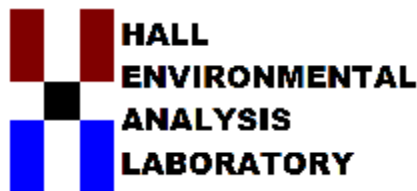
Date: 03/24/15 Time: 1035

Date: 03/24/15 Time: 1035

Date: 03/24/15 Time: 1035

Date: 03/24/15 Time: 1035

Remarks: 1503A28-013;
Sample PM2-1 (3/20/15 1140) Analysis: Cl⁻



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 22, 2015

John Ayarbe

Daniel B. Stephens & Assoc.
6020 Academy NE Suite 100
Albuquerque, NM 87109
TEL: (505) 822-9400
FAX (505) 822-8877

RE: Salty Dog

OrderNo.: 1507115

Dear John Ayarbe:

Hall Environmental Analysis Laboratory received 13 sample(s) on 7/2/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1507115**

Date Reported: **7/22/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: Brine

Project: Salty Dog

Collection Date: 6/30/2015 2:44:00 PM

Lab ID: 1507115-001

Matrix: AQUEOUS

Received Date: 7/2/2015 9:06:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	1.196	0			1	7/6/2015 11:56:00 AM	R27292
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	170000	10000	*	mg/L	2E	7/10/2015 1:52:10 AM	R27409
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	315000	2000	*	mg/L	1	7/8/2015 5:09:00 PM	20129
SM4500-H+B: PH							Analyst: JRR
pH	7.40	1.68	H	pH units	1	7/6/2015 6:53:19 PM	R27329
EPA METHOD 200.7: METALS							Analyst: ELS
Sodium	110000	2000		mg/L	2E	7/16/2015 11:06:22 AM	20178

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 1 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1507115**

Date Reported: **7/22/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-2

Project: Salty Dog

Collection Date: 6/30/2015 3:26:00 PM

Lab ID: 1507115-002

Matrix: AQUEOUS

Received Date: 7/2/2015 9:06:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	28	5.0		mg/L	10	7/2/2015 9:49:50 PM	R27301

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 2 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1507115**

Date Reported: **7/22/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-4

Project: Salty Dog

Collection Date: 6/30/2015 4:09:00 PM

Lab ID: 1507115-003

Matrix: AQUEOUS

Received Date: 7/2/2015 9:06:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	31	5.0		mg/L	10	7/2/2015 10:14:39 PM	R27301

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 3 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1507115**

Date Reported: **7/22/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-3

Project: Salty Dog

Collection Date: 6/30/2015 4:44:00 PM

Lab ID: 1507115-004

Matrix: AQUEOUS

Received Date: 7/2/2015 9:06:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	35	5.0		mg/L	10	7/2/2015 10:39:28 PM	R27301

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1507115**

Date Reported: **7/22/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-8

Project: Salty Dog

Collection Date: 7/1/2015 8:03:00 AM

Lab ID: 1507115-005

Matrix: AQUEOUS

Received Date: 7/2/2015 9:06:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: LGT	
Chloride	34	5.0		mg/L	10	7/2/2015 11:04:18 PM	R27301

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 5 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1507115**

Date Reported: **7/22/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: Injection

Project: Salty Dog

Collection Date: 7/1/2015 8:25:00 AM

Lab ID: 1507115-006

Matrix: AQUEOUS

Received Date: 7/2/2015 9:06:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	0.9971	0			1	7/6/2015 11:56:00 AM	R27292
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	180	50		mg/L	100	7/3/2015 12:06:19 AM	R27301
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	602	20.0	*	mg/L	1	7/8/2015 5:09:00 PM	20129
SM4500-H+B: PH							Analyst: JRR
pH	8.15	1.68	H	pH units	1	7/6/2015 6:57:23 PM	R27329

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 6 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1507115**

Date Reported: **7/22/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-5

Project: Salty Dog

Collection Date: 7/1/2015 9:00:00 AM

Lab ID: 1507115-007

Matrix: AQUEOUS

Received Date: 7/2/2015 9:06:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	140	5.0		mg/L	10	7/3/2015 12:18:44 AM	R27301

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 7 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1507115**

Date Reported: **7/22/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-9

Project: Salty Dog

Collection Date: 7/1/2015 9:41:00 AM

Lab ID: 1507115-008

Matrix: AQUEOUS

Received Date: 7/2/2015 9:06:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	210	50		mg/L	100	7/3/2015 12:55:58 AM	R27301

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 8 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1507115**

Date Reported: **7/22/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-6

Project: Salty Dog

Collection Date: 7/1/2015 10:40:00 AM

Lab ID: 1507115-009

Matrix: AQUEOUS

Received Date: 7/2/2015 9:06:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	360	50	*	mg/L	100	7/3/2015 1:20:48 AM	R27301

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 9 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1507115**

Date Reported: **7/22/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: MW-5

Project: Salty Dog

Collection Date: 7/1/2015 11:53:00 AM

Lab ID: 1507115-010

Matrix: AQUEOUS

Received Date: 7/2/2015 9:06:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1200	50	*	mg/L	100	7/3/2015 3:49:45 AM	R27301

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 10 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1507115**

Date Reported: **7/22/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: MW-3

Project: Salty Dog

Collection Date: 7/1/2015 12:50:00 PM

Lab ID: 1507115-011

Matrix: AQUEOUS

Received Date: 7/2/2015 9:06:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	10000	500	*	mg/L	1E	7/11/2015 8:42:32 AM	R27445

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 11 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1507115**

Date Reported: **7/22/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-1R

Project: Salty Dog

Collection Date: 7/1/2015 1:37:00 PM

Lab ID: 1507115-012

Matrix: AQUEOUS

Received Date: 7/2/2015 9:06:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	860	50	*	mg/L	100	7/3/2015 3:00:06 AM	R27301

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 12 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1507115**

Date Reported: **7/22/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: PMW-1

Project: Salty Dog

Collection Date: 7/1/2015 2:12:00 PM

Lab ID: 1507115-013

Matrix: AQUEOUS

Received Date: 7/2/2015 9:06:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	8600	500	*	mg/L	1E	7/11/2015 8:54:57 AM	R27445

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 13 of 18
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1507115

22-Jul-15

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	LCS-20178		SampType: LCS		TestCode: EPA Method 200.7: Metals					
Client ID:	LCSW		Batch ID: 20178		RunNo: 27464					
Prep Date:	7/9/2015		Analysis Date: 7/13/2015		SeqNo: 823871		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	49	1.0	50.00	0	98.3	85	115			

Sample ID	LLCS-20178		SampType: LCSLL		TestCode: EPA Method 200.7: Metals					
Client ID:	BatchQC		Batch ID: 20178		RunNo: 27464					
Prep Date:	7/9/2015		Analysis Date: 7/13/2015		SeqNo: 823872		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0	0.5000	0	106	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1507115

22-Jul-15

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R27301	RunNo:	27301					
Prep Date:		Analysis Date:	7/2/2015	SeqNo:	818078	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R27301	RunNo:	27301					
Prep Date:		Analysis Date:	7/2/2015	SeqNo:	818079	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.5	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R27301	RunNo:	27301					
Prep Date:		Analysis Date:	7/3/2015	SeqNo:	818155	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R27301	RunNo:	27301					
Prep Date:		Analysis Date:	7/3/2015	SeqNo:	818156	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.5	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R27409	RunNo:	27409					
Prep Date:		Analysis Date:	7/9/2015	SeqNo:	822360	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R27409	RunNo:	27409					
Prep Date:		Analysis Date:	7/9/2015	SeqNo:	822361	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.5	0.50	5.000	0	90.7	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1507115

22-Jul-15

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R27445	RunNo:	27445					
Prep Date:		Analysis Date:	7/10/2015	SeqNo:	823303	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R27445	RunNo:	27445					
Prep Date:		Analysis Date:	7/10/2015	SeqNo:	823304	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.8	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R27445	RunNo:	27445					
Prep Date:		Analysis Date:	7/11/2015	SeqNo:	823382	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R27445	RunNo:	27445					
Prep Date:		Analysis Date:	7/11/2015	SeqNo:	823383	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	91.0	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1507115

22-Jul-15

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	1507115-001ADUP	SampType:	DUP	TestCode:	Specific Gravity					
Client ID:	Brine	Batch ID:	R27292	RunNo:	27292					
Prep Date:		Analysis Date:	7/6/2015	SeqNo:	817802	Units:				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Specific Gravity	1.194	0						0.226	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1507115

22-Jul-15

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB-20129		SampType: MBLK		TestCode: SM2540C MOD: Total Dissolved Solids					
Client ID:	PBW		Batch ID: 20129		RunNo: 27360					
Prep Date:	7/7/2015		Analysis Date: 7/8/2015		SeqNo: 820297		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	LCS-20129		SampType: LCS		TestCode: SM2540C MOD: Total Dissolved Solids					
Client ID:	LCSW		Batch ID: 20129		RunNo: 27360					
Prep Date:	7/7/2015		Analysis Date: 7/8/2015		SeqNo: 820298		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	20.0	1000	0	101	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: DBS

Work Order Number: 1507115

RcptNo: 1

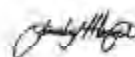
Received by/date:

CS

07/02/15

Logged By: Lindsay Mangin

7/2/2015 9:06:00 AM



Completed By: Lindsay Mangin

7/2/2015 12:13:28 PM



Reviewed By:

JM

07/02/15

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and CNG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted?

no

Checked by:

CS

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.6	Good	Not Present			

Chain-of-Custody Record

Client: DBSA

Mailing Address: 4020 Academy Rd. NE Ste 100
Albuquerque NM 87109

Phone #: 505-822-9400

email or Fax#: jayarbe@dbstephens

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Salty Dog

Project #:

E508.D118 OS

Project Manager:

John Ayube

Sampler: TMB, MZ

On Ice: ☒ Yes ☐ No

Sample Temperature: 4.6



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Phone #: 508 888 7700 email or Fax#: jayarbe@dbstephens				Project Manager: John Ayarbe			BTEX + MTBE + TMB's (8021) BTEX + MTBE + TPH (Gas only) TPH 8015B (GRO / DRO / MRO) TPH (Method 418.1) EDB (Method 504.1) PAH's (8310 or 8270 SIMS) RCRA 8 Metals Anions (F, Cl, NO ₃ , PO ₄ , SO ₄) 8081 Pesticides / 8082 PCB's 8260B (VOA) 8270 (Semi-VOA) pH, density, TDS, specific gravity Na ⁺ Na ⁺													
QA/QC Package: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)				Sampler: TMB, MZ																
Accreditation <input type="checkbox"/> NELAP <input type="checkbox"/> Other _____				On Ice: <input type="checkbox"/> Yes <input type="checkbox"/> No																
<input type="checkbox"/> EDD (Type) _____				Sample Temperature: 4.6																
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.														
6/30/15	1444	GW	Brine	3 polys	none/HAND	1507115														
	1526		DBS-2	1 poly	none	-001														
	1609		DBS-4			-002														
	1644		DBS-3			-003														
7/1/15	0803		DBS-8			-004														
	0825		Injection	2 polys		-005														
	0900		DBS-5	1 poly		-006														
	0941		DBS-9			-007														
	1040		DBS-6			-008														
	1153		mw-5			-009														
	1250		mw-3			-010														
	1337		DBS-1R			-011														
						-012														

Date: 7/2/15 Time: 0900 Relinquished by: [Signature]

Received by: [Signature] Date: 07/02/15 Time: 0900

Remarks:

Date: _____ Time: _____ Relinquished by: _____

Received by: _____ Date: _____ Time: _____

Remarks:



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 19, 2015

John Ayarbe

Daniel B. Stephens & Assoc.
6020 Academy NE Suite 100
Albuquerque, NM 87109
TEL: (505) 822-9400
FAX (505) 822-8877

RE: Salty Dog

OrderNo.: 1510061

Dear John Ayarbe:

Hall Environmental Analysis Laboratory received 13 sample(s) on 10/1/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1510061**

Date Reported: **10/19/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: PMW-1

Project: Salty Dog

Collection Date: 9/30/2015 8:41:00 AM

Lab ID: 1510061-001

Matrix: AQUEOUS

Received Date: 10/1/2015 5:02:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	9700	500	*	mg/L	1E	10/8/2015 9:04:06 PM	R29425

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1510061**

Date Reported: **10/19/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-8

Project: Salty Dog

Collection Date: 9/30/2015 9:33:00 AM

Lab ID: 1510061-002

Matrix: AQUEOUS

Received Date: 10/1/2015 5:02:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	35	5.0		mg/L	10	10/8/2015 9:16:30 PM	R29425

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1510061**

Date Reported: **10/19/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: MW-5

Project: Salty Dog

Collection Date: 9/30/2015 10:28:00 AM

Lab ID: 1510061-003

Matrix: AQUEOUS

Received Date: 10/1/2015 5:02:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1000	50	*	mg/L	100	10/8/2015 9:53:44 PM	R29425

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1510061**

Date Reported: **10/19/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: MW-3

Project: Salty Dog

Collection Date: 9/30/2015 11:28:00 AM

Lab ID: 1510061-004

Matrix: AQUEOUS

Received Date: 10/1/2015 5:02:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	9600	500	*	mg/L	1E	10/8/2015 10:18:32 PM	R29425

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1510061**

Date Reported: **10/19/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-6

Project: Salty Dog

Collection Date: 9/30/2015 12:07:00 PM

Lab ID: 1510061-005

Matrix: AQUEOUS

Received Date: 10/1/2015 5:02:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	370	50	*	mg/L	100	10/8/2015 10:43:21 PM	R29425

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1510061**

Date Reported: **10/19/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-9

Project: Salty Dog

Collection Date: 9/30/2015 12:49:00 PM

Lab ID: 1510061-006

Matrix: AQUEOUS

Received Date: 10/1/2015 5:02:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	260	50	*	mg/L	100	10/8/2015 11:33:00 PM	R29425

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1510061**

Date Reported: **10/19/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: Brine

Project: Salty Dog

Collection Date: 9/30/2015 1:07:00 PM

Lab ID: 1510061-007

Matrix: AQUEOUS

Received Date: 10/1/2015 5:02:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	1.198	0			1	10/7/2015 2:57:00 PM	R29369
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	190000	10000	*	mg/L	2E	10/8/2015 11:57:49 PM	R29425
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	294000	2000	*D	mg/L	1	10/8/2015 4:14:00 PM	21710
SM4500-H+B: PH							Analyst: MRA
pH	7.39	1.68	H	pH units	1	10/7/2015 4:29:57 PM	R29389
EPA METHOD 200.7: METALS							Analyst: ELS
Sodium	75000	1000		mg/L	1E	10/14/2015 2:38:21 PM	21822

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1510061**

Date Reported: **10/19/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-4

Project: Salty Dog

Collection Date: 9/30/2015 1:33:00 PM

Lab ID: 1510061-008

Matrix: AQUEOUS

Received Date: 10/1/2015 5:02:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	33	5.0		mg/L	10	10/9/2015 12:10:13 AM	R29425

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1510061**

Date Reported: **10/19/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-2

Project: Salty Dog

Collection Date: 9/30/2015 2:13:00 PM

Lab ID: 1510061-009

Matrix: AQUEOUS

Received Date: 10/1/2015 5:02:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	40	5.0		mg/L	10	10/9/2015 12:35:02 AM	R29425

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1510061**

Date Reported: **10/19/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-5

Project: Salty Dog

Collection Date: 9/30/2015 3:19:00 PM

Lab ID: 1510061-010

Matrix: AQUEOUS

Received Date: 10/1/2015 5:02:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	150	5.0		mg/L	10	10/9/2015 12:59:52 AM	R29425

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1510061**

Date Reported: **10/19/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-3

Project: Salty Dog

Collection Date: 9/30/2015 3:54:00 PM

Lab ID: 1510061-011

Matrix: AQUEOUS

Received Date: 10/1/2015 5:02:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	34	5.0		mg/L	10	10/9/2015 1:49:29 AM	R29425

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1510061**

Date Reported: **10/19/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: Injection

Project: Salty Dog

Collection Date: 9/30/2015 3:15:00 PM

Lab ID: 1510061-012

Matrix: AQUEOUS

Received Date: 10/1/2015 5:02:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	0.9978	0			1	10/7/2015 2:57:00 PM	R29369
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	240	50		mg/L	100	10/9/2015 2:26:43 AM	R29425
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	702	40.0	*D	mg/L	1	10/8/2015 4:14:00 PM	21710
SM4500-H+B: PH							Analyst: MRA
pH	7.87	1.68	H	pH units	1	10/7/2015 4:34:28 PM	R29389

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1510061**

Date Reported: **10/19/2015**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-1R

Project: Salty Dog

Collection Date: 9/30/2015 4:33:00 PM

Lab ID: 1510061-013

Matrix: AQUEOUS

Received Date: 10/1/2015 5:02:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	670	50	*	mg/L	100	10/9/2015 2:51:32 AM	R29425

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1510061

19-Oct-15

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB-21822		SampType: MBLK		TestCode: EPA Method 200.7: Metals					
Client ID:	PBW		Batch ID: 21822		RunNo: 29542					
Prep Date:	10/13/2015		Analysis Date: 10/14/2015		SeqNo: 898954		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID	LCS-21822		SampType: LCS		TestCode: EPA Method 200.7: Metals					
Client ID:	LCSW		Batch ID: 21822		RunNo: 29542					
Prep Date:	10/13/2015		Analysis Date: 10/14/2015		SeqNo: 898955		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	50	1.0	50.00	0	99.8	85	115			

Sample ID	LCSLL-21822		SampType: LCSLL		TestCode: EPA Method 200.7: Metals					
Client ID:	BatchQC		Batch ID: 21822		RunNo: 29542					
Prep Date:	10/13/2015		Analysis Date: 10/14/2015		SeqNo: 898956		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0	0.5000	0	98.8	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1510061

19-Oct-15

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R29425	RunNo:	29425					
Prep Date:		Analysis Date:	10/8/2015	SeqNo:	894992	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R29425	RunNo:	29425					
Prep Date:		Analysis Date:	10/8/2015	SeqNo:	894993	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.1	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1510061

19-Oct-15

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	1510061-007ADUP	SampType:	DUP	TestCode:	Specific Gravity					
Client ID:	Brine	Batch ID:	R29369	RunNo:	29369					
Prep Date:		Analysis Date:	10/7/2015	SeqNo:	893052	Units:				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Specific Gravity	1.191	0						0.536	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1510061

19-Oct-15

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB-21710		SampType:	MBLK		TestCode:	SM2540C MOD: Total Dissolved Solids				
Client ID:	PBW		Batch ID:	21710		RunNo:	29402				
Prep Date:	10/7/2015		Analysis Date:	10/8/2015		SeqNo:	894282		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Total Dissolved Solids	ND	20.0									

Sample ID	LCS-21710		SampType: LCS		TestCode: SM2540C MOD: Total Dissolved Solids					
Client ID:	LCSW		Batch ID: 21710		RunNo: 29402					
Prep Date:	10/7/2015		Analysis Date: 10/8/2015		SeqNo: 894283		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1000	20.0	1000	0	101	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix


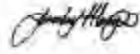
B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: DBS

Work Order Number: 1510061

RcptNo: 1


Received by/date:	<u>CS</u>	<u>10/01/15</u>
Logged By	Lindsay Mangin	10/1/2015 5:02:00 PM 
Completed By	Lindsay Mangin	10/2/2015 9:04:38 AM 
Reviewed By:	<u>CS</u>	<u>10/02/15</u>

Chain of Custody

- Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
- Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
- How was the sample delivered? Client

Log In

- Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
- Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 5.0°C ? Yes ☒ No ☐ NA ☐
- Sample(s) in proper container(s)? Yes ☒ No ☐
- Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
- Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
- Was preservative added to bottles? Yes ☐ No ☒ NA ☐
- VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
- Were any sample containers received broken? Yes ☐ No ☒
- Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
- Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
- Is it clear what analyses were requested? Yes ☒ No ☐
- Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved bottles checked for pH: 1
 (≤2 or >12 unless noted)
 Adjusted? No
 Checked by: 

Special Handling (if applicable)

- Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	<u></u>	Date:	<u></u>
By Whom:	<u></u>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<u></u>		
Client Instructions:	<u></u>		

- Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.6	Good	Not Present			

Chain-of-Custody Record

Client: DBSA

Mailing Address: 6020 Academy Rd NE Ste 100

Albuquerque NM 87109

Phone #: 505-822-9400

email or Fax#: JAyarbe@DBStephens.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:

☒ Standard ☐ Rush _____

Project Name:

SALTY DOG

Project #:

ES08.0118.

Project Manager:

John Ayarbe

Sampler: M. Zbrozek

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.6°C



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

email or Fax#: <u>J Ayarbe@DBStephens.com</u>			Project Manager: <u>John Ayarbe</u>				BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	<u>pH, TDS, Specific Gravity</u> <u>Na⁺</u>	Air Bubbles (Y or N)
QA/QC Package: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)			Sampler: <u>M. Zbrozek</u>																
Accreditation <input type="checkbox"/> NELAP <input type="checkbox"/> Other _____			On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																
<input type="checkbox"/> EDD (Type) _____			Sample Temperature: <u>36°C</u>																
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.													
1/30/15	0841	GL	PMW-1	1 poly	none	-001													
	0933		DBS-8			-002													
	1028		MW-5			-003													
	1128		MW-3			-004													
	1207		DBS-6			-005													
	1249		DBS-9	✓	✓	-006													
	1307		Brine	3 poly	none/HNO ₃	-007													
	1333		DBS-4	1 poly	none	-008													
	1413		DBS-2			-009													
	1519		DBS-5			-010													
	1554		DBS-3	✓		-011													
✓	1615	✓	Injection 1	2 Poly	✓	-012													

Date: 1/1/15 Time: 1704 Relinquished by: [Signature]

Date: 1/1/15 Time: 1704 Relinquished by: [Signature]

Received by: Celine Sme Date: 10/01/15 Time: 1702

Received by: _____ Date: _____ Time: _____

Remarks:

Client: DBSA

DBSA

Mailing Address: 6020 Academy RD NE Ste 100

Albuquerque NM 87109

Phone #: 505-822-9400

email or Fax#: JAyarker@DBStephens.com

☐ Standard ☐ Level 4 (Full Validation)☐ NELAP ☐ Other

□ EDD (Type)

☒ Standard ☐ Rush

Project Name:

Salty Dog

Project #:

ES08.01/8


Project Manager:

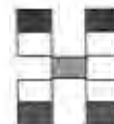
John Ayarbe

Sampler: M. Zbrozek

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.6°C

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
6/1/15	1704		Cellin Suen	10/01/15	1702	
Date:	Time:	Relinquished by:	Received by:	Date	Time	



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX + MTBE + TMB's (8021)	
BTEX + MTBE + TPH (Gas only)	
TPH 8015B (GRO / DRO / MRO)	
TPH (Method 418.1)	
EDB (Method 504.1)	
PAH's (8310 or 8270 SIMS)	
RCRA 8 Metals	
Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	
8081 Pesticides / 8082 PCB's	
8260B (VOA)	
8270 (Semi-VOA)	
Air Bubbles (Y or N)	

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 07, 2016

John Ayarbe

Daniel B. Stephens & Assoc.
6020 Academy NE Suite 100
Albuquerque, NM 87109
TEL: (505) 822-9400
FAX (505) 822-8877

RE: Salty Dog

OrderNo.: 1512889

Dear John Ayarbe:

Hall Environmental Analysis Laboratory received 13 sample(s) on 12/18/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1512889**

Date Reported: **1/7/2016**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-8

Project: Salty Dog

Collection Date: 12/17/2015 9:44:00 AM

Lab ID: 1512889-001

Matrix: AQUEOUS

Received Date: 12/18/2015 9:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	33	5.0		mg/L	10	12/23/2015 7:57:44 AM	A31054

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1512889**

Date Reported: **1/7/2016**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: MW-5

Project: Salty Dog

Collection Date: 12/17/2015 10:23:00 AM

Lab ID: 1512889-002

Matrix: AQUEOUS

Received Date: 12/18/2015 9:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1000	50	*	mg/L	100	12/23/2015 8:59:47 AM	A31054

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1512889**

Date Reported: **1/7/2016**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-6

Project: Salty Dog

Collection Date: 12/17/2015 10:52:00 AM

Lab ID: 1512889-003

Matrix: AQUEOUS

Received Date: 12/18/2015 9:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	380	50	*	mg/L	100	12/23/2015 9:24:37 AM	A31054

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1512889**

Date Reported: **1/7/2016**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: MW-3

Project: Salty Dog

Collection Date: 12/17/2015 11:24:00 AM

Lab ID: 1512889-004

Matrix: AQUEOUS

Received Date: 12/18/2015 9:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	5100	500	*	mg/L	1E	12/23/2015 9:49:26 AM	A31054

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1512889**

Date Reported: **1/7/2016**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-9

Project: Salty Dog

Collection Date: 12/17/2015 11:51:00 AM

Lab ID: 1512889-005

Matrix: AQUEOUS

Received Date: 12/18/2015 9:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	230	50		mg/L	100	12/23/2015 12:15:29 PM	R31078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1512889**

Date Reported: **1/7/2016**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-4

Project: Salty Dog

Collection Date: 12/17/2015 12:20:00 PM

Lab ID: 1512889-006

Matrix: AQUEOUS

Received Date: 12/18/2015 9:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: LGT	
Chloride	35	5.0		mg/L	10	12/23/2015 12:27:54 PM	R31078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1512889**

Date Reported: **1/7/2016**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-2

Project: Salty Dog

Collection Date: 12/17/2015 12:47:00 PM

Lab ID: 1512889-007

Matrix: AQUEOUS

Received Date: 12/18/2015 9:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: LGT	
Chloride	35	5.0		mg/L	10	12/23/2015 12:52:43 PM	R31078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1512889**

Date Reported: **1/7/2016**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-5

Project: Salty Dog

Collection Date: 12/17/2015 1:11:00 PM

Lab ID: 1512889-008

Matrix: AQUEOUS

Received Date: 12/18/2015 9:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	160	5.0		mg/L	10	12/23/2015 1:17:31 PM	R31078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1512889**

Date Reported: **1/7/2016**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-3

Project: Salty Dog

Collection Date: 12/17/2015 1:33:00 PM

Lab ID: 1512889-009

Matrix: AQUEOUS

Received Date: 12/18/2015 9:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	34	5.0		mg/L	10	12/23/2015 1:42:20 PM	R31078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit		P	Sample pH Not In Range
R	RPD outside accepted recovery limits		RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1512889**

Date Reported: **1/7/2016**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS-1R

Project: Salty Dog

Collection Date: 12/17/2015 1:54:00 PM

Lab ID: 1512889-010

Matrix: AQUEOUS

Received Date: 12/18/2015 9:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	760	50	*	mg/L	100	12/23/2015 2:44:23 PM	R31078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512889

Date Reported: 1/7/2016

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: Brine

Project: Salty Dog

Collection Date: 12/17/2015 2:01:00 PM

Lab ID: 1512889-011

Matrix: AQUEOUS

Received Date: 12/18/2015 9:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	1.201	0			1	12/28/2015 12:28:00 PM	R31082
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	210000	10000	*	mg/L	2E	12/23/2015 3:09:13 PM	R31078
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	303000	2000	*D	mg/L	1	12/28/2015 2:11:00 PM	22915
SM4500-H+B: PH							Analyst: MRA
pH	7.46	1.68	H	pH units	1	12/21/2015 2:48:56 PM	R31018
EPA METHOD 200.7: METALS							Analyst: ELS
Sodium	100000	2000		mg/L	2E	12/22/2015 5:11:37 PM	A31036

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1512889**

Date Reported: **1/7/2016**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: Injection

Project: Salty Dog

Collection Date: 12/17/2015 2:15:00 PM

Lab ID: 1512889-012

Matrix: AQUEOUS

Received Date: 12/18/2015 9:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	0.9991	0			1	12/28/2015 12:28:00 PM	R31082
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	210	50		mg/L	100	12/23/2015 3:34:03 PM	R31078
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	647	20.0	*	mg/L	1	12/28/2015 2:11:00 PM	22915
SM4500-H+B: PH							Analyst: MRA
pH	7.89	1.68	H	pH units	1	12/21/2015 2:53:27 PM	R31018

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1512889**

Date Reported: **1/7/2016**

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: PMW-1

Project: Salty Dog

Collection Date: 12/17/2015 2:29:00 PM

Lab ID: 1512889-013

Matrix: AQUEOUS

Received Date: 12/18/2015 9:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	9800	500	*	mg/L	1E	12/23/2015 3:58:51 PM	R31078

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1512889

07-Jan-16

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB-A		SampType: MBLK		TestCode: EPA Method 200.7: Metals					
Client ID:	PBW		Batch ID: A31036		RunNo: 31036					
Prep Date:			Analysis Date: 12/22/2015		SeqNo: 949133		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID	LCS-A		SampType: LCS		TestCode: EPA Method 200.7: Metals					
Client ID:	LCSW		Batch ID: A31036		RunNo: 31036					
Prep Date:			Analysis Date: 12/22/2015		SeqNo: 949134		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	48	1.0	50.00	0	96.6	85	115			

Sample ID	LLCS-A		SampType: LCSLL		TestCode: EPA Method 200.7: Metals					
Client ID:	BatchQC		Batch ID: A31036		RunNo: 31036					
Prep Date:			Analysis Date: 12/22/2015		SeqNo: 949135		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0	0.5000	0	99.0	50	150			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1512889

07-Jan-16

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	A31054	RunNo:	31054					
Prep Date:		Analysis Date:	12/22/2015	SeqNo:	949931	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	A31054	RunNo:	31054					
Prep Date:		Analysis Date:	12/22/2015	SeqNo:	949932	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	5.0	0.50	5.000	0	99.5	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R31078	RunNo:	31078					
Prep Date:		Analysis Date:	12/23/2015	SeqNo:	950868	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R31078	RunNo:	31078					
Prep Date:		Analysis Date:	12/23/2015	SeqNo:	950869	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	95.0	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1512889

07-Jan-16

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	1512889-011ADUP	SampType:	DUP	TestCode:	Specific Gravity					
Client ID:	Brine	Batch ID:	R31082	RunNo:	31082					
Prep Date:		Analysis Date:	12/28/2015	SeqNo:	951037	Units:				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Specific Gravity	1.197	0						0.342	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1512889

07-Jan-16

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Sample ID	MB-22915		SampType: MBLK		TestCode: SM2540C MOD: Total Dissolved Solids					
Client ID:	PBW		Batch ID: 22915		RunNo: 31081					
Prep Date:	12/22/2015		Analysis Date: 12/28/2015		SeqNo: 951012		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	LCS-22915		SampType: LCS		TestCode: SM2540C MOD: Total Dissolved Solids					
Client ID:	LCSW		Batch ID: 22915		RunNo: 31081					
Prep Date:	12/22/2015		Analysis Date: 12/28/2015		SeqNo: 951013		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1020	20.0	1000	0	102	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: DBS

Work Order Number: 1512889

RcptNo: 1

Received by/date:

AG

12/18/15

Logged By: Ashley Gallegos

12/18/2015 9:07:00 AM

AG

Completed By: Ashley Gallegos

12/18/2015 9:16:19 AM

AG

Reviewed By:

AG

12/18/15

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Client

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☐

No ☐

No VOA Vials ☒

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?

(Note discrepancies on chain of custody)

Yes ☒

No ☐

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

(If no, notify customer for authorization.)

Yes ☒

No ☐

of preserved
bottles checked
for pH:

1

(<2 or >12 unless noted)

Adjusted?

NO

Checked by:

JA

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.0	Good	Not Present			

Chain-of-Custody Record

Client: DBSA

Mailing Address: 6020 Academy RD NE STE 100
Albuquerque, NM 87109
 Phone #: 505-822-9400
 email or Fax#: JAYARBE@DBSstephens.com

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

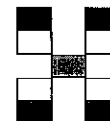
Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: SALTY DOG

Project #: ES08.0118.05

Project Manager: John Ararbe

Sampler: ME
 On Ice: ☒ Yes ☐ No
 Sample Temperature: 20



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	pH, TDS, Spec Gravity	Air Bubbles (Y or N)
2/17/15	0944	GW	DBS-8	1 Poly	none	-001													
	1023		MW-5			-002													
	1052		DBS-6			-003													
	1124		MW-3			-004													
	1151		DBS-9			-005													
	1220		DBS-4			-006													
	1247		DBS-2			-007													
	1311		DBS-5			-008													
	1333		DBS-3			-009													
	1354		DBS-1R	✓	✓	-010													
	1401		Brine	3 Polys	none / HNO ₃	-011													
✓	1415	✓	INJECTION	2 Polys	none	-012													
	1427		MW-1	1 Poly	none	-013													
Date:	Time:	Relinquished by:	Received by:			Date:	Remarks:												
2/18/15	0907	<i>[Signature]</i>	<i>[Signature]</i>			2/18/15													
Date:	Time:	Relinquished by:	Received by:			Date:													

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

SALTY DOG ANNUAL REPORT 2010

- 1) SPILLS: One spill occurred on Sep. 8th. 2010 @2000 pm. Form C-141 attached.**
- 2) BRINE PRODUCTION METHOD: Inject f/w down casing @ an average of 150 lbs.**
- 3) MIT'S PERFORMED: One MIT test on Nov. 16th. 2010 . OCD's Hobbs office witnessed test, setting the packer within 10 feet of the casing shoe and pressure up the casing to 300 psi. Held at no more than a 10% loss for 30 minutes. Chart attached.**
- 4) WORKOVERS: One workover performed, started on Dec.27th. 2010. Form C-103 attached.**
- 5) SURFACE SUBSIDENCE MONITORING: No actions taken.**

6) CAVERN SIZE & CONFIGURATION: See Attached

7) MONTHLY INJECTION / PRODUCTION VOLUMES: See attached

8) ANALYSES OF F /W & B/W: No actions taken

9) WASTE DISPOSAL: Spill water taken to Buckeye Disposal, LLC. CBM lease.

10) MONITORING & REMEDIATION ACTIVITIES: Currently in talks with Daniel B. Stephens & Associates, for groundwater cleanup.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ X Initial Report ☐ Final Report

Name of Company	Aqueous	Contact	Jon Ammons
Address	Po Box 513 Hobbs, NM	Telephone No.	575-393-8352
Facility Name	Salty Dog	Facility Type	B/W & F/W facility
Surface Owner		Mineral Owner	
		Lease No.	

LOCATION OF RELEASE

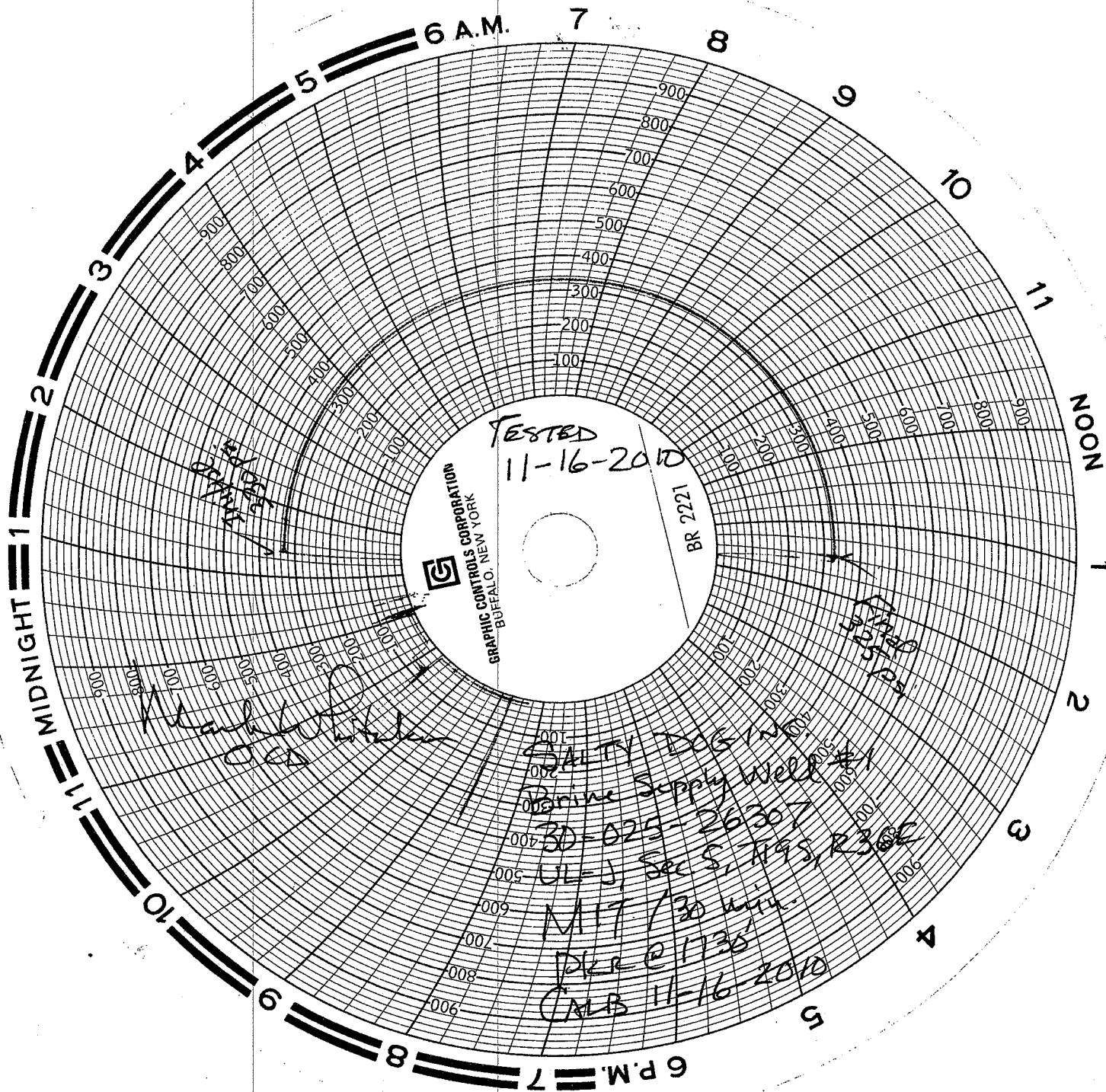
Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
								Lea

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release	B/w & F/w	Volume of Release	300 BBls.	Volume Recovered	300 BBls.
Source of Release	Tubing	Date and Hour of Occurrence	9-8-10 @ 1930	Date and Hour of Discovery	9-8-10 @ 2000
Was Immediate Notice Given?	<input type="checkbox"/> x Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Jeff Lucking			
By Whom?	Jon Ammons	Date and Hour 9-9-10 @ 0800			
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> x No	If YES, Volume Impacting the Watercourse.			
If a Watercourse was Impacted, Describe Fully.*					
Describe Cause of Problem and Remedial Action Taken.* Tubing parted causing well to leak water, 3 vacuum trucks dispatched to location asap cleaning spill.					
Describe Area Affected and Cleanup Action Taken.* Inside burn area & small area of dirt road outside of burn.					
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other Federal, state, or local laws and/or regulations.					
OIL CONSERVATION DIVISION					
Signature: _____					
Printed Name: Jon Ammons					
Approved by District Supervisor: _____					
Title: Manager					
Approval Date: _____ Expiration Date: _____					
E-mail Address: jon@thestandardenergy.com					
Conditions of Approval: _____ Attached <input type="checkbox"/>					
Date: 9-10-10 Phone: 575-393-8352					

* Attach Additional Sheets If Necessary



activity 1830

Submit 1 Copy To Appropriate District
Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
October 13, 2009

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO.

5. Indicate Type of Lease

STATE ☐ FEE ☐

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH
PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☐ Other X

2. Name of Operator

Salty Dog, Inc.

3. Address of Operator

PO Box 513 Hobbs, NM 88240

4. Well Location

Unit Letter J : 1980 feet from the North/South line and 1980 feet from
the East/West line
Section 5 Township 19S Range 36E NMPM County Lea

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

7. Lease Name or Unit Agreement Name

Salty Dog, Inc.

8. Well Number Salty Dog #1

9. OGRID Number

10. Pool name or Wildcat

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK X

TEMPORARILY ABANDON ☐

PULL OR ALTER CASING ☐

DOWNHOLE COMMINGLE ☐

PLUG AND ABANDON ☐

CHANGE PLANS ☐

MULTIPLE COMPL ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐

COMMENCE DRILLING OPNS. ☐

CASING/CEMENT JOB x

ALTERING CASING ☐

P AND A ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date
of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of
proposed completion or recompletion.

14. Rigging down pulling unit, Rigging up drilling rig. To drill with 3 1/2 drill pipe to a depth of 2600' on 1-Dec-2010

15. Drilled to a depth of 2600' on 27-Dec-2010. replacing 13 joints, workover complete.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Jon Ammons 12-1-2010 TITLE Yard
Manager DATE 12-1-2010

Type or print name Jon Ammons E-mail address:
ammons17@yahoo.com PHONE: 575-390-3414

NATURAL RESOURCES
ENGINEERING INC.Box 2188 - 201 E. Sanger
Phone (505) 397-6319
Holt, New Mexico 88240

WELL BORE SKETCH

OPERATOR/LEASE/WELL Brunson & McKnight Inc.--Brine Supply Well #1 DATE 11-9-82NRE JOB NUMBER NB01-001-001FIELD/POOL /PLUG BACK DEPTH 2958' KB 3816 est.ELEVATION 3806'Hole Size 12 1/4"

SURFACES CASING:

Size 8 5/8" Weight 24# & 32# Grade J-55
Set at 1877' with 850 Sacks Cement
Circulate 200 Sacks to Surface
Remarks: Hole Size 6 1/4"

PRODUCTION CASING: *

Size Weight Grade
Set at with Sacks Cement
Cement Top: Calculated Temperature Survey
* Remarks: No production casing was run in this well.
Completed open hole from 1877' to 2958' as a brine
source well.

TUBING:

Size 2 7/8 Weight 6.5# Grade J-55
Number of Joints 93 Set at 2887'
Packer Set at None
Bottom Arrangement: Open ended and 15' of perforations in
tubing.

RODS:

Size N/A Number
Gas Anchor Set at
Pump Set at
Arrangement:

Fresh injected in hole in gallon

File Number: _____
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, Tx 79408 State: Tx Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well #1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 84E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 41.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 6.24.1 Meter Reading: 244599

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

Do Not Write Below This Line

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Fresh injected in hole

File Number: _____
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, Tx 79408 State: Tx Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 14.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 6-28 Meter Reading: 245746

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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Fresh injected in hole

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Frskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30-025-26307 Brine Well #1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M.
b. _____ Subdivision
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 7.5.10 Meter Reading: 24 872

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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Fresh injected in hole

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 7
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 7.12 Meter Reading: 25042

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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Fresh injected in hole

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 7.19 Meter Reading: 25238

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

Do Not Write Below This Line

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Fresh injected in hole

File Number: _____
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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, Tx 79408 State: Tx Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 7-24 Meter Reading: 25553

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, Tx 79408 State: Tx Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 7
a. NW 1/4 NE 1/4 NE 1/4 Section: 25 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 8.2 Meter Reading: 25706

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, Tx 79408 State: Tx Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 7
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 14.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 8.9 Meter Reading: 26040

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
(5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, Tx 79408 State: Tx Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 7
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 14.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 8/16 Meter Reading: 26214

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 7
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 14.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 8.23 Meter Reading: 24309

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 7
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 14.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 8.30 Meter Reading: 26555

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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File Number: _____
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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Frskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30-025-26307 Brine Well #1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 41.238 Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 9-4 Meter Reading: 26757

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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Brine produced

File Number: _____
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 34E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 1-1-10 - 6-21-10 Meter Reading: _____

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Brine in BBL'S
Sold FROM 1-1-10 to 6-21-10
118, 127 BBL'S

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
(5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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Brine produced in #61'S

File Number: _____
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 6-21 Meter Reading: 3400

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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Brine produced

File Number: _____
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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 25 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 44.238 s Longitude: -103 d 22 m 14.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 6-28 Meter Reading: 6948

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Frskin
City: Lubbock, Tx 79408 State: Tx Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 25 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 41.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 1.5.10 Meter Reading: 9262.8

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Frskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30-025-26307 Brine Well # 7
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 34E N.M.P.M.
b. _____ Subdivision
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 7-12 Meter Reading: 7621

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 41.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 7-19 Meter Reading: 4876

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
(5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

Do Not Write Below This Line

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Brine produced

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, Tx 79408 State: Tx Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 7-26 Meter Reading: 6789

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

Do Not Write Below This Line

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Brine produced

File Number: _____
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, Tx 79408 State: Tx Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 41.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 8.2 Meter Reading: 6327

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

Do Not Write Below This Line

File Number: _____
Form: wr-26

Trn Number: _____
page 1 of 1

Brine produced

File Number: _____
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30-025-26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 8.9 Meter Reading: 5231

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
(5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

Do Not Write Below This Line

File Number: _____
Form: wr-26

Trn Number: _____
page 1 of 1

Brine produced

File Number: _____
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, Tx 79408 State: Tx Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 8-16 Meter Reading: 5940

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

Do Not Write Below This Line

File Number: _____
Form: wr-26

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page 1 of 1

Brine produced

File Number: _____
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 7
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 34E N.M.P.M.
b. _____ Subdivision
c. Latitude: 32 d 41 m 45.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 8.23 Meter Reading: 9752

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

Do Not Write Below This Line

File Number: _____
Form: wr-26

Trn Number: _____
page 1 of 1

Brine produced

File Number: _____
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 8-30 Meter Reading: 8804

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

Do Not Write Below This Line

File Number: _____
Form: wc-26

Trn Number: _____
page 1 of 1

Brine produced

File Number: _____
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30-025-26307 Brine Well #1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M.
b. _____ Subdivision
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 9/6 Meter Reading: 7917

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

Do Not Write Below This Line

File Number: _____
Form: wr-26

Trn Number: _____
page 1 of 1

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, November 18, 2009 7:02 AM
To: 'Prather, Steve'; 'gandy2@leaco.net'; 'James Millett'; 'Clay Wilson'; 'Bob Patterson'; 'David Pyeatt'; 'garymschubert@aol.com'; 'Gary Schubert'
Cc: Griswold, Jim, EMNRD; VonGonten, Glenn, EMNRD; Sanchez, Daniel J., EMNRD
Subject: UIC Class III Well Annual Report Schedule for Submittal & Content REMINDER- 2010
Attachments: Annual Reports 2010.xls

Gentlemen:

Good morning. You may recall an e-mail message from me this past Summer alerting you to the reporting provision of your current discharge permit (permit) and how the New Mexico Oil Conservation Division (OCD) is stepping up its efforts to track reporting under issued permits.

Please find attached a spreadsheet listing the dates that OCD expects to receive your Annual Reports and/or any reporting requirements from your permit. If you are an operator with limited reporting requirements based on your permit, you are welcome to follow the format and content required from more recent permit renewals issued by the OCD, which are more comprehensive and constitute a report. Any renewed permits will likely require similar content anyway.

Please plan on meeting the Annual Report submittal dates in January of 2010 as failure to submit the report will constitute a violation under the Federal Underground Injection Control (UIC) Program and reporting to the United States Environmental Protection Agency, which could result in the shut-in and/or plug and abandonment of your brine production well.

Please contact me if you have questions. Thank you in advance for your cooperation in this matter.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/oed/index.htm>
(Pollution Prevention Guidance is under "Publications")

CC: Brine Well File "Annual Reporting"

NMOCD UIC Annual Reports

11/18/09

Permit ID	Operator	Annual Rpt. Due Date	Submitted	Annual Report Contents
BW-2	Basic Energy	01/31/10		<p>L. Annual Report: All operators shall submit an annual report due on January 31 of each year. The report shall include the following information:</p> <ol style="list-style-type: none"> 1. Cover sheet marked as "Annual Brine Well Report, name of operator, permit #, API# of well(s), date of report, and person submitting report. 2. Brief summary of brine wells operations including description and reason for 3. Production volumes as required above in 21 .G. including a running total should be carried over to each year. The maximum and average injection pressure. 4. A copy of the chemical analysis as required above in 21 .1-l. 5. A copy of any mechanical integrity test chart, including the type of test, i.e. <ol style="list-style-type: none"> open to formation or easing test. 6. Brief explanation describing deviations from normal production methods. 7. A copy of any leaks and spills reports. 8. If applicable, results of any groundwater monitoring. 9. Information required from cavity/subsidence 21 .F. above. 10. An Area of Review (AOR) summary. 11. Sign-off requirements pursuant to WQCC Subsection G 20.6.2.5101.

BW-4 Gandy Corp. 01/31/10

L. Annual Report: All operators shall submit an annual report due on January 31 of each year. The report shall include the following information:

1. Cover sheet marked as "Annual Brine Well Report, name of operator, BW permit #, API# of well(s), date of report, and person submitting report.
2. Brief summary of brine wells operations including description and reason for any remedial or major work on the well. Copy of C- 103.
3. Production volumes as required above in 21 .G. including a running total should be carried over to each year. The maximum and average injection pressure.
4. A copy of the chemical analysis as required above in 21 .1-I.
5. A copy of any mechanical integrity test chart, including the type of test, i.e. open to formation or easing test.
6. Brief explanation describing deviations from normal production methods.
7. A copy of any leaks and spills reports.
8. If applicable, results of any groundwater monitoring.
9. Information required from cavity/subsidence 21 .F. above.
10. An Area of Review (AOR) summary.
11. Sign-off requirements pursuant to WQCC Subsection G 20.6.2.5101.

BW-8 PAB- Salty Dog Mo. w/ Quly Rpts.

BW-22	Gandy Corp.	01/31/10	<p>L. Annual Report: All operators shall submit an annual report due on January 31 of each year. The report shall include the following information:</p> <ol style="list-style-type: none"> 1. Cover sheet marked as "Annual Brine Well Report, name of operator, BW permit #, API# of well(s), date of report, and person submitting report. 2. Brief summary of brine wells operations including description and reason for any remedial or major work on the well. Copy of C-103. 3. Production volumes as required above in 21 .G. including a running total should be carried over to each year. The maximum and average injection pressure. 4. A copy of the chemical analysis as required above in 21.H. 5. A copy of any mechanical integrity test chart, including the type of test, i.e. open to formation or casing test. 6. Brief explanation describing deviations from normal production methods. 7. A copy of any leaks and spills reports. 8. If applicable, results of any groundwater monitoring. 9. Information required from cavity/subsidence 21 .F. above. 10. An Area of Review (AOR) summary. 11. Sign-off requirements pursuant to WQCC Subsection G 20.6.2.5101.
BW-25	Basic Energy	01/31/10	<p>6. Production/Injection Volumes/Annual Report: The volumes of fluids injected (fresh water) and produced (brine) will be recorded monthly and submitted to the OCD Santa Fe Office in an annual report due on the thirty-first (31) day of January of each year.</p>

BW-27	Mesquite	01/01/10	<p>7. Production/Injection Volumes: The volumes of fluids injected (fresh water) and produced (brine) will be recorded monthly and submitted to the OCD Sanla Fe Office in an annual report due on the first day of January of each year.</p> <p>L. Annual Report: All operators shall submit an annual report due on January 31 of each year. The report shall include the following information:</p> <ol style="list-style-type: none"> 1. Cover sheet marked as "Annual Brine Well Report, name of operator, BW permit #, API# of well(s), date of report, and person submitting report. 2. Brief summary of brine wells operations including description and reason for any remedial or major work on the well. Copy of C-103. 3. Production volumes as required above in 21 .G. including a running total should be carried over to each year. The maximum and average injection pressure. 4. A copy of the chemical analysis as required above in 21 .H. 5. A copy of any mechanical integrity test chart, including the type of test, i.e. open to formation or casing test. 6. Brief explanation describing deviations from normal production methods. 7. A copy of any leaks and spills reports. 8. If applicable, results of any groundwater monitoring. 9. Information required from cavity/subsidence 21 .F. above. 10. An Area of Review (AOR) summary. 11. Sign-off requirements pursuant to WQCC Subsection G 20.6.2.5101.
BW-28	ey Ernergy Services LI	01/31/10	

BW-30 Liquid Resources 01/31/10

L. Annual Report: All operators shall submit an annual report due on January 31 of each year. The report shall include the following information:

1. Cover sheet marked as "Annual Brine Well Report, name of operator, BW permit ~, API~ of well(s), date of report, and person submitting report.
2. Brief summary of brine wells operations including description and reason for any remedial or major work on the well. Copy of C-103.
3. Production volumes as required above in 21 .G. including a running total should be carried over to each year. The maximum and average injection pressure.
4. A copy of the chemical analysis as required above in 21 .H.
5. A copy of any mechanical integrity test chart, including the type of test, i.e. open to formation or casing test.
6. Brief explanation describing deviations from normal production methods.
7. A copy of any leaks and spills reports.
8. If applicable, results of any groundwater monitoring.
9. Information required from cavity/subsidence 21 .F. above.
10. An Area of Review (AOR) summary.
11. Sign-off requirements pursuant to WQCC Subsection G 20.6.2.5 101.

BW-31 HRC- Schubert 01/31/10

6. Production/Injection Volumes/Annual Report: The volumes of fluids injected (fresh water) and produced (brine) will be recorded monthly and submitted to the OCD Santa Fe Office in an annual report due on the thirty-first (31) day of January of each year.

Salty Dog Inc.

2009 Annual Report

Major Repairs and Modifications-----	1
Brine pit Monitoring Reports-----	2
Reverse Flow Periods-----	3
Pressure records-----	4
Formation MIT-----	5
Cavern Sonar-----	6
Annual Production of Brine-----	7
Water Analysis Reports-----	8
Monitor Well Install and Ground Water Report--	9
Ground Water Monitoring Report-----	10
Pond Release Evaluation Report-----	11
Remedial Design Report-----	12
Solid Waste Disposal-----	13
Permit Renewal Information-----	14

In 2009 no major repairs or modifications were made to the facility. In February 2009 the well was pulled in order to perform a sonar test of the cavern on 2-5-09. Daniel B. Stephens performed well installation and pump test in 2009 which is detailed in their report.

Salty Dog Inc.

Brine Pit Monitoring Report

Date 1-6-03

Results Empty

Signed Zy Wallace

Salty Dog Inc.

Brine Pit Monitoring Report

Date 2 - 10 - 03

Results Empty

Signed F. Wallace

Salty Dog Inc.

Brine Pit Monitoring Report

Date 3-4-03

Results Empty

Signed F. J. Wallace

Salty Dog Inc.

Brine Pit Monitoring Report

Date 4/9/03

Results Empty

Signed J. Wallace

Salty Dog Inc.

Brine Pit Monitoring Report

Date 5/7/03

Results Empty

Signed J. Wallace

Salty Dog Inc.

Brine Pit Monitoring Report

Date 6/16/03

Results Empty

Signed J. Walker

Salty Dog Inc.

Brine Pit Monitoring Report

Date 7/8/03

Results Empty

Signed J. Wallace

Salty Dog Inc.

Brine Pit Monitoring Report

Date 9/11/03

Results Empty

Signed J. Wallace

Salty Dog Inc.

Brine Pit Monitoring Report

Date 10 / 15 / 03

Results Empty

Signed J. W. Law

Salty Dog Inc.

Brine Pit Monitoring Report

Date 11/17/03

Results Empty

Signed J. Wallace

Salty Dog Inc.

Brine Pit Monitoring Report

Date 12/12/03

Results Empty

Signed J. Waller

Salty Dog Inc.

Brine Pit Monitoring Report

Date 1/8/04

Results Empty

Signed Zy Wallace

Salty Dog Inc.

Brine Pit Monitoring Report

Date 2/5/04

Results Empty

Signed Joy Wallace

Salty Dog Inc.

Brine Pit Monitoring Report

Date 3/5/04

Results Empty

Signed J. Wallace

Salty Dog Inc.

Brine Pit Monitoring Report

Date 4/7/04

Results Empty

Signed J. Wallace

Salty Dog Inc.

Brine Pit Monitoring Report

Date 5/5/04

Results Empty

Signed Zy Wallan

Salty Dog Inc.

Brine Pit Monitoring Report

Date 6/7/04

Results Empty

Signed F. Wallace

Salty Dog Inc.

Brine Pit Monitoring Report

Date 7/7/04

Results Empty

Signed J. Wallace

Salty Dog Inc.

Brine Pit Monitoring Report

Date 8/5/04

Results Empty

Signed J. Wallace

Salty Dog Inc.

Brine Pit Monitoring Report

Date 8 / 12 / 03

Results Empty

Signed Zy Wallace

Salty Dog Inc.

Brine Pit Monitoring Report

Date 9/2/04

Results Empty

Signed J. Wallace

SALTY DOG INSPECTION

DATE 3-12-07

BRINE LINE INSPECTION

RESULTS OK

BRINE PIT LINER INSPECTION

**RESULTS AND
OBSERVATIONS** Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

**DATE SAMPLES TAKEN
(QUARTERLY)** _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLs**

INSPECTED BY *J. Wollan*

SALTY DOG INSPECTION

DATE 3-19-07

BRINE LINE INSPECTION

RESULTS Ok

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____

END _____

BRINE SALES FOR MONTH _____

BBLS

INSPECTED BY _____

Z. Walker

SALTY DOG INSPECTION

DATE 3-26-07

BRINE LINE INSPECTION

RESULTS OK

BRINE PIT LINER INSPECTION

**RESULTS AND
OBSERVATIONS** Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

**DATE SAMPLES TAKEN
(QUARTERLY)** _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLs**

INSPECTED BY J. Walker

SALTY DOG INSPECTION

DATE 4-2-07

BRINE LINE INSPECTION

RESULTS OK

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLS**

INSPECTED BY J. Wallace

SALTY DOG INSPECTION

DATE 4-9-07

BRINE LINE INSPECTION

RESULTS OK

BRINE PIT LINER INSPECTION

**RESULTS AND
OBSERVATIONS** Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

**DATE SAMPLES TAKEN
(QUARTERLY)** _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLS**

INSPECTED BY *J. Walther*

SALTY DOG INSPECTION

DATE 4-16-07

BRINE LINE INSPECTION

RESULTS OK

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____

_____ BBLs

INSPECTED BY Z. W. Moore

SALTY DOG INSPECTION

DATE 4-23-07

BRINE LINE INSPECTION

RESULTS OK

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____

END _____

BRINE SALES FOR MONTH _____

_____ BBLs

INSPECTED BY

[Signature]

SALTY DOG INSPECTION

DATE 4-30-07

BRINE LINE INSPECTION

RESULTS OK

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____

END _____

BRINE SALES FOR MONTH _____

BBLS

INSPECTED BY

J. Wallace

SALTY DOG INSPECTION

DATE 5-2-07

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLS**

INSPECTED BY JD Sayers

SALTY DOG INSPECTION

DATE 5-7-07

BRINE LINE INSPECTION

RESULTS OK

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLS**

INSPECTED BY W. Sayer

SALTY DOG INSPECTION

DATE 5-14-07

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____

_____ BBLs

INSPECTED BY J. D. Sayre

SALTY DOG INSPECTION

DATE 5-22-07

BRINE LINE INSPECTION

RESULTS OK

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MONITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____

_____ BBLs

INSPECTED BY

J. N. Sayer

SALTY DOG INSPECTION

DATE 5-29-07

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLs**

INSPECTED BY J. D. Sayer

SALTY DOG INSPECTION

DATE 6-4-07

BRINE LINE INSPECTION

RESULTS OK

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLS**

INSPECTED BY J D Sayer

SALTY DOG INSPECTION

DATE 6-12-07

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND
OBSERVATIONS Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN
(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____
_____ BBLs

INSPECTED BY J.D. Sayon

SALTY DOG INSPECTION

DATE 6-18-07

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____

END _____

BRINE SALES FOR MONTH _____

BBLS

INSPECTED BY _____

JD Sayers

SALTY DOG INSPECTION

DATE 6-25-07

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

**RESULTS AND
OBSERVATIONS** Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

**DATE SAMPLES TAKEN
(QUARTERLY)** _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLs**

INSPECTED BY J.D. Sayer

SALTY DOG INSPECTION

DATE 7-2-07

BRINE LINE INSPECTION

RESULTS NO Leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____

_____ BBLs

INSPECTED BY JD Sayre

SALTY DOG INSPECTION

DATE 7-9-07

BRINE LINE INSPECTION

RESULTS OK

BRINE PIT LINER INSPECTION

**RESULTS AND
OBSERVATIONS** Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

**DATE SAMPLES TAKEN
(QUARTERLY)** _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____
_____ **BBLs**

INSPECTED BY JD Sayer

SALTY DOG INSPECTION

DATE 7-17-07

BRINE LINE INSPECTION

RESULTS No leaks

BRINE PIT LINER INSPECTION

RESULTS AND
OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN
(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____

_____ BBLs

INSPECTED BY JD [Signature]

SALTY DOG INSPECTION

DATE 7-23-07

BRINE LINE INSPECTION

RESULTS OK

BRINE PIT LINER INSPECTION

**RESULTS AND
OBSERVATIONS** Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

**DATE SAMPLES TAKEN
(QUARTERLY)** _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLs**

INSPECTED BY J.D. Sayer

SALTY DOG INSPECTION

DATE 8-1-07

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND
OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN
(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____
_____ BBLs

INSPECTED BY J.D. Scrym

SALTY DOG INSPECTION

DATE 8-6-07

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

**RESULTS AND
OBSERVATIONS** Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

**DATE SAMPLES TAKEN
(QUARTERLY)** _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____
_____ **BBLs**

INSPECTED BY J.D. Sayer

SALTY DOG INSPECTION

DATE 8-14-07

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____

_____ BBLs

INSPECTED BY J.D. Dwyer

SALTY DOG INSPECTION

DATE 8-20-07

BRINE LINE INSPECTION

RESULTS no leaks

BRINE PIT LINER INSPECTION

**RESULTS AND
OBSERVATIONS** Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

**DATE SAMPLES TAKEN
(QUARTERLY)** _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLs**

INSPECTED BY J. D. Sayers

SALTY DOG INSPECTION

DATE 8-28-07

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____

_____ BBLs

INSPECTED BY JD Sayre

SALTY DOG INSPECTION

DATE 9-4-07

BRINE LINE INSPECTION

RESULTS OK

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLs**

INSPECTED BY

JO Serna

SALTY DOG INSPECTION

DATE 9-10-07

BRINE LINE INSPECTION

RESULTS No leaks

BRINE PIT LINER INSPECTION

**RESULTS AND
OBSERVATIONS** Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

**DATE SAMPLES TAKEN
(QUARTERLY)** _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____
_____ **BBLs**

INSPECTED BY J.D. Sayer

SALTY DOG INSPECTION

DATE 9-17-07

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

**RESULTS AND
OBSERVATIONS** Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MONITOR WELLS

**DATE SAMPLES TAKEN
(QUARTERLY)** _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLs**

INSPECTED BY J. D. Sauer

SALTY DOG INSPECTION

DATE 9-24-07

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

**RESULTS AND
OBSERVATIONS** Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

**DATE SAMPLES TAKEN
(QUARTERLY)** _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____
_____ **BBLs**

INSPECTED BY JD Sayer

SALTY DOG INSPECTION

DATE 10-1-07

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLs**

INSPECTED BY J.D. Seng

SALTY DOG INSPECTION

DATE 10-9-07

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND
OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN
(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____
_____ BBLs

INSPECTED BY J.D. Scurry

SALTY DOG INSPECTION

DATE 10-15-07

BRINE LINE INSPECTION

RESULTS NO Leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____

_____ BBLs

INSPECTED BY JD Sayer

SALTY DOG INSPECTION

DATE 10-23-07

BRINE LINE INSPECTION

RESULTS OK

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____

END _____

BRINE SALES FOR MONTH _____

BBLs

INSPECTED BY J.D. Senger

SALTY DOG INSPECTION

DATE 10-29-07

BRINE LINE INSPECTION

RESULTS NO LEAKS

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____

END _____

BRINE SALES FOR MONTH _____

BBLs

INSPECTED BY J. D. Sayer

SALTY DOG INSPECTION

DATE 11-5-07

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLs**

INSPECTED BY J.D. Sayer

SALTY DOG INSPECTION

DATE 11-13-07

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND
OBSERVATIONS Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN
(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____

_____ BBLs

INSPECTED BY J.D. Sayer

SALTY DOG INSPECTION

DATE 11-19-07

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____

_____ BBLS

INSPECTED BY

J D Sayre

SALTY DOG INSPECTION

DATE 11-26-07

BRINE LINE INSPECTION

RESULTS NO LEAKS

BRINE PIT LINER INSPECTION

**RESULTS AND
OBSERVATIONS** Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MONITOR WELLS

**DATE SAMPLES TAKEN
(QUARTERLY)** _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLs**

INSPECTED BY JO Sayer

SALTY DOG INSPECTION

DATE 12-4-07

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND
OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN
(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____
_____ BBLs

INSPECTED BY JO Scur

SALTY DOG INSPECTION

DATE 12-10-07

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____

_____ BBLs

INSPECTED BY J.D. Sayer

SALTY DOG INSPECTION

DATE 12-18-07

BRINE LINE INSPECTION

RESULTS NO LEAKS

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLs**

INSPECTED BY J.D. Sayer

SALTY DOG INSPECTION

DATE 12-24-07

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLS**

INSPECTED BY J.D. Sayre

SALTY DOG INSPECTION

DATE 1-2-08

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

**RESULTS AND
OBSERVATIONS** Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

**DATE SAMPLES TAKEN
(QUARTERLY)** _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____
_____ **BBLs**

INSPECTED BY J.D. Sayer

SALTY DOG INSPECTION

DATE 1-7-08

BRINE LINE INSPECTION

RESULTS NO Leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____

_____ BBLs

INSPECTED BY J.D. Sayer

SALTY DOG INSPECTION

DATE 1-15-08

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____

_____ BBLs

INSPECTED BY J.D. Sauer

SALTY DOG INSPECTION

DATE 1-21-08

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

**RESULTS AND
OBSERVATIONS** Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

**DATE SAMPLES TAKEN
(QUARTERLY)** _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLs**

INSPECTED BY JW Sayon

SALTY DOG INSPECTION

DATE 1-28-08

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____

_____ BBLs

INSPECTED BY J.D. Bay

SALTY DOG INSPECTION

DATE 2-5-08

BRINE LINE INSPECTION

RESULTS NO Leaks

BRINE PIT LINER INSPECTION

**RESULTS AND
OBSERVATIONS** Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

**DATE SAMPLES TAKEN
(QUARTERLY)** _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLs**

INSPECTED BY J.D. Sayer

SALTY DOG INSPECTION

DATE 2-11-08

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

**RESULTS AND
OBSERVATIONS** Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

**DATE SAMPLES TAKEN
(QUARTERLY)** _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLs**

INSPECTED BY JW Suga

SALTY DOG INSPECTION

DATE 2-19-08

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

**RESULTS AND
OBSERVATIONS** Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

**DATE SAMPLES TAKEN
(QUARTERLY)** _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLs**

INSPECTED BY J. D. Sanger

SALTY DOG INSPECTION

DATE 2-25-08

BRINE LINE INSPECTION

RESULTS NO LEAKS

BRINE PIT LINER INSPECTION

RESULTS AND
OBSERVATIONS Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN
(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____

_____ BBLs

INSPECTED BY JO Sayer

SALTY DOG INSPECTION

DATE 3-4-08

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____

_____ BBLs

INSPECTED BY J.D. Sayre

SALTY DOG INSPECTION

DATE 3-10-08

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND
OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN
(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____

_____ BBLs

INSPECTED BY JO Sayer

SALTY DOG INSPECTION

DATE 3-18-08

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____

_____ BBLs

INSPECTED BY

J.D. Sauer

SALTY DOG INSPECTION

DATE 3-25-08

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____

_____ BBLs

INSPECTED BY

J.D. Sayer

SALTY DOG INSPECTION

DATE 4-7-08

BRINE LINE INSPECTION

RESULTS No leaks

BRINE PIT LINER INSPECTION

**RESULTS AND
OBSERVATIONS** Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MONITOR WELLS

**DATE SAMPLES TAKEN
(QUARTERLY)** _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLS**

INSPECTED BY J.D. Senger

SALTY DOG INSPECTION

DATE 4-15-08

BRINE LINE INSPECTION

RESULTS No leaks

BRINE PIT LINER INSPECTION

**RESULTS AND
OBSERVATIONS** Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

**DATE SAMPLES TAKEN
(QUARTERLY)** _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLs**

INSPECTED BY JO Sugar

SALTY DOG INSPECTION

DATE 4-21-08

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLs**

INSPECTED BY J.D. Sayer

SALTY DOG INSPECTION

DATE 4-28-08

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____

END _____

BRINE SALES FOR MONTH _____

BBLs

INSPECTED BY _____

J.D. Sayre

SALTY DOG INSPECTION

DATE 5-5-08

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

**RESULTS AND
OBSERVATIONS** Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

**DATE SAMPLES TAKEN
(QUARTERLY)** _____

FRESH WATER METER READING

START _____ **END** _____

BRINE SALES FOR MONTH _____

_____ **BBLs**

INSPECTED BY JD Sayon

SALTY DOG INSPECTION

DATE 5-13-08

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____

_____ BBLs

INSPECTED BY

J D Sayer

SALTY DOG INSPECTION

DATE 5-19-08

BRINE LINE INSPECTION

RESULTS No Leaks

BRINE PIT LINER INSPECTION

RESULTS AND
OBSERVATIONS Good Condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN
(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____

_____ BBLs

INSPECTED BY J.D. Sayer

SALTY DOG INSPECTION

DATE 5-27-08

BRINE LINE INSPECTION

RESULTS no leaks

BRINE PIT LINER INSPECTION

RESULTS AND

OBSERVATIONS Good condition

BRINE PIT MONITOR WELL

RESULTS Empty

FRESH WATER MOITOR WELLS

DATE SAMPLES TAKEN

(QUARTERLY) _____

FRESH WATER METER READING

START _____ END _____

BRINE SALES FOR MONTH _____

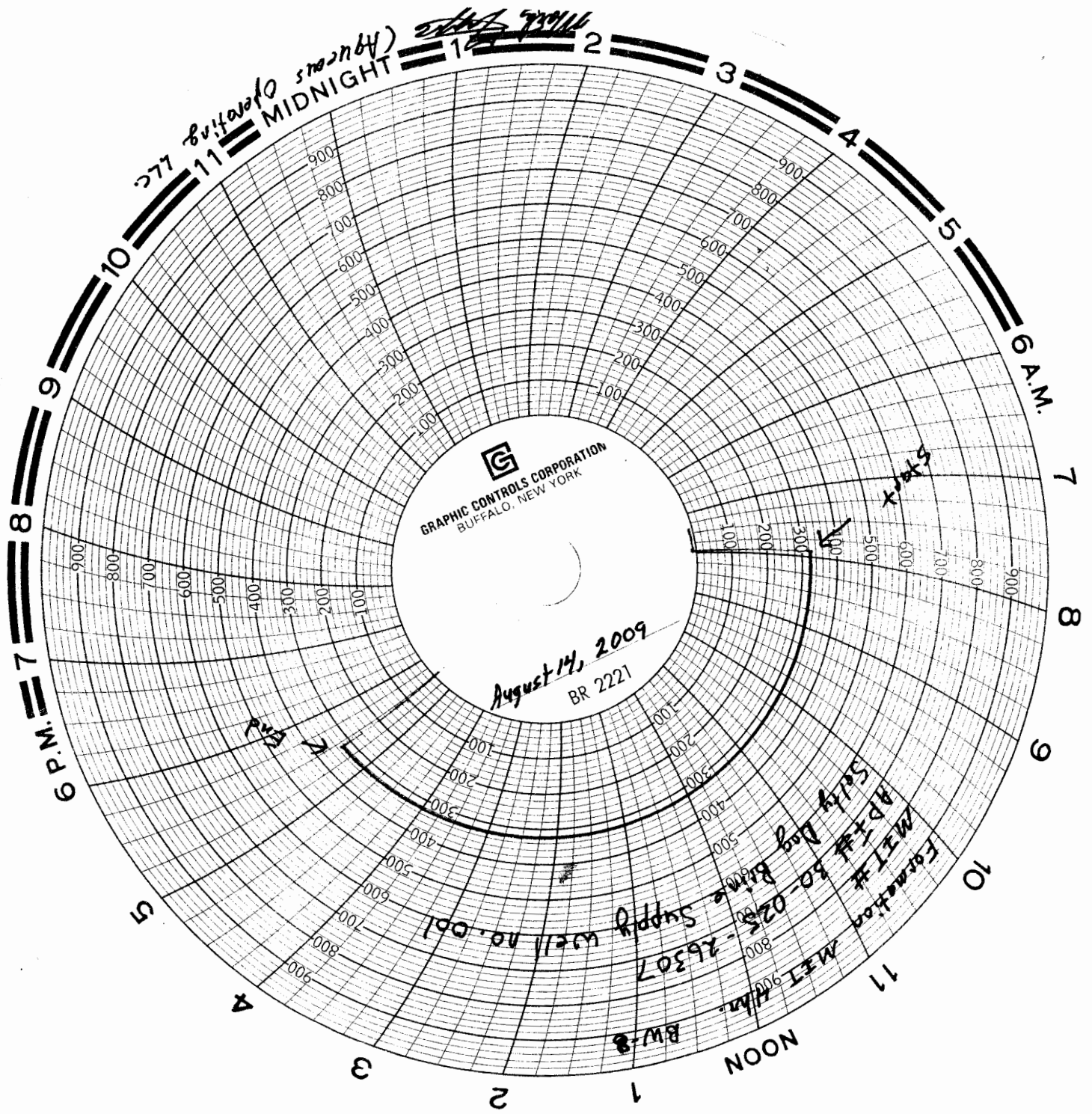
_____ BBLs

INSPECTED BY

J D Sauer

Salty Dog following the sonar test did reverse flow (fresh water down the tubing and brine up the casing) at the request of Jim Griswold. Salty Dog however after three weeks of this was not able to produce brine and returned to normal flow (fresh down the casing and brine up the tubing) Once monthly Salty dog pumps aprox. 200 barrels down the tubing to clean it.

Salty Dog always keeps the well pressure above 300 psi and never exceeds 450psi. The only time Salty Dog ever goes below 300 is to perform workover operations.



577 Buffalo (Houses operating 11 MIDNIGHT)

Formation
MIT #
AD # 50-025-26307
Supply well no. 001
MIT #
RW-8
NOON

577



SOCON Sonar Well Services, Inc.

ECHO – LOG

Salty Dog, Inc.

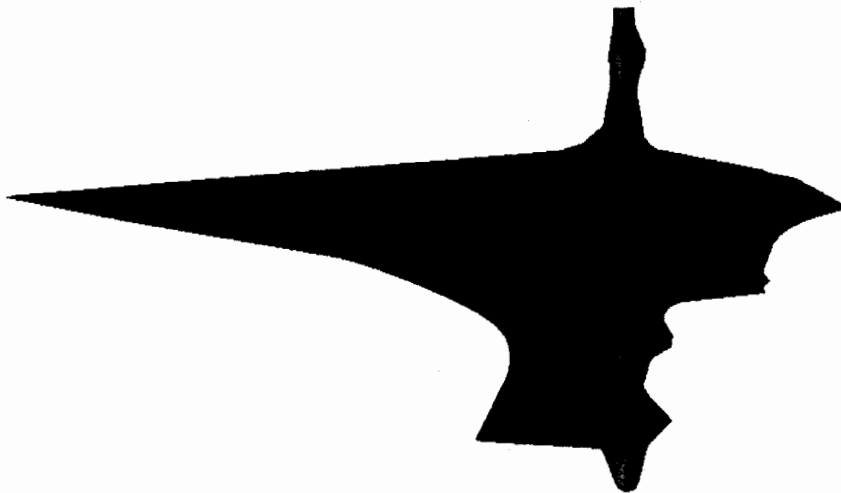
Brine Well No: 1

Hobbs, New Mexico

First SOCON Sonar Well Services Survey

02/05/2009

093013



SOCON Sonar Well Services, Inc.

11133 I-45 South, Ste. E

Conroe, Texas 77302

Phone (936) 441-5801

Fax (936) 539-6847

e-mail: soconusa@socon.com



SOCON Sonar Well Services, Inc.

Brine Well No: 1

093013

02/05/2009

**Results of the Cavern Survey
by means of Echo-Sounding
in the cavern**

Brine Well No: 1

Date: 02/05/2009

093013

Customer:

Salty Dog Inc.

Lubbock, Texas

Responsible for the survey:

Surveyor:	HL Van Metre
Leadership:	Mr. James Millet
Interpreter:	HL Van Metre
Control:	Mr. Richard Lawrence



SOCON Sonar Well Services, Inc.

Brine Well No: 1

093013

02/05/2009

Contents

Summary of results

Legend

Enclosures:

Volume (diagrams and lists)

Diameter and radii (diagrams and lists)

Perspective views

Maximum plots (top view)

Horizontal sections

Maximum plot (side view)

Vertical sections



Summary of results

Well details

All depths are given as: MD

Datum level for all depths: surface

Shoe of the cemented 5-1/2" - casing: 1871.0 ft

Reference depth for ECHO-LOG: 1871.0 ft

Depth correction: 0.0 ft

Pressure at the well head: 0.0 psi

Details of survey equipment

Measuring vehicle used: Grey Wireline

Tools used: XN02 - R185

General details

Number of runs: 1

Measured horizontal sections: 18

Measured tilted sections: 0

Lowest survey depth: 1903.0 ft



Maximum and minimum dimensions with ref. to the measuring axis

Reference direction:

magnetic north

Determination out of 12 vertical sections derived from horizontally and tilted measured data at 15 degree intervals:

Minimum radius: 0.0 ft
Depth: 1903.1 ft
Direction: 0°

Maximum radius: 38.2 ft
Depth: 1882.0 ft
Direction: 195°

Highest point of cavern: 1871.0 ft
Horizontal distance: 0.6 ft
Direction: 0°

Lowest point of cavern: 1903.1 ft
horizontal distance: 0.0 ft
Direction: 0°

Lowest point in the measuring axis: 1903.1 ft

Determination out of 18 horizontal sections in the depths between 1871 feet and 1903 feet at 5 degree intervals:

Maximum radius: 41.0 ft
Depth: 1882.0 ft
Direction: 200°

Maximum diameter: 52.1 ft
Depth: 1882.0 ft
Direction: 20 - 200°

Volume

Volume: 720.0 Bbls

Depth range: 1871.0 ft <--> 1903.0 ft



Interpretation

Supposing a rectilinear propagation of ultrasonic waves all recorded echo travel times were converted into distances by using the subsequent speeds of sound:

5020 feet/second to 5020 feet/second in brine (measured)

In the case of recording several echoes along one trace of echo signals, the representative echo signal was selected according to the level of amplitude, transmission time, and density of measured points and the shape of the cavern.

Horizontal sections

18 horizontal sections at following measured depths are included as graphical plots in this report:

1871.0 ft	1872.0 ft	1874.0 ft	1876.0 ft	1878.0 ft	1880.0 ft	1882.0 ft
1884.0 ft	1886.0 ft	1888.0 ft	1890.0 ft	1892.0 ft	1894.0 ft	1896.0 ft
1898.0 ft	1900.0 ft	1902.0 ft	1903.0 ft			

Tilted sections

0 sections recorded with tilted echo-transducer at following measured depths are presented in the vertical sections:

Vertical sections

The shape of the cavern was determined by interpretation of all horizontally and tilted measured data and is presented by 36 vertical sections in this report.



Maximum plots (top view)

The maximum plot presents the largest extension of the cavern in a top view. The first picture shows the areas of all horizontal sections and the area resulting out of the vertical sections (hatched). The resulting total area is shown in the second picture (cross hatching) together with the largest single area.

In both pictures the total centre of gravity of the cavern is shown with its distance and its direction referring to the measuring axis.

The total centre of gravity is derived out of the envelope, which is the connection line of the largest cavern extension in every direction

Perspective views

Several perspective drawings are included in this report to give a quick review of detailed relations.

Pockets in the cavern wall

Pockets in the cavern wall, which have been identified by the tilted echo-transducer, were transferred from the vertical sections to the respective horizontal sections. The resulting additional areas have been added to the calculated areas.



LEGEND

- Measured point recorded with horizontal adjusted ultrasonic transducer
- Measured point recorded with tilted or vertical orientated ultrasonic transducer
- ▲ Interpolated point derived from the vertical sections
- Connection line between two measured points in order to calculate the volume
- Assumed connection line (in areas which are not sufficiently covered by measured points)
- N Magnetic north determined with compass inside the tool
(Magnetic compass in areas without tubing)
(Fibre gyro compass in areas with tubing)
- (N) Assumed north direction (for sections in magnetic disturbed surroundings without fibre gyro compass)
- a Longest extension in section
(Without considering of hidden leached pockets)
- b Longest extension in section perpendicular to a
(Without considering of hidden leached pockets)
- a/b Ratio of longest extensions in section which are perpendicular to each other
- (xx m²) Area in actual section resulting from hidden leached pockets
- r~ Average radius

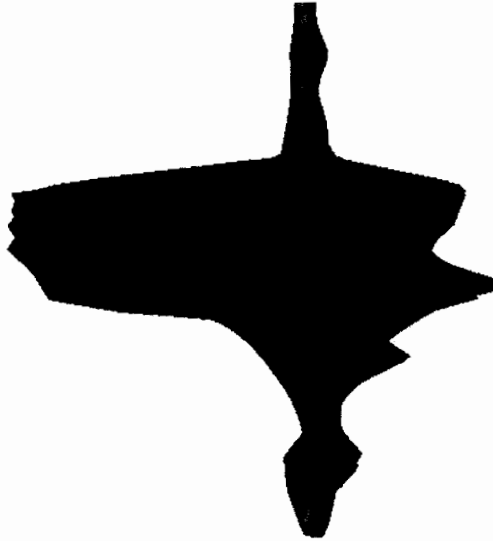


SOCON Sonar Well Services, Inc.

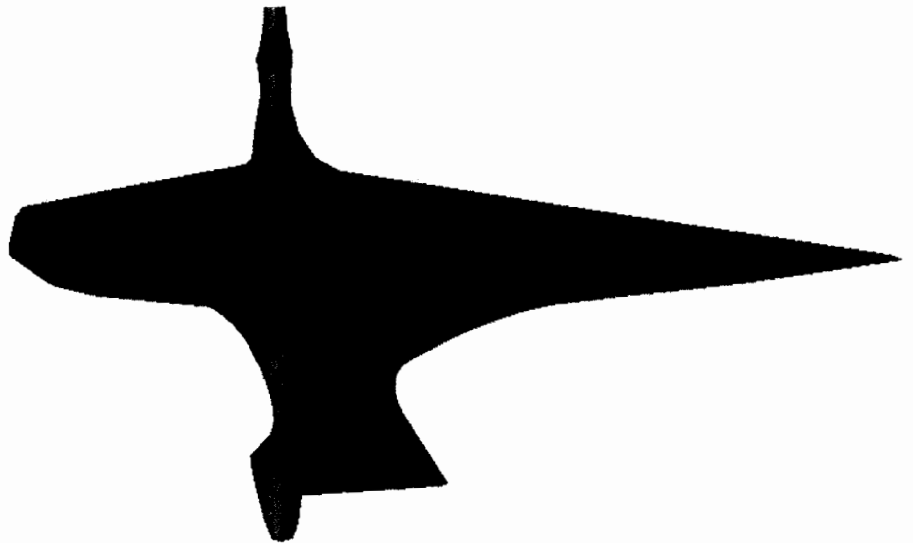
Brine Well No: 1

093013

02/05/2009



Brine Well No: 1 --> 0° <--



Brine Well No: 1 --> 60° <--

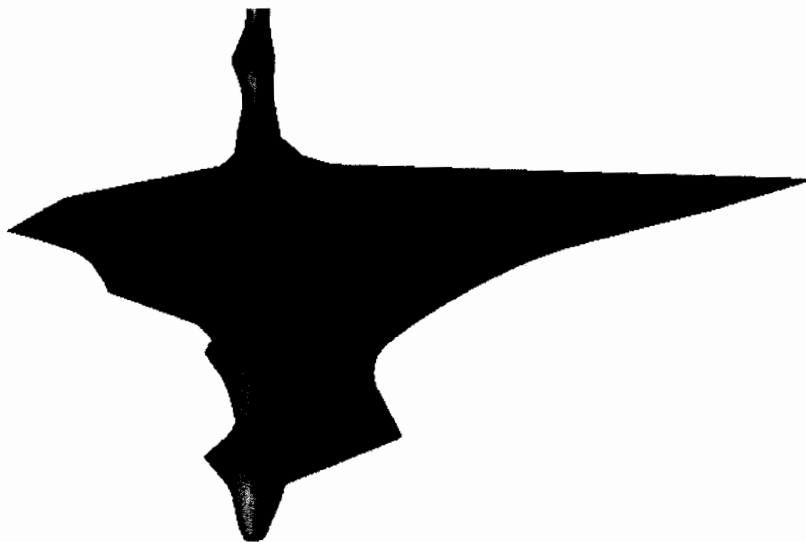


SOCON Sonar Well Services, Inc.

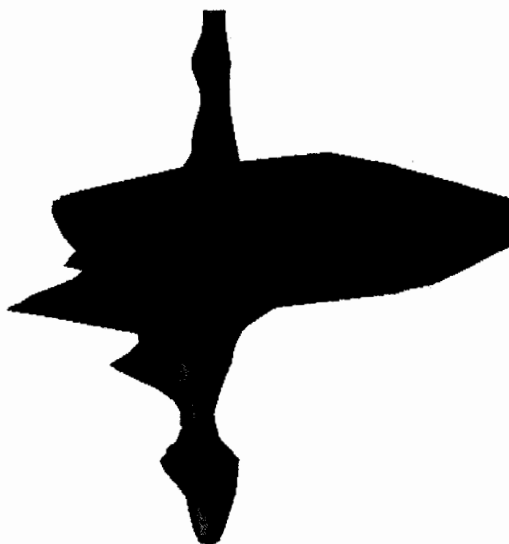
Brine Well No: 1

093013

02/05/2009



Brine Well No: 1 --> 120° <--



Brine Well No: 1 --> 180° <--

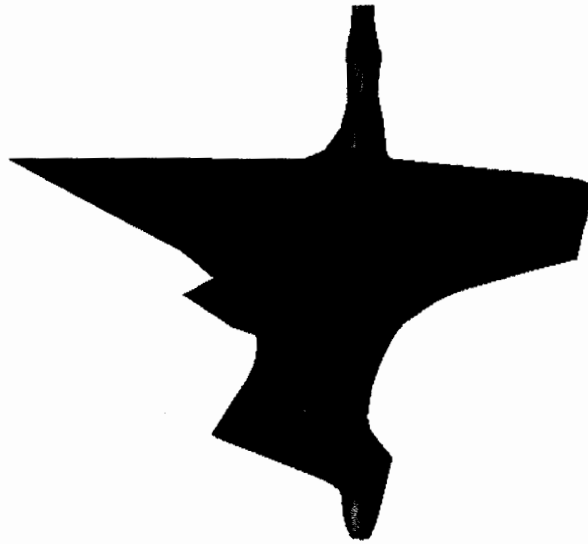


SOCON Sonar Well Services, Inc.

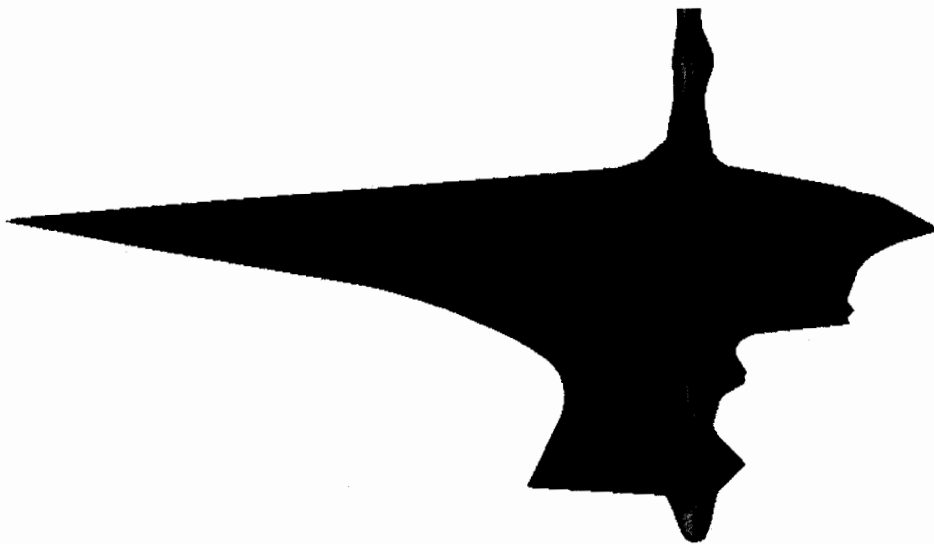
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093013

02/05/2009



Brine Well No: 1 --> 240° <--



Brine Well No: 1 --> 300° <--

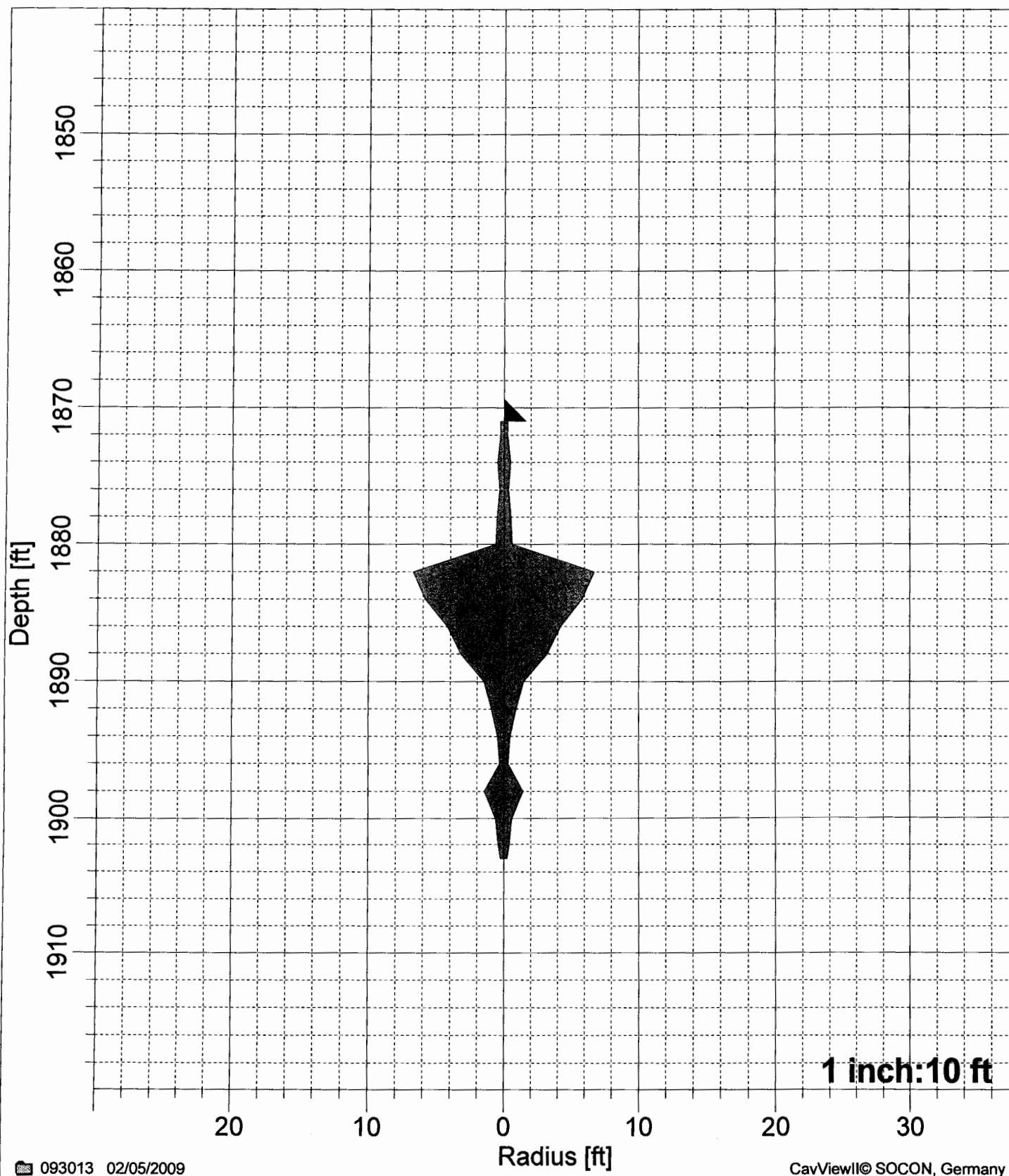


SOCON Sonar Well Services, Inc.

Brine Well No: 1

AVERAGE RADIUS

02/05/2009



5-1/2" : 1871.0 ft

Average radius (02/05/2009)

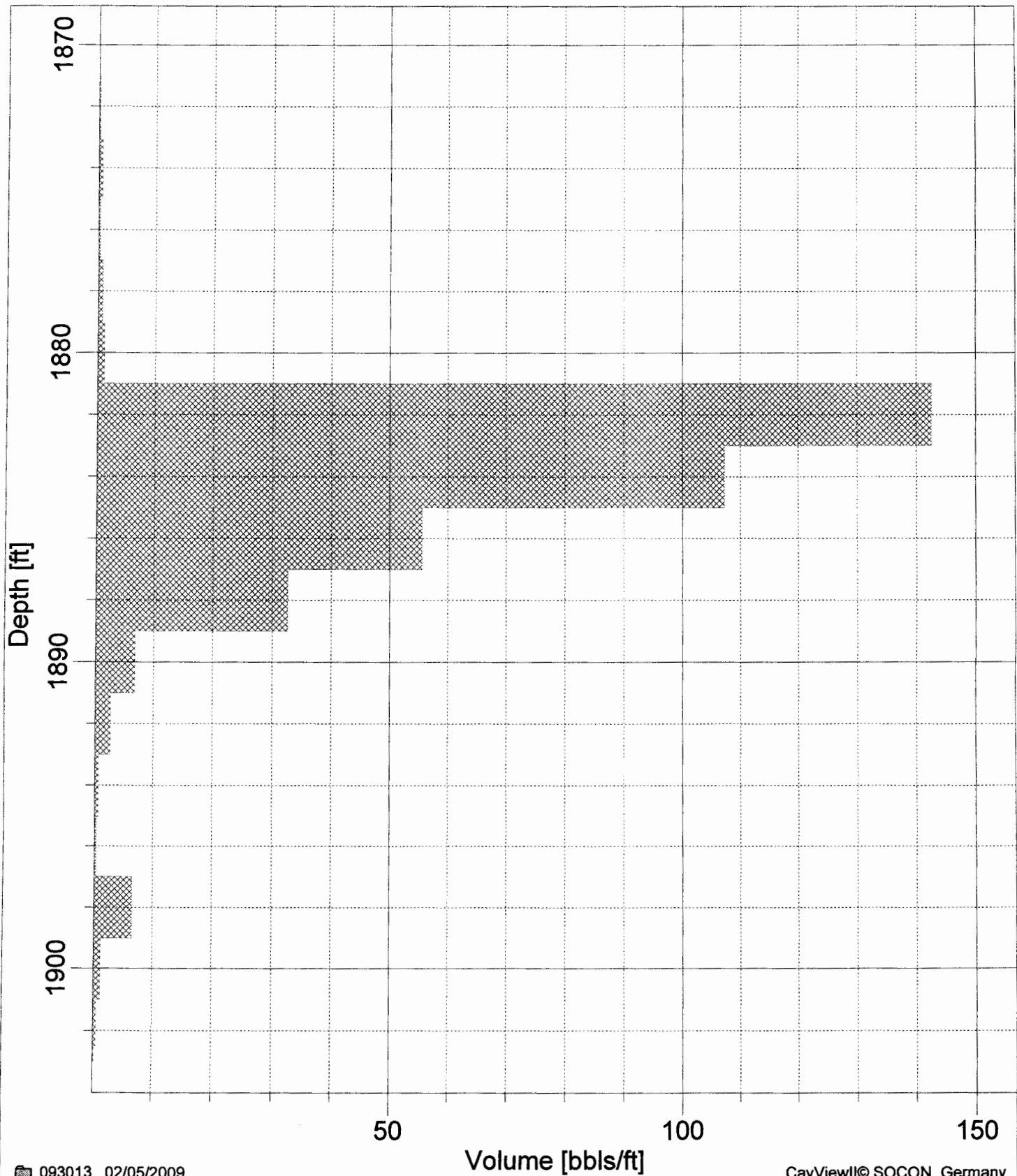


SOCON Sonar Well Services, Inc.

Brine Well No: 1

PARTIAL VOLUME

02/05/2009



093013 02/05/2009

Volume [bbls/ft]

CavViewII© SOCON, Germany



Partial volume



SOCON Sonar Well Services, Inc.

Volume list

Brine Well No: 1

093013

02/05/2009

Depth [ft]	Radius [ft]	Area [ft ²]	Depth range [ft]		Volume [bbls]	
			from	to	partial	total
1871.0	0.6	1	1871.0	1871.5	0	0
1872.0	0.7	1	1871.5	1873.0	0	0
1874.0	1.1	4	1873.0	1875.0	1	2
1876.0	0.8	2	1875.0	1877.0	1	3
1878.0	1.2	5	1877.0	1879.0	2	4
1880.0	1.5	7	1879.0	1881.0	2	7
1882.0	16.0	800	1881.0	1883.0	285	292
1884.0	13.8	602	1883.0	1885.0	214	506
1886.0	10.0	312	1885.0	1887.0	111	617
1888.0	7.6	183	1887.0	1889.0	65	683
1890.0	3.5	38	1889.0	1891.0	14	696
1892.0	2.2	15	1891.0	1893.0	5	702
1894.0	1.1	4	1893.0	1895.0	1	703
1896.0	0.8	2	1895.0	1897.0	1	704
1898.0	3.4	37	1897.0	1899.0	13	717
1900.0	1.5	7	1899.0	1901.0	2	719
1902.0	1.0	3	1901.0	1902.5	1	720
1903.0	0.6	1	1902.5	1903.0	0	720

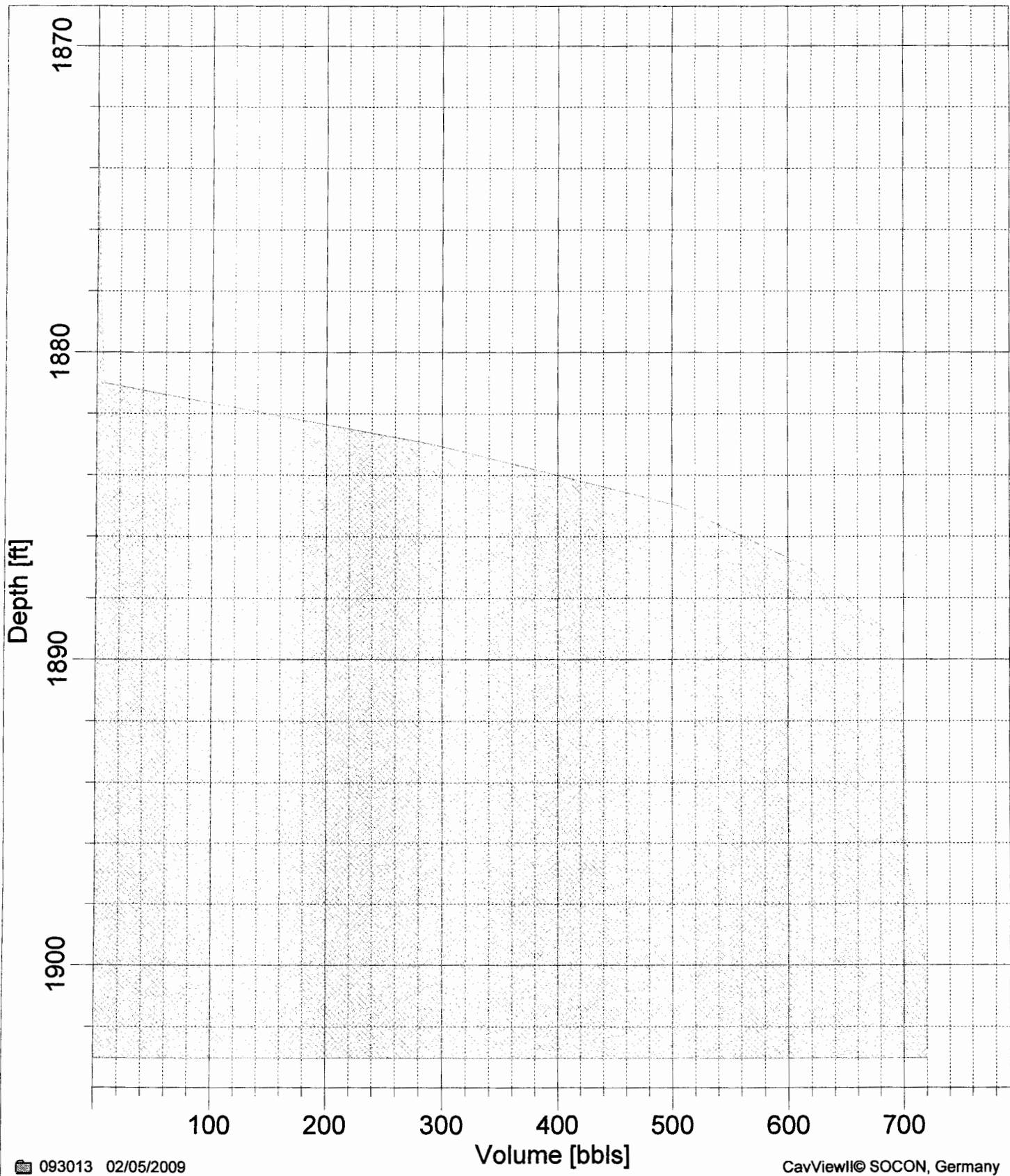


SOCON Sonar Well Services, Inc.

Brine Well No: 1

TOTAL VOLUME

02/05/2009



093013 02/05/2009

CavViewII© SOCON, Germany

Total volume = 720.0 bbls



SOCON Sonar Well Services, Inc.

Table of volumes (foot by foot)

Job-No.: 093013, Name: Brine Well No: 1, Date: 02/05/2009

depth [ft]	volume [bbls]	depth [ft]	volume [bbls]	depth [ft]	volume [bbls]	depth [ft]	volume [bbls]	depth [ft]	volume [bbls]
		1871	0	1872	0	1873	0	1874	1
1875	2	1876	2	1877	3	1878	3	1879	4
1880	5	1881	7	1882	149	1883	292	1884	399
1885	506	1886	562	1887	617	1888	650	1889	683
1890	689	1891	696	1892	699	1893	702	1894	702
1895	703	1896	703	1897	704	1898	710	1899	717

1900	718	1901	719	1902	720	1903	720		

Brine Well No: 1 Report number: 093013 Date: 02/05/2009

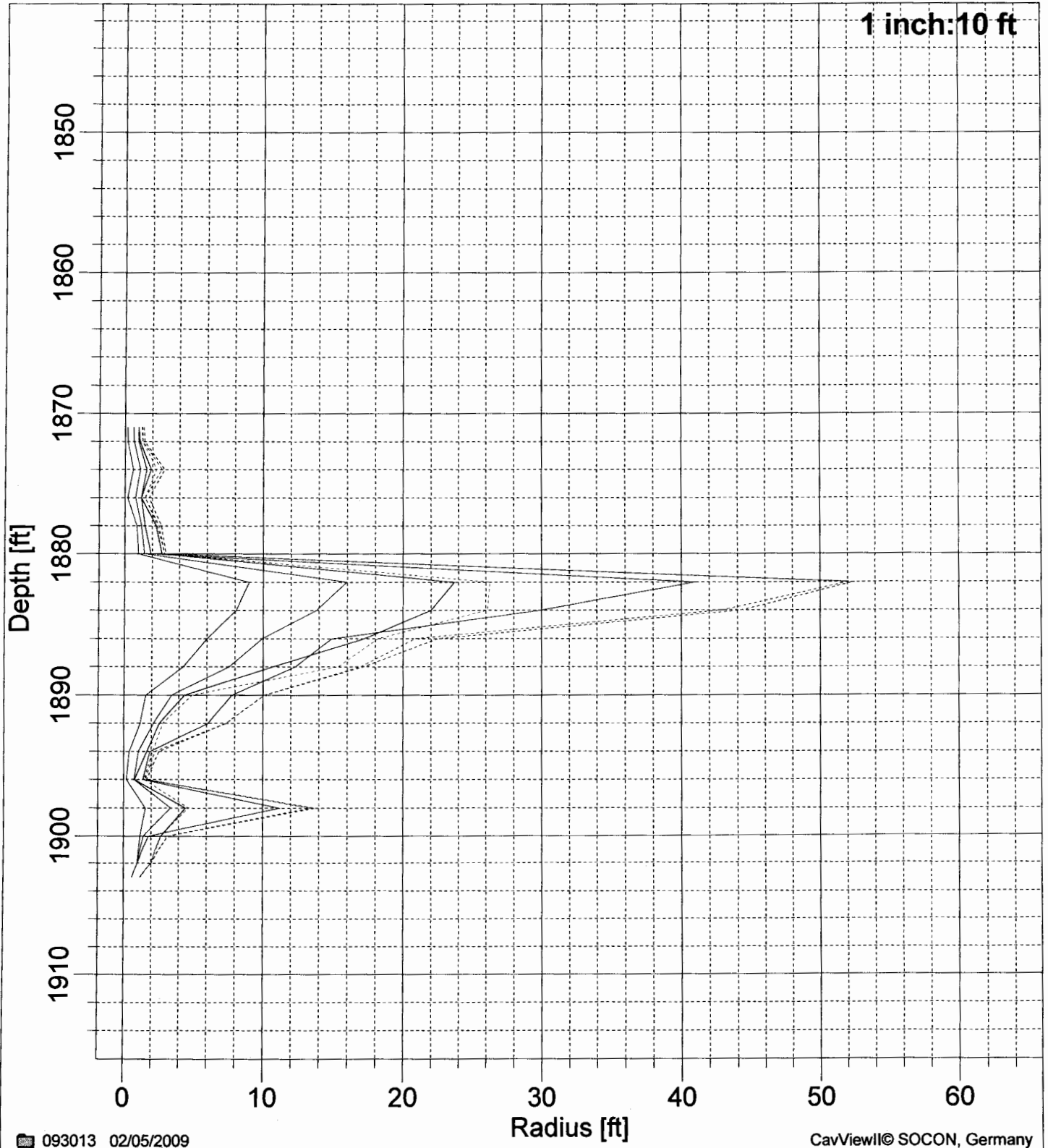


SOCON Sonar Well Services, Inc.

Brine Well No: 1

RADII / DIAMETERS

02/05/2009



— Average radius	— Minimum radius	— Maximum radius
— Minimum diameter	— Maximum diameter	— Largest extension
— Largest perpendicular extension		



SOCON Sonar Well Services, Inc.

Table of radii and diameters

Brine Well No: 1

093013

02/05/2009

Depth [ft]	Radius [MIN]		Radius [MAX]		Diameter [MIN]		[MAX]	
	[ft]	[°]	[ft]	[°]	[ft]	[°]	[ft]	[°]
1871.0	0.2	121	1.0	240	1.0	22 <-> 202	1.3	60 <-> 240
1872.0	0.2	76	1.0	240	1.1	173 <-> 353	1.3	45 <-> 225
1874.0	0.6	122	1.6	0	1.9	122 <-> 302	2.7	5 <-> 185
1876.0	0.2	110	1.2	235	1.2	167 <-> 347	1.5	45 <-> 225
1878.0	0.9	37	1.5	220	2.3	15 <-> 195	2.5	155 <-> 335
1880.0	1.0	72	1.9	255	2.7	165 <-> 345	2.9	45 <-> 225
1882.0	9.0	95	41.0	200	23.7	145 <-> 325	52.1	20 <-> 200
1884.0	8.1	117	29.9	195	22.0	65 <-> 245	43.0	20 <-> 200
1886.0	6.0	107	14.9	290	17.2	75 <-> 255	20.9	110 <-> 290
1888.0	4.3	292	12.3	75	10.7	15 <-> 195	17.0	75 <-> 255
1890.0	1.6	277	7.8	155	4.4	85 <-> 265	10.1	160 <-> 340
1892.0	1.2	2	6.1	100	2.6	2 <-> 182	7.4	100 <-> 280
1894.0	0.4	246	1.9	75	1.7	12 <-> 192	2.3	75 <-> 255
1896.0	0.2	216	1.4	80	0.8	19 <-> 199	1.6	95 <-> 275
1898.0	1.6	307	11.2	180	4.5	115 <-> 295	13.4	0 <-> 180
1900.0	1.2	117	1.8	220	2.7	122 <-> 302	3.2	40 <-> 220
1902.0	1.0	2	1.0	0	2.0	2 <-> 182	2.0	0 <-> 180
1903.0	0.6	2	0.6	0	1.2	2 <-> 182	1.2	0 <-> 180



Brine Well No: 1

093013

02/05/2009

[illegible]

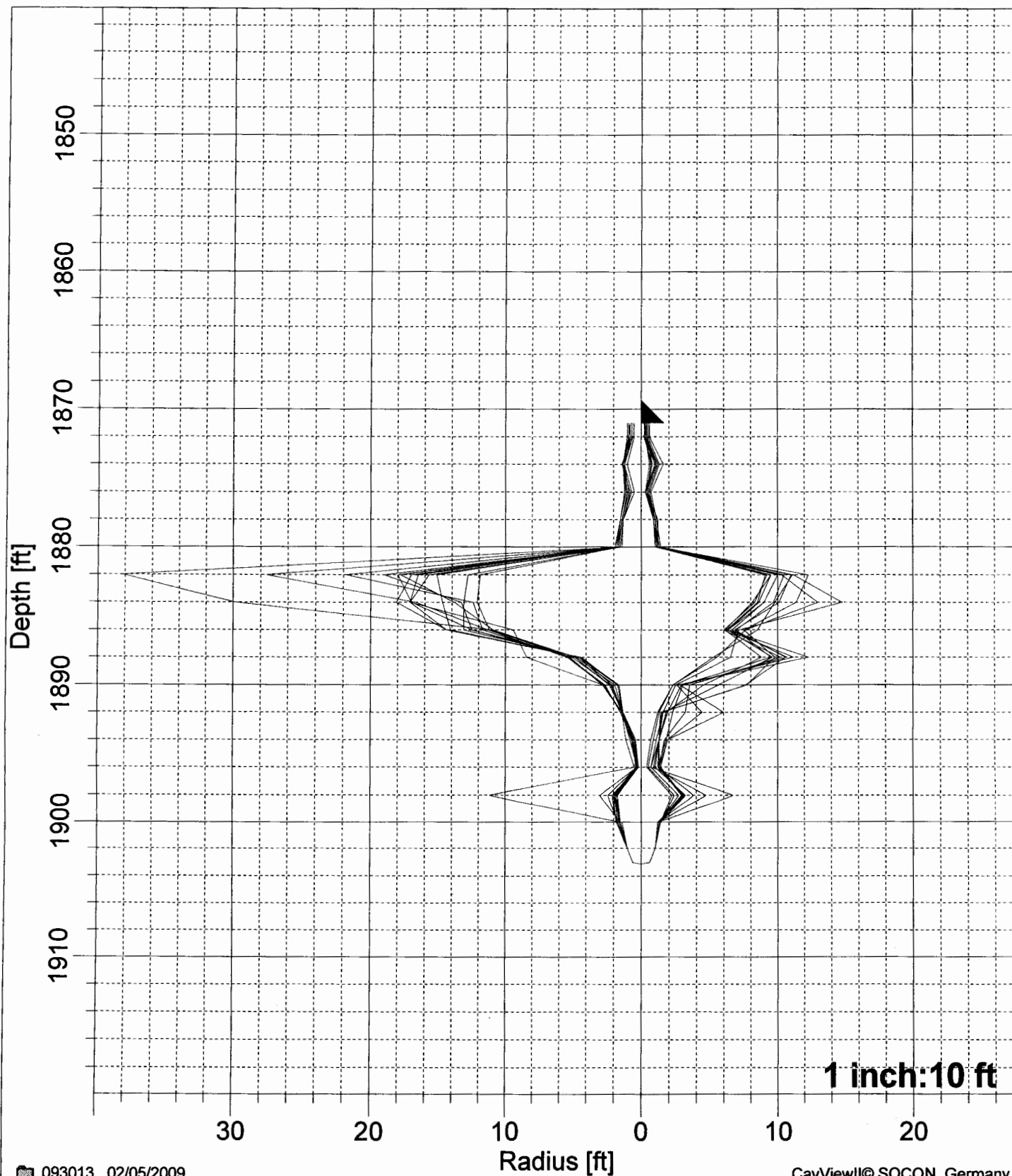


SOCON Sonar Well Services, Inc.

Brine Well No: 1

MAXPLOT

02/05/2009



093013 02/05/2009

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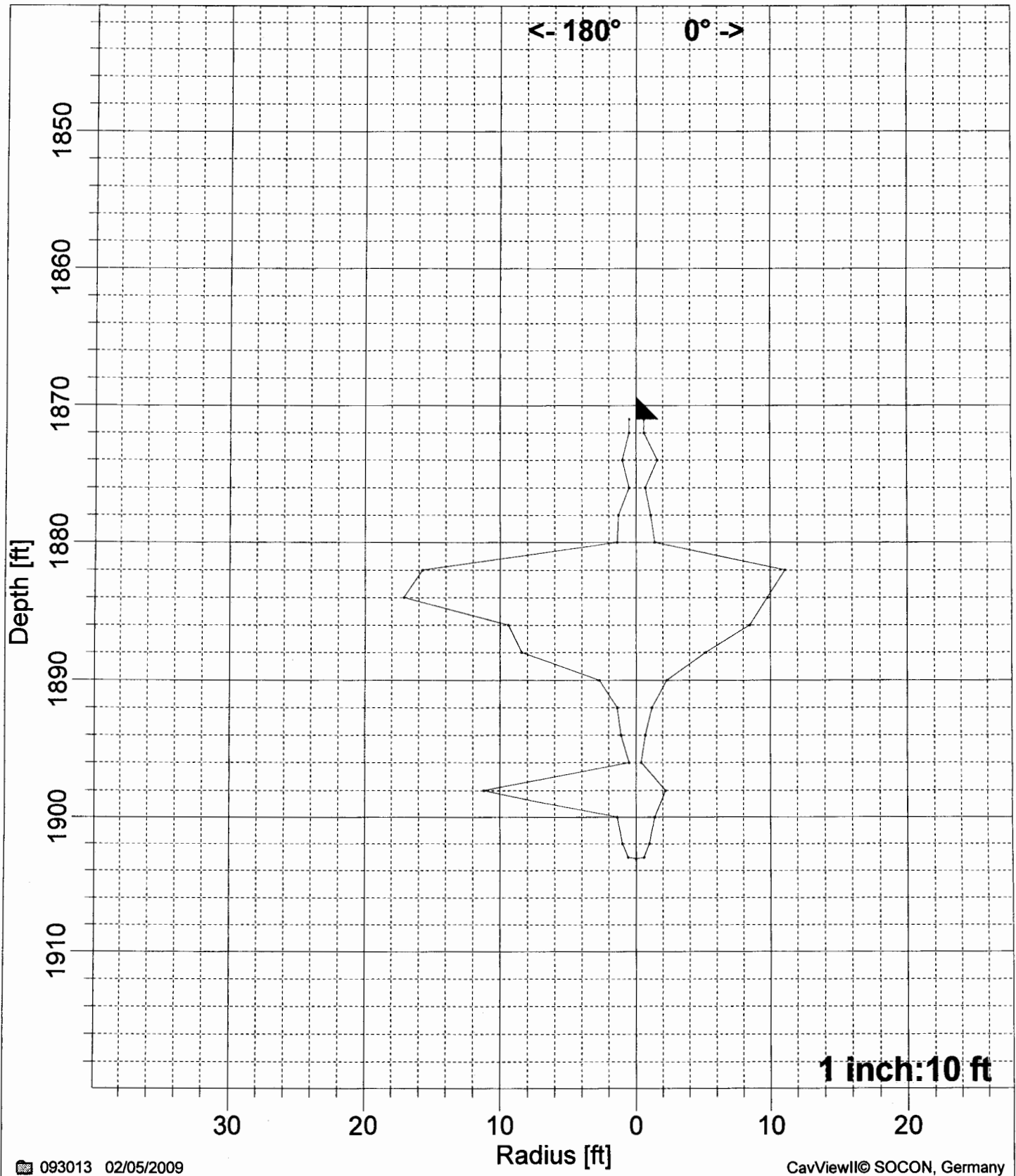
5-1/2" : 1871.0 ft



SOCON Sonar Well Services, Inc.

Brine Well No: 1

02/05/2009



(02/05/2009)

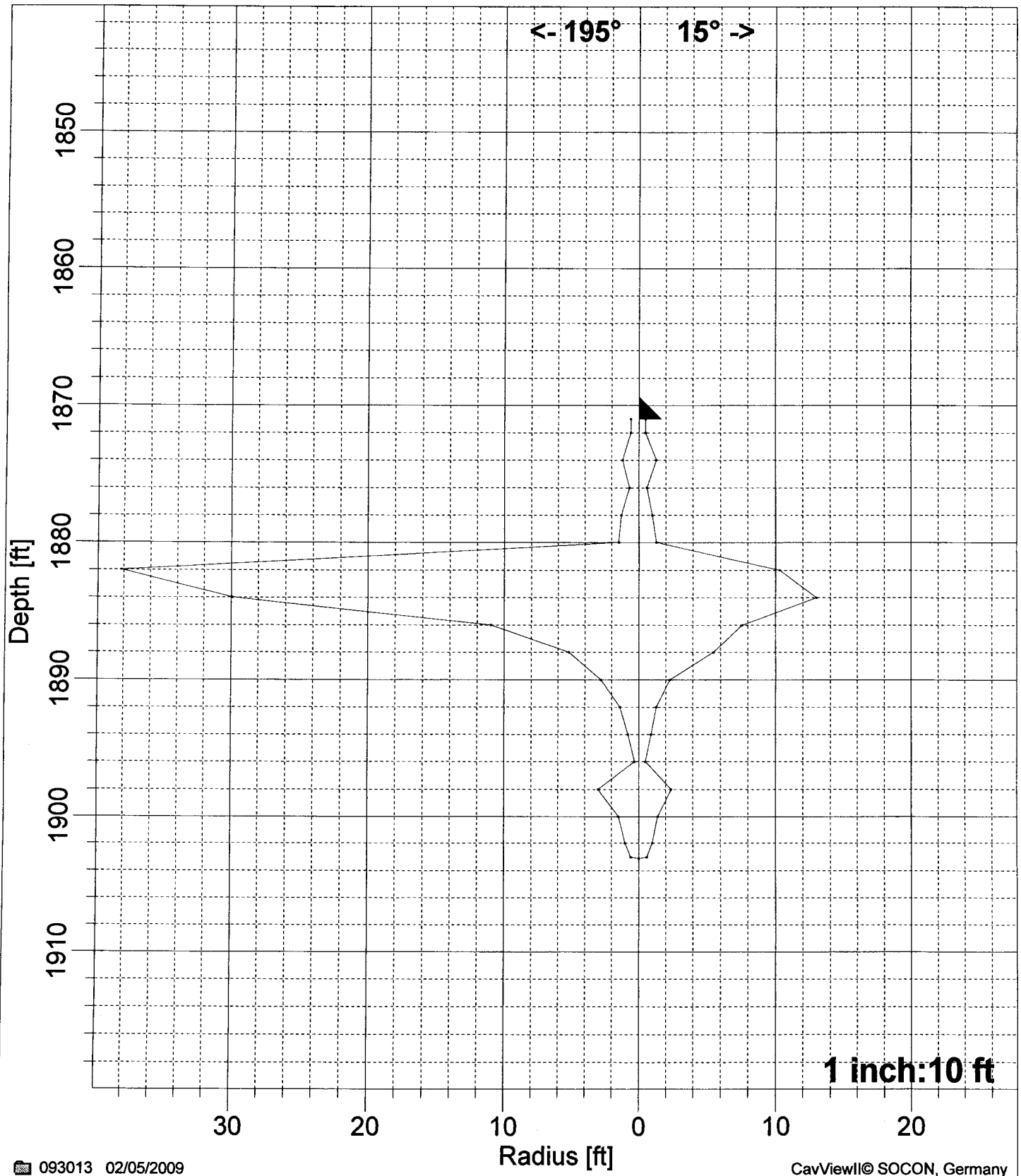
5-1/2" : 1871.0 ft



SOCON Sonar Well Services, Inc.

Brine Well No: 1

02/05/2009



(02/05/2009)

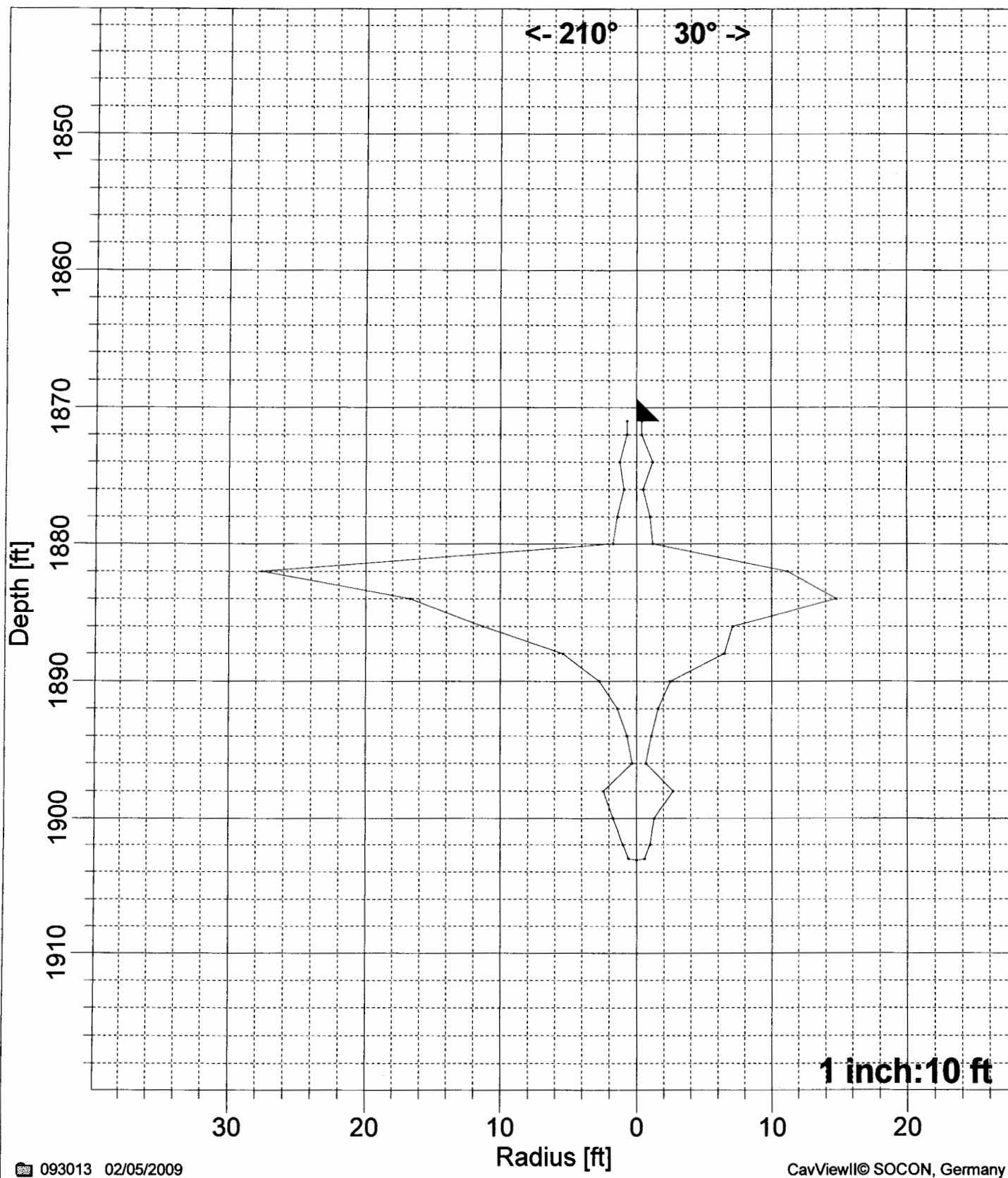
5-1/2" : 1871.0 ft



SOCON Sonar Well Services, Inc.

Brine Well No: 1

02/05/2009



(02/05/2009)

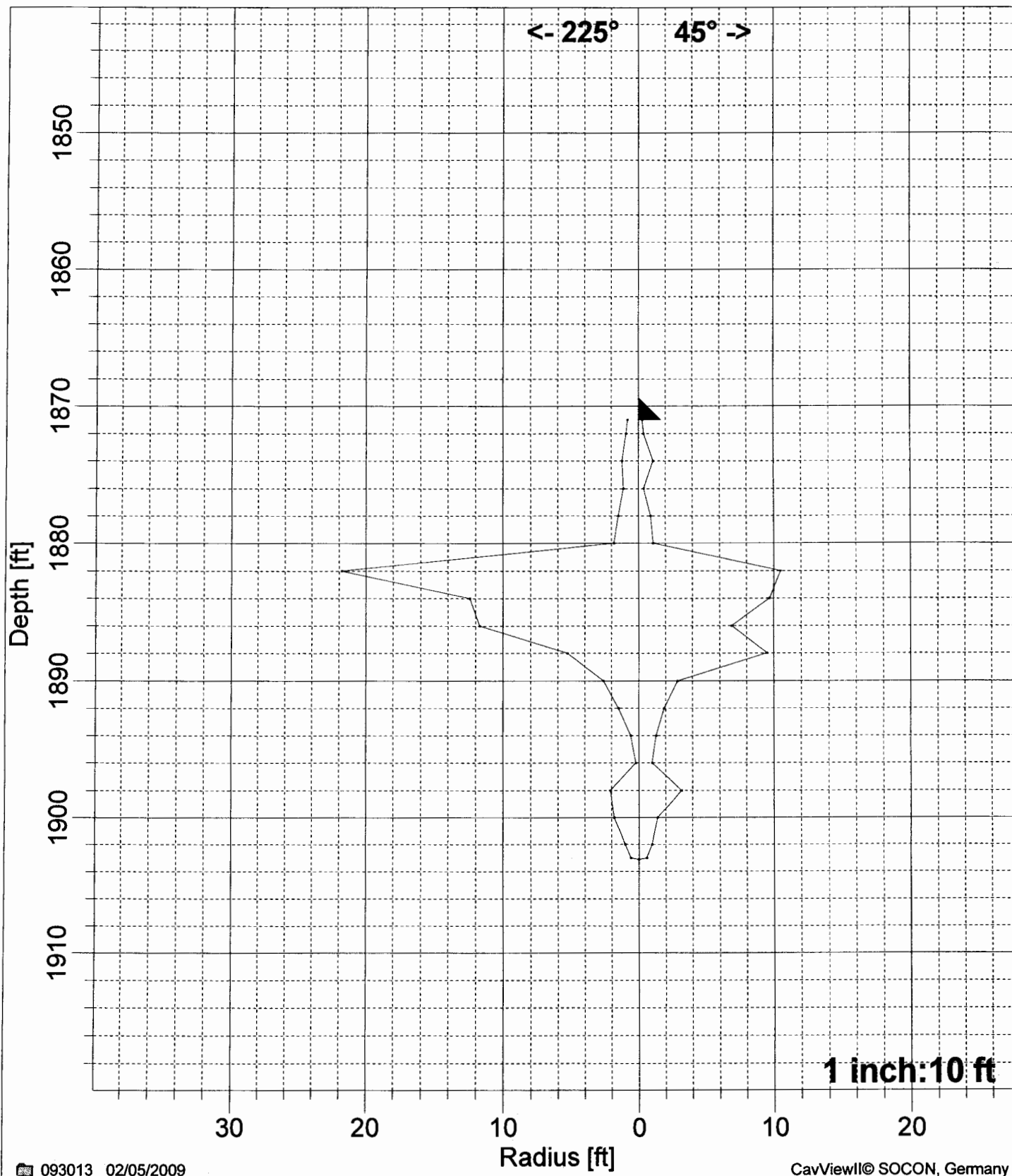
5-1/2" : 1871.0 ft



SOCON Sonar Well Services, Inc.

Brine Well No: 1

02/05/2009



(02/05/2009)

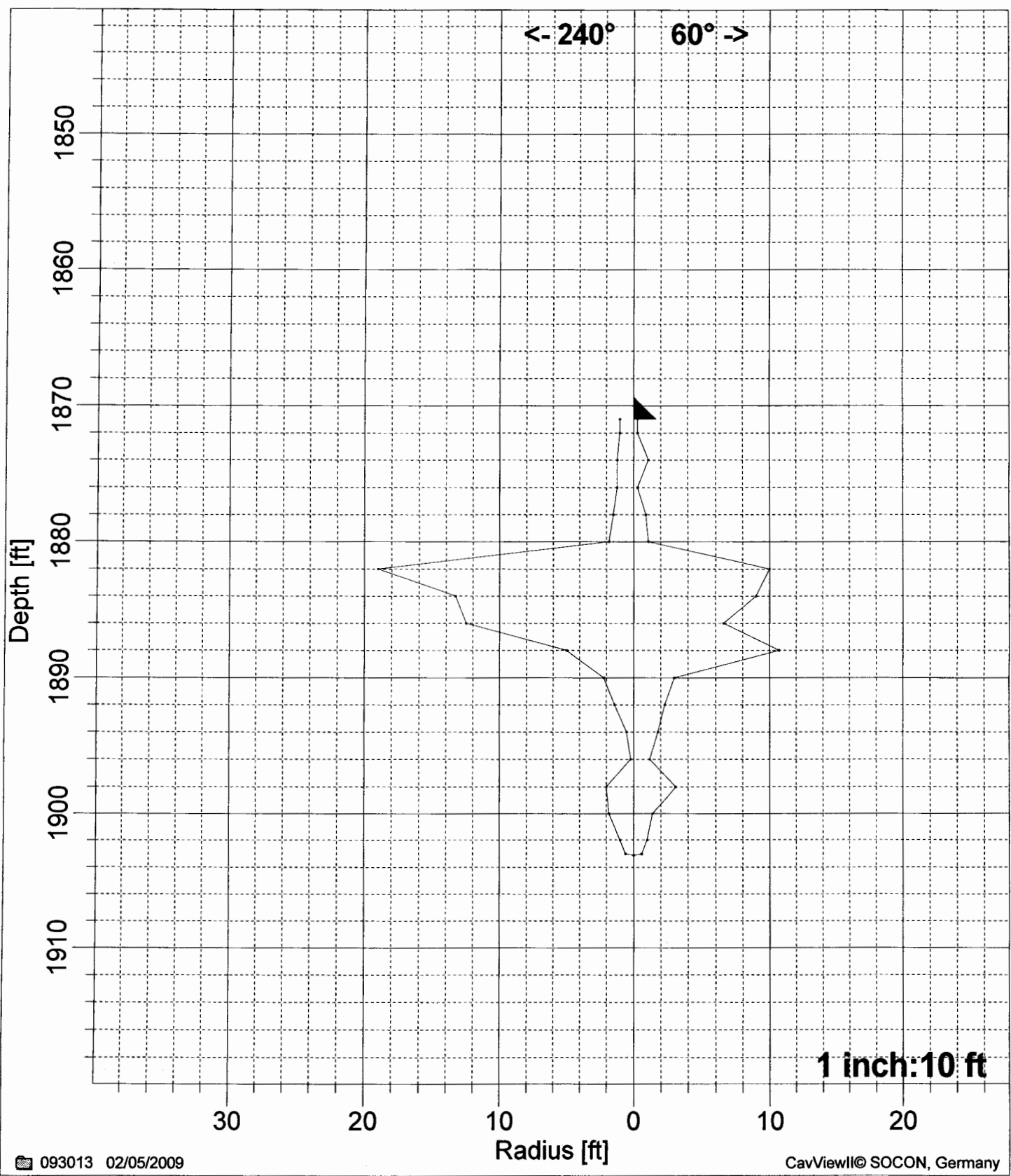
5-1/2" : 1871.0 ft



SOCON Sonar Well Services, Inc.

Brine Well No: 1

02/05/2009



(02/05/2009)

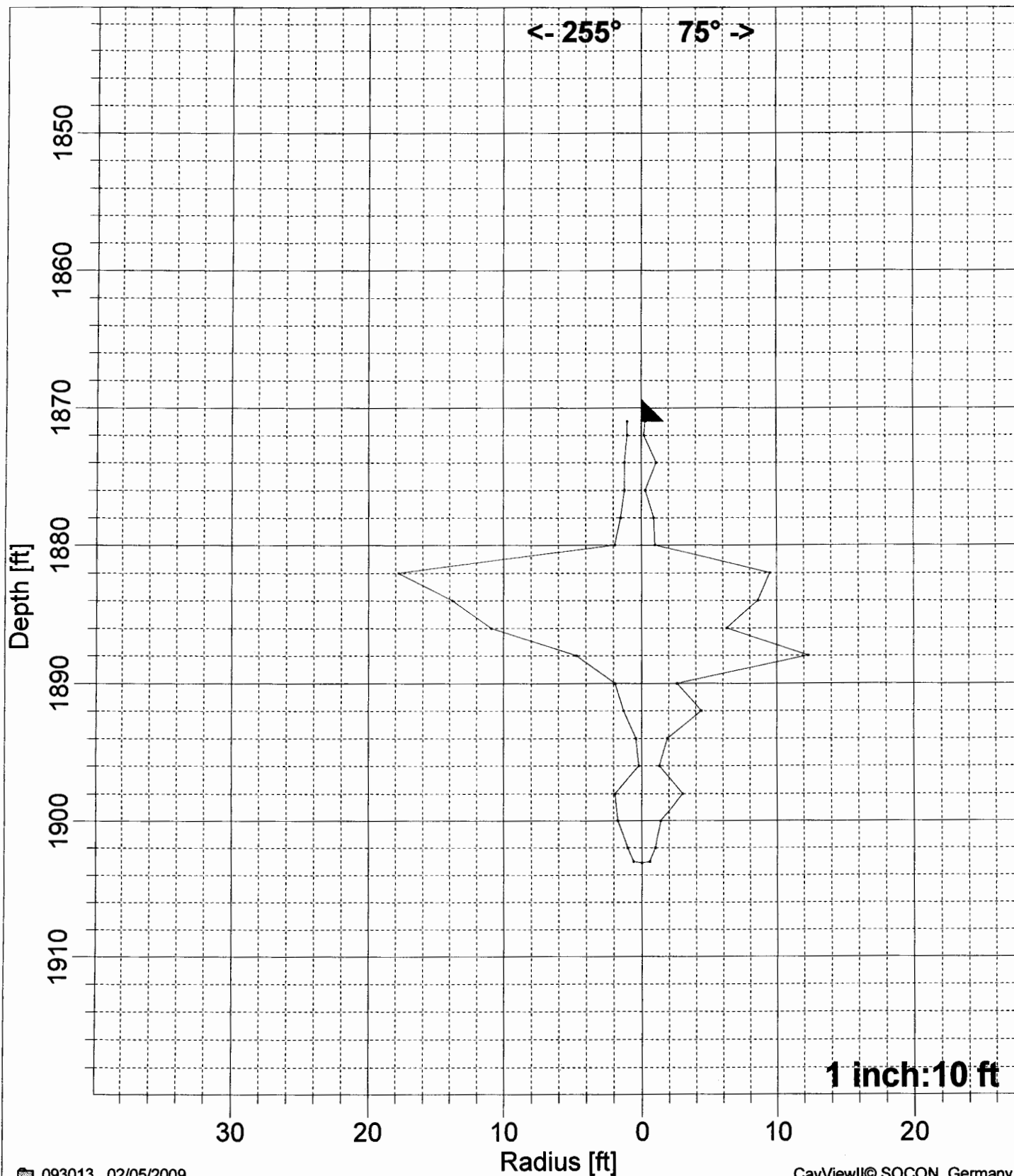
5-1/2" : 1871.0 ft



SOCON Sonar Well Services, Inc.

Brine Well No: 1

02/05/2009



093013 02/05/2009

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(02/05/2009)

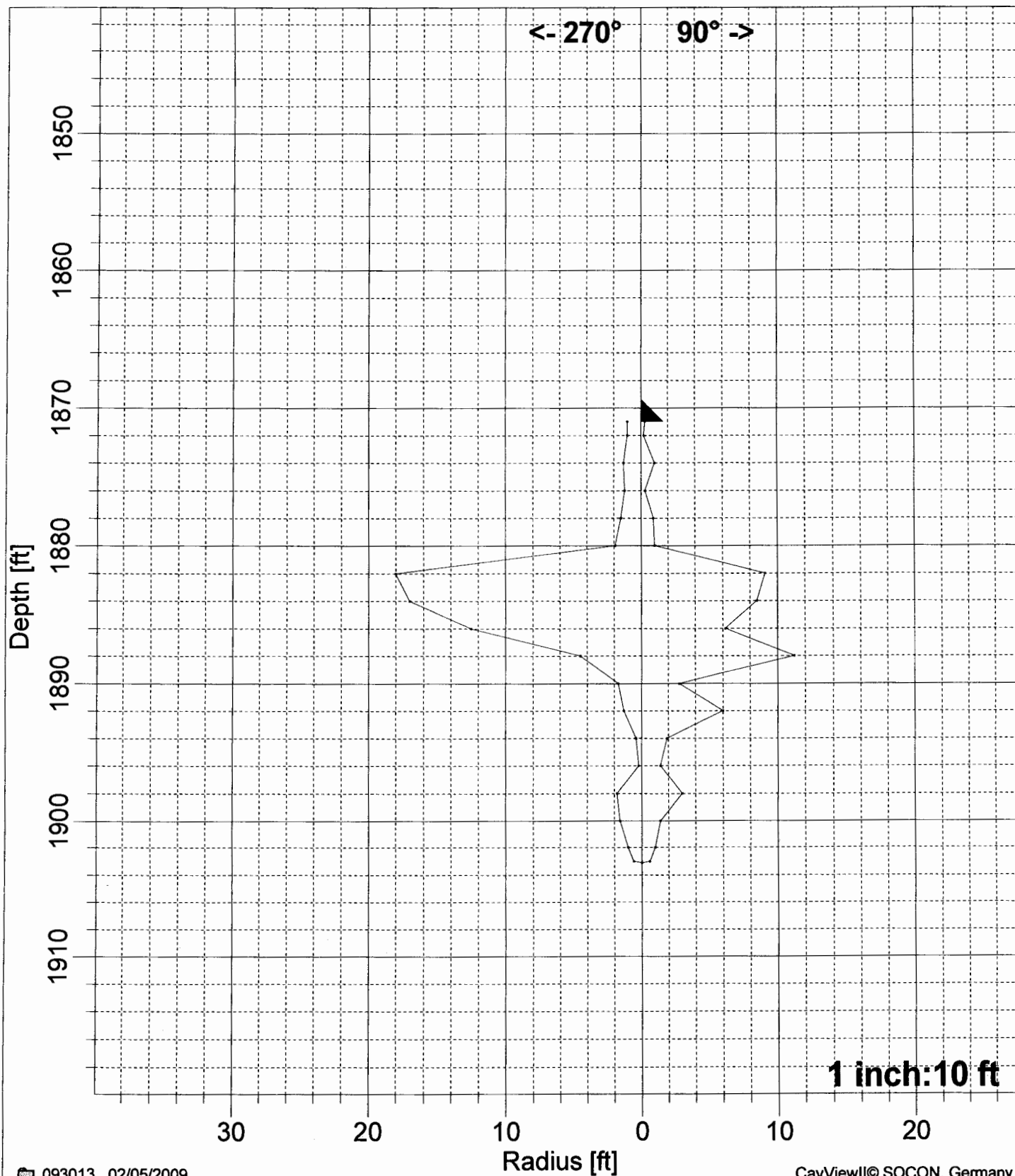
5-1/2" : 1871.0 ft



SOCON Sonar Well Services, Inc.

Brine Well No: 1

02/05/2009



(02/05/2009)

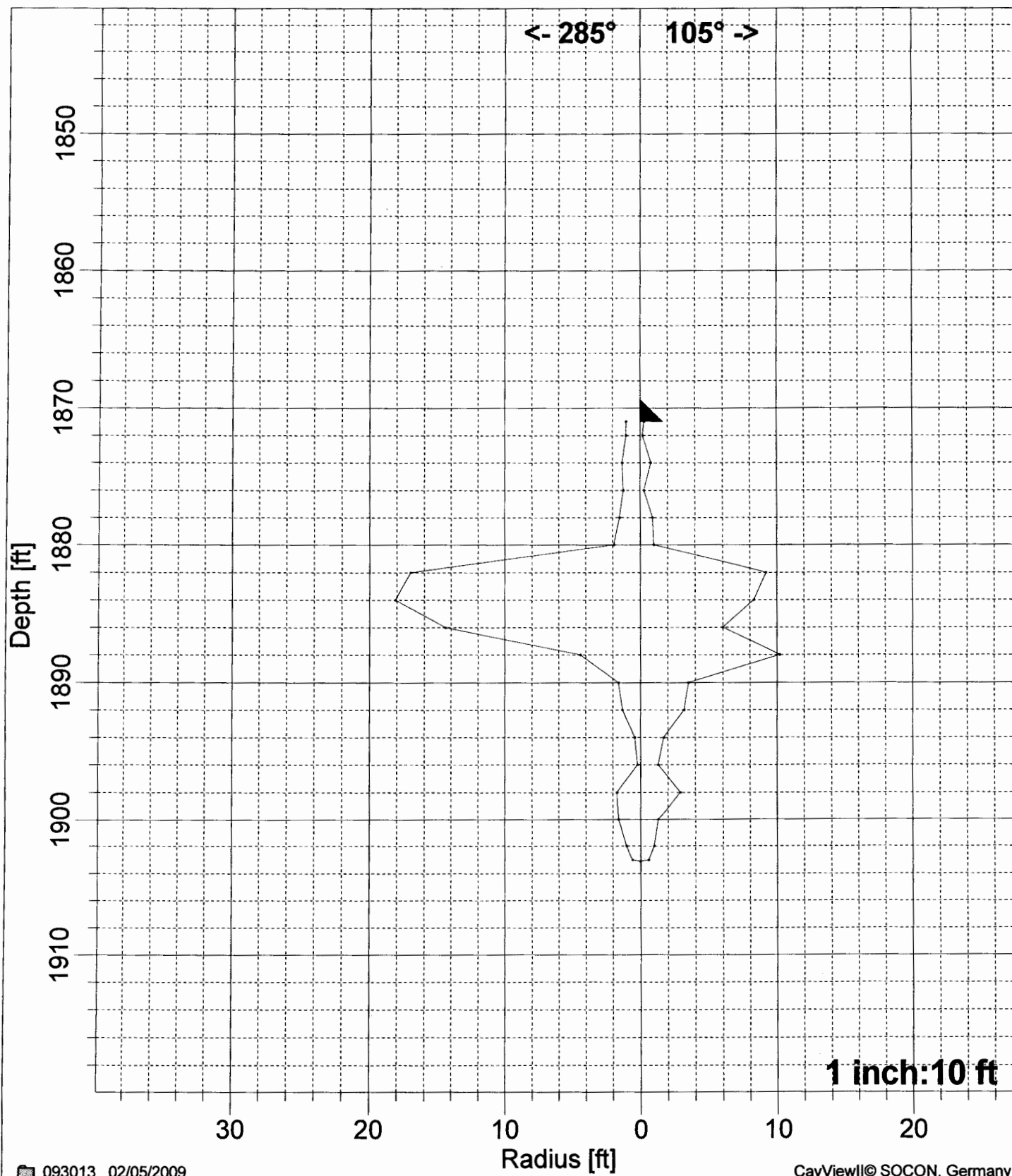
5-1/2" : 1871.0 ft



SOCON Sonar Well Services, Inc.

Brine Well No: 1

02/05/2009



(02/05/2009)

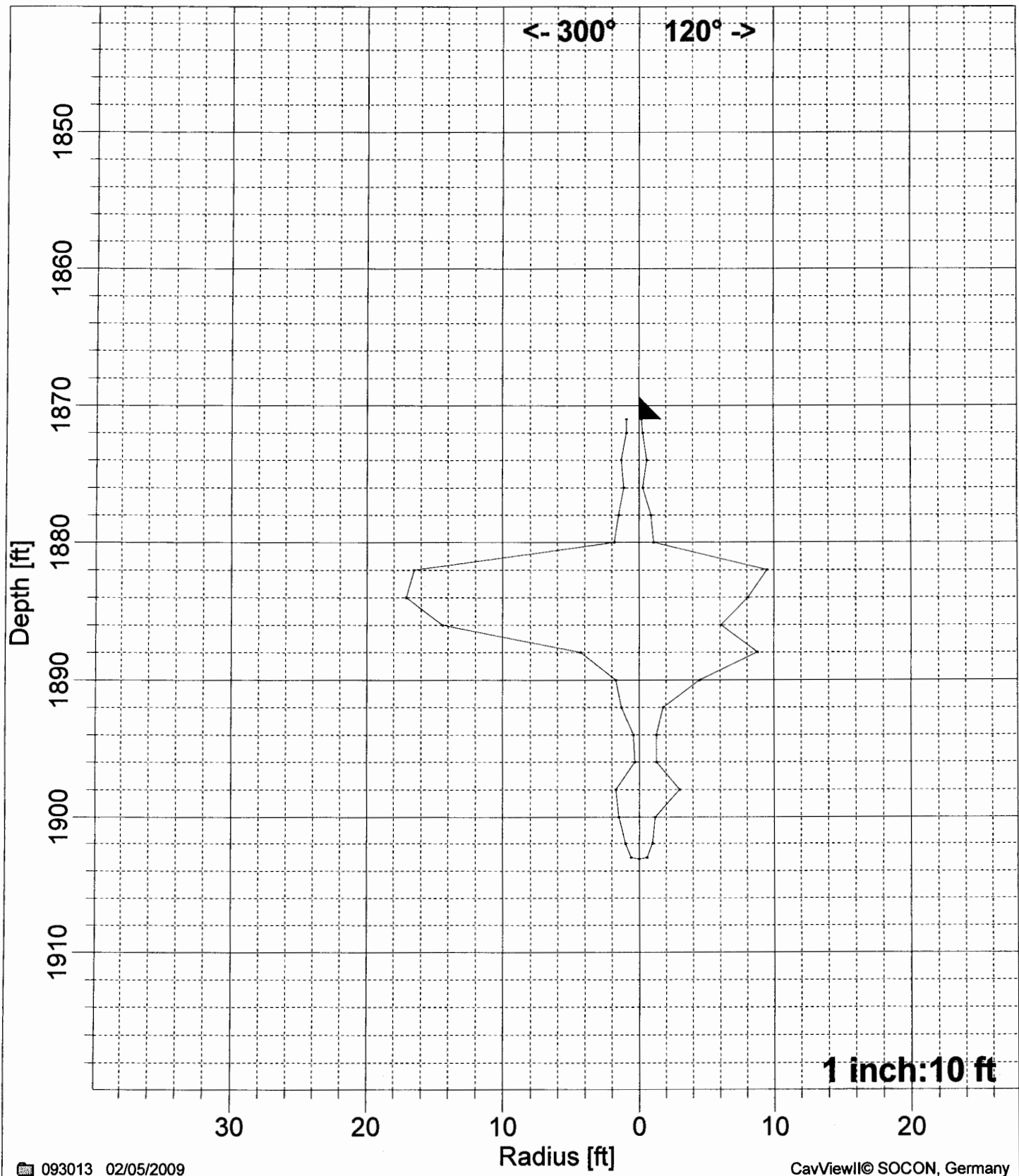
5-1/2" : 1871.0 ft



SOCON Sonar Well Services, Inc.

Brine Well No: 1

02/05/2009

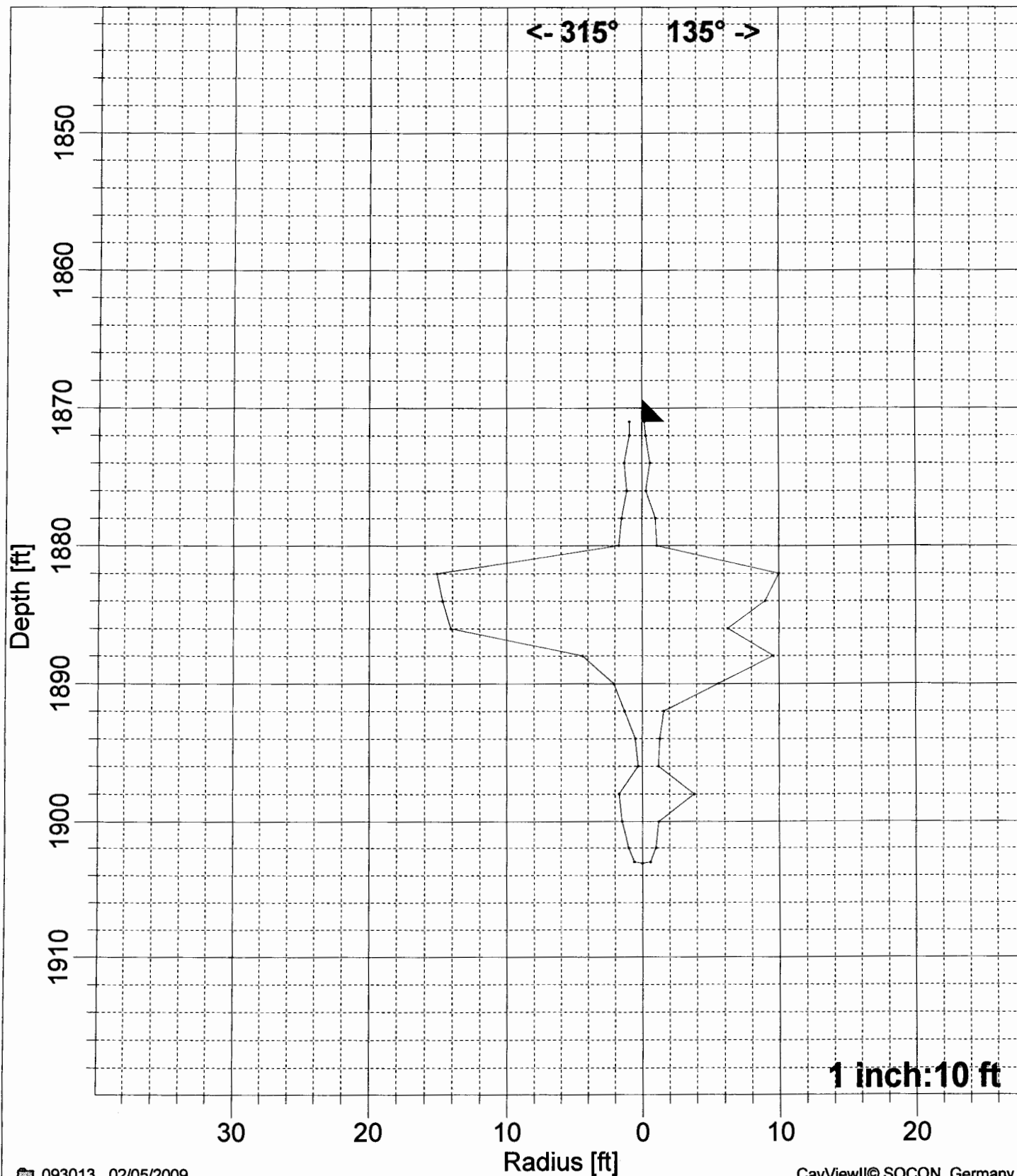




SOCON Sonar Well Services, Inc.

Brine Well No: 1

02/05/2009



093013 02/05/2009

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(02/05/2009)

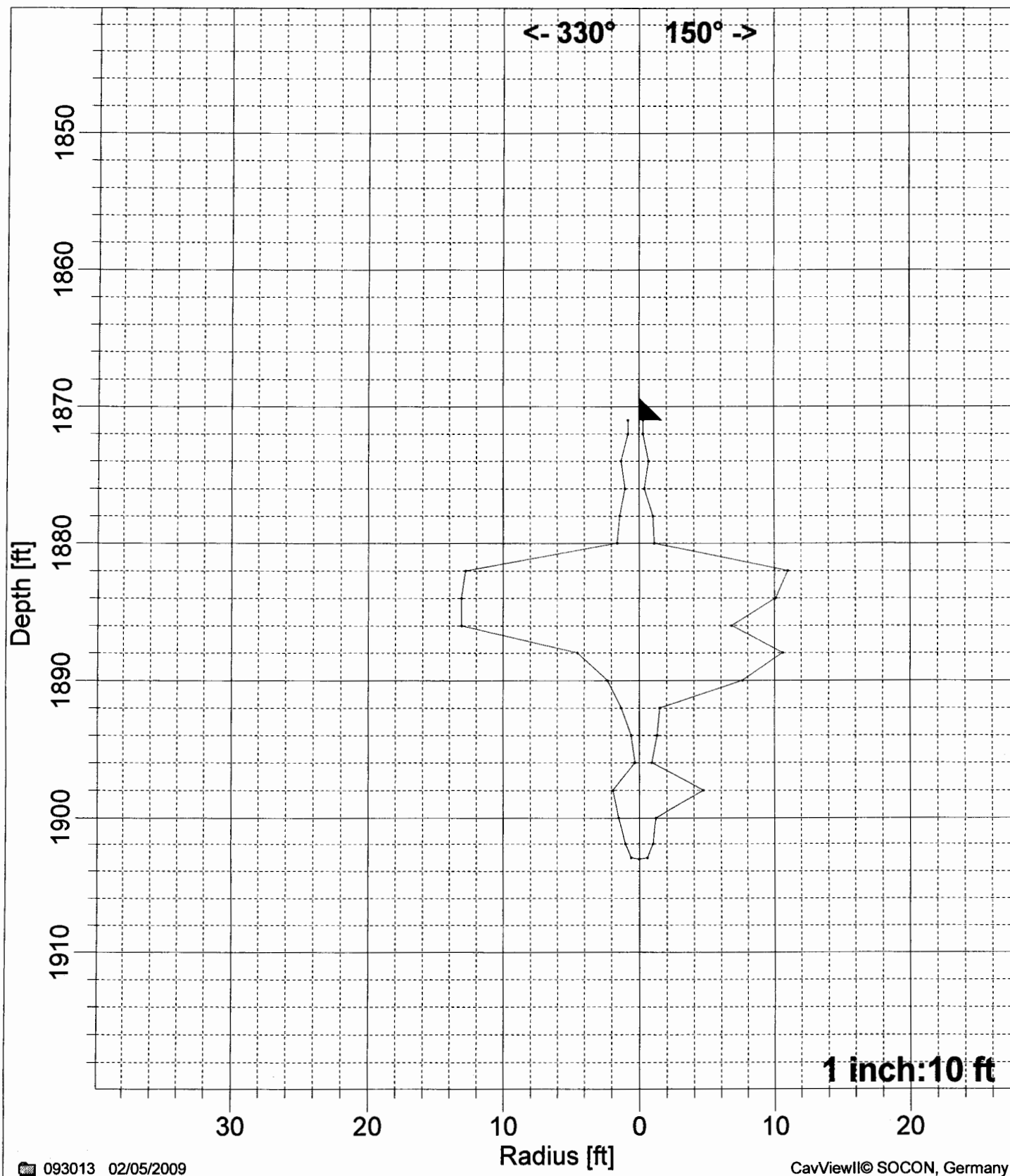
5-1/2" : 1871.0 ft



SOCON Sonar Well Services, Inc.

Brine Well No: 1

02/05/2009



093013 02/05/2009

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(02/05/2009)

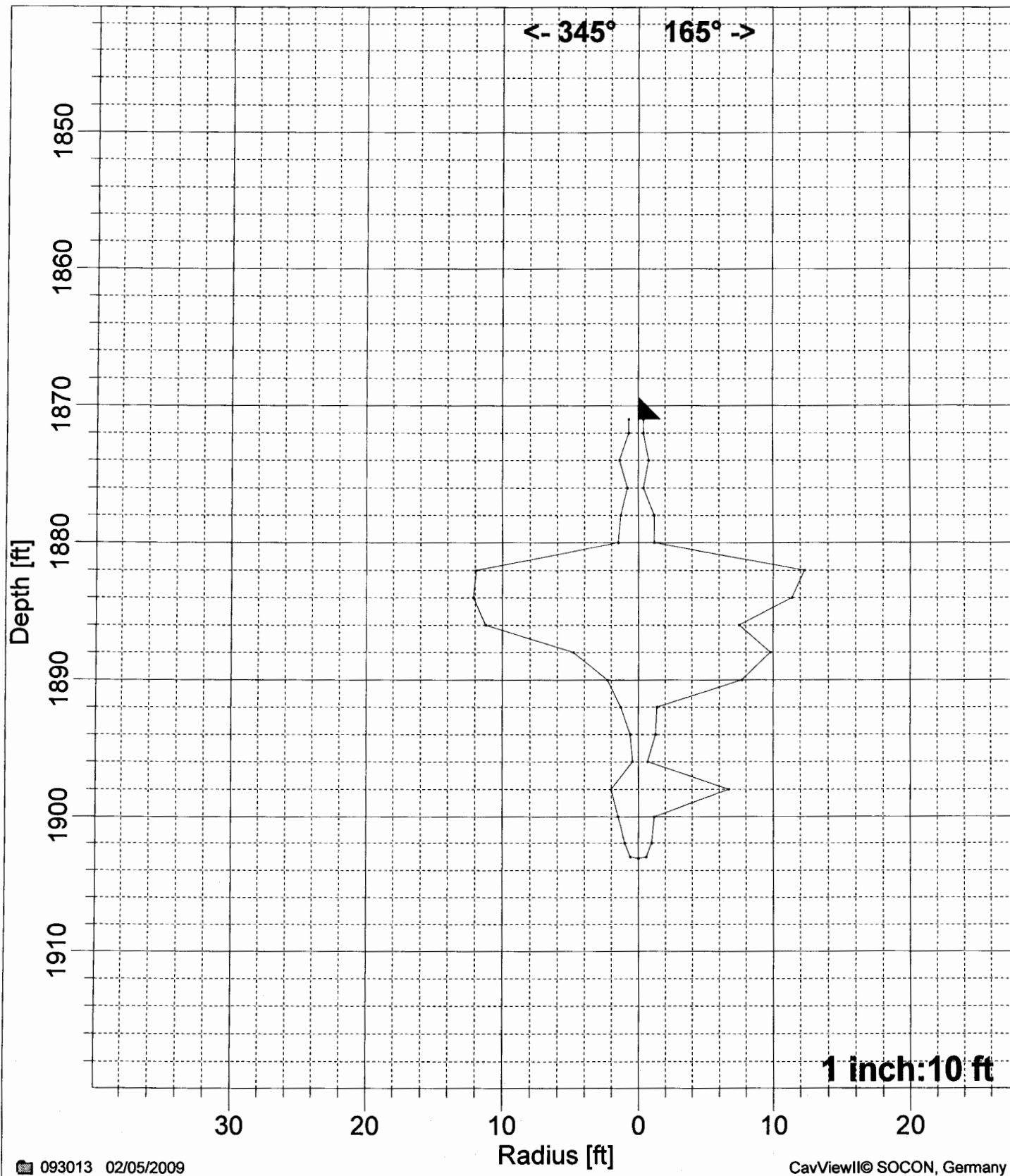
5-1/2" : 1871.0 ft



SOCON Sonar Well Services, Inc.

Brine Well No: 1

02/05/2009



(02/05/2009)

5-1/2" : 1871.0 ft



SOCON Sonar Well Services, Inc.

Brine Well No: 1

093013

02/05/2009

HORIZONTAL SECTIONS

Brine Well No: 1

Report No.: 093013

Utilized speed of sound: 5020 ft/s to 5020 ft/s

Measuring date: 02/05/2009

Scale: 1: 10

Horizontal sections measured at following depths:

1871.0 ft	1872.0 ft	1874.0 ft	1876.0 ft	1878.0 ft	1880.0 ft	1882.0 ft
1884.0 ft	1886.0 ft	1888.0 ft	1890.0 ft	1892.0 ft	1894.0 ft	1896.0 ft
1898.0 ft	1900.0 ft	1902.0 ft	1903.0 ft			

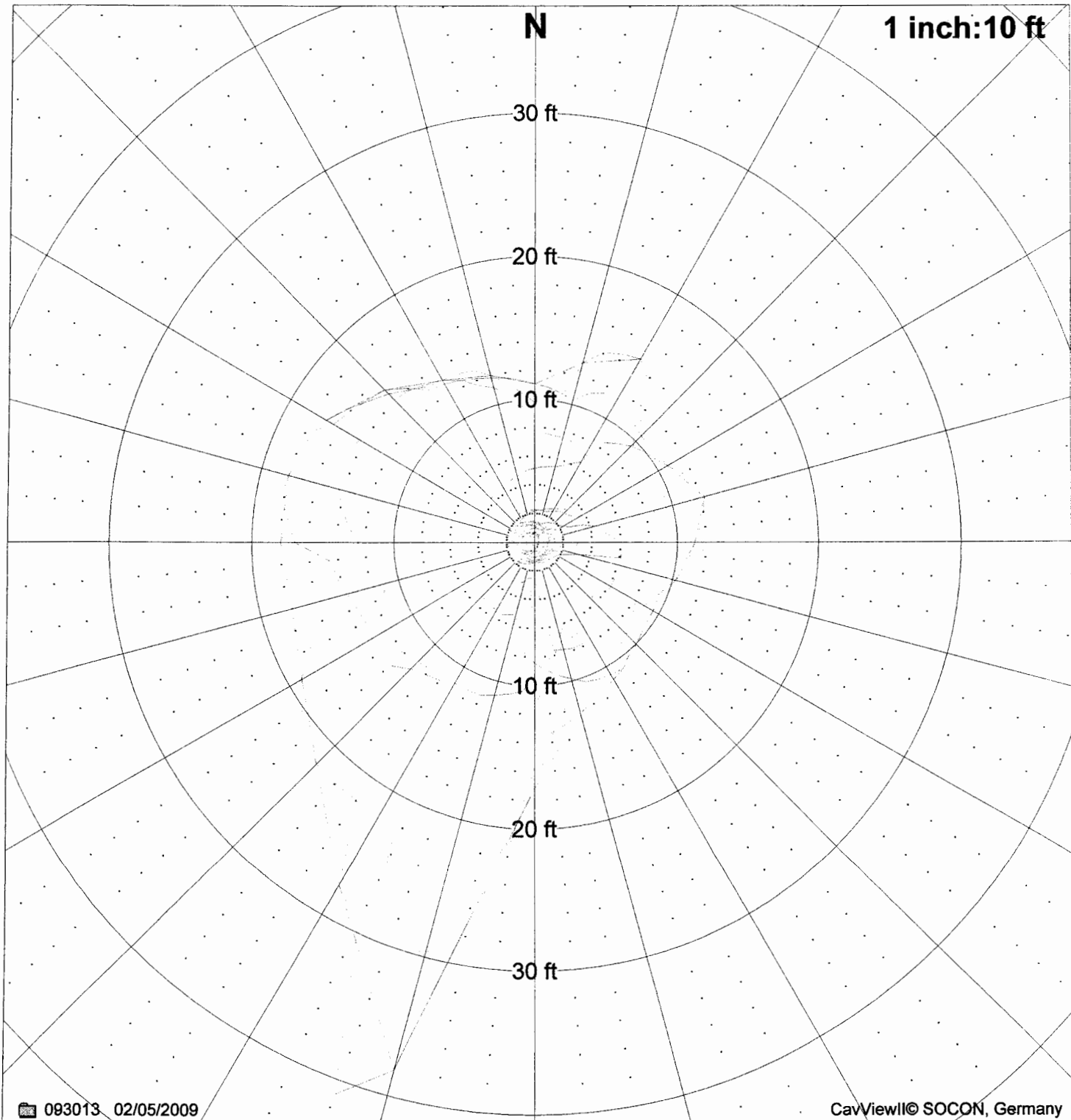


SOCON Sonar Well Services, Inc.

Brine Well No: 1

MAXPLOT

02/05/2009



093013 02/05/2009

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Vertical maximum plot

Horizontal sections

a/b

d_{max} : 55.1 ft 20° <--> 200° r_{min} : 9.5 ft -> 120° r_{\sim} : 16.5 ft r_{max} : 41.0 ft -> 200°

a/b = 2.021 a = 55.6 ft (29°-200°) b = 27.5 ft (108°-295°)

Area from vertical sections: 829 ft², Area from horizontal and vertical sections: 860 ft²

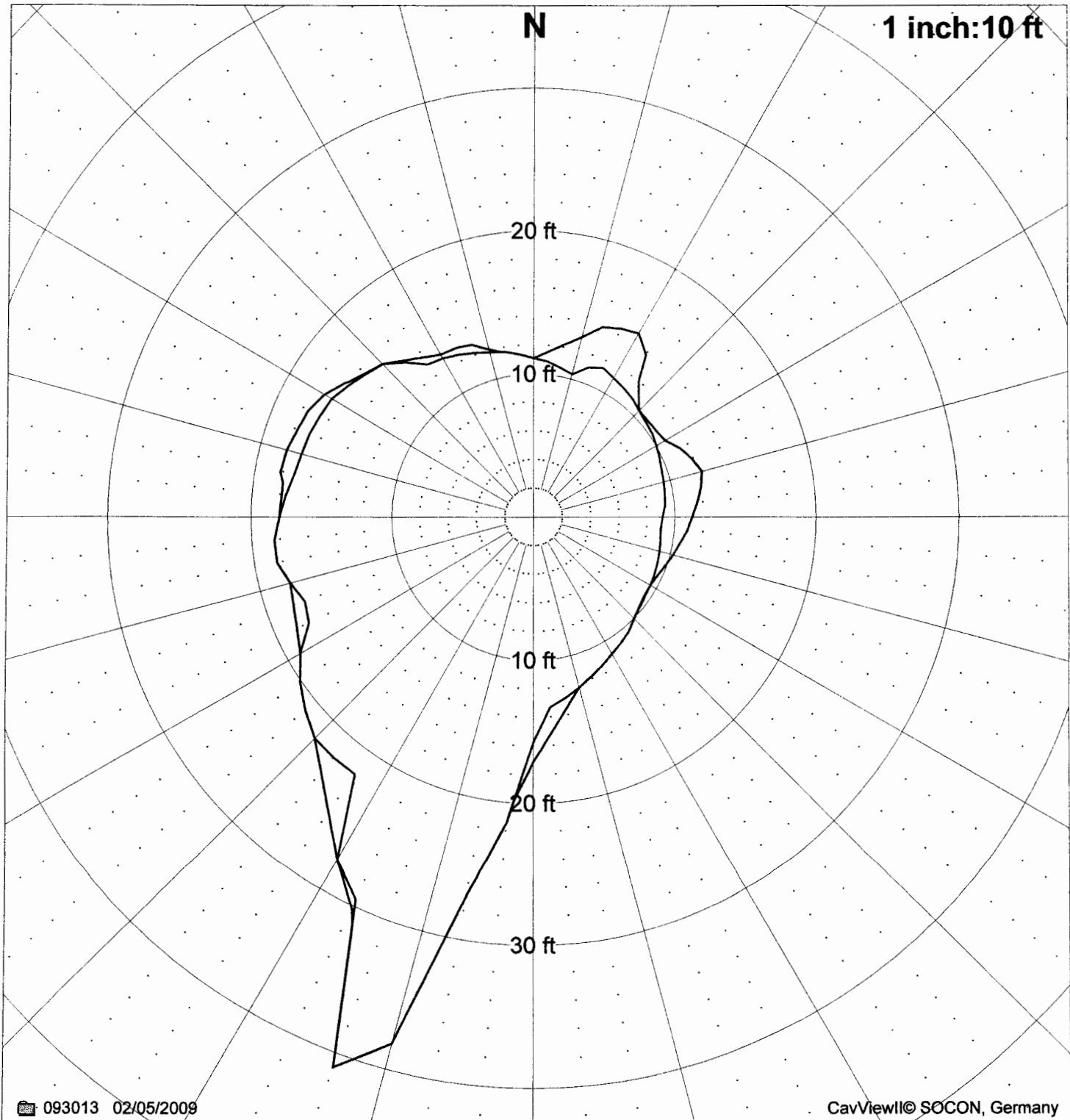


SOCON Sonar Well Services, Inc.

Brine Well No: 1

MAXPLOT

02/05/2009



a/b

Horizontal/vertical maximum plot

Largest single area

d_{max} : 55.1 ft 20° <--> 200° r_{min} : 9.5 ft -> 120° r_{\sim} : 16.5 ft r_{max} : 41.0 ft -> 200°

a/b = 2.021 a = 55.6 ft (29°-200°) b = 27.5 ft (108°-295°)

Largest single area: 800 ft² in depth: 1882.0 ft, Area from horizontal and vertical sections: 860 ft²



SOCON Sonar Well Services, Inc.

Table of radii

Brine Well No: 1

093013

2/5/2009

Depth: 1871.0 ft

[°]	Radii in [ft]									
0	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3
50	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
100	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3
150	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6
200	0.6	0.6	0.7	0.7	0.7	0.8	0.9	0.9	1.0	1.0
250	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9
300	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.7
350	0.6	0.6								

Depth: 1872.0 ft

[°]	Radii in [ft]									
0	0.6	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4
50	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2
100	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
150	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6
200	0.6	0.7	0.7	0.8	0.8	0.9	0.9	0.9	1.0	1.0
250	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
300	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.7
350	0.7	0.6								

Depth: 1874.0 ft

[°]	Radii in [ft]									
0	1.6	1.5	1.4	1.3	1.3	1.2	1.2	1.1	1.1	1.1
50	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0	0.9
100	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.7
150	0.7	0.7	0.8	0.8	0.8	0.9	1.0	1.2	1.3	1.2
200	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
250	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3
300	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.4
350	1.5	1.5								

Depth: 1876.0 ft

[°]	Radii in [ft]									
0	0.7	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.4
50	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
100	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4
150	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.7	0.7
200	0.8	0.8	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.2
250	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
300	1.1	1.1	1.1	1.1	1.1	1.0	1.0	0.9	0.9	0.8
350	0.8	0.8								



SOCON Sonar Well Services, Inc.

Table of radii

Brine Well No: 1

093013

2/5/2009

Depth: 1878.0 ft

[°]	Radii in [ft]									
0	1.1	1.1	1.1	1.0	1.0	1.0	1.0	0.9	0.9	0.9
50	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
100	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0
150	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.3	1.3
200	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5
250	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
300	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.3	1.3
350	1.2	1.2								

Depth: 1880.0 ft

[°]	Radii in [ft]									
0	1.4	1.3	1.3	1.3	1.2	1.2	1.2	1.1	1.1	1.1
50	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0
100	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1
150	1.1	1.2	1.2	1.2	1.3	1.3	1.4	1.4	1.5	1.5
200	1.6	1.6	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8
250	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
300	1.8	1.8	1.8	1.7	1.7	1.7	1.6	1.6	1.6	1.5
350	1.5	1.4								

Depth: 1882.0 ft

[°]	Radii in [ft]									
0	11.1	10.9	10.6	10.3	11.1	11.5	11.2	11.0	10.8	10.5
50	10.3	10.2	10.0	9.8	9.6	9.5	9.4	9.3	9.1	9.0
100	9.1	9.2	9.3	9.4	9.5	9.5	9.7	10.0	10.4	10.7
150	11.0	11.4	11.8	12.3	12.8	13.3	15.7	21.4	26.9	38.2
200	41.0	29.5	27.6	21.9	21.9	21.8	21.0	20.1	19.0	17.5
250	17.2	17.8	18.4	18.4	18.0	17.6	17.2	17.0	16.9	16.7
300	16.5	16.0	15.5	15.1	14.1	13.0	12.8	12.5	12.2	11.9
350	11.7	11.4								

Depth: 1884.0 ft

[°]	Radii in [ft]									
0	9.8	9.0	10.2	13.0	14.1	14.5	14.8	13.8	11.0	9.7
50	9.5	9.2	9.0	8.8	8.7	8.6	8.6	8.5	8.5	8.4
100	8.4	8.3	8.2	8.1	8.1	8.4	8.7	9.0	9.3	9.6
150	10.1	10.5	10.9	11.4	11.8	13.5	17.1	20.7	24.9	29.9
200	28.9	24.9	16.7	11.7	12.0	12.4	13.3	13.5	13.3	13.2
250	13.4	13.8	14.2	14.6	17.0	17.6	18.2	18.1	17.8	17.6
300	17.1	16.3	15.4	14.7	13.9	13.3	13.1	13.0	12.8	12.1
350	11.3	10.5								



SOCON Sonar Well Services, Inc.

Table of radii

Brine Well No: 1

093013

2/5/2009

Depth: 1886.0 ft

["]	Radii in [ft]									
0	8.5	7.7	7.6	7.6	7.5	7.3	7.1	7.0	6.9	6.9
50	6.8	6.8	6.6	6.5	6.4	6.3	6.2	6.2	6.2	6.1
100	6.1	6.0	6.0	6.1	6.1	6.2	6.2	6.3	6.4	6.6
150	6.8	7.0	7.1	7.5	7.8	8.4	9.4	10.4	10.7	11.0
200	11.3	11.3	11.3	11.3	11.5	11.7	12.0	12.4	12.5	12.0
250	11.5	10.9	11.4	11.8	12.5	13.3	13.9	14.4	14.9	14.7
300	14.4	14.2	14.1	14.1	13.9	13.5	13.1	12.5	11.7	11.2
350	10.5	9.5								

Depth: 1888.0 ft

["]	Radii in [ft]									
0	5.2	5.3	5.4	5.5	5.7	6.1	6.5	8.5	9.0	9.5
50	9.9	10.2	10.7	11.4	11.9	12.3	12.0	11.6	11.2	10.9
100	10.5	10.2	9.6	9.2	8.8	8.8	9.1	9.6	10.2	10.7
150	10.6	10.5	10.3	9.8	9.4	8.9	8.4	7.8	6.5	5.2
200	5.3	5.5	5.4	5.4	5.3	5.3	5.2	5.1	5.0	4.9
250	4.8	4.7	4.6	4.5	4.5	4.5	4.4	4.4	4.3	4.3
300	4.3	4.3	4.4	4.4	4.3	4.4	4.5	4.6	4.7	4.8
350	5.0	5.1								

Depth: 1890.0 ft

["]	Radii in [ft]									
0	2.3	2.3	2.3	2.3	2.3	2.4	2.5	2.7	2.8	2.9
50	3.0	3.2	3.0	2.8	2.7	2.6	2.6	2.6	2.8	3.0
100	3.3	3.5	3.7	4.1	4.5	4.9	5.3	5.6	5.7	7.5
150	7.6	7.8	7.8	7.7	7.6	4.0	2.7	2.5	2.5	2.8
200	3.0	2.9	2.7	2.7	2.6	2.6	2.5	2.4	2.2	2.1
250	2.0	1.9	1.9	1.8	1.7	1.6	1.6	1.6	1.6	1.7
300	1.7	1.9	2.0	2.1	2.1	2.2	2.3	2.3	2.3	2.3
350	2.3	2.3								

Depth: 1892.0 ft

["]	Radii in [ft]									
0	1.2	1.2	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9
50	2.0	2.1	2.3	2.6	3.6	4.4	4.8	5.3	6.0	6.0
100	6.1	3.2	2.4	2.0	1.8	1.7	1.6	1.6	1.5	1.5
150	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4
200	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.4	1.4
250	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
300	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
350	1.3	1.3								



SOCON Sonar Well Services, Inc.

Table of radii

Brine Well No: 1

093013

2/5/2009

Depth: 1894.0 ft

["]	Radii in [ft]									
0	0.7	0.7	0.8	0.9	1.0	1.0	1.1	1.2	1.2	1.3
50	1.5	1.6	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.8
100	1.8	1.7	1.7	1.3	1.3	1.3	1.3	1.3	1.3	1.3
150	1.3	1.3	1.3	1.3	1.2	1.2	1.1	1.0	0.9	0.8
200	0.8	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.4
250	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
300	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
350	0.7	0.7								

Depth: 1896.0 ft

["]	Radii in [ft]									
0	0.4	0.5	0.5	0.5	0.5	0.6	0.7	0.8	0.9	1.0
50	1.0	1.1	1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.4
100	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.1	1.0
150	0.9	0.8	0.8	0.7	0.6	0.6	0.5	0.4	0.4	0.3
200	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
250	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
300	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
350	0.4	0.4								

Depth: 1898.0 ft

["]	Radii in [ft]									
0	2.2	2.3	2.3	2.4	2.5	2.6	2.7	2.9	3.1	3.2
50	3.2	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0	2.9
100	2.9	2.9	2.9	2.8	3.0	3.2	3.5	3.8	4.1	4.4
150	4.7	5.2	5.9	6.7	8.0	10.0	11.2	3.3	3.2	3.0
200	2.8	2.6	2.4	2.2	2.1	2.1	2.0	2.0	2.0	2.0
250	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.7	1.7	1.7
300	1.7	1.6	1.6	1.7	1.7	1.8	1.9	1.9	2.0	2.0
350	2.1	2.2								

Depth: 1900.0 ft

["]	Radii in [ft]									
0	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.4	1.4
50	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3
100	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2
150	1.2	1.2	1.2	1.2	1.3	1.3	1.4	1.4	1.5	1.5
200	1.6	1.6	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.7
250	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6
300	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
350	1.5	1.5								



Brine Well No: 1

093013

2/5/2009

Depth: 1902.0 ft

[°]

Radii in [ft]

0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
50	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
100	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
150	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
200	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
250	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
300	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
350	1.0	1.0								

Depth: 1903.0 ft

[°]

Radii in [ft]

0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
50	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
100	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
150	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
200	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
250	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
300	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
350	0.6	0.6								

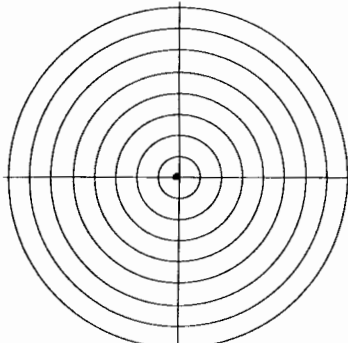


SOCON Sonar Well Services, Inc.

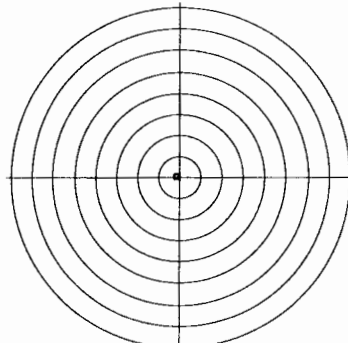
Horizontal slices 1 - 12



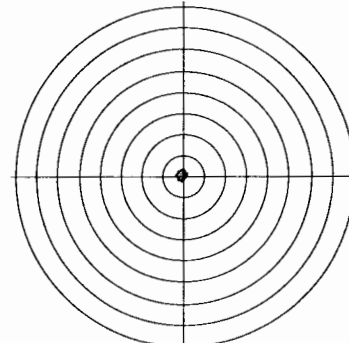
Cavity: Brine Well No: 1 Report number: 093013 Date: 02/05/2009



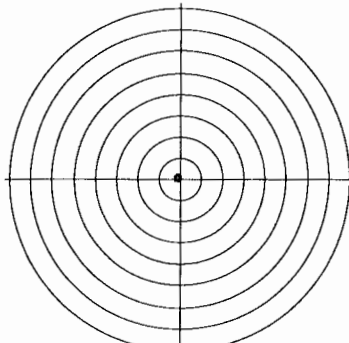
1871.0 ft / 1 ft²



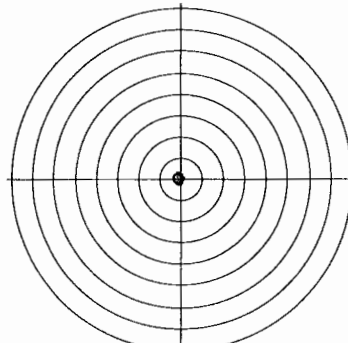
1872.0 ft / 1 ft²



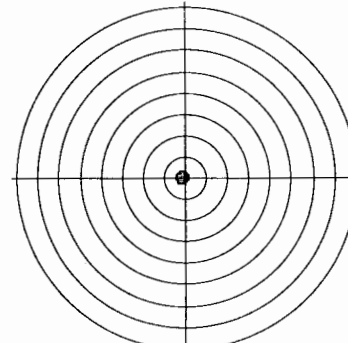
1874.0 ft / 4 ft²



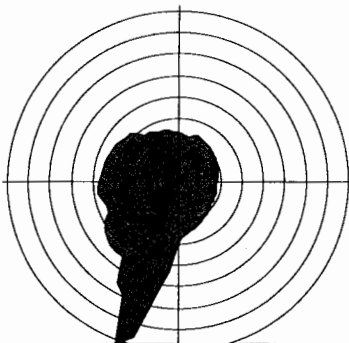
1876.0 ft / 2 ft²



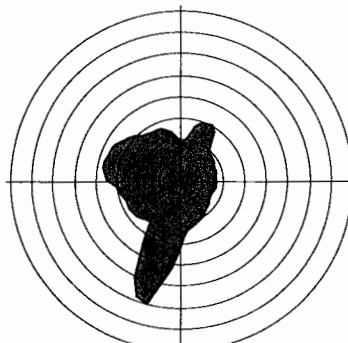
1878.0 ft / 5 ft²



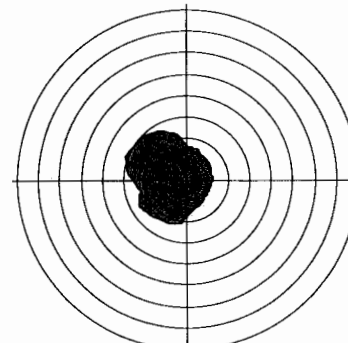
1880.0 ft / 7 ft²



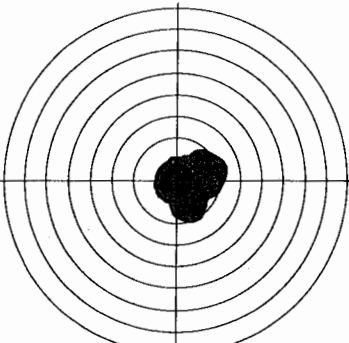
1882.0 ft / 800 ft² (max)



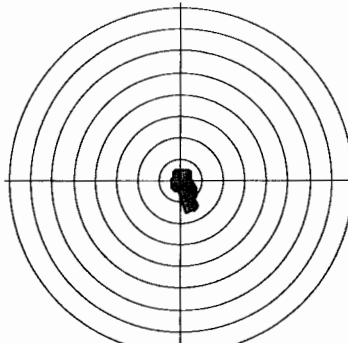
1884.0 ft / 602 ft²



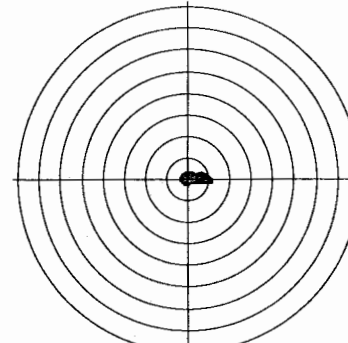
1886.0 ft / 312 ft²



1888.0 ft / 183 ft²



1890.0 ft / 38 ft²



1892.0 ft / 15 ft²

The distance between 2 circles equals 5 ft

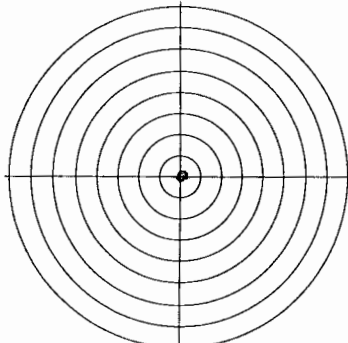


SOCON Sonar Well Services, Inc.

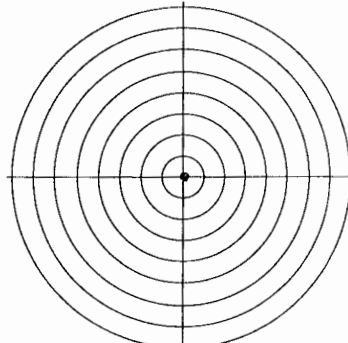
Horizontal slices 13 - 18



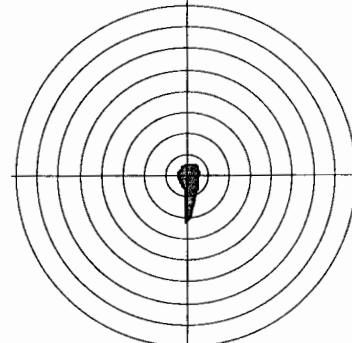
Cavity: Brine Well No: 1 Report number: 093013 Date: 02/05/2009



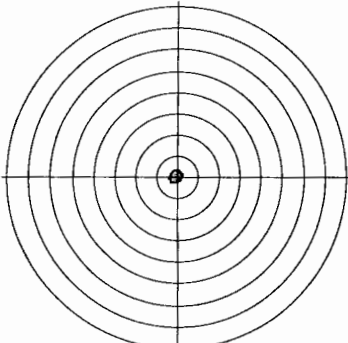
1894.0 ft / 4 ft²



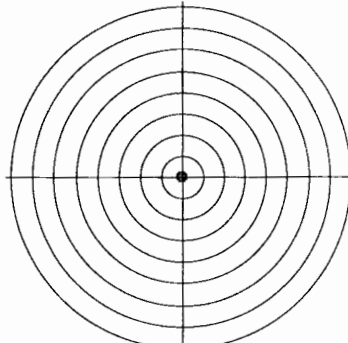
1896.0 ft / 2 ft²



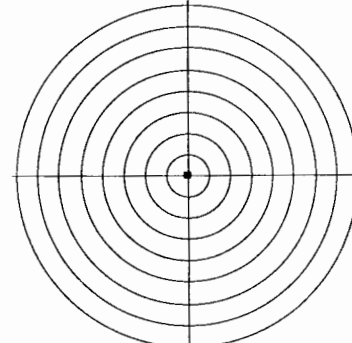
1898.0 ft / 37 ft²



1900.0 ft / 7 ft²



1902.0 ft / 3 ft²



1903.0 ft / 1 ft²



SOCON Sonar Well Services, Inc.

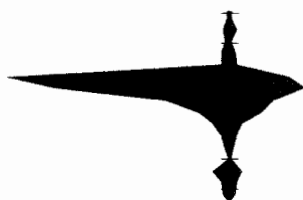
Vertical slices 1 - 6



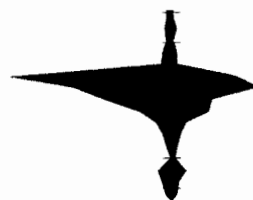
Cavity: Brine Well No: 1 Report number: 093013 Date: 02/05/2009



180° 0°



195° 15°



210° 30°



225° 45°



240° 60°



255° 75°



SOCON Sonar Well Services, Inc.

Vertical slices 7 - 12



Cavity: Brine Well No: 1 Report number: 093013 Date: 02/05/2009



270° 90°



285° 105°



300° 120°



315° 135°



330° 150°



345° 165°

To: Jim Griswald

From: James Millett

RE: Salty Dog 2009 Sales

Below is the annual sales of Salty Dog for 2009

January 2009	10,450
February 2009	590
March 2009	3,489
April 2009	2,345
May 2009	5,950
June 2009	6,975
July 2009	32,080
August 2009	15,321
September 2009	21,840
October 2009	23,698
November 2009	19348
Dec-09	<u>46509</u>
	188,595
	Total BBL

Sincerely,

James Millett

Salty Dog
Analysis of Sales
2000-2009

Brine Water
Sales (Barrells)

January 2000	21,481
February 2000	20,990
March 2000	10,396
April 2000	
May 2000	
June 2000	
July 2000	
August 2000	
September 2000	
October 2000	
November 2000	
December 2000	
January 2001	55,421
February 2001	
March 2001	
April 2001	30,561
May 2001	
June 2001	
July 2001	
August 2001	
September 2001	
October 2001	
November 2001	19,322
December 2001	
January 2002	11,268
February 2002	24,380
March 2002	32,140
April 2002	36,416
May 2002	28,473
June 2002	21,305
July 2002	13,143
August 2002	15,450
September 2002	21,820
October 2002	4,044
November 2002	2,468
December 2002	8,720
January 2003	7,754
February 2003	10,330
March 2003	10,265
April 2003	15,925
May 2003	13,309
June 2003	18,704
July 2003	8,815
August 2003	21,049
September 2003	7,989
October 2003	
November 2003	
December 2003	30,977
January 2004	6,588
February 2004	14,437

Salty Dog
Analysis of Sales
2000-2009

Brine Water
Sales (Barrells)

March 2004	9,286	
April 2004	9,205	
May 2004	36,519	
June 2004	17,138	
July 2004	22,310	
August 2004	12,718	
September 2004	12,419	
October 2004	22,685	
November 2004	19,116	
December 2004	27,230	
January 2005	21,800	
February 2005	11,485	
March 2005	14,584	
April 2005	7,900	
May 2005	12,250	
June 2005	41,705	
July 2005	23,762	
August 2005	19,235	
September 2005	29,455	
October 2005	35,781	
November 2005	39,435	
December 2005	57,318	
January 2006	39,019	
February 2006	37,620	
March 2006	46,716	
April 2006	34,365	
May 2006	50,968	
June 2006	42,883	#REF!
July 2006	40,745	
August 2006	40,285	#REF!
September 2006	42,284	
October 2006	67,762	
November 2006	72,777	
December 2006	67,305	
January 2007	62,858	
February 2007	49,605	
March 2007	38,760	
April 2007	38,865	
May 2007	45,870	
June 2007	50,775	
July 2007	20,735	
August 2007	29,360	
September 2007	30,130	
October 2007	44,975	
November 2007	51,495	
December 2007	50,665	
January 2008	52,009	
February 2008	41,825	
March 2008	30,715	
April 2008	24,833	

Salty Dog
Analysis of Sales
2000-2009

Brine Water
Sales (Barrells)

May 2008	9,410
June 2008	23,355
July 2008	29,729
August 2008	45,165
September 2008	65,038
October 2008	32,587
November 2008	30,967
December 2008	37,075
January 2009	10,450
February 2009	590
March 2009	3,489
April 2009	2,345
May 2009	5,950
June 2009	6,975
July 2009	32,080
August 2009	15,321
September 2009	21,840
October 2009	23,698
	<hr/>
	2,689,544.00
	<hr/>



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

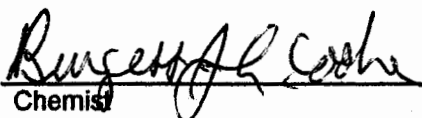
ANALYTICAL RESULTS FOR
SALTY DOG, INC.
P.O. BOX 513
HOBBS, NM 88240
FAX TO: (505) 393-1533

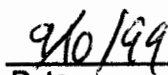
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Reporting Date: 09/10/99
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 09/10/99
Sampling Date: 09/10/99
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H4323-1	CONT. FW WELL	507
H4323-2	WW TO BRINE W.	1622
H4323-3	SNYDER RANCH OFFICE	53
H4323-4	BRINE PIT	209900
Quality Control		1014
True Value QC		1000
% Recovery		101
Relative Percent Difference		4.7

METHOD: Standard Methods	4500-Cl ⁻ B
--------------------------	------------------------


Chemist


Date

H4323.XLS

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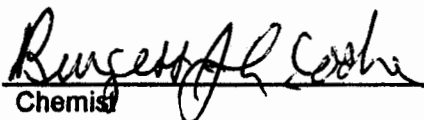
ANALYTICAL RESULTS FOR
SALTY DOG, INC.
P.O. BOX 513
HOBBS, NM 88240
FAX TO: (505) 393-1533

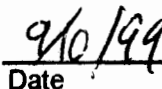
Receiving Date: 09/10/99
Reporting Date: 09/10/99
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 09/10/99
Sampling Date: 09/10/99
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H4323-1	CONT. FW WELL	507
H4323-2	WW TO BRINE W.	1622
H4323-3	SNYDER RANCH OFFICE	53
H4323-4	BRINE PIT	209900
Quality Control		1014
True Value QC		1000
% Recovery		101
Relative Percent Difference		4.7

METHOD: Standard Methods	4500-Cl ⁻ B
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Chemist


Date

H4323.XLS

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SALTY DOG, INC.
ATTN: WALTER BRISCO
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (505) 393-1533

Receiving Date: 09/27/00
Reporting Date: 09/29/00
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 09/27/00
Sampling Date: 09/27/00
Sample Type: GROUNDWATER
Sample Condition: INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H5212-1	MONITOR WELL	28608
Quality Control		971
True Value QC		1000
% Recovery		97.1
Relative Percent Difference		0.9

METHOD: Standard Methods	4500-Cl ⁻ B
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Chemist


Date

H5212.XLS

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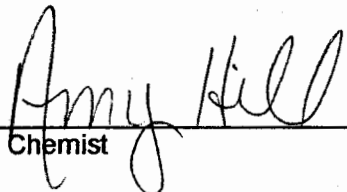
ANALYTICAL RESULTS FOR
SALTY DOG, INC.
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (505) 393-1533

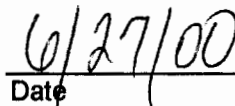
Receiving Date: 06/26/00
Reporting Date: 06/27/00
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: MONITOR WELL

Analysis Date: 06/26/00
Sampling Date: 06/19/00
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H4970-1	BRINE WELL-MONITOR	40000
	WELL	
Quality Control		980
True Value QC		1000
% Recovery		98.0
Relative Percent Difference		6.0

METHOD: Standard Methods	4500-Cl ⁻ B
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Chemist


Date



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ANALYTICAL RESULTS FOR
SALTY DOG
ATTN: PIETER BERGSTEIN
P.O. BOX 2724
LUBBOCK, TX 79408
FAX TO: (806) 741-1301

Receiving Date: 05/03/00
Reporting Date: 05/03/00
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 05/03/00
Sampling Date: 05/02/00
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H4845-1	FRESHWATER TANKS	832
H4845-2	CONTAMINATED WW	64
H4845-3	RANCH HEADQUARTERS	58
Quality Control		1000
True Value QC		1000
% Recovery		100
Relative Percent Difference		0

METHOD: Standard Methods	4500-ClB
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Amy Hill
Chemist

05/03/00
Date

H4845.XLS
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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
EDDIE W. SEAY CONSULTING
ATTN: EDDIE SEAY
601 W. ILLINOIS
HOBBS, NM 88242
FAX TO:

Receiving Date: 04/26/00
Reporting Date: 04/28/00
Project Number: 001
Project Name: SALTY DOG BRINE MW
Project Location: HOBBS-WEST

Sampling Date: 04/26/00
Sample Type: GROUNDWATER
Sample Condition: COOL AND INTACT
Sample Received By: BC
Analyzed By: AH

RCRA METALS

LAB NUMBER	SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
ANALYSIS DATE:		04/27/00	04/27/00	04/27/00	04/27/00	04/27/00	04/27/00	04/28/00	04/27/00
H4831-1	SD #3	<0.1	0.084	2.295	0.215	<0.05	0.065	<0.002	<0.05
Quality Control		0.049	5.004	51.94	1.998	4.977	5.043	0.0039	0.210
True Value QC		0.050	5.000	50.00	2.000	5.000	5.000	0.0040	0.200
% Recovery		98	100	103.9	99.9	99.5	100.8	97.5	105
Relative Percent Difference		2.7	0.6	3.1	0.7	0.4	9.4	2.6	1.4
METHODS: EPA 600/4-79-020		206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2
METHODS: SW-846		7060A	7760A	7080A	7130	7190	7420	7470A	7740

Amy Hill
Chemist

4/28/00
Date

PLEASE PRINT: H4831A.XLS
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ANALYTICAL RESULTS FOR
EDDIE W. SEAY CONSULTING
ATTN: EDDIE SEAY
601 W. ILLINOIS
HOBBS, NM 88242
FAX TO:

Receiving Date: 04/26/00
Reporting Date: 05/02/00
Project Number: 001
Project Name: SALTY DOG BRINE MW
Project Location: HOBBS-WEST

Sampling Date: 04/26/00
Sample Type: GROUNDWATER
Sample Condition: COOL AND INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity (mgCaCO ₃ /L)
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ANALYSIS DATE:	04/28/00	04/28/00	04/28/00	04/28/00	04/28/00	04/28/00	04/28/00
H4831-1 SD #1 & #2	24374	257	233	164	87216		212
Quality Control	NR	48	53	5.08	1392		NR
True Value QC	NR	50	50	5.00	1413		NR
% Accuracy	NR	96.2	106.9	101.5	98.5		NR
Relative Percent Difference	NR	8.3	9.4	0.4	0.2		NR

METHODS:	SM3500-Ca-D	3500-Mg E	8049	120.1	310.1
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Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
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ANALYSIS DATE:	04/28/00	04/28/00	04/28/00	04/28/00	04/28/00	04/29/00
H4831-1 SD #1 & #2	37988	1038	0	259	7.57	59040
Quality Control	1000	102	NR	971	6.95	NR
True Value QC	1000	100	NR	1000	7.00	NR
% Accuracy	100	102	NR	97.1	99.3	NR
Relative Percent Difference	0.1	0	NR	-	0	NR

METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1
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Amy Hill
Chemist

5/2/00
Date

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SALTY DOG, INC.
ATTN: TERRY WALLACE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (505) 391-9732

Receiving Date: 10/15/01
Reporting Date: 10/16/01
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 10/15/01
Sampling Date: 10/12/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: HM

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H6210-1	MW 1	16095
H6210-2	MW 2	364
H6210-3	REMEDIATION WELL	10297
Quality Control		1010
True Value QC		1000
% Recovery		101
Relative Percent Difference		1.0

METHOD: Standard Methods	4500-Cl ⁻ B
--------------------------	------------------------

Amy Hill
Chemist

10-16-01
Date

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H6210



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ANALYTICAL RESULTS FOR
SALTY DOG
ATTN: TERRY WALLACE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (505) 393-1533

Receiving Date: 05/24/01
Reporting Date: 05/25/01
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 05/24/01
Sampling Date: 05/23/01
Sample Type: GROUNDWATER
Sample Condition: INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H5886-1	BRANCH OFFICE	43
H5886-2	REMEDATION WELL	15500
H5886-3	MW 1	21400
H5886-4	MW 2	342
Quality Control		1068
True Value QC		1000
% Recovery		107
Relative Percent Difference		9.1
METHOD: Standard Methods		4500-ClB

Burton J. Lash
Chemist

5/25/01
Date

H5886.XLS

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ANALYTICAL RESULTS FOR
SALTY DOG, INC.
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (505) 393-1533

Receiving Date: 01/23/01
Reporting Date: 01/24/01
Project Number: NOT GIVEN
Project Name: SALTY DOG
Project Location: NOT GIVEN

Analysis Date: 01/23/01
Sampling Date: 01/22/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H5536-1	MW SAMPLE	23808
	<i>Recovery well</i>	
Quality Control		1025
True Value QC		1000
% Recovery		103
Relative Percent Difference		3.0

METHOD: Standard Methods	4500-Cl ⁻ B
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NOTE: Analyses performed on 1:4 w:v aqueous extracts.

Amy Hill

Chemist

1-24-01

Date

H5536.XLS
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ANALYTICAL RESULTS FOR
EDDIE SEAY CONSULTING
ATTN: EDDIE W. SEAY
601 W. ILLINOIS
HOBBS, NM 88242
FAX TO:

Receiving Date: 02/26/01
Reporting Date: 02/27/01
Project Owner: P. BERNSTEIN (ZIA SALTY DOG)
Project Name: SALTY DOG BRINE
Project Location: WEST HOBBS

Sampling Date: SEE BELOW
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Conductivity (μ S/cm)	Cl (mg/L)
ANALYSIS DATE:		02/27/01	02/27/01
H5653-1	MW #1 (02/19/01)	66430	29000
H5653-2	MW #2 (02/23/01)	1455	408
H5653-3	T-#1 (02/20/01)	37807	15100
Quality Control		1489	992
True Value QC		1413	1000
% Recovery		105	99.2
Relative Percent Difference		0.3	3.9
METHODS: EPA 600/4-79-02		120.1	325.3

Chemist

Date

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H5653.XLS



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ANALYTICAL RESULTS FOR
SALTY DOG
ATTN: TERRY WALLACE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (505) 391-9732

Receiving Date: 07/08/02
Reporting Date: 07/09/02
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 07/09/02
Sampling Date: 07/08/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H6864-1	MONITOR WELL 1	12596
H6864-2	MONITOR WELL 2	490
H6864-3	REMEDICATION WELL	8997
H6864-4	WW BY PIT FRONT	580
Quality Control		1000
True Value QC		1000
% Recovery		100
Relative Percent Difference		4.0
METHOD: Standard Methods		4500-ClB

Amey Hill
Chemist

7-9-02
Date



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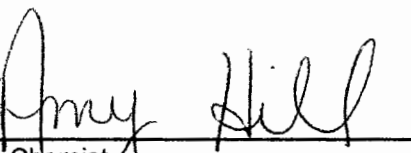
ANALYTICAL RESULTS FOR
SALTY DOG
ATTN: TONY WALLACE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (505) 391-9732

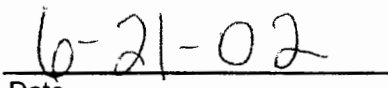
Receiving Date: 06/20/02
Reporting Date: 06/21/02
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 06/21/02
Sampling Date: 06/19/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H6824-1	MONITOR WELL #1	20993
H6824-2	MONITOR WELL #2	396
H6824-3	REMEDATION WELL	30990
Quality Control		1020
True Value QC		1000
% Recovery		102.0
Relative Percent Difference		4.0

METHOD: Standard Methods	4500-Cl ⁻ B
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Chemist


Date



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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
EDDIE SEAY CONSULTING
ATTN: EDDIE SEAY
601 W. ILLINOIS
HOBBS, NM 88242
FAX TO:

Receiving Date: 08/20/04
Reporting Date: 08/23/04
Project Number: P. BERSTEIN
Project Name: ZIA SALTY DOG
Project Location: W. HOBBS, NM

Sampling Date: 08/20/04
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (μ S/cm)	T-Alkalinity (mgCaCO ₃ /L)
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ANALYSIS DATE:	08/23/04	08/23/04	08/23/04	08/23/04	08/23/04	08/23/04	08/23/04
H9047-1 PMW #1	3376	479	101	12.2	19146	155	
H9047-2 ZMW #4	4162	233	44	58.0	18636	101	
H9047-3 ZMW #5	207	83	13	3.87	1727	176	
H9047-4 SQUIRES OFFICE WELL	21	57	13	2.24	599	147	
Quality Control	NR	40	52	4.87	1322	NR	
True Value QC	NR	50	50	5.00	1413	NR	
% Recovery	NR	80	104	97.4	93.6	NR	
Relative Percent Difference	NR	2.0	6.0	5.8	0.7	NR	

METHODS:	SM3500-Ca-D	3500-Mg E	8049	120.1	310.1
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Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
---------------------------	---------------------------	---------------------------	----------------------------	--------------	---------------

ANALYSIS DATE:	08/23/04	08/23/04	08/23/04	08/23/04	08/23/04	08/24/04
H9047-1 PMW #1	6198	79	0	190	6.94	10444
H9047-2 ZMW #4	6598	473	0	123	7.24	11716
H9047-3 ZMW #5	324	80	0	215	7.64	957
H9047-4 SQUIRES OFFICE WELL	48	30	0	179	8.00	354
Quality Control	1040	50.67	NR	976	7.05	NR
True Value QC	1000	50.00	NR	1000	7.00	NR
% Recovery	104	101	NR	97.6	101	NR
Relative Percent Difference	4.0	4.9	NR	2.2	0.1	1.4

METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1
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Amy Hill
Chemist

8/23/04
Date

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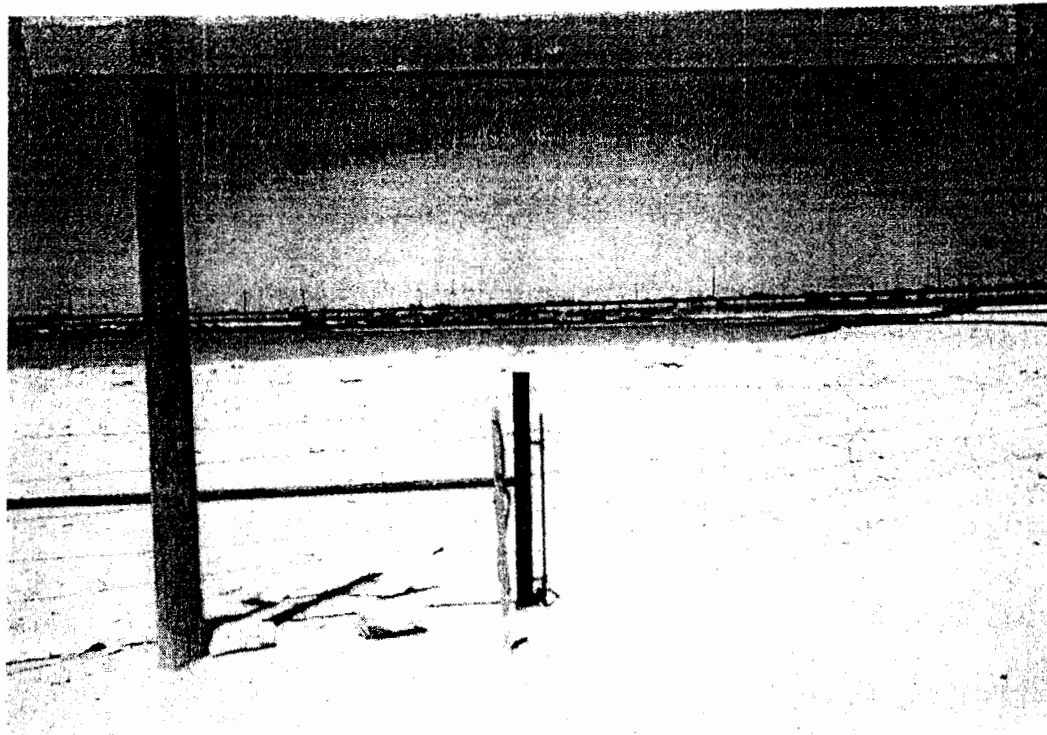
SALTY DOG WATER STATION

In Case Of Emergency Or Information

(505)393-8352

P
M
W

1





ARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
EDDIE SEAY CONSULTING
ATTN: EDDIE SEAY
601 W. ILLINOIS
HOBBS, NM 88242
FAX TO:

Receiving Date: 08/20/04
Reporting Date: 08/24/04
Project Owner: P. BERNSTEIN
Project Name: ZIA SALTY DOG
Project Location: W. HOBBS, NM

Analysis Date: 08/21/04
Sampling Date: 08/20/04
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: GP

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/Kg)
H9048-1	LSB #1 5'	15995
H9048-2	LSB #1 10'	16795
H9048-3	LSB #1 15'	8397
H9048-4	LSB #1 20'	8397
H9048-5	LSB #2 5'	80
H9048-6	LSB #2 10'	160
H9048-7	LSB #2 15'	272
H9048-8	LSB #2 20'	128
H9048-9	LSB #3 5'	192
H9048-10	LSB #3 10'	2199
H9048-11	LSB #3 15'	384
H9048-12	LSB #3 20'	336
Quality Control		1010
True Value QC		1000
% Recovery		101
Relative Percent Difference		6.8

METHOD: Standard Methods	4500-Cl ⁻ B
--------------------------	------------------------

Note: Analyses performed on 1:4 w:v aqueous extracts.

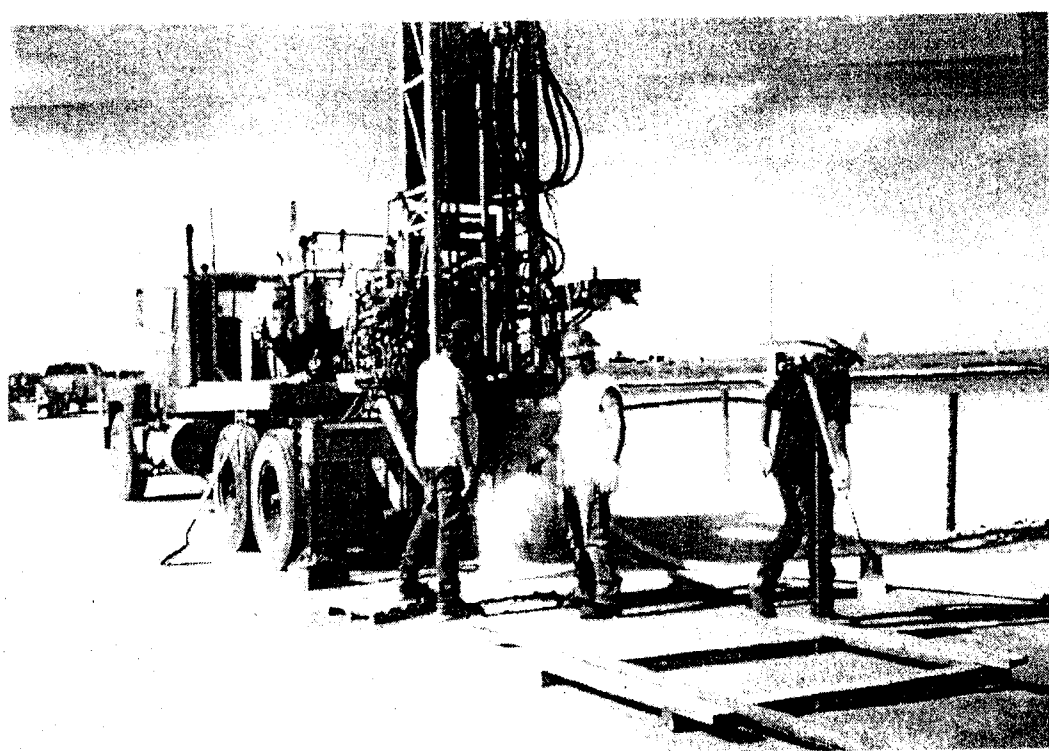
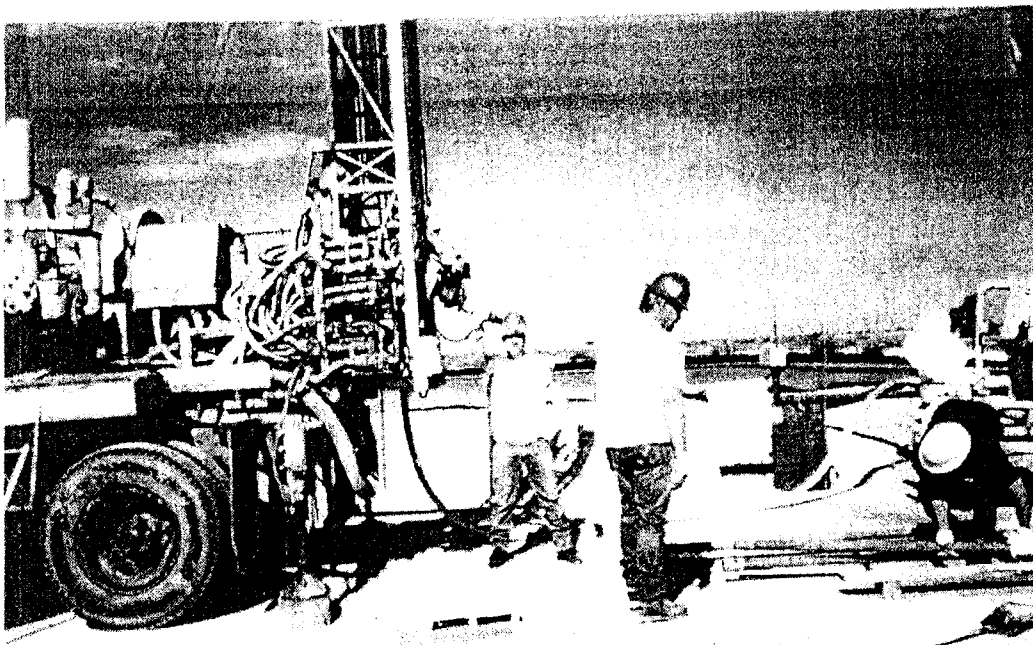
Amy Hill
Chemist

8/24/04
Date

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LSP

#1





CARDINAL LABORATORIES, INC.

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(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 1 of 2

Company Name: <u>Edwin Seay Consulting</u>		BILL TO		PO #:	
Project Manager: <u>Edwin Seay</u>		Company:			
Address: <u>601 W IDIAMS</u>		Attn:			
City: <u>Hobbs</u> State: <u>NM</u> Zip: <u>88242</u>		Address:			
Phone #: <u>392-2234</u>		City:			
Fax #:		State:		Zip:	
Project #: <u>Zia</u> Project Owner: <u>P. Bernstein</u>		Phone #:			
Project Name: <u>Zia Sully Dog</u>		Fax #:			
Project Location: <u>W. Hobbs</u>					

FOR LAB USE ONLY		LAB I.D.		Sample I.D.		LABOR (C)OMP.	# CONTAINERS	MATRIX					PRES.		SAMPLING		DATE	TIME	
				GROUNDWATER	WASTEWATER			SOIL	OIL	SLUDGE	OTHER :	ACID:	ICE / COOL	OTHER :					
H9018-1	LSB #1	5'		✓										✓		8/20	9:30	✓	
-2	"	10'		✓									✓		"	9:40	✓		
-3	"	15'		✓									✓		"	9:50	✓		
-4	"	20'		✓									✓		"	10:00	✓		
-5	LSB #2	5'		✓									✓		8/20	10:45	✓		
-6	"	10'		✓									✓		"	11:00	✓		
-7	"	15'		✓									✓		"	12:05	✓		
-8	"	20'		✓									✓		"	12:30	✓		

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Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished:	Date: <u>8/20</u>	Received By:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Additional Fax #: <input type="checkbox"/> Yes <input type="checkbox"/> No
<u>Edwin Seay</u>	Time: <u>4:15</u>		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No
Relinquished By:	Date:	Received By: (Lab Staff)	REMARKS:
	Time:	<u>Amy Hill</u>	<u>LSB - looking over soil boring</u>
Delivered By: (Circle One)	Sample Condition	CHECKED BY:	
Sampler - UPS - Bus - Other:	Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/>	(Initials)	
	<input type="checkbox"/> Yes <input type="checkbox"/> No		

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.



PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
EDDIE SEAY CONSULTING
ATTN: EDDIE SEAY
601 W. ILLINOIS
HOBBS, NM 88242
FAX TO:

Receiving Date: 08/20/04
Reporting Date: 08/23/04
Project Number: P. BERSTEIN
Project Name: ZIA SALTY DOG
Project Location: W. HOBBS, NM

Sampling Date: 08/20/04
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (u S/cm)	T-Alkalinity (mgCaCO ₃ /L)
ANALYSIS DATE:		08/23/04	08/23/04	08/23/04	08/23/04	08/23/04	08/23/04
H9047-1	PMW #1	3376	479	101	12.2	19146	155
H9047-2	ZMW #4	4162	233	44	58.0	18636	101
H9047-3	ZMW #5	207	83	13	3.87	1727	176
H9047-4	SQUIRES OFFICE WELL	21	57	13	2.24	599	147
Quality Control		NR	40	52	4.87	1322	NR
True Value QC		NR	50	50	5.00	1413	NR
% Recovery		NR	80	104	97.4	93.6	NR
Relative Percent Difference		NR	2.0	6.0	5.8	0.7	NR

METHODS: SM3500-Ca-D 3500-Mg E 8049 120.1 310.1

	Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:	08/23/04	08/23/04	08/23/04	08/23/04	08/23/04	08/24/04
H9047-1 PMW #1	6198	79	0	190	6.94	10444
H9047-2 ZMW #4	6598	473	0	123	7.24	11716
H9047-3 ZMW #5	324	80	0	215	7.64	957
H9047-4 SQUIRES OFFICE WELL	48	30	0	179	8.00	354
Quality Control	1040	50.67	NR	976	7.05	NR
True Value QC	1000	50.00	NR	1000	7.00	NR
% Recovery	104	101	NR	97.6	101	NR
Relative Percent Difference	4.0	4.9	NR	2.2	0.1	1.4

METHODS: SM4500-Cl-B 375.4 310.1 310.1 150.1 160.1

Chemist

Date

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page ____ of ____

Company Name: Eddie Sam Consulting
Project Manager: Eddie Sam
Address: Box W Hobbs
City: Hobbs State: NM Zip: 88242
Phone #: 392-2234
Fax #: _____
Project #: 21a Project Owner: P. Bernstein
Project Name: Zia Salt Dog
Project Location: W. Hobbs

BILL TO PO #:
Company:
Attn:
Address:
City:
State:
Zip:
Phone #:
Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY		LAB I.D.	Sample I.D.	GRAB OR (C)OMP.	# CONTAINERS	MATRIX						PRES.			SAMPLING	
GROUNDWATER	WASTEWATER					SOIL	OIL	SLUDGE	OTHER :	ACID:	ICE / COOL	OTHER :	DATE	TIME		
H9047-1	PMW #1	✓	1	✓							✓	8/20	9:30			
-2	2 MW #4	✓	1	✓							✓	8/20	2:30			
-3	2 MW #5	✓	1	✓							✓	8/20	3:40			
-4	Square Stone wall	✓	1	✓							✓	8/20	1:30			

Gen Chemistry

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Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collection, including attorney's fees.

Sampler Relinquished:

Date: 8/20
Time: 4:15

Received By:

Relinquished By:

Date:
Time:

Received By: (Lab Staff)

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

Sample Condition
Cool Intact
☒ Yes ☐ No
☐ Yes ☐ No

CHECKED BY:
(Initials)

Phone Result ☐ Yes ☐ No Additional Fax #:
Fax Result: ☐ Yes ☐ No
REMARKS:

Company Drilled for:

SALTY DOG INC.

Location: SECS T195 R36E

GPS: 32° 41' 14" N

103° 22' 17" W

ELEV. 3815 ASL

Drilling Log

Well/Bore Number:

MW-5

Date Drilled:

8-21-04

Driller:

ALLEN HODGE

Logged By:

A. Hodge

Drilling Method:

AIR ROTARY

Depth of Boring:

145'

Depth of Well:

132

Length of Casing:

112

Length of Screen:

20'

Bore Diameter:

4 3/4

Casing Diameter:

2"

Screen Diameter:

2"

Slot Size:

.010

Well Material:

SCH 40 PVC

Depth	Geology	Sample Type	DVA (RPM)	Remarks	Well Design	Depth
100	RED WATER SAND			BENTONITE PLUS	X	100
105	W/TH STRINGERS				X	105
110	OF RED TO BROWN					110
115	CLAY					115
120						120
125						125
130						130
135						135
140						140
145	RED BED					145
150	WELL TD					150
155						155
160						160
165						165
170						170
175						175
180						180
185						185
190						190
195						195
200						200
205						205



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ANALYTICAL RESULTS FOR
EDDIE SEAY CONSULTING
ATTN: EDDIE SEAY
601 W. ILLINOIS
HOBBS, NM 88242
FAX TO:

Receiving Date: 08/20/04
Reporting Date: 08/23/04
Project Number: P. BERSTEIN
Project Name: ZIA SALTY DOG
Project Location: W. HOBBS, NM

Sampling Date: 08/20/04
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (uS/cm)	T-Alkalinity (mgCaCO ₃ /L)
------------	-----------	--------------	--------------	--------------	-------------	-------------------------	--

ANALYSIS DATE:	08/23/04	08/23/04	08/23/04	08/23/04	08/23/04	08/23/04	08/23/04
H9047-1	PMW #1	3376	479	101	12.2	19146	155
H9047-2	ZMW #4	4162	233	44	58.0	18636	101
H9047-3	ZMW #5	207	83	13	3.87	1727	176
H9047-4	SQUIRES OFFICE WELL	21	57	13	2.24	599	147
Quality Control		NR	40	52	4.87	1322	NR
True Value QC		NR	50	50	5.00	1413	NR
% Recovery		NR	80	104	97.4	93.6	NR
Relative Percent Difference		NR	2.0	6.0	5.8	0.7	NR

METHODS:	SM3500-Ca-D	3500-Mg E	8049	120.1	310.1
----------	-------------	-----------	------	-------	-------

Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
---------------------------	---------------------------	---------------------------	----------------------------	--------------	---------------

ANALYSIS DATE:		08/23/04	08/23/04	08/23/04	08/23/04	08/23/04	08/24/04
H9047-1	PMW #1	6198	79	0	190	6.94	10444
H9047-2	ZMW #4	6598	473	0	123	7.24	11716
H9047-3	ZMW #5	324	80	0	215	7.64	957
H9047-4	SQUIRES OFFICE WELL	48	30	0	179	8.00	354
Quality Control		1040	50.67	NR	976	7.05	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		104	101	NR	97.6	101	NR
Relative Percent Difference		4.0	4.9	NR	2.2	0.1	1.4

METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1
----------	-------------	-------	-------	-------	-------	-------

Chemist

Date

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Company Drilled for:

SALTY DOG INC.

Location: SEC 5, T19S R36E

GPS 32° 41' 13" N

03° 22' 20" W ELEV. 3814 ASL

Drilling Log

Well/Bore Number:

MW-4

Date Drilled:

8-20-04

Driller:

ALLAN HODGE

Logged By:

A. Hodge

Drilling Method:

2 ROTARY

Depth of Boring:

145' BGS

Depth of Well:

131'

Length of Casing:

111'

Length of Screen:

20'

Bore Diameter:

4 3/4

Casing Diameter:

2"

Screen Diameter:

2"

Slot Size:

.010

Well Material:

SCH 40 PUC

Depth	Unit	Sample Type	Grain Size (PPM)	Remarks	Well Designation	Depth
100	RED WATER SAND WITH STRINGERS OF BROWN CLAY			BENTONITE PLUS TOP OF SAND PACK	20 SAND PACK SCREEN	100
105						105
110						110
115						115
120						120
125						125
130						130
135						135
140						140
145	RED BED				TD	145
150	WELL TD					150
155						155
160						160
165						165
170						170
175						175
180						180
185						185
190						190
195						195
200						200
205						205



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ANALYTICAL RESULTS FOR
EDDIE SEAY CONSULTING
ATTN: EDDIE SEAY
601 W. ILLINOIS
HOBBS, NM 88242
FAX TO:

Receiving Date: 08/20/04
Reporting Date: 08/23/04
Project Number: P. BERSTEIN
Project Name: ZIA SALTY DOG
Project Location: W. HOBBS, NM

Sampling Date: 08/20/04
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (μ S/cm)	T-Alkalinity (mgCaCO ₃ /L)
------------	-----------	--------------	--------------	--------------	-------------	-------------------------------	--

ANALYSIS DATE:	08/23/04	08/23/04	08/23/04	08/23/04	08/23/04	08/23/04	08/23/04
H9047-1 PMW #1	3376	479	101	12.2	19146	155	
H9047-2 ZMW #4	4162	233	44	58.0	18636	101	
H9047-3 ZMW #5	207	83	13	3.87	1727	176	
H9047-4 SQUIRES OFFICE WELL	21	57	13	2.24	599	147	
Quality Control	NR	40	52	4.87	1322	NR	
True Value QC	NR	50	50	5.00	1413	NR	
% Recovery	NR	80	104	97.4	93.6	NR	
Relative Percent Difference	NR	2.0	6.0	5.8	0.7	NR	

METHODS:	SM3500-Ca-D3500-Mg E	8049	120.1	310.1		
----------	----------------------	------	-------	-------	--	--

Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
---------------------------	---------------------------	---------------------------	----------------------------	--------------	---------------

ANALYSIS DATE:	08/23/04	08/23/04	08/23/04	08/23/04	08/23/04	08/24/04
H9047-1 PMW #1	6198	79	0	190	6.94	10444
H9047-2 ZMW #4	6598	473	0	123	7.24	11716
H9047-3 ZMW #5	324	80	0	215	7.64	957
H9047-4 SQUIRES OFFICE WELL	48	30	0	179	8.00	354
Quality Control	1040	50.67	NR	976	7.05	NR
True Value QC	1000	50.00	NR	1000	7.00	NR
% Recovery	104	101	NR	97.6	101	NR
Relative Percent Difference	4.0	4.9	NR	2.2	0.1	1.4

METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1
----------	-------------	-------	-------	-------	-------	-------

Amy Hill
Chemist

8/23/04
Date

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ANALYTICAL RESULTS FOR
EDDIE SEAY CONSULTING
ATTN: EDDIE SEAY
601 W. ILLINOIS
HOBBS, NM 88242
FAX TO: (505) 392-6949

Receiving Date: 08/12/04
Reporting Date: 08/13/04
Project Owner: P. BERSTEIN
Project Name: ZIA SALTY DOG
Project Location: 12 MI. W. OF HOBBS, NM

Analysis Date: 08/13/04
Sampling Date: 08/11-08/12/04
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/Kg)
H9003-1	PMW #1 0-5'	4639
H9003-2	PMW #1 5-10'	5998
H9003-3	PMW #1 10-15'	1919
H9003-4	PMW #1 15-20'	736
H9003-5	PMW #1 20-25'	1408
H9003-6	PMW #1 25-30'	800
H9003-7	PMW #1 30-35'	1104
H9003-8	PMW #1 35-40'	1168
H9003-9	PMW #1 40-45'	2399
H9003-10	PMW #1 45-50'	192
H9003-11	PMW #1 50-55'	128
H9003-12	PMW #1 55-60'	192
Quality Control		1040
True Value QC		1000
% Recovery		104
Relative Percent Difference		4.0

METHOD: Standard Methods 4500-Cl⁻B

Note: Analyses performed on 1:4 w:v aqueous extracts.

Amy Hill
Chemist

8/13/04
Date

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(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page ____ of ____

Company Name: <u>Eddie Sam Consulting</u>						BILL TO		PO #:		ANALYSIS REQUEST																											
Project Manager: <u>Eddie Sam</u>																																					
Address: <u>601 W TILWORTH</u>						Company:																															
City: <u>Hobbs</u> State: <u>NM</u> Zip: <u>88242</u>						Attn:																															
Phone #: <u>392-2236</u>						Address:																															
Fax #: <u>"</u> <u>6949</u>						City:																															
Project #: <u>Salty Dog</u> Project Owner: <u>P. Bernstein</u>						State:		Zip:																													
Project Name: <u>Zia Salty Dog</u>						Phone #:																															
Project Location: <u>12 Mile W Hobbs</u>						Fax #:																															
FOR LAB USE ONLY		LAB I.D.		Sample I.D.		(G)RAB OR (C)PMP	# CONTAINERS	MATRIX						PRES.		SAMPLING																					
								GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID:	ICE / COOL	OTHER :	DATE																			TIME	
		H9003-1		PMW #1 0-5'		<input checked="" type="checkbox"/>	1			<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>			9/11	8:30	Chloride																	
		-2		" 5-10'		<input checked="" type="checkbox"/>	1			<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>			"	8:40																			
		-3		" 10-15'		<input checked="" type="checkbox"/>	1			<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>			"	9:00																			
		-4		" 15-20'		<input checked="" type="checkbox"/>	1			<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>			"	9:25																			
		-5		" 20-25'		<input checked="" type="checkbox"/>	1			<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>			"	9:55																			
		-6		" 25-30'		<input checked="" type="checkbox"/>	1			<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>			"	10:30																			
		-7		" 30-35'		<input checked="" type="checkbox"/>	1			<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>			"	11:00																			
		-8		" 35-40'		<input checked="" type="checkbox"/>	1			<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>			9/12	9:10																			
		-9		" 40-45'		<input checked="" type="checkbox"/>	1			<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>			"	9:30																			
		-10		" 50-55'		<input checked="" type="checkbox"/>	1			<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>			"	9:45																			
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.																				Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.																	
Sampler Relinquished By: <u>Eddie Sam</u>						Date: <u>8/12</u>		Received By:						Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Additional Fax #: _____																							
						Time: <u>11:15</u>								Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No																							
Relinquished By:						Date: <u>08/12/2008</u>		Received By: (Lab Staff)						REMARKS:																							
						Time: <u>11:20 AM</u>		<u>Sally H. Potter</u>						<u>PMW #1</u>																							
Delivered By: (Circle One) <u>Sampler</u> UPS - Bus - Other:						Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No						CHECKED BY: (Initials) <u>P.T. Monitor well</u>																									

† Cardiac cannot accept verbal changes. Please fax written changes to 915-673-7020.

Company Drilled for:

SAKTY DOG INC.

Location SEC. 5, T19S R36E

6PS 32° 41' 43" N

103° 22' 17" W ELEV 3801 ASL

Method: AIR ROTARY

Depth of Boring: 85' BGS

Bore Diameter: 4 3/4

Casing Diameter: 2" SCH 40

Well/Bore Number: PMW-1

Date Drilled: 8-11-04

Driller: ALLEN HODGE

Logged By: A. Hodge

Depth of Well: 78'

Length of Casing: 63'

Length of Screen: 15'

Screen Diameter: 2" SCH 40

Slot Size: .010

Well Material: SCH 40 PUC

Drilling Log

Depth	Geology	Sample Type	DPV (FPM)	Remarks	Well Design	Depth
0	CALICHE PAD			CEMENT TO SURFACE		0
	BROWN TOP SOIL					
5	WHITE TO PINK CALICHE			BENTONITE GROUT		5
10						10
15						15
20						20
25	RED TO BROWN QUARTZITE (HARD)					25
30	TAN SAND					30
35						35
40	BROWN SANDSTONE					40
45	RED TO TAN SAND WITH BROWN SANDSTONE STRINGERS					45
50				BENTONITE PLUG		50
55	RED SAND					55
60						60
65	TOP OF WATER					65
70	RED WATER SAND					70
75						75
80						80
85	TD @ 85'					85
90						90
95						95
100						100
105						105



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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
EDDIE SEAY CONSULTING
ATTN: EDDIE SEAY
601 W. ILLINOIS
HOBBS, NM 88242
FAX TO: (505) 392-6949

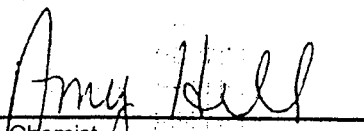
Receiving Date: 08/12/04
Reporting Date: 08/13/04
Project Owner: P. BERSTEIN
Project Name: ZIA SALTY DOG
Project Location: 12 MI. W. OF HOBBS, NM

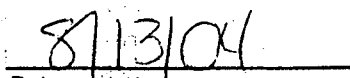
Analysis Date: 08/13/04
Sampling Date: 08/11-08/12/04
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/Kg)
H9003-1	PMW #1 0-5'	4639
H9003-2	PMW #1 5-10'	5998
H9003-3	PMW #1 10-15'	1919
H9003-4	PMW #1 15-20'	736
H9003-5	PMW #1 20-25'	1408
H9003-6	PMW #1 25-30'	800
H9003-7	PMW #1 30-35'	1104
H9003-8	PMW #1 35-40'	1168
H9003-9	PMW #1 40-45'	2399
H9003-10	PMW #1 45-50'	192
H9003-11	PMW #1 50-55'	128
H9003-12	PMW #1 55-60'	192
Quality Control		1040
True Value QC		1000
% Recovery		104
Relative Percent Difference		4.0

METHOD: Standard Methods	4500-Cl ⁻ B
--------------------------	------------------------

Note: Analyses performed on 1:4 w:v aqueous extracts.


Chemist


Date

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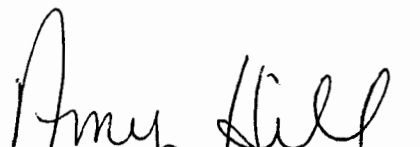
ANALYTICAL RESULTS FOR
SALTY DOG
ATTN: TERRY WALLACE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (505) 393-8353

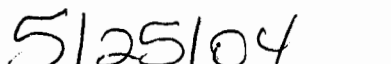
Receiving Date: 05/25/04
Reporting Date: 05/25/04
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 05/25/04
Sampling Date: 05/25/04
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H8730-1	MONITOR WELL #1	1320
Quality Control		990
True Value QC		1000
% Recovery		99.0
Relative Percent Difference		4.0

METHOD: Standard Methods	4500-Cl ⁻ B
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Chemist


Date



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ANALYTICAL RESULTS FOR
SALTY DOG
ATTN: TERRY WALLACE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (505) 393-8353

Receiving Date: 05/25/04
Reporting Date: 05/25/04
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 05/25/04
Sampling Date: 05/25/04
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H8730-6	FRONT WW BY PIT	720
Quality Control		990
True Value QC		1000
% Recovery		99.0
Relative Percent Difference		4.0

METHOD: Standard Methods	4500-Cl ⁻ B
--------------------------	------------------------

Amy Hill
Chemist

5/25/04
Date



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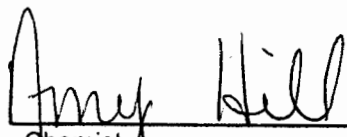
ANALYTICAL RESULTS FOR
SALTY DOG
ATTN: TERRY WALLACE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (505) 393-8353

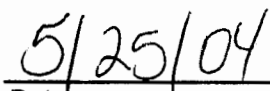
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Reporting Date: 05/25/04
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 05/25/04
Sampling Date: 05/25/04
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H8730-5	REMEDIATION WELL #2	11097
Quality Control		990
True Value QC		1000
% Recovery		99.0
Relative Percent Difference		4.0

METHOD: Standard Methods	4500-Cl ⁻ B
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Chemist


Date



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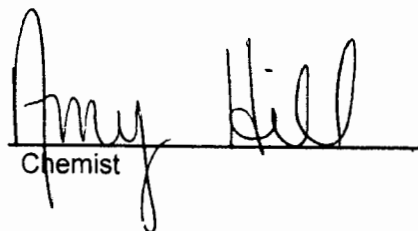
ANALYTICAL RESULTS FOR
SALTY DOG
ATTN: TERRY WALLACE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (505) 393-8353

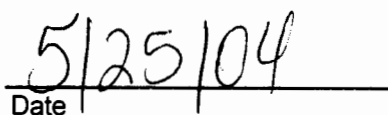
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Reporting Date: 05/25/04
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 05/25/04
Sampling Date: 05/25/04
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H8730-2	MONITOR WELL #2	332
Quality Control		990
True Value QC		1000
% Recovery		99.0
Relative Percent Difference		4.0

METHOD: Standard Methods	4500-Cl ⁻ B
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Chemist


Date



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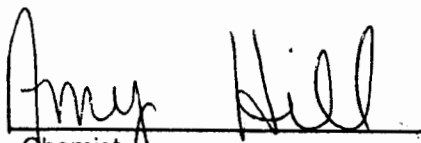
ANALYTICAL RESULTS FOR
SALTY DOG
ATTN: TERRY WALLACE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (505) 393-8353

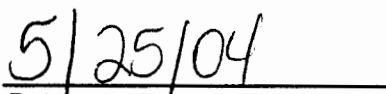
Receiving Date: 05/25/04
Reporting Date: 05/25/04
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 05/25/04
Sampling Date: 05/25/04
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H8730-3	MONITOR WELL #3	380
Quality Control		990
True Value QC		1000
% Recovery		99.0
Relative Percent Difference		4.0

METHOD: Standard Methods	4500-Cl ⁻ B
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Chemist


Date



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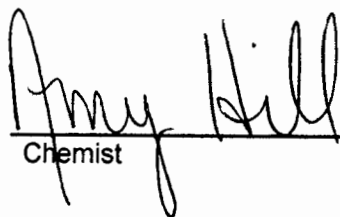
ANALYTICAL RESULTS FOR
SALTY DOG
ATTN: TERRY WALLACE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (505) 393-8353

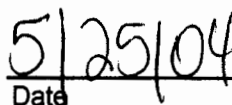
Receiving Date: 05/25/04
Reporting Date: 05/25/04
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 05/25/04
Sampling Date: 05/25/04
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H8730-4	REMEDATION WELL #1	440
Quality Control		990
True Value QC		1000
% Recovery		99.0
Relative Percent Difference		4.0

METHOD: Standard Methods	4500-Cl ⁻ B
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Chemist


Date

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ANALYTICAL RESULTS FOR
SALTY DOG
ATTN: TERRY WALLACE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (505) 393-8353

Receiving Date: 01/28/04
Reporting Date: 01/28/04
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 01/28/04
Sampling Date: 01/28/04
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H8414-2	REMEDIED WELL #1	432
Quality Control		1000
True Value QC		1000
% Recovery		100
Relative Percent Difference		1.0

METHOD: Standard Methods	4500-Cl ⁻ B
--------------------------	------------------------

Amy Hill
Chemist

1/28/04
Date



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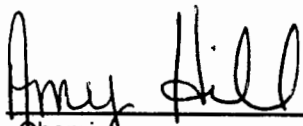
ANALYTICAL RESULTS FOR
SALTY DOG
ATTN: TERRY WALLACE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (505) 393-8353

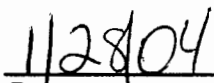
Receiving Date: 01/28/04
Reporting Date: 01/28/04
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 01/28/04
Sampling Date: 01/28/04
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H8414-3	REMEDIATED WELL #2	8997
Quality Control		1000
True Value QC		1000
% Recovery		100
Relative Percent Difference		1.0

METHOD: Standard Methods	4500-Cl ⁻ B
--------------------------	------------------------


Chemist


Date



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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

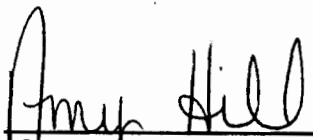
ANALYTICAL RESULTS FOR
SALTY DOG
ATTN: TERRY WALLACE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (505) 393-8353

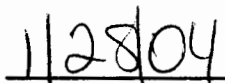
Receiving Date: 01/28/04
Reporting Date: 01/28/04
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 01/28/04
Sampling Date: 01/28/04
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H8414-4	MW #1	4799
Quality Control		1000
True Value QC		1000
% Recovery		100
Relative Percent Difference		1.0

METHOD: Standard Methods	4500-Cl ⁻ B
--------------------------	------------------------


Chemist


Date

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ANALYTICAL RESULTS FOR
SALTY DOG
ATTN: TERRY WALLACE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (505) 393-8353

Receiving Date: 01/28/04
Reporting Date: 01/28/04
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 01/28/04
Sampling Date: 01/28/04
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H8414-5	MW #2	352
Quality Control		1000
True Value QC		1000
% Recovery		100
Relative Percent Difference		1.0

METHOD: Standard Methods	4500-Cl ⁻ B
--------------------------	------------------------

Amy Hill
Chemist

1/28/04
Date



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SALTY DOG
ATTN: TERRY WALLACE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (505) 393-8353

Receiving Date: 01/28/04
Reporting Date: 01/28/04
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 01/28/04
Sampling Date: 01/28/04
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H8414-6	MW #3	360
Quality Control		1000
True Value QC		1000
% Recovery		100
Relative Percent Difference		1.0

METHOD: Standard Methods	4500-Cl ⁻ B
--------------------------	------------------------

Amy Hill
Chemist

1/28/04
Date



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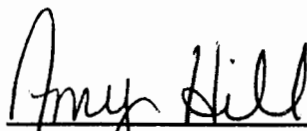
ANALYTICAL RESULTS FOR
SALTY DOG
ATTN: TERRY WALLACE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (505) 393-8353

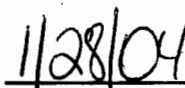
Receiving Date: 01/28/04
Reporting Date: 01/28/04
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 01/28/04
Sampling Date: 01/28/04
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H8414-1	MAIN WATER WELL	856
Quality Control		1000
True Value QC		1000
% Recovery		100
Relative Percent Difference		1.0

METHOD: Standard Methods	4500-Cl ⁻ B
--------------------------	------------------------


Chemist


Date

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ARDINAL LABORATORIES

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ZIA TRANSPORT
ATTN: TOM BROOM
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (505) 393-8353

Receiving Date: 03/07/06
Reporting Date: 03/08/06
Project Owner: NOT GIVEN
Project Name: SALTY DOG
Project Location: HOBBS, NM

Analysis Date: 03/08/06
Sampling Date: 03/07/06
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: HM

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H10860-1	MW 1	13996
Quality Control		510
True Value QC		500
% Recovery		102
Relative Percent Difference		2.0
METHOD: Standard Methods		4500-ClB

Steph S. Manno
Chemist

03-08-06
Date

H10860

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2478 (325) 673-7001 FAX (325) 673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: SALTY DOG INC				BILL TO				ANALYSIS REQUEST																			
Project Manager: JIM SAYRE				P.O. #:																							
Address: PO Box 513				Company: SALTY Dog																							
City: Hobbs State: NM Zip: 88240				Attn: FERRY WALLACE																							
Phone #: 393-8352 Fax #:				Address: PO Box 513																							
Project #:				City: Hobbs																							
Project Name:				State: NM Zip: 88240																							
Project Location:				Phone #: 393-8352																							
Sampler Name: JIM SAYRE				Fax #: 393-8353																							
FOR LAB USE ONLY						MATRIX		PRESERV		SAMPLING																	
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME													
4135871	Pit Monitor well		✓										10-26	9:30	X												
2	Fresh Water well		✓										10-26	9:30													
3	Monitor Well #1		✓										10-26	9:30													
4	Monitor Well #2		✓										10-26	9:30													
5	Monitor Well #3		✓										10-26	9:30													
6	Monitor Well #4		✓										10-26	9:30													
7	Monitor Well #5		✓										10-26	9:30													
8	Monitor Well #6		✓										10-26	9:30													

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 10-26 Time: 10:45	Received By:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
Relinquished By:	Date:	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Time:	Sue Barnes 10/26/07 10:45	REMARKS:
Sample Condition: Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: (Initials) SB	

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PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SALTY DOG INC.
ATTN: JIM SAYRE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (575) 393-8353

Receiving Date: 10/26/07
Reporting Date: 10/26/07
Project Owner: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 10/26/07
Sampling Date: 10/26/07
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: SB
Analyzed By: AB

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H13587-1	PIT MONITOR WELL	9,897
H13587-2	FRESH WATER WELL	730
H13587-3	MONITOR WELL #1	104
H13587-4	MONITOR WELL #2	108
H13587-5	MONITOR WELL #3	356
H13587-6	MONITOR WELL #4	1,100
H13587-7	MONITOR WELL #5	100
H13587-8	MONITOR WELL #6	28
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1

METHOD: Standard Methods

4500-ClB

Kimberly Simpson
Chemist

10/26/07
Date

H13587 SALTY DOG

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NOV 2 PM 12:30

ANALYTICAL RESULTS FOR

SALTY DOG INC.
ATTN: JIM SAYRE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (575) 393-8353

NM-76

Receiving Date: 10/26/07

Reporting Date: 10/26/07

Project Owner: NOT GIVEN

Project Name: NOT GIVEN

Project Location: NOT GIVEN

Analysis Date: 10/26/07

Sampling Date: 10/26/07

Sample Type: GROUNDWATER

Sample Condition: COOL & INTACT

Sample Received By: SB

Analyzed By: AB

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H13587-1	PIT MONITOR WELL	9,897
H13587-2	FRESH WATER WELL	730
H13587-3	MONITOR WELL #1	104
H13587-4	MONITOR WELL #2	108
H13587-5	MONITOR WELL #3	358
H13587-6	MONITOR WELL #4	1,100
H13587-7	MONITOR WELL #5	100
H13587-8	MONITOR WELL #6	28
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1

METHOD: Standard Methods

4500-ClB

Chemist

Date

 WQCC-ACO#2
 Salty Dog, Inc.
 OCD Exhibit QQ

H13587 SALTY DOG

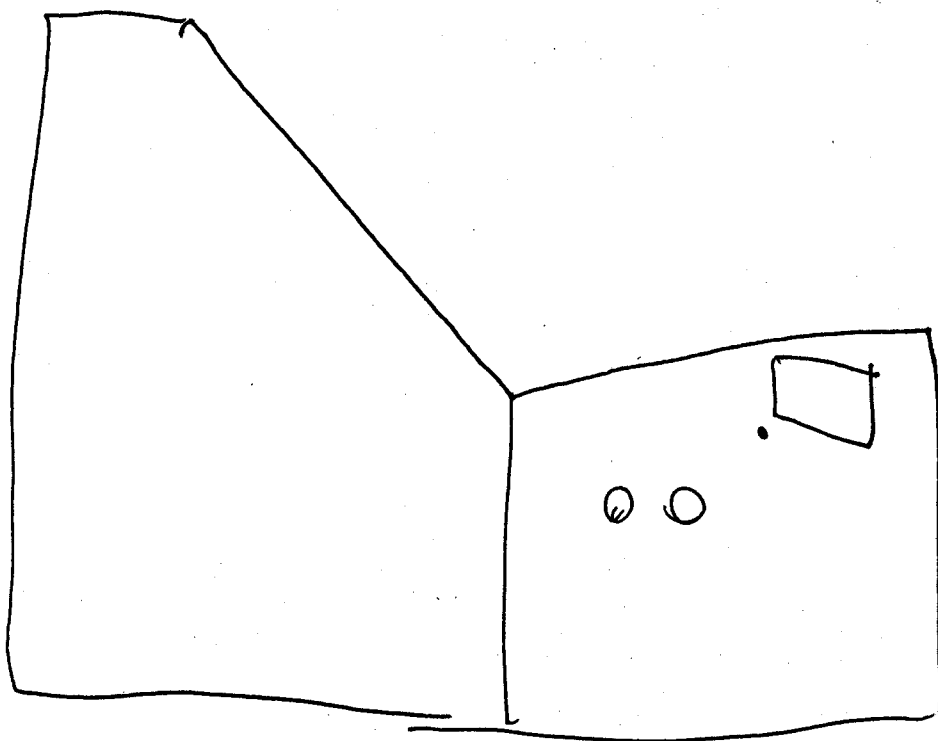
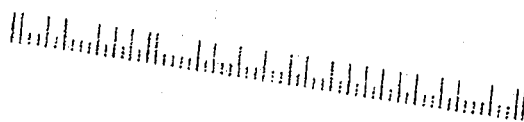
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ZIA TRANS
PO Box 513
Hobbs N.M.
88242



Oil Conservation Div
ATTN Glen Von Gotten
1220 South St. Francis
Santa Fe New Mexico
87505

87505+4225-33 C011





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(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: SALTY DOC				BILL TO				ANALYSIS REQUEST											
Project Manager: Jim SAYRE				P.O. #:															
Address: P.O. Box 513				Company:															
City: Hobbs State: NM Zip: 88240				Attn:															
Phone #: 393-8352 Fax #: 505-393-8353				Address:															
Project #: Project Owner:				City:															
Project Name:				State: Zip:															
Project Location:				Phone #:															
Sampler Name:				Fax #:															
FOR LAB USE ONLY																			
Lab I.D.	Sample I.D.	(GRAB OR (C)OMP. # CONTAINERS	MATRIX					PRESERV.	SAMPLING										
			GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME						
H12740-1	1 MW		X									6/10	6/12	X					
-2	2 MW		X											X					
-3	3 MW		X											X					
-4	4 MW		X											X					
-5	5 MW		X											X					
-6	B4 Pit		X											X					
-7	Water Well		X											X					
-8	Ranch House		X											X					

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Relinquished By:	Date:	Received By:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Time:		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date: 06/12/07	Received By:	REMARKS:	
	Time: 3:40			
Delivered By: (Circle One)				
Sampler - UPS - Bus - Other:	Sample Condition	CHECKED BY: (Initials)		
	Cool Intact			
	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> Yes			
	<input type="checkbox"/> No <input type="checkbox"/> No			

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PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**ANALYTICAL RESULTS FOR
SALTY DOG
ATTN: JIM SAYRE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (505) 393-8353**

Receiving Date: 06/12/07
Reporting Date: 06/12/07
Project Owner: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 06/12/07
Sampling Date: 06/10/07 - 06/12/07
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AB
Analyzed By: AB

LAB NO.	SAMPLE ID	Cl ⁻ (mg/L)
H12740-1	1 MW	460
H12740-2	2 MW	940
H12740-3	3 MW	400
H12740-4	4 MW	420
H12740-5	5 MW	1340
H12740-6	B4 PIT	640
H12740-7	WATER WELL	11200
H12740-8	RANCH HOUSE	36
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		1.0

METHOD: Standard Methods	4500-ClB
--------------------------	----------

Lupe S. Moreno
Chemist

Date 06-13-07

H12740 SALTY DOG

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LABORATORIES

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SALTY DOG, INC.
ATTN: TERRY WALLACE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (505) 393-8353

Receiving Date: 04/05/07
Reporting Date: 04/06/07
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 04/06/07
Sampling Date: 04/04/07
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: NF
Analyzed By: HM

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/L)
H12431-1	MONITOR WELL #1	6398
H12431-2	MONITOR WELL #2	340
H12431-3	MONITOR WELL #3	404
H12431-4	MONITOR WELL #4	1280
H12431-5	MONITOR WELL @ WELL	660
H12431-6	MONITOR WELL @ PIT	5398
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		1.0

METHOD: Standard Methods	4500-Cl ⁻ B
--------------------------	------------------------

Hope S. Moreno
Chemist

04-06-07
Date

H12431

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(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Salty Dog Inc</u>				BILL TO										ANALYSIS REQUEST																					
Project Manager: <u>Terry Wallace</u>				P.O. #:																															
Address: <u>P.O. Box 513</u>				Company: <u>Salty Dog Inc</u>																															
City: <u>Hobbs</u>		State: <u>Nm</u> Zip: <u>88240</u>		Attn:																															
Phone #: <u>393-8352</u>		Fax #: <u>393-8352</u>		Address:																															
Project #:		Project Owner:		City:																															
Project Name:				State: Zip:																															
Project Location:				Phone #:																															
Sampler Name: <u>Terry Wallace</u>				Fax #:																															
FOR LAB USE ONLY																																			
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		MATRIX				PRESERV.		SAMPLING																					
								GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:				ACID/BASE: ICE / COOL OTHER:		DATE TIME																					
H12431-1		Monitor Well #1		G		X								4-4-7 9:00 A																					
-2		Monitor Well #2		G		X								4-4-7 9:00 A																					
-3		Monitor Well #3		G		X								4-4-7 9:00 A																					
-4		Monitor Well #4		G		X								4-4-7 9:00 A																					
-5		Monitor Well @ Well		G		X								4-4-7 9:00 A																					
-6		Monitor Well @ Pit		G		X								4-4-7 9:00 A																					

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Relinquished By: <u>T. Wallace</u>		Date: <u>4-5-07</u>		Received By: <u>Mike Fullen</u>		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Time: <u>3:30 P</u>						Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Relinquished By:		Date:		Received By:		REMARKS:			
Time:									
Delivered By: (Circle One)				Sample Condition		CHECKED BY:			
Sampler - UPS - Bus - Other:				Cool Intact		(Initials)			
				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<u>N.F.</u>			

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PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SALTY DOG
ATTN: JIM SAYRE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (575) 393-8353

Receiving Date: 05/30/08
Reporting Date: 06/02/08
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 05/30/08
Sampling Date: 05/30/08
Sample Type: GROUNDWATER
Sample Condition: INTACT
Sample Received By: ML
Analyzed By: HM/KS

LAB NO.	SAMPLE ID	CF (mg/L)
H14902-1	MW #1	76
H14902-2	MW #2	80
H14902-3	MW #3	360
H14902-4	MW #4	512
H14902-5	MW #5	1,220
H14902-6	MW #6	36
H14902-7	BRINE PIT MONITOR WELL	8,600
H14902-8	FRESH WATER WELL	590
Quality Control		490
True Value QC		500
% Recovery		98.0
Relative Percent Difference		2.0
METHOD: Standard Methods		4500-CFB

Kristi S. S. S.
Chemist

06/02/08
Date

H14902 SALTY DOG

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ANALYTICAL RESULTS FOR
SALTY DOG
ATTN: JIM SAYRE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (575) 393-8353

Receiving Date: 02/27/08
Reporting Date: 02/27/08
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 02/27/08
Sampling Date: 02/27/08
Sample Type: GROUNDWATER
Sample Condition: INTACT
Sample Received By: ML
Analyzed By: HM

LAB NO.	SAMPLE ID	Cl ⁻ (mg/L)
H14335-1	WATER WELL	630
H14335-2	PIT WELL	9,500
H14335-3	MW-2	120
H14335-4	MW-3	348
H14335-5	MW-4	476
H14335-6	MW-5	1280
H14335-7	MW-6	32
Quality Control		490
True Value QC		500
% Recovery		98
Relative Percent Difference		2.0
METHOD: Standard Methods		4500-Cl ⁻ B

Jim Sayre
Chemist

02-27-08
Date

WQCC-ACO#2
Salty Dog, Inc.
OCD Exhibit RR

H14335 SALTY DOG

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BW - 8

**QUARTERLY
MONITORING
REPORTS**



101 East Marland, Hobbs, NM 88240

(505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page _____ of _____

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ANALYTICAL RESULTS FOR
SALTY DOG
ATTN: JIM SAYRE
P.O. BOX 513
HOBBS, NM 88241
FAX TO: (575) 393-8353

Receiving Date: 02/27/08
Reporting Date: 02/27/08
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Analysis Date: 02/27/08
Sampling Date: 02/27/08
Sample Type: GROUNDWATER
Sample Condition: INTACT
Sample Received By: ML
Analyzed By: HM

LAB NO.	SAMPLE ID	Cl ⁻ (mg/L)
H14335-1	WATER WELL	630
H14335-2	PIT WELL	9,500
H14335-3	MW-2	120
H14335-4	MW-3	348
H14335-5	MW-4	476
H14335-6	MW-5	1280
H14335-7	MW-6	32
	Quality Control	490
	True Value QC	500
	% Recovery	98
	Relative Percent Difference	2.0

METHOD: Standard Methods	4500-Cl ⁻ B
--------------------------	------------------------

Steve L. Mearns
Chemist

02-27-08
Date

H14335 SALTY DOG

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page of

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice and all costs of collection, including attorney's fees.

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Section 6. LOG OF HOLE

Depth in Feet		Thickness in Feet	Color and Type of Material Encountered
From	To		
1'	5'	5'	BROKEN WEATHERED CALICHE
5'	28'	23'	CALICHE INDURATED - GRAY
28'	37'	9'	QUARTZITE - HARD - RED BROWN
37'	49'	12'	SANDSTONE - SOFT - TAN
49'	51'	2'	QUARTZITE - HARD - WHIT.
51'	54'	3'	CLAY - RED BROWN
54'	102'	48'	SANDSTONE - SOFT - TAN - W/B
102'	104'	2'	CLAY - RED - BROWN
104'	136'	32'	SANDSTONE - SOFT - TAN - W/B
136'	139'	3'	SANDSTONE - SOFT - RED - BROWN - W/B
139'	140'	1'	Red Bed - T.D.
			installed 20 FT. dia slot 2" PVC well
			screen and 119' + 3' 2" PVC riser pipe
			Backfill w/ Brandy sand to 112 FT.
			Placed bentonite chips from 112 FT to
			26" below surface - install well ground
			and cement to top of surface.
			Develop with air until clean.
			BORE FROM SURFACE TO 4' used 8 3/4" bit.
			BORE FROM 4' TO 140' used 5 1/2" bit

Section 7. REMARKS AND ADDITIONAL INFORMATION

MONITOR WELL NO. I 100 FT FROM REM. WELL #1

LAT. 32° - 41.30 N.
LON. 103° - 22.45 W.

CO. Griffin well serv.
Driller Carl Amelcer
WD 603

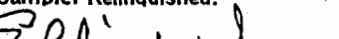
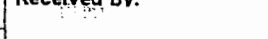
2111 Beechwood, Abilene, TX 79603 (915) 673-7001 Fax (915) 673-7020
101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

Page ____ of ____

[illegible]

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the services. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collection, including attorney's fees.

Relinquished By: 		Date: 8/12 Time: 11:15		Received By: 		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Additional Fax #: <input type="checkbox"/> Yes <input type="checkbox"/> No Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No REMARKS:	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No		CHECKED BY: (Initials)			

† Cardholder must accept verbal changes. Please fax written changes to 915-673-7020.



PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
EDDIE SEAY CONSULTING
ATTN: EDDIE SEAY
601 W. ILLINOIS
HOBBS, NM 88242
FAX TO:

Receiving Date: 08/20/04
Reporting Date: 08/24/04
Project Owner: P. BERNSTEIN
Project Name: ZIA SALTY DOG
Project Location: W. HOBBS, NM

Analysis Date: 08/21/04
Sampling Date: 08/20/04
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: GP

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/Kg)
H9048-1	LSB #1 5'	15995
H9048-2	LSB #1 10'	16795
H9048-3	LSB #1 15'	8397
H9048-4	LSB #1 20'	8397
H9048-5	LSB #2 5'	80
H9048-6	LSB #2 10'	160
H9048-7	LSB #2 15'	272
H9048-8	LSB #2 20'	128
H9048-9	LSB #3 5'	192
H9048-10	LSB #3 10'	2199
H9048-11	LSB #3 15'	384
H9048-12	LSB #3 20'	336
Quality Control		1010
True Value QC		1000
% Recovery		101
Relative Percent Difference		6.8

METHOD: Standard Methods 4500-Cl⁻B

Note: Analyses performed on 1:4 w:v aqueous extracts.

Amy Hill
Chemist

8/24/04
Date

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

SALTY DOG ANNUAL REPORT 2010

- 1) SPILLS: One spill occurred on Sep. 8th. 2010 @2000 pm. Form C-141 attached.**
- 2) BRINE PRODUCTION METHOD: Inject f/w down casing @ an average of 150 lbs.**
- 3) MIT'S PERFORMED: One MIT test on Nov. 16th. 2010 . OCD's Hobbs office witnessed test, setting the packer within 10 feet of the casing shoe and pressure up the casing to 300 psi. Held at no more than a 10% loss for 30 minutes. Chart attached.**
- 4) WORKOVERS: One workover performed, started on Dec.27th. 2010. Form C-103 attached.**
- 5) SURFACE SUBSIDENCE MONITORING: No actions taken.**

6) CAVERN SIZE & CONFIGURATION: See Attached

7) MONTHLY INJECTION / PRODUCTION VOLUMES: See attached

8) ANALYSES OF F /W & B/W: No actions taken

9) WASTE DISPOSAL: Spill water taken to Buckeye Disposal, LLC. CBM lease.

10) MONITORING & REMEDIATION ACTIVITIES: Currently in talks with Daniel B. Stephens & Associates, for groundwater cleanup.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ X Initial Report ☐ Final Report

Name of Company	Aqueous	Contact	Jon Ammons
Address	Po Box 513 Hobbs, NM	Telephone No.	575-393-8352
Facility Name	Salty Dog	Facility Type	B/W & F/W facility
Surface Owner		Mineral Owner	
		Lease No.	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
								Lea

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release	B/w & F/w	Volume of Release	300 BBls.	Volume Recovered	300 BBls.
Source of Release	Tubing	Date and Hour of Occurrence	9-8-10 @ 1930	Date and Hour of Discovery	9-8-10 @ 2000
Was Immediate Notice Given?	<input type="checkbox"/> x Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Jeff Lucking			
By Whom?	Jon Ammons	Date and Hour 9-9-10 @ 0800			
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Tubing parted causing well to leak water, 3 vacuum trucks dispatched to location asap cleaning spill.

Describe Area Affected and Cleanup Action Taken.*

Inside burn area & small area of dirt road outside of burn.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should such operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

OIL CONSERVATION DIVISION

Signature:

Printed Name: Jon Ammons

Approved by District Supervisor:

Title: Manager

Approval Date:

Expiration Date:

E-mail Address: jon@thestandardenergy.com

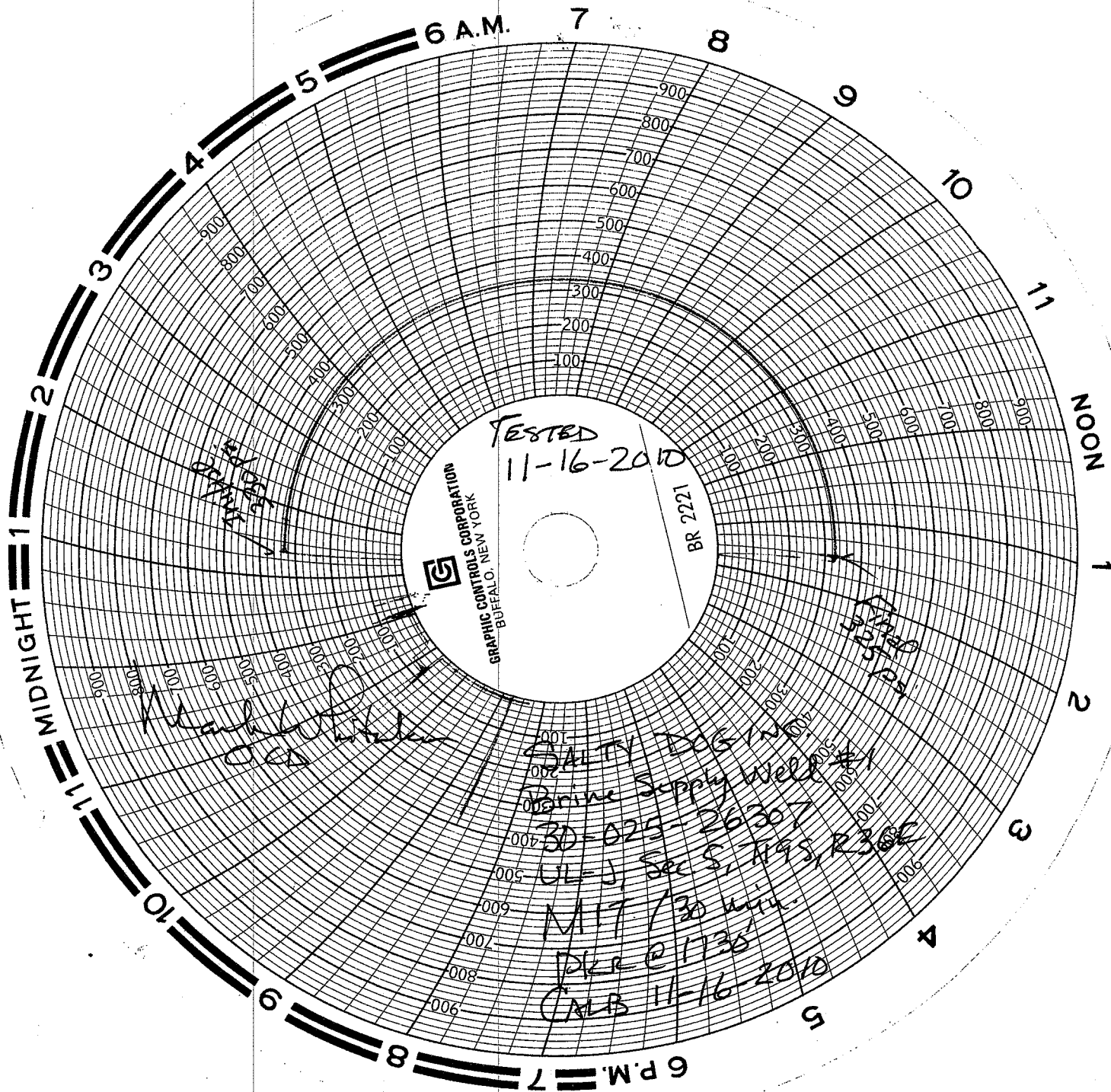
Conditions of Approval:

Attached ☐

Date: 9-10-10

Phone: 575-393-8352

* Attach Additional Sheets If Necessary



activity 1830

Submit 1 Copy To Appropriate District
Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
October 13, 2009

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO.

5. Indicate Type of Lease

STATE ☐ FEE ☐

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH
PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☐ Other ☒

2. Name of Operator

Salty Dog, Inc.

3. Address of Operator

PO Box 513 Hobbs, NM 88240

4. Well Location

Unit Letter J : 1980 feet from the North/South line and 1980 feet from
the East/West line
Section 5 Township 19S Range 36E NMPM County Lea

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☒

TEMPORARILY ABANDON ☐

PULL OR ALTER CASING ☐

DOWNHOLE COMMINGLE ☐

PLUG AND ABANDON ☐

CHANGE PLANS ☐

MULTIPLE COMPL ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐

COMMENCE DRILLING OPNS. ☐

CASING/CEMENT JOB ☒

ALTERING CASING ☐

P AND A ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date
of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of
proposed completion or recompletion.

14. Rigging down pulling unit, Rigging up drilling rig. To drill with 3 1/2 drill pipe to a depth of 2600' on 1-Dec-2010

15. Drilled to a depth of 2600' on 27-Dec-2010. replacing 13 joints, workover complete.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Jon Ammons 12-1-2010 TITLE Yard
Manager DATE 12-1-2010

Type or print name Jon Ammons E-mail address:
ammons17@yahoo.com PHONE: 575-390-3414



Box 2188 - 201 E. 5th St.
Phone (806) 397-8319
Dallas, New Mexico 86240

WELL BORE SKETCH

OPERATOR/LEASE/WELL Brunson & McKnight Inc.--Brine Supply Well #1 DATE 11-9-82
NRE JOB NUMBER NB01-001-001
FIELD/POOL /
PLUG BACK DEPTH 2958' KB 3816 est. ELEVATION 3806'

Hole Size 12 1/4"

SURFACES CASING:

Size 8 5/8" Weight 24# & 32# Grade J-55
Set at 1877' with 850 Sacks Cement
Circulate 200 Sacks to Surface
Remarks:

Hole Size 6 1/4"

PRODUCTION CASING: *

Size Weight Grade
Set at with Sacks Cement
Cement Top: Calculated Temperature Survey
* Remarks: No production casing was run in this well.
Completed open hole from 1877' to 2958' as a brine
source well.

TUBING:

Size 2 7/8 Weight 6.5# Grade J-55
Number of Joints 93 Set at 2887'
Packer Set at None
Bottom Arrangement: Open ended and 15' of perforations in
tubing.

RODS:

Size N/A Number
Gas Anchor Set at
Pump Set at
Arrangement:

Fresh injected in hole in gallon

File Number: _____
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, Tx 79408 State: Tx Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 84E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 6.21.1 Meter Reading: 244599

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

Do Not Write Below This Line

File Number: _____
Form: WR-26

page 1 of 1

Trn Number: _____

Fresh injected in hole

File Number: _____
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 7
a. NW 1/4 NE 1/4 NE 1/4 Section: 25 Township: 19S Range: 86E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 14.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 6-28 Meter Reading: 245746

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

Do Not Write Below This Line

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Form: wr-26

page 1 of 1

Trn Number: _____

Fresh injected in hole

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Frskin
City: Lubbock, Tx 79408 State: Tx Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well #1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 34E N.M.P.M.
b. _____ Subdivision
c. Latitude: 32 d 41 m 43.238s Longitude: -103 d 22 m 16.803s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 7.5.10 Meter Reading: 24 872

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

Do Not Write Below This Line

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Form: wr-26

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page 1 of 1

Fresh injected in hole

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(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 7.12 Meter Reading: 25042

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

Do Not Write Below This Line

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Form: wr-26

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page 1 of 1

Fresh injected in hole

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 7.19 Meter Reading: 25238

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

Do Not Write Below This Line

File Number: _____
Form: wr-26

Trn Number: _____

Fresh injected in hole

File Number: _____
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, Tx 79408 State: Tx Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 8E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 7-24 Meter Reading: 25553

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

Do Not Write Below This Line

File Number: _____
Form: wr-26

Trn Number: _____
page 1 of 1

Fresh injected in hole

File Number: _____
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, Tx 79408 State: Tx Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 7
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 14.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 8.2 Meter Reading: 25706

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

Do Not Write Below This Line

File Number: _____
Form: wr-26

page 1 of 1

Trn Number: _____

Fresh injected in hole

File Number: _____
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, Tx 79408 State: Tx Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 7
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 8.9 Meter Reading: 26040

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

Do Not Write Below This Line

File Number: _____
Form: wr-26

page 1 of 1

Trn Number: _____

Fresh injected in hole

File Number: _____
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, Tx 79408 State: Tx Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 7
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 45.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 8/16 Meter Reading: 26214

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

Do Not Write Below This Line

File Number: _____
Form: wr-26

page 1 of 1

Trn Number: _____

Fresh injected in hole

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(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 7
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 41.238 s Longitude: -103 d 22 m 14.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 8.23 Meter Reading: 24309

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

Do Not Write Below This Line

File Number: _____
Form: wr-26

Trn Number: _____
page 1 of 1

Fresh injected in hole

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 7
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 14.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 8.30 Meter Reading: 26555

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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File Number: _____
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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Frskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30-025-26307 Brine Well #1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 41.238 Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 9-4 Meter Reading: 26757

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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Brine produced

File Number: _____
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30-025-26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 45.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 1-1-10- 6-21-10 Meter Reading: _____

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Brine in BBL'S
Sold From 1-1-10 to 6-21-10
118, 127 BBL'S

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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Brine produced in #61's

File Number: _____
(For OSE Use Only)

NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M.
b. _____ Subdivision
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 6-21 Meter Reading: 3400

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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File Number: _____
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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 25 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 41.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 6.28 Meter Reading: 6948

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Frskin
City: Lubbock, Tx 79408 State: Tx Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 25 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 1.5.10 Meter Reading: 9262.8

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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Brine produced

File Number: _____
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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Frskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30-025-26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 34E N.M.P.M.
b. _____ Subdivision
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 7-12 Meter Reading: 7621

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 96E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 7-19 Meter Reading: 4876

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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Brine produced

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, Tx 79408 State: Tx Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 7-26 Meter Reading: 6789

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, Tx 79408 State: Tx Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 06E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 8.2 Meter Reading: 6327

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
(5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30-025-26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 8.9 Meter Reading: 5231

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 8-16 Meter Reading: 5940

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
(5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30-025-26307 Brine Well # 7
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 34E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 45.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 8.23 Meter Reading: 9752

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, Tx 79408 State: Tx Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30 - 025 - 26307 Brine Well # 1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M. Subdivision
b. _____
c. Latitude: 32 d 41 m 43.238 s Longitude: -103 d 22 m 16.803 s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 8-30 Meter Reading: 8804

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
(5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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NEW MEXICO OFFICE OF THE STATE ENGINEER
TOTALIZING METER REPORT

1. PERMITTEE

Name: Salty Dog Work Phone: 806-741-1080
Contact: _____ Home Phone: _____
Address: 2410 Erskin
City: Lubbock, TX 79408 State: TX Zip: 79408

2. WELL INFORMATION

OSE Well Number: 30-025-26307 Brine Well #1
a. NW 1/4 NE 1/4 NE 1/4 Section: 05 Township: 19S Range: 36E N.M.P.M.
b. _____ Subdivision
c. Latitude: 32 d 41 m 41.238s Longitude: -103 d 22 m 16.803s
d. East _____ (m), North _____ (m), UTM Zone 13, NAD _____ (27 or 83)

3. TOTALIZING METER

Serial Number: _____ Make: _____
of Dials: _____ Model: _____
Multiplier: _____ Units: _____

4. METER READING

Reading Date: 9/6 Meter Reading: 7917

5. ADDITIONAL STATEMENTS OR EXPLANATIONS:

Submitted by: _____

INSTRUCTION:

Specific questions should be answered as follows:

- (4) Please submit readings of figures on the meter and the date of the reading;
- (5) Under comments, give any pertinent information concerning repair of meter and dates out of service, etc.

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September 18, 2009

Mr. Jim Griswold
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Monitor Well Installation and Groundwater Monitoring Report

Dear Mr. Griswold:

On behalf of PAB Services, Inc., Daniel B. Stephens & Associates, Inc. (DBS&A) is pleased to submit the enclosed Monitor Well Installation and Groundwater Monitoring Report for the Salty Dog brine station located in Lea County, New Mexico. The report documents field investigation activities conducted at the site in March and April 2009 in partial fulfillment of the requirements set forth in Section 15 of the New Mexico Oil Conservation Division (OCD) Settlement Agreement & Stipulated Revised Final Order (Order), dated August 6, 2008.

Please don't hesitate to call me at (505) 353-9130 if you have any questions or require additional information.

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.

Michael D. McVey
Senior Hydrogeologist

Enclosures

cc: James Millett, PAB Services Inc.

Daniel B. Stephens & Associates, Inc.

Monitoring Well Installation and Groundwater Monitoring Report Salty Dog Brine Station Lea County, New Mexico

**Prepared for New Mexico Energy, Minerals and Natural
Resources Department
Oil Conservation Division, Environmental Bureau**

September 18, 2009



Daniel B. Stephens & Associates, Inc.

6020 Academy NE, Suite 100 • Albuquerque, New Mexico 87109



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Daniel B. Stephens & Associates, Inc.

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1. Introduction

Daniel B. Stephens & Associates, Inc. (DBS&A) has prepared this monitor well installation and groundwater monitoring report for submission to the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD) on behalf of PAB Services, Inc. (PAB) for the Salty Dog brine station (Site). The Site is located in Lea County in southeastern New Mexico, approximately 12 miles west of Hobbs on the south side of the Hobbs/Carlsbad Highway (Figure 1). Formally, the Site is located in the in the J Unit of Section 5, Township 19 South, Range 36 East. This report summarizes field investigation activities conducted at the Site in March and April 2009.

1.1 Background

On May 18, 2008, OCD issued Administrative Compliance Order (ACO), NM-OCD-2008-02, to Mr. Peter Bergstein (d/b/a "Salty Dog, Inc.") (OCD, 2008a). After issuance of the ACO, OCD and Mr. Bergstein engaged in settlement discussions to resolve the outstanding issues addressed by the ACO. The OCD and Mr. Bergstein agreed to a Settlement Agreement & Stipulated Revised Final Order (Order), NM-OCD 2008-2A (OCD, 2008b), for the purpose of resolving the violations outlined in the ACO.

The Order requires Mr. Bergstein to complete certain actions to address environmental compliance-related issues at the Site in accordance with milestone deliverable dates agreed upon by the OCD and PAB. Specifically, among other things, the Order requires PAB to address contamination resulting from documented releases in 1999, 2002, and 2005, as well as releases at the brine loading/unloading area.

The ACO provides a description of each of these releases, which are summarized here. The 1999 release was caused by a hole in the casing of the Salty Dog brine well and resulted in contamination of the fresh water well on "Snyder Ranches," adjacent to the Site. The 2002 release was caused by a leaking tank in the vicinity of the brine well, and the 2005 release was caused by a rupture in the brine supply pipeline. The 2002 and 2005 releases were noted to have entered a fresh water playa located just north of the brine well.



1.2 Previous Work Conducted by DBS&A at the Site

To date, DBS&A has performed the following activities under contract to PAB: (1) preparation of a Comprehensive Site Plan, (2) groundwater monitoring, and (3) removal of the brine pond. Each of these activities is summarized below.

1.2.1 Comprehensive Site Plan

In September 2008, DBS&A submitted a Comprehensive Site Plan (Plan) to OCD addressing the requirements set forth in Section 15 of the Order (DBS&A, 2008). The Plan presented a proposed project schedule and individual specifications/proposals for addressing the environmental compliance-related issues at the Site. The Plan formed the basis for future investigation, characterization, and remediation of the Site.

1.2.2 Groundwater Monitoring

In June 2008, DBS&A completed groundwater monitoring at the Site. Groundwater samples were collected from existing monitor wells PMW-1, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6, and from the ranch headquarters water supply well and the brine station fresh water supply (Figure 2). A groundwater sample was not collected from the mobile home located west of the brine well because the mobile home and the ranch headquarters use the same water supply well.

Prior to sampling, the depth to water was measured in each of the seven monitor wells listed above. Water levels were not measured in the ranch headquarters water supply well and the brine station fresh water supply well because of the presence of permanent submersible downhole pumps that blocked access to the wells. DBS&A could not determine groundwater elevations in the existing site wells nor could a potentiometric surface map be developed because an official survey from a New Mexico licensed land surveyor had not been completed at the Site. However, based on regional groundwater data and information contained in previous reports provided by PAB, DBS&A assumed that the direction of groundwater flow beneath the Site is to the southeast.

Laboratory results showed that chloride concentrations increased in six of the seven existing groundwater monitor wells (PMW-1, MW-1, MW-2, MW-3, MW-4, and MW-5) and in the brine station fresh water well since the wells were last sampled by employees of Salty Dog in May



2008. In six of the nine samples collected (PMW-1, MW-2, MW-3, MW-4, MW-5, and the brine station fresh water supply well), chloride concentrations exceeded the New Mexico Water Quality Control Commission (NMWQCC) standard of 250 mg/L (Figure 2).

The groundwater monitoring results indicated that the extent of the chloride groundwater plume in the vicinity of the brine pond has not been delineated. To the south, in the area of the brine well, the chloride groundwater plume extends from the brine well downgradient to monitor wells MW-4 and MW-5. Assuming a southeasterly groundwater flow direction, the plume is bounded downgradient by monitor well MW-6. The cross-gradient extent of the plume, however, has not been delineated (Figure 2).

Based on the findings, DBS&A recommended that the extent of the chloride groundwater plume in the vicinity of the brine pond be delineated, and that the cross-gradient extent of the chloride groundwater plume downgradient of the brine well be delineated.

1.2.3 Brine Pond Removal

In October 2008, the brine pond was removed in accordance with the OCD Order. Employees of Salty Dog pumped all of the aqueous brine from the pond into aboveground frac tanks located on-site. A trackhoe was then used to excavate the accumulated salt from the interior of the pond. The excavated salt was loaded into sealed bins and dump trucks and transported to Sundance Services, Inc. (Sundance) in Eunice, New Mexico for disposal. After the salt was removed from the pond interior, the underlying liner was removed and an additional six inches of the clay beneath the liner was excavated. The liner and soil excavated from beneath the liner were transported to Sundance for disposal. A total of 2,128 cubic yards of salt and contaminated soil were hauled to Sundance for disposal.

DBS&A completed soil sampling beneath the former brine pond and in the former brine loading area located on east side of the pond in November 2008. A 30-foot by 30-foot grid was laid out over an area measuring 180 feet (north-south) by 240 feet (east-west). The gridded area encompassed: (1) the entire extent of the former brine pond (including the berms and a distance of approximately 10 feet outside of the berms) and (2) the former brine loading area. A total of 76 composite soil samples were submitted for laboratory analysis. At each sample location, a backhoe was used to excavate soil to the maximum attainable depth. Sixty-one soil samples



were collected from depths of 4 feet below ground surface (ft bgs) or less and 15 samples were collected from depths greater than 4 ft bgs. Excavation to depths greater than 3 to 4 ft bgs was limited in most cases by the presence of caliche in the shallow subsurface.

Soil samples collected from the bucket of the backhoe during excavation were composited in a stainless steel bowl and then placed in laboratory-provided four-ounce glass jars. The samples were submitted to the laboratory for chloride analysis using U.S. Environmental Protection Agency (EPA) method 300.0.

Laboratory results showed significant concentrations of chloride in the shallow interval (0 to 4 ft bgs) beneath the former brine pond and brine loading area. Although the number of samples collected at greater depths (i.e., greater than 4 ft bgs) were limited due to the presence of caliche in the shallow subsurface at the site, the results from the samples that were collected in this deeper interval indicated that there is not a noticeable difference in chloride concentration from 0 to 4 ft bgs and 4 to 8 ft bgs. It is anticipated, based on the concentrations of chloride observed in the soils beneath the former pond and loading area, that these concentrations do not decrease significantly in the vadose zone and that the concentrations exceed the OCD standard of 500 mg/kg (site with groundwater less than 100 ft bgs) throughout the vadose zone to the water table at approximately 60 ft bgs. This conclusion was supported by the June 2008 sampling of monitor well PMW-1, located at the southeast corner (downgradient) of the brine pond, where the chloride concentration in groundwater was 12,700 mg/L.

Based on the findings, DBS&A recommended that the chloride-contaminated soils be left in place, but the potential for leaching and migration of chloride to the water table be reduced by limiting the infiltration of surface water and precipitation in the source area. To accomplish this, DBS&A and PAB propose to level the entire extent of the former brine pond and brine loading area, backfill and compact the former brine pond to grade, and cover the entire area with concrete. A new brine tank battery, brine loading area, and truck turnaround will then be constructed in this area as detailed in Section 3.6 of the Comprehensive Site Plan.

DBS&A also recommended that the extent of the chloride groundwater plume in the vicinity of the former brine pond and brine loading area be delineated as detailed in Sections 3.1.1.1 and 3.1.1.2



of the Plan by installing five groundwater monitor wells, one nested well, and ongoing quarterly groundwater monitoring and reporting.

1.3 Purpose

The purpose of the field investigation was to determine the magnitude and extent of impacts to soil and groundwater from the 1999, 2002, 2005, and the brine loading/unloading releases. The investigation was performed in accordance with the requirements of the Order and Sections 3.1, 3.2, and 3.3 of the Plan, approved by the OCD on September 17, 2008.

This report constitutes the first of three milestone deliverables: (1) Monitor Well Installation and Ground Water Monitoring report, (2) Recovery Well Installation and Pump Test report, and (3) Conceptual Remedial Design.

1.4 Project Scope

The Order identified three areas of primary concern (AOPC) requiring investigation and/or further delineation of the extent of contamination: (1) the brine loading/unloading area and brine pond, (2) the brine well, and (3) the playa.

To address the AOPCs and groundwater quality at the site, DBS&A completed a field investigation program that included the installation of nine groundwater monitor wells and two nested wells. DBS&A also instituted an analytical program to assess the likely contaminants of concern (COCs) in soil and groundwater at the Site. Finally, DBS&A prepared this report documenting the investigation.

Sections 2 and 3 of this report detail the field investigation and analytical program, respectively. Section 4 presents the results of the investigation, and Section 5 provides DBS&A's summary and conclusions.



2. Field Investigation

Subsurface conditions and groundwater quality were evaluated by the installation of nine monitor wells and two nested wells, and the collection of soil and groundwater samples in each of the three AOPCs. Samples of soil and groundwater were submitted to the selected analytical laboratory for chemical analysis based on the identified COCs. Descriptions of the soil and groundwater field investigation programs are presented below.

2.1 Soil Boring

The soil investigation program included the installation of 11 soil borings, which were later completed as monitor wells to assess groundwater quality. Details of monitor well installation and construction are discussed in Section 2.2 below. The drilling was performed by Peterson Drilling and Testing, Inc. of Amarillo, Texas, a New Mexico licensed drilling company, using air rotary drilling technology. All of the borings were advanced to a total depth of 83 ft bgs. The locations of the borings were predetermined by DBS&A prior to the field investigation (DBS&A, 2008).

All field work was performed under the supervision of a licensed professional geologist. Soil samples were collected during drilling using a split spoon for laboratory analysis. Samples collected for laboratory analysis from the borings were placed in an ice-filled cooler immediately after collection and remained on ice until they were delivered to the analytical laboratory. Chain-of-custody documentation accompanied the samples at all times. Investigation derived waste was stockpiled on visqueen and properly disposed of at a licensed facility after completion of the field investigation.

A description of the field investigation in each of the three AOPCs is provided below.

2.1.1 Brine Pond

Six soil borings, designated DBS-1 through DBS-5 and NW-1, were installed in the vicinity of the brine pond (Figure 3). Soil cuttings and split spoon samples were used during drilling for lithologic description. Soil samples were collected for laboratory analysis at 10-foot intervals



during drilling to quantify the chloride concentration profile with depth. Soil boring logs showing the subsurface geology at each location are provided in Appendix A. Laboratory results from soil samples collected during drilling are summarized in Table 1. Complete laboratory reports for the soil samples are provided in Appendix B.

2.1.2 Brine Well

Four soil borings designated DBS-6 through DBS-8 and NW-2, were installed downgradient of the brine well (Figure 4). Soil samples were collected at 10-foot intervals during drilling for laboratory analysis as described above. Soil cuttings and split spoon samples were used during drilling for lithologic description. Soil boring logs showing the subsurface geology at each location are provided in Appendix A. Laboratory results from soil samples collected during drilling are summarized in Table 1. Complete laboratory reports for the soil samples are provided in Appendix B.

2.1.3 Playa Lake

One soil boring, designated DBS-9, was installed in the fresh water playa lake located just north of the brine well (Figure 4). Soil samples were collected at 10-foot intervals during drilling for laboratory analysis as described above. Soil cuttings and split spoon samples were used during drilling for lithologic description. The soil boring log showing the subsurface geology is provided in Appendix A. Laboratory results of soil samples collected during drilling are summarized in Table 1. Complete laboratory reports for the soil samples are provided in Appendix B.

2.2 Groundwater Investigation

The groundwater investigation included the installation of nine monitor wells and two nested wells, and the collection of groundwater samples for laboratory analysis. The wells were completed at predetermined locations, as specified in Sections 3.1 and 3.2 of the Plan (DBS&A, 2008). The locations specified in the Plan were selected to delineate the extent of the chloride groundwater plume in the vicinity of the brine pond, the cross-gradient extent of the chloride plume resulting from the 1999 release at the brine well, and to determine if groundwater beneath the playa was impacted as a result of the 2002 and 2005 releases. All of the wells



were constructed in accordance with the New Mexico Environment Department Ground Water Quality Bureau Monitoring Well Construction Guidelines, Revision 1.0, dated July 2008.

2.2.1 Monitor Well Installation

2.2.1.1 Brine Pond

Soil borings DBS-1 through DBS-5 were advanced to approximately 20 ft below the water table and completed as 2-inch-diameter groundwater monitor wells (Figure 5). The wells were installed in upgradient, downgradient, and cross-gradient locations to delineate the extent of the chloride plume as follows:

- DBS-1: approximately 200 feet downgradient (southeast) of the brine pond
- DBS-2: approximately 200 feet cross-gradient (east) of the brine pond
- DBS-3: approximately 200 feet cross-gradient (south-southwest) of the brine pond
- DBS-4: approximately 400 feet downgradient (southeast) of the brine pond
- DBS-5: approximately 300 feet upgradient (northwest) of the brine pond

The wells were constructed of 20 feet of 2-inch-diameter, 0.020-inch slot, flush-threaded, machine-cut, Schedule 40 (SCH 40) polyvinyl chloride (PVC) well screen with a 2-foot sump. Blank 2-inch-diameter, SCH 40 PVC casing extended to approximately 2.5 feet above the ground surface. The screens were placed so that approximately five feet would be above the water table and 15 feet below. The filter pack consisted of 8-16 silica sand, placed by a tremie pipe, extending from the bottom of the boring to approximately 3 feet above the well screen. A 3-foot-thick bentonite pellet seal (hydrated) was then placed above the sand pack, and the annular space above the bentonite seal was filled with a cement/bentonite grout to the surface. The wells were completed aboveground with a protective steel well vault and a 3-foot by 3-foot by 4-inch-thick concrete pad and bollards at each corner. The well construction diagrams for DBS-1 through DBS-5 are provided in Appendix A.

Nested well NW-1 was drilled to the red beds (base of the Ogallala Formation) approximately 150 feet downgradient (southeast) of the former brine pond (Figure 5). NW-1 was installed to determine if a chloride density gradient exists with depth in the saturated zone. The well will enable DBS&A to evaluate vertical hydraulic and concentration gradients at a single location to



ensure that future recovery wells are screened properly. The well consists of three 2-inch-diameter monitor wells installed in one 10-inch-diameter soil boring with separate shallow (s), intermediate (m), and deep (d) screens. The screens are separated from each other in the boring by a bentonite seal.

The deep well consists of 20 feet of 2-inch-diameter 0.020-inch slot, flush-threaded, machine-cut, SCH 40 PVC well screen with a 2-foot sump. Blank 2-inch SCH 40 PVC casing extends to approximately 2.5 feet above the ground surface. The screen was placed from approximately 149 ft bgs to 169 ft bgs. The filter pack (8-16 silica sand) was placed by a tremie pipe from the bottom of the boring to approximately 4 feet above the top of the screen. A bentonite pellet seal (hydrated) was then placed above the sand pack.

The middle well consists of 20 feet of 2-inch-diameter 0.020-inch slot, flush-threaded, machine-cut, SCH 40 PVC well screen with a 2-foot sump. Blank 2-inch SCH 40 PVC casing extends to approximately 2.5 feet above the ground surface. The screen was placed from approximately 99 ft bgs to 119 ft bgs. The filter pack (8-16 silica sand) was placed by a tremie pipe from the bottom of the boring to approximately 4 feet above the top of the screen. A bentonite pellet seal (hydrated) was then placed above the sand pack.

The shallow well consists of 20 feet of 2-inch-diameter 0.020-inch slot, flush-threaded, machine-cut, SCH 40 PVC well screen with a 2-foot sump. The well is screened across the water table from approximately 52 ft bgs to 72 ft bgs. Blank 2-inch SCH 40 PVC casing extends to approximately 2.5 feet above the ground surface. The filter pack (8-16 silica sand) was placed by a tremie pipe from the bottom of the boring to approximately 2 feet above the top of the screen. A bentonite pellet seal (hydrated) was then placed above the sand pack. The remaining open annular space above the bentonite seal was then filled with a cement/bentonite grout to the surface.

The well was completed aboveground with a protective steel well vault and a 3-foot by 3-foot by 4-inch-thick concrete pad and bollards at each corner. The well construction diagram for NW-1 is provided in Appendix A.



2.2.1.2 Brine Well

Soil borings DBS-6 through DBS-8 were advanced to approximately 20 ft below the water table and completed as 2-inch-diameter groundwater monitor wells (Figure 6). The wells were installed to delineate the cross-gradient extent of the chloride plume as follows:

- DBS-6: approximately 300 feet north of existing monitor well MW-4
- DBS-7: approximately 200 feet south of existing monitor well MW-4
- DBS-8: approximately 300 feet southwest of existing monitor well MW-4

The wells were constructed as described above in Section 2.2.1.1 for wells DBS-1 through DBS-5. The well construction diagrams for DBS-6 through DBS-8 are provided in Appendix A.

Nested well NW-2 was drilled to the red beds approximately 20 feet upgradient (northwest) of monitor well MW-4 (Figure 6). NW-2, like NW-1, was installed to determine if a chloride density gradient exists with depth in the saturated zone. The well was constructed in similar manner to NW-1 with three 2-inch-diameter monitor wells installed in one 10-inch-diameter soil boring with separate shallow (s), intermediate (m), and deep (d) screens. The well was completed aboveground with a protective steel well vault and a 3-foot by 3-foot by 4-inch-thick concrete pad and bollards at each corner. The well construction diagram for NW-2 is provided in Appendix A.

2.2.1.3 Playa Lake

Soil boring DBS-9 was advanced to approximately 20 ft below the water table and completed as 2-inch-diameter groundwater monitor well (Figure 6). The well was installed to determine if groundwater beneath the playa was impacted from releases which occurred in the past. The well was constructed as described above in Section 2.2.1.1. The well construction diagram for DBS-9 is provided in Appendix A.

After completion, each of the newly installed monitor wells was developed by pumping until temperature, pH, and conductivity stabilized and turbidity was reduced to the extent practicable (Appendix C).

2.2.2 Survey

After drilling and installation of the monitor wells was completed, a survey was completed. Each of the newly installed monitor wells, as well as the existing monitor wells, was surveyed by



Pettigrew & Associates of Hobbs, New Mexico, a licensed New Mexico land surveyor. The top of casing elevations of each of the wells was surveyed to a North American Vertical Datum, 1988 (NAVD88), and the x-y coordinates of each well was surveyed to a North American Datum, 1983 (NAD83) in a state plane coordinate system. Survey results are provided in Appendix D.

2.2.3 Groundwater Sampling

Groundwater samples were collected from each of the newly installed monitor wells and the existing monitor wells for laboratory analysis. Before sampling, fluid levels in each well were gauged using a decontaminated electronic water level meter. After gauging, each well was purged of a minimum of three casing volumes using a pump. Field parameters of pH, specific conductivity, and temperature were monitored during purging to ensure that stagnant water was removed from the well (Appendix C). Groundwater samples were then collected from each well and transferred into laboratory-prepared sample containers. Immediately after the samples were collected, they were placed in an ice-filled cooler and remained on ice until they were delivered to the laboratory for analysis. Chain-of-custody documentation accompanied the samples at all times.



3. Analytical Program

The analytical program included analysis of soil and groundwater media. Samples were submitted to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico for analysis. Copies of the soil and groundwater laboratory analytical reports are included in Appendix B.

3.1 Soil Analysis

Soil samples were analyzed for chloride using U.S. Environmental Protection Agency (EPA) method 300.0. A total of 89 soil samples were submitted for laboratory analysis from the eleven soil borings installed during the field investigation. In addition, the samples collected from boring DBS-9 were also analyzed for total petroleum hydrocarbons (TPH) in accordance with EPA method 418.1.

3.2 Groundwater Analysis

Groundwater samples were analyzed for chloride using EPA method 300.0. In addition, samples collected from boring DBS-9 only were analyzed for TPH (gasoline range organics [GRO], diesel range organics [DRO], and motor oil range organics [MRO]) in accordance with EPA method 8015B. A total of 21 groundwater samples were submitted for laboratory analysis. Nine samples from newly installed monitor wells DBS-1 through DBS-9, six from the two newly installed nested wells (NW-1 [s], NW-1 [m], NM-1 [d], NW-2 [s], NW-2 [m], NW-2 [d]), and six from the existing wells (PMW-1, MW-2, MW-3, MW-4, MW-5, and MW-6).



4. Results

4.1 Soil

A summary of chloride concentrations with depth in the soil borings installed during the field investigation is provided in Table 1. TPH results for boring DBS-9 are provided in Table 2. The soil analytical results are also shown graphically on Figures 3 and 4.

4.1.1 Brine Pond

Of the six borings installed at the brine pond, only three borings contained concentrations of chloride in excess of the OCD standard of 500 mg/kg.. In boring DBS-1, located approximately 200 ft southeast of the former brine pond, samples collected from the 10-12 ft bgs and 30-32 ft bgs intervals yielded chloride concentrations of 3,600 and 1,400 mg/kg, respectively. Below 32 ft bgs, chloride concentrations decreased from 380 to 18 mg/kg (Table 1, Figure 3).

In boring DBS-2, located approximately 200 feet east of the former brine loading/unloading area, samples collected from the 0-2 ft bgs and 10-12 ft bgs intervals yielded chloride concentrations of 2,000 and 940 mg/kg, respectively. Below 12 ft bgs, chloride concentrations decreased from 42 to 5.8 mg/kg (Table 1, Figure 3).

Soil boring NW-1, located approximately 70 ft southeast of the former brine pond, showed chloride concentrations exceeding the OCD standard of 500 mg/kg in all of the samples collected from the boring. Measured chloride concentrations ranged from 800 to 3,600 mg/kg (Table 1, Figure 3). No notable decrease in chloride concentration occurred with depth.

4.1.2 Brine Well

No chloride concentrations in the soil samples collected from borings DBS-6, DBS-7, DBS-8, and NW-2, installed downgradient of the brine well, exceeded the OCD standard of 500 mg/kg (Table 1, Figure 4). Measured chloride concentrations ranged from 1.8 to 240 mg/kg.



4.1.3 Playa Lake

Soil samples collected from boring DBS-9 showed elevated chloride concentrations in three samples. In samples collected from the 10-12 ft bgs, 20-22 ft bgs, and 40-42 ft bgs intervals, measured chloride concentrations were 4,100, 560, and 550 mg/kg, respectively (Table 1, Figure 4). Below 42 ft bgs, chloride concentrations decreased from 160 to 9.7 mg/kg.

Soil samples from boring DBS-9 were also analyzed for TPH. In samples collected from the 10-12 ft bgs, 20-22 ft bgs, 30-32 ft bgs, 40-42 ft bgs, and 50-52 ft bgs intervals, measured TPH concentrations were 36, 220, 64, 40, and 82 mg/kg, respectively (Table 2). Below 52 ft bgs, TPH concentrations were below the laboratory reporting limit.

4.2 Groundwater

Table 3 provides water level measurements and corresponding groundwater elevations for each of the newly installed and existing monitor wells. These data were used to generate the potentiometric surface maps for the brine pond and brine well/playa lake areas shown on Figures 7 and 8. The groundwater data were combined for the two areas above and a Site potentiometric surface map was generated (Figure 9). The direction of groundwater flow beneath the Site is to the southeast; the average hydraulic gradient beneath the Site is relatively flat at 0.004 foot per foot.

Groundwater analytical results for chloride are provided in Tables 4 and 5 and shown graphically on Figures 5 and 6. Of the 21 groundwater samples submitted for chloride analysis, 12 samples exceeded the NMWQCC Standard of 250 mg/L for chloride. The samples exceeding the standard were: DBS-1 (320 mg/L), DBS-6 (380 mg/L), DBS-7 (570 mg/L), NW-1(s) (630 mg/L), NW-2(s) (410 mg/L), NW-2(m) (570 mg/L), NW-2(d) (4,700 mg/L), PMW-1 (11,000 mg/L), MW-2 (1,200 mg/L), MW-3 (17,000 mg/L), MW-4 (6,600 mg/L), and MW-5 (1,300 mg/L).

Groundwater samples submitted from DBS-9 for TPH GRO, DRO, and MRO analysis were all below the laboratory reporting limits.



5. Summary and Conclusions

5.1 Site Conditions

5.1.1 Soil

Chloride concentrations in soil were generally below the OCD standard of 500 mg/kg. Three exceptions were noted at the brine pond in borings DBS-1, DBS-2, and NW-1. All three of these borings contained chloride concentrations in excess of 500 mg/kg in two or more samples. The chloride concentrations exceeding 500 mg/kg in borings DBS-1 and DBS-2 were limited to the upper 32 ft in DBS-1 and the upper 12 ft in DBS-2. The chloride concentrations in NW-1, however, exceeded 500 mg/kg in all of the soil samples submitted from the boring.

TPH results from soil samples submitted from boring DBS-9 showed concentrations ranging from 36 to 220 mg/kg from 10 ft bgs to 52 ft bgs. Below 52 ft bgs, TPH concentrations were below the laboratory reporting limit. The sample collected from the 20-22 ft bgs interval exceeded the New Mexico Environment Petroleum Storage Tank Bureau action level of 100 mg/kg.

5.1.2 Groundwater

The chloride groundwater plume was delineated during the field investigation at the brine pond and brine well areas. At the brine pond, the highest chloride concentration in groundwater was encountered in monitor well PMW-1 11,000 mg/L, just downgradient of the former brine pond and brine loading/unloading area. Downgradient of PMW-1, the chloride concentration decreases two orders of magnitude in NW-1(s) (630 mg/L) and decreases by half again in DBS-1 (320 mg/L). The downgradient extent of the plume is bounded by monitor well DBS-4 (38 mg/L) and the cross-gradient extent is bounded by monitor wells DBS-2 (14 mg/L) and DBS-3 (36 mg/L). The upgradient monitor well contained a chloride concentration of 65 mg/L.

At the brine well location, the highest chloride concentration (17,000 mg/L) in groundwater was encountered in monitor well MW-3 (17,000 mg/L), located approximately 550 ft downgradient of the brine well. Downgradient of MW-4, the chloride concentration decreases one order of



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magnitude in MW-4 (6,600 mg/L) and continues to decrease further downgradient in MW-5 (1,300 mg/L) and DBS-7 (570 mg/L). The downgradient extent of the plume was not delineated, as the farthest downgradient monitor wells, MW-5 and MW-7, contain chloride concentrations exceeding the NMWQCC standard of 250 mg/L. The cross-gradient extent of the plume was bounded to the south by monitor well DBS-8 (58 mg/L), while the cross-gradient extent of the plume was not defined to the north by DBS-6 (380 mg/L).

The groundwater sample collected from DBS-9 located in the playa was below the NMWQCC standard for chloride (210 mg/L), and below the laboratory reporting limits for TPH, GRO, DRO, and MRO.

5.2 Conclusions

Overall, the extent of the chloride groundwater plumes have been delineated at the brine pond, brine well, and playa. Although the chloride plume at the brine well has not been definitively defined by the field investigation, the chloride concentrations in the farthest downgradient and northernmost cross-gradient wells are low enough to suggest that the wells were installed in the outer fringe of the plume.

DBS&A recommends that recovery wells be installed at the brine pond and the brine well areas and that pump tests be performed on the wells so that a remedial approach for the Site can be developed.



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State of New Mexico New Oil Conservation Division, Constituent Agency of the Water Quality Control Commission In the Matter of Pieter Bergstein d/b/a "Salty Dog, Inc., (OGRID 184208). 2008. Settlement Agreement and Stipulated Revised Final Order NM-OCD 2008-2A. August 6, 2008.

Figures

S:\PROJECTS\ES08.0118.01_SALTY DOG INC\GIS\MXDS\COMPREHENSIVE SITE PLAN\FIG01-SITE LOCATION MAP.MXD 9/8/190



Explanation

- Water supply well

Source: RGIS aerial photograph dated July 2005



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SALTY DOG BRINE STATION Site Location Map

Figure 1



Explanation

- MW-4 Well designation
- 5,730** Chloride concentration (mg/L)
- ⊕ Existing monitor well
- Water supply well
- Chloride concentration contour (dashed where inferred)

Note: Bold denotes concentration that exceeds the NMWQCC standard



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Source: RGIS aerial photograph dated July 2005

SALTY DOG BRINE STATION Chloride Concentrations in Groundwater

Figure 2



Explanation

DBS-2 Well designation

2,000 Chloride concentration (mg/kg)

(0-2) Sample depth (ft bgs)

⊕ Monitor well location

BOLD indicates concentration equal to or greater than the applicable OCD standard.

Source: Google Earth aerial photograph dated September 2002

SALTY DOG BRINE STATION
 Brine Pond Area
 Chloride Concentrations in Soil
 March 23, 24, 25, and 31, 2009



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09/18/2009

JN ES08.0118.01

Figure 3

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Explanation

DBS-9 Well designation

4,100 Chloride concentration (mg/kg)

(0-2) Sample depth (ft bgs)

⊕ Monitor well location

BOLD indicates concentration equal to or greater than the applicable OCD standard.

Source: Google Earth aerial photograph dated September 2002

SALTY DOG BRINE STATION
Playa Lake and Brine Well Area
Chloride Concentrations in Soil
March 26, 27, 30, and April 1, 2009



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Figure 4



Explanation

- DBS-1 Well designation
- 320** Chloride concentration (mg/L)
- ⊕ Monitor well location

BOLD indicates concentration equal to or greater than the NMWQCC standard.

Source: Google Earth aerial photograph dated September 2002

SALTY DOG BRINE STATION
Brine Pond Area
Chloride Concentrations in Groundwater
April 8, 2009



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Figure 5

S:\PROJECTS\ES08.0118.01 SALTY DOG INC\GIS\MXD\ANALYTICAL_RESULTS\CL_QW_20060408_BRINE_WELL.MXD 908190



Explanation

MW-2 Well designation
1,200 Chloride concentration (mg/L)

⊕ Monitor well location

BOLD indicates concentration equal to or greater than the NMWQCC standard.

Source: Google Earth aerial photograph dated September 2002

SALTY DOG BRINE STATION Playa Lake and Brine Well Area Chloride Concentrations in Groundwater April 7 and 8, 2009



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Figure 6



Explanation

- DBS-1 Well designation
- 3754.71** Groundwater elevation, ft msl
- Groundwater elevation (ft msl)
- Potentiometric surface elevation contour (ft msl)

Source: Google Earth aerial photograph dated September 2002

SALTY DOG BRINE STATION
Brine Pond Area
Potentiometric Surface Elevations
April 8, 2009



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 09/18/2009 JN ES08.0118.01

Figure 7

S:\PROJECTS\ES08.0118.01 SALTY DOG INC\GIS\MXD\FLUID LEVELS\GWE_20060406_BRINE_WELL.MXD 900250



Explanation

- MW-2 Well designation
- 3751.03 Groundwater elevation, ft msl
- Groundwater elevation (ft msl)
- Potentiometric surface elevation contour (ft msl)

Source: Google Earth aerial photograph dated September 2002

**SALTY DOG BRINE STATION
Playa Lake and Brine Well Area
Potentiometric Surface Elevations
April 7 and 8, 2009**



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Figure 8



Explanation

- DBS-6 Well designation
- 3749.90 Groundwater elevation, ft msl
- Groundwater elevation (ft msl)
- Potentiometric surface elevation contour (ft msl)

Source: Google Earth aerial photograph dated September 2002

SALTY DOG BRINE STATION Potentiometric Surface Elevations April 7 and 8, 2009



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Figure 9

Tables



**Table 1. Summary of Chloride Soil Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 1 of 3**

Monitor Well	Sample Date	Depth Interval (ft bgs)	Chloride Concentration (mg/kg) ^a
<i>Oil Conservation Division Soil Standard^b</i>			500
DBS-1	03/25/09	10-12	3600
		20-22	240
		30-32	1400
		50-52	380
		60-62	160
		70-72	230
		80-82	18
DBS-2	03/24/09	0-2	2000
		10-12	940
		20-22	39
		40-42	42
		50-52	10
		60-62	7.9
		70-72	7.7
DBS-3	03/24/09	80-82	5.8
		0-2	170
		10-12	58
		20-22	41
		30-32	44
		40-42	35
		50-52	3.4
DBS-4	03/25/09	60-62	8.5
		80-82	6.6
		0-2	18
		10-12	54
		20-22	39
		30-32	19
		40-42	55
DBS-5	03/23/09	50-52	75
		60-62	44
		70-72	9.7
		80-82	6.9
		0-2	19
		10-12	25

Bold indicates concentrations that exceed the applicable standard.

^a All samples analyzed in accordance with EPA method 300.0, unless otherwise noted.

^b OCD standard for a site with groundwater less than 100 feet below ground surface.

ft bgs = Feet below ground surface

mg/kg = Milligrams per kilogram



Table 1. Summary of Chloride Soil Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 2 of 3

Monitor Well	Sample Date	Depth Interval (ft bgs)	Chloride Concentration (mg/kg) ^a
<i>Oil Conservation Division Soil Standard^b</i>			500
DBS-5 (cont.)	03/23/09	20-22	17
		40-42	8.5
		50-52	3.1
		60-62	18
		70-72	12
		80-82	7.5
DBS-6	03/26/09	0-2	4.7
		10-12	6.5
		20-22	6.3
		30-32	31
		40-42	4.4
		50-52	3.8
		60-62	30
		70-72	63
DBS-7	03/26/09	80-82	17
		0-2	16
		10-12	9.6
		20-22	9.8
		30-32	13
		40-42	16
		50-52	7.9
		60-62	33
DBS-8	03/26/09	70-72	83
		80-82	130
		0-2	9.5
		10-12	8.8
		20-22	7.3
		30-32	47
		40-42	20
		50-52	13
DBS-9	03/30/09	60-62	9.3
		70-72	8.7
		80-82	11
		0-2	99

Bold indicates concentrations that exceed the applicable standard.

^a All samples analyzed in accordance with EPA method 300.0, unless otherwise noted.

^b OCD standard for a site with groundwater less than 100 feet below ground surface.

ft bgs = Feet below ground surface

mg/kg = Milligrams per kilogram



**Table 1. Summary of Chloride Soil Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 3 of 3**

Monitor Well	Sample Date	Depth Interval (ft bgs)	Chloride Concentration (mg/kg) ^a
<i>Oil Conservation Division Soil Standard^b</i>			500
DBS-9 (cont.)	03/30/09	10-12	4100
		20-22	560
		30-32	480
		40-42	550
		50-52	160
		60-62	93
		70-72	65
		80-82	9.7
DBS NW-1	03/31/09	10-12	1300
		20-22	3600
		30-32	800
		40-42	2500
		50-52	2400
		60-62	1800
DBS NW-2	04/01/09	0-2	12
		10-12	6.2
		20-22	12
		30-32	16
		40-42	1.8
		50-52	240
		60-62	47

Bold indicates concentrations that exceed the applicable standard.

^a All samples analyzed in accordance with EPA method 300.0, unless otherwise noted.

^b OCD standard for a site with groundwater less than 100 feet below ground surface.

ft bgs = Feet below ground surface

mg/kg = Milligrams per kilogram



Daniel B. Stephens & Associates, Inc.

**Table 2. Summary of DBS-9 Total Petroleum Hydrocarbons Soil Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 1 of 1**

Monitor Well	Sample Date	Depth Interval (ft bgs)	TPH Concentration (mg/kg) ^a
<i>NMED PSTB Action Level</i>			<i>100</i>
DBS-9	03/30/09	0-2	<6.0
		10-12	36
		20-22	220
		30-32	64
		40-42	40
		50-52	82
		60-62	<20
		70-72	<20
		80-82	<20

Bold indicates concentrations that exceed the NMED PSTB action level.

^a All samples analyzed in accordance with EPA method 418.1

NMED PSTB = New Mexico Environment Department Petroleum Storage Tank Bureau

TPH = Total petroleum hydrocarbons

ft bgs = Feet below ground surface

mg/kg = Milligrams per kilogram



Daniel B. Stephens & Associates, Inc.

Table 3. Summary of Historical Fluid Level Measurements
Salty Dog Brine Station, Lea County, New Mexico
Page 1 of 1

Monitor Well	Screen Interval (ft bgs)	Top of Casing Elevation ^a (ft msl)	Date Measured	Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
DBS-1	56.0-76.0	3817.09	04/08/09	62.38	3754.71
DBS-2	58.0-78.0	3820.50	04/08/09	65.45	3755.05
DBS-3	56.0-76.72	3816.66	04/08/09	60.67	3755.99
DBS-4	56.0-76.0	3820.37	04/08/09	66.27	3754.10
DBS-5	56.9-76.9	3820.37	04/08/09	62.99	3757.67
DBS-6	56.7-76.7	3812.65	04/07/09	62.75	3749.90
DBS-7	55.1-75.1	3810.21	04/07/09	61.74	3748.47
DBS-8	55.2-75.2	3810.70	04/07/09	61.20	3749.50
DBS-9	48.0-68.0	3806.26	04/08/09	53.93	3752.33
NW-1(s)	52.95-72.95	3817.33	04/08/09	62.35	3754.98
NW-1 (m)	99.31-119.31	3817.35	04/08/09	62.25	3755.10
NW-1 (d)	149.45-169.45	3817.35	04/08/09	62.04	3755.31
NW-2 (s)	53.35-73.35	3812.50	04/08/09	63.08	3749.42
NW-2 (m)	93.72-113.72	3812.45	04/08/09	63.27	3749.18
NW-2 (d)	126.87-146.87	3812.46	04/08/09	66.41	3746.05
PMW-1	63-78	3821.17	06/23/08	67.51	3753.66
			04/08/09	65.97	3755.20
MW-1	120-140	NA	06/23/08	59.90	NA
MW-2	127-147	3812.68	06/23/08	61.42	3751.26
			04/07/09	61.65	3751.03
MW-3	NA	3812.50	06/23/08	62.06	3750.44
			04/07/09	62.02	3750.03
MW-4	111-131	3811.33	06/23/08	62.12	3749.21
			04/07/09	62.51	3748.82
MW-5	112-132	3808.96	06/23/08	60.60	3748.36
			04/07/09	60.79	3748.17
MW-6	NA	3810.17	06/23/08	62.17	3748.00
			04/07/09	62.41	3747.76

^a Top of casing elevations surveyed by Pettigrew & Assoc. on May 28, 2009.

ft bgs = Feet below ground surface
ft msl = Feet above mean sea level

ft btoc = Feet below top of casing
NA = Not available



Table 4. Summary of Chloride Groundwater Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 1 of 2

Monitor Well	Date	Chloride Concentration (mg/L) ^a
<i>New Mexico Water Quality Control Commission Standard</i>		<i>250</i>
DBS-1	04/08/09	320
DBS-2	04/08/09	14
DBS-3	04/08/09	36
DBS-4	04/08/09	38
DBS-5	04/08/09	65
DBS-6	04/07/09	380
DBS-7	04/07/08	570
DBS-8	04/07/09	58
DBS-9	04/08/09	210
NW-1 (s)	04/08/09	630
NW-1 (m)	04/08/09	57
NW-1 (d)	04/08/09	38
NW-2 (s)	04/08/09	410
NW-2 (m)	04/08/09	570
NW-2 (d)	04/08/09	4,700
Brine Pit Well (PMW-1)	02/27/08	9,500^b
	05/30/08	8,600^b
	06/23/08	12,700
	04/08/09	11,000
MW-1	05/30/08	75 ^b
	06/23/08	243
MW-2	02/27/08	120 ^b
	05/30/08	80 ^b
	06/23/08	1,480
	04/07/09	1,200
MW-3	02/27/08	348^b
	05/30/08	360^b
	06/23/08	1,090
	04/07/09	17,000
MW-4	02/27/08	476^b
	05/30/08	512^b
	06/23/08	5,730

Bold indicates concentrations that exceed the applicable standard.

^a All samples analyzed in accordance to EPA method 300.0, unless otherwise noted.

^b Samples analyzed in accordance to Standard Method 4500-Cl B.

mg/L = Milligrams per liter



Table 4. Summary of Chloride Groundwater Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 2 of 2

Monitor Well	Date	Chloride Concentration (mg/L) ^a
<i>New Mexico Water Quality Control Commission Standard</i>		250
MW-4 (cont.)	04/07/09	6,600
MW-5	02/27/08	1,280^b
	05/30/08	1,220^b
	06/23/08	1,260
	04/07/09	1,300
MW-6	02/27/08	32 ^b
	05/30/08	36 ^b
	06/23/08	31.4
	04/07/09	25
Ranch Headquarters Water Supply Well	06/23/08	35.4
Brine Station Fresh Water Supply Well	02/27/08	630^b
	05/30/08	590^b
	06/23/08	650

Bold indicates concentrations that exceed the applicable standard.

^a All samples analyzed in accordance with EPA method 300.0, unless otherwise noted.

^b Samples analyzed in accordance with Standard Method 4500-Cl B.
 mg/L = Milligrams per liter



Daniel B. Stephens & Associates, Inc.

**Table 5. Summary of DBS-9 Total Petroleum Hydrocarbons
Groundwater Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 1 of 1**

TPH	Sample Date	Concentration (mg/L) ^a
NMWQCC Standard		None
DRO	04/08/09	<1.0
MRO	04/08/09	<5.0
GRO	04/08/09	<0.05

^a All samples analyzed in accordance with EPA method 8015B.

TPH = Total petroleum hydrocarbon

mg/L = Milligrams per liter

NMWQCC = New Mexico Water Quality Control Commission

DRO = Diesel Range Organics

MRO = Motor Oil Range Organics

GRO = Gasoline Range Organics

Appendices

Appendix A

**Soil Boring Logs and
Well Completion Diagrams**

CMB Environmental & Geological Services, Inc.**PO Box 2304 Roswell, NM 88202-2304****cmbenviro@dfn.com****(505) 622-2012 Fax (505) 625-0538****FIELD BOREHOLE LOG**BOREHOLE NO.: **DBS-1**TOTAL DEPTH **78.50'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	ES08.0118.01.00004	DRILLING CO.:	Peterson Drilling Co.
SITE LOCATION:	Lea Co., NM	DRILLER:	Charles Johnson
JOB NO.:	Salty Dog	RIG TYPE:	Ingersoll-Rand TH-60
LOGGED BY:	CM Barnhill, PG	METHOD OF DRILLING:	Air Rotary 6 1/4"
PROJECT MANAGER:	Mike McVey, PG	SAMPLING METHODS:	Split Spoon
DATES DRILLED:	03/25/09	HAMMER WT./DROP	N/A
NOTES: Split Spoon Pushed by TH-60 Drilling Rig.		<input type="checkbox"/> Water level during drilling <input checked="" type="checkbox"/> Water level in completed well	Page 1 of 1

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMP. #	Rec. / feet.	PPM TPH	BORING COMPLETION	WELL DESCRIPTION
0								Cement
-5		GM	GM: Hard Packed Caliche Pad Area of SW Disposal Plant. No Sample.	0' - 2'	N/A			Bentonite 53.0' - 5' BG Surface
-10				10' - 12'	0.3			
-15		SW	SW: Tan 5 YR 8/3 Fine Grained Sand, well sorted, minor caliche	20' - 22'	0.5			
-20								
-25		SS	SANDSTONE: Hard	30' - 32'	0.3			Bentonite
-30								
-35		SW	SW: Tan brown, 7.5YR 8/3 medium to fine grained, well sorted, sugar sand. No Odor or staining.	40' - 42'	N/A			
-40								
-45		SS	SANDSTONE: Hard cemented tan brown SS.	50' - 52'	0.5			
-50								
-55		SW	SW: Tan brown, 2.5YR 8/3 to 7 YR 5/4, medium to fine grained, well sorted, sugar sand. No Odor or staining. Capillary Fringe 60'-62' BGS. Measured Water at 62.38' from TOC	60' - 62'	1.0			8 /16 Sand 78.50' - 53.0' Screen 0.02 Slot 76'-56'
-60								
-65		SW		70' - 72'	2.0			2' foot. Sump @ 76'-78'
-70								
-75		SW		80' - 82'	2.0			T.D. 78.50', drilled to 83'
-80								

CMB Environmental & Geological Services, Inc.**PO Box 2304 Roswell, NM 88202-2304****cmbenviro@dfn.com****(505) 622-2012 Fax (505) 625-0538****FIELD BOREHOLE LOG**BOREHOLE NO.: **DBS-2**TOTAL DEPTH: **79.80'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	ES08.0118.01.00004	DRILLING CO.:	Peterson Drilling Co.
SITE LOCATION:	Lea Co., NM	DRILLER:	Charles Johnson
JOB NO:	Salty Dog	RIG TYPE:	Ingersoll-Rand TH-60
LOGGED BY:	CM Barnhill, PG	METHOD OF DRILLING:	Air Rotary 6 1/4"
PROJECT MANAGER:	Mike McVey, PG	SAMPLING METHODS:	Split Spoon
DATES DRILLED:	03/24/09	HAMMER WT./DROP	N/A
NOTES: Split Spoon Pushed by TH-60 Drilling Rig.		<input checked="" type="checkbox"/> Water level during drilling <input checked="" type="checkbox"/> Water level in completed well	Page 1 of 1

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMP. #	Rec / feet.	PPM TPH	BORING COMPLETION	WELL DESCRIPTION
0								
-5		GM	GM: Brown Silt, Sand, Caliche mixture Hard Caprock	0'-2'	0.3			Cement
-10				10'-12'	0.2			Bentonite 52.8' - 5' BG Surface
-15		SW	SW: Tan 5 YR 8/3 Fine Grained Sand, well sorted, minor caliche	20'-22'	0.3			
-20								
-25		SS	SANDSTONE: Hard cemented tan brown SS. Fn. to med. gr., well sorted. 5YR 8/4	30'-32'	N/A			Bentonite
-30		SS		40'-42'	Grab			
-35								
-40		SW	SW: Tan brown, 7.5YR 6/3	50'-52'	0.5			
-45		SS	SANDSTONE: Hard					
-50		SW	SW: Tan brown, 7.5 YR 6/3, medium to fine grained, well sorted, sugar sand. No Odor or staining. Capillary Fringe 60'-62' BGS. Measured Water at 65.45' from TOC	60'-62'	2.0			8 / 16 Sand 79.80' - 52.8'
-55				70'-72'	2.0			Screen 0.02 Slot 78'-58'
-60		SW		80'-82'	2.0			2' foot. Sump @ 78'-80'
-65								T.D. 79.80', drilled to 83'
-70								
-75								
-80								

FIELD BOREHOLE LOG

BOREHOLE NO.: DBS-3

TOTAL DEPTH: 78.72'

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	ES08.0118.01.00004	DRILLING CO.:	Peterson Drilling Co.
SITE LOCATION:	Lea Co., NM	DRILLER:	Charles Johnson
JOB NO.:	Salty Dog	RIG TYPE:	Ingersoll-Rand TH-60
LOGGED BY:	CM Barnhill, PG	METHOD OF DRILLING:	Air Rotary 6 1/4"
PROJECT MANAGER:	Mike McVey, PG	SAMPLING METHODS:	Split Spoon
DATES DRILLED:	03/24/09	HAMMER WT /DROP	N/A
NOTES:	Split Spoon Pushed by TH-60 Drilling Rig.	☒ Water level during drilling	Page 1 of 1
		☒ Water level in completed well	

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMP. #	Rec / feet.	PPM TPH	BORING COMPLETION	WELL DESCRIPTION
0		GM	GM: Brown Silt, 7.5YR 4/4, Sand, Caliche mixture. Hard Caprock	0' - 2'	0.3			Cement
-5								Bentonite 53.0' - 5' BG Surface
-10		SW	SW: Tan 5 YR 8/3 Fine Grained Sand, well sorted, minor caliche	10' - 12'	0.3			Bentonite
-15								
-20		SS	SANDSTONE: Hard cemented tan brown SS. Fn. to med. gr., well sorted.	20' - 22'	0.4			
-25								
-30		SW	SW: Tan Fine grained sand, well sorted, 7.5YR 8/2	30' - 32'	0.6			
-35								
-40		SW	SANDSTONE: Hard Sandstone Layer	40' - 42'	0.6			
-45			SW: Tan brown, 7.5 YR 8/3, medium to fine grained, well sorted, sugar sand. No Odor or staining. Capillary Fringe 60'-62' BGS. Measured Water at 60.67' from TOC	50' - 52'	1.0			
-50		SW		60' - 62'	2.0			8 /16 Sand 78.72' - 53.0' Screen 0.02 Slot 76.72' - 56'
-55								
-60		SW		70' - 72'	N/A			2' foot. Sump @ 76.72' - 78.72' T.D. 78.72', drilled to 83'
-65				80' - 82'	2.0			
-70								
-75								
-80								

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PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	ES08.0118.01.00004	DRILLING CO.:	Peterson Drilling Co.
SITE LOCATION:	Lea Co., NM	DRILLER:	Charles Johnson
JOB NO.:	Salty Dog	RIG TYPE:	Ingersoll-Rand TH-60
LOGGED BY:	CM Barnhill, PG	METHOD OF DRILLING:	Air Rotary 6 1/4"
PROJECT MANAGER:	Mike McVey, PG	SAMPLING METHODS:	Split Spoon
DATES DRILLED:	03/25/09	HAMMER WT./DROP	N/A
NOTES: Split Spoon Pushed by TH-60 Drilling Rig.		<input checked="" type="checkbox"/> Water level during drilling <input checked="" type="checkbox"/> Water level in completed well	Page 1 of 1

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMP. #	Rec / feet.	PPM TPH	BORING COMPLETION	WELL DESCRIPTION
0								Cement
-5		GM	GM: Brown Silt, 7.5YR 4/4, Sand, Caliche mixture. Hard Caprock	0' - 2'	0.6			Bentonite 52.4' - 5' BG Surface
-10				10' - 12'	N/A			
-15		SW	SW: Tan 5 YR 8/3 Fine Grained Sand, well sorted, minor caliche	20' - 22'	N/A			
-20				30' - 32'	N/A			
-25		SS	SANDSTONE: Hard cemented tan brown SS. Fn. to med. gr. well sorted. 5YR 8/4	40' - 42'	0.6			
-30				50' - 52'	1.0			
-35		SS		60' - 62'	1.0			
-40		SW	SW: Tan brown, 7.5 YR 8/3, to 8/2 medium to fine grained, well sorted, sugar sand. No Odor or staining. Capillary Fringe 60'-62' BGS. Measured Water at 66.27' from TOC	70' - 72'	1.0			
-45				80' - 82'	2.0			
-50		SW						Bentonite
-55								
-60		SW						8 / 16 Sand 80.15' - 52.4'
-65								Screen 0.02 Slot 76'-56'
-70		SW						2' foot. Sump @ 78'-80'
-75								T.D. 80.15', drilled to 83'
-80								

CMB Environmental & Geological Services, Inc.**PO Box 2304 Roswell, NM 88202-2304****cmbenviro@dfn.com****(505) 622-2012 Fax (505) 625-0538****FIELD BOREHOLE LOG**BOREHOLE NO.: **DBS-5**TOTAL DEPTH: **78.90'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	ES08.0118.01.00004	DRILLING CO:	Peterson Drilling Co.
SITE LOCATION:	Lea Co., NM	DRILLER:	Charles Johnson
JOB NO.:	Salty Dog	RIG TYPE:	Ingersoll-Rand TH-60
LOGGED BY:	CM Barnhill, PG	METHOD OF DRILLING:	Air Rotary 6 1/4"
PROJECT MANAGER:	Mike McVey, PG	SAMPLING METHODS:	Split Spoon
DATES DRILLED:	03/23/09	HAMMER WT./DROP	N/A
NOTES: Split Spoon Pushed by TH-60 Drilling Rig.		<input type="checkbox"/> Water level during drilling <input checked="" type="checkbox"/> Water level in completed well	Page 1 of 1

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMP. #	Rec. / feet	PPM TPH	BORING COMPLETION	WELL DESCRIPTION
0								
-5		GM	GM: Tan White Caliche mixed with brown silt. Caprock material. @ 6' Sand 7.5YR 8/2	0'-2'	0.4			Cement
-10		SW	SW: Tan 5 YR 8/3 Fine Grained Sand, well sorted, minor caliche	10'-12'	0.5			Bentonite 53.0' - 5' BG Surface
-15		SS	SANDSTONE: Hard cemented tan brown SS. Fn to med. gr. well sorted. 5YR 8/4	20'-22'	0.3			
-20		SS		30'-32'	N/A			Bentonite
-25		SW	SW: Tan brown, 2.5YR 8/3 to 7 YR 5/4, medium to fine grained, well sorted, sugar sand. No Odor or staining. Capillary Fringe 60'-62' BGS. Measured Water at 62.99' from TOC	40'-42'	0.4			
-30		SW		50'-52'	0.4			
-35		SW		60'-62'	0.5			8 /16 Sand 78.90' - 53.0'
-40		SW		70'-72'	1.0			Screen 0.02 Slot 76.9' 56.9'
-45		SW		80'-82'	2.0			2' foot. Sump @ 76.9'-78'.9 T.D. 78.90', drilled to 83'

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PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	ES08.0118.01.00004	DRILLING CO.:	Peterson Drilling Co.
SITE LOCATION:	Lea Co., NM	DRILLER:	Charles Johnson
JOB NO.:	Salty Dog	RIG TYPE:	Ingersoll-Rand TH-60
LOGGED BY:	CM Barnhill, PG	METHOD OF DRILLING:	Air Rotary 6 1/4"
PROJECT MANAGER:	Mike McVey, PG	SAMPLING METHODS:	Split Spoon
DATES DRILLED:	03/26/09	HAMMER WT./DROP	N/A
NOTES: Split Spoon Pushed by TH-60 Drilling Rig.		<div> <div>☒</div> <div>Water level during drilling</div> </div> <div> <div>☒</div> <div>Water level in completed well</div> </div>	Page 1 of 1

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMP. #	Rec. / feet.	PPM TPH	BORING COMPLETION	WELL DESCRIPTION
0								
-5		GM	GM: Tan White Caliche mixed with brown silt. Caprock material. @ 6' Sand 7.5YR 8/2	0'-2'	0.3			Cement
-10		SW	SW: Tan 7.5 YR 8/2 Fine Grained Sand, well sorted,	10'-12'	0.5			Bentonite 51.9' - 5' BG Surface
-15		SS	SANDSTONE: Hard cemented tan brown SS. Fn. to med. gr, well sorted. 7.5YR 8/2	20'-22'	Grab			
-20		SS		30'-32'	1.0			Bentonite
-25		SS		40'-42'	1.0			
-30		SW	SW: Tan brown, 7.5YR 8/4 to 7 YR 5/4, medium to fine grained, well sorted, sugar sand. No Odor or staining. Capillary Fringe 62'-64' BGS. Measured Water at 62.75' from TOC	50'-52'	0.5			
-35		SW		60'-62'	0.5			8 /16 Sand 78.70' - 51.9'
-40		SW		70'-72'	2.0			Screen 0.02 Slot 76.70' - 56.70'
-45		SW		80'-82'	2.0			2' foot. Sump @ 76.7'-78'.7 T.D. 78.70', drilled to 83'

CMB Environmental & Geological Services, Inc.**PO Box 2304 Roswell, NM 88202-2304****cmbenviro@dfn.com****(505) 622-2012 Fax (505) 625-0538****FIELD BOREHOLE LOG**BOREHOLE NO.: **DBS-7**TOTAL DEPTH: **77.10'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	ES08.0118.01.00004	DRILLING CO.:	Peterson Drilling Co.
SITE LOCATION:	Lea Co., NM	DRILLER:	Charles Johnson
JOB NO.:	Salty Dog	RIG TYPE:	Ingersoll-Rand TH-60
LOGGED BY:	CM Barnhill, PG	METHOD OF DRILLING:	Air Rotary 6 1/4"
PROJECT MANAGER:	Mike McVey, PG	SAMPLING METHODS:	Split Spoon
DATES DRILLED:	03/26/09	HAMMER WT./DROP	N/A
NOTES:	Split Spoon Pushed by TH-60 Drilling Rig.	☒	Water level during drilling
		☒	Water level in completed well

Page 1 of 1

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMP. #	Rec. / feet.	PPM TPH	BORING COMPLETION	WELL DESCRIPTION
0		GM	GM: Brown Silt, 5YR 5/6, Sand, Caliche mixture. Hard Caprock	0'-2'	0.3			Cement
-5								Bentonite 52.0' - 5' BG Surface
-10		SW	SW: Tan 5 YR 8/3 Fine Grained Sand, well sorted, minor caliche	10'-12'	0.5			
-15				20'-22'	1.0			
-20		SS	SANDSTONE: Hard	30'-32'	Grab			Bentonite
-25								
-30		SW	SW: Tan brown, 5YR 6/6 to 7.5 YR 8/3, medium to fine grained, well sorted, sugar sand. No Odor or staining. Capillary Fringe 60'-62' BGS. Measured Water at 61.74' from TOC	40'-42'	1.0			
-35				50'-52'	1.0.			
-40		SW		60'-62'	2.0			8 /16 Sand 77.10' - 52.0'
-45								Screen 0.02 Slot 75 10' 55.10'
-50		SW		70'-72'	2.0			2' foot. Sump @ 75.10' - 77.10'
-55				80'-82'	2.0			T.D. 77.10', drilled to 83'
-60		SW						
-65								
-70		SW						
-75								
-80		SW						

CMB Environmental & Geological Services, Inc.**PO Box 2304 Roswell, NM 88202-2304****cmbenviro@dfn.com****(505) 622-2012 Fax (505) 625-0538****FIELD BOREHOLE LOG**BOREHOLE NO.: **DBS-8**TOTAL DEPTH: **77.20'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	ES08.0118.01.00004	DRILLING CO.:	Peterson Drilling Co.
SITE LOCATION:	Lea Co., NM	DRILLER:	Charles Johnson
JOB NO.:	Salty Dog	RIG TYPE:	Ingersoll-Rand TH-60
LOGGED BY:	CM Barnhill, PG	METHOD OF DRILLING:	Air Rotary 6 1/4"
PROJECT MANAGER:	Mike McVey, PG	SAMPLING METHODS:	Split Spoon
DATES DRILLED:	03/26/09	HAMMER WT./DROP	N/A
NOTES: Split Spoon Pushed by TH-60 Drilling Rig.		☒ Water level during drilling	Page 1 of 1
		☒ Water level in completed well	

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMP. #	Rec. / feet	PPM TPH	BORING COMPLETION	WELL DESCRIPTION
0		GM	GM: Brown Silt, 5YR 5/3 to 8/2. Sand, Caliche mixture. Hard Caprock	0'-2'	0.3			Cement
-5		GM		10'-12'	0.5			Bentonite 52.5' - 5' BG Surface
-10		SS	SANDSTONE: Hard cemented tan brown SS. Fn. to med. gr. well sorted. 7.5YR 8/2	20'-22'	Grab			Bentonite
-15								
-20		SW	SW: Tan brown, 5YR 6/6 to 7.5 YR 7/3 8/3, medium to fine grained, well sorted, sugar sand No Odor or staining. Capillary Fringe 60'-62' BGS. Measured Water at 61.20' from TOC	30'-32'	1.0			
-25		SW		40'-42'	1.0			
-30		SW		50'-52'	2.0			
-35		SW		60'-62'	2.0			
-40		SW		70'-72'	2.0			8 / 16 Sand 77.20' - 52.5' Screen 0.02 Slot 75.20' 55.20'
-45		SW		80'-82'	2.0			
-50		SW						2' foot. Sump @ 75.20'-77.20' T.D. 77.20', drilled to 83'
-55		SW						
-60		SW						
-65		SW						
-70		SW						
-75		SW						
-80		SW						
		SW						

CMB Environmental & Geological Services, Inc.**PO Box 2304 Roswell, NM 88202-2304****cmbenviro@dfn.com****(505) 622-2012 Fax (505) 625-0538****FIELD BOREHOLE LOG**BOREHOLE NO.: **DBS-9**TOTAL DEPTH: **70.85'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	ES08.0118.01.00004	DRILLING CO.:	Peterson Drilling Co.
SITE LOCATION:	Lea Co., NM	DRILLER:	Charles Johnson
JOB NO.:	Salty Dog	RIG TYPE:	Ingersoll-Rand TH-60
LOGGED BY:	CM Barnhill, PG	METHOD OF DRILLING:	Air Rotary 6 1/4"
PROJECT MANAGER:	Mike McVey, PG	SAMPLING METHODS:	Split Spoon
DATES DRILLED:	03/30/09	HAMMER WT./DROP	N/A
NOTES: Split Spoon Pushed by TH-60 Drilling Rig.		<input type="checkbox"/> Water level during drilling <input checked="" type="checkbox"/> Water level in completed well	Page 1 of 1

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMP. #	Rec / feet.	PPM TPH	BORING COMPLETION	WELL DESCRIPTION
0								
-5		SM	SM: Gray Black Brown Silty Sand, clay . silt	0'-2'	0.3			Cement
-10		SW	SW: Tan brown, 7.5YR 6/4 medium to fine grained, well sorted, sugarsand. No Odor or staining.	10'-12'	0.5			Bentonite 42.5' - 5' BG Surface
-15		SS	SANDSTONE: Hard					
-20		SW	SW: Tan brown, 10YR 8/3, medium to fine grained, well sorted, sugarsand No Odor or staining. @52' BGS softer drilling.	20'-22'	0.5			
-25			Capillary fringe @ 50' BGS? @ 53' BGS saturated to total drilled depth of 83'	30'-32'	1.0			Bentonite
-30		SW		40'-42'	1.0			
-35								
-40		SS	SANDSTONE: Hard					
-45		SW	SW: Tan brown, 7.5YR 6/4 medium to fine grained, well sorted, sugarsand. No Odor or staining. Water at 53.93' from TOC	50'-52'	2.0			
-50				60'-62'	1.0			8 /16 Sand 70.85'-42.5'
-55		SW		70'-72'	2.0			Screen 0.02 Slot 68'-48'
-60				80'-82'	2.0			2' foot. Sump @ 68'-70'
-65								T D. 70.85', drilled to 83'
-70								
-75								
-80								

CMB Environmental & Geological Services, Inc.**PO Box 2304 Roswell, NM 88202-2304****cmbenviro@dfn.com****(505) 622-2012 Fax (505) 625-0538****FIELD BOREHOLE LOG**BOREHOLE NO.: **NW-1**TOTAL DEPTH: **74.95', 121.31', 171.45'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	ES08.0118.01.00004	DRILLING CO.:	Peterson Drilling Co.
SITE LOCATION:	Lea Co., NM	DRILLER:	Charles Johnson
JOB NO.:	Salty Dog	RIG TYPE:	Ingersoll-Rand TH-60
LOGGED BY:	CM Barnhill, PG	METHOD OF DRILLING:	Air Rotary 6 1/4"
PROJECT MANAGER:	Mike McVey, PG	SAMPLING METHODS:	Split Spoon
DATES DRILLED:	03/31/09	HAMMER WT./DROP	N/A
NOTES: Split Spoon Pushed by TH-60 Drilling Rig.		<input checked="" type="checkbox"/> Water level during drilling <input checked="" type="checkbox"/> Water level in completed well	Page 1 of 1

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMP. #	Rec / feet.	PPM TPH	BORING COMPLETION	WELL DESCRIPTION
0								
-5		GM	GM: Brown Silt, 5YR 5/3 to 8/2, Sand, Caliche mixture.	0' - 2'	N/A			NW-1 Shallow: DTW = 62.35'
-10		SW	SW: Tan brown, 5YR 6/6 to 7.5 YR 7/3 - 8/3,	10' - 12'	1.0			TOC, T.D. = 74.95'
-15		SS	SANDSTONE: Hard cemented tan brown SS. Fn. to med. gr. well sorted.	20' - 22'	1.0			Cement: 0' - 5' Bentonite Seal 5' - 50', 8/16 Sand Pack: 50' - 74.95'
-20		SS		30' - 32'	Grab			0.020 Slot Screen: 52.95' - 72.95' Sump and Screen Cap: 72.95' - 74.95'
-25		SW	SW: Tan brown, 5YR 6/6 7/4 to 7.5 YR 7/3 - 8/3, medium to fine grained, well sorted, sugar sand. No Odor or staining. Capillary Fringe 60' - 62'	40' - 42'	1.0			NW-1 Middle DTW = 62.25' TOC T.D. = 121.31'
-30		SW	BGS. Measured Water at 62.35' from TOC NW-1 Shallow, 62.25' NW-1 Middle; 62.04' NW-1 Deep. Three Nested wells placed in one large 9" inch Soil boring. All wells are cased to surface, but separated and isolated by different bentonite seals, 8/16 sand filter packs, and 20 foot screened intervals at different depths. Soil Boring was split spoon sampled from ground surface at 10 foot intervals to 60' - 62' BGS. After 60' all sample descriptions were from cuttings from mud rotary drilling.	50' - 52'	1.0			Bentonite Seal: 80' - 95' 8/16 Sand pack 95' - 121.31' 0.020 Slot Screen: 99.31' - 119.31' Sump and Screen Cap 119.31' - 121.31'
-35		SW		60' - 62'	2.0			NW-1 Deep DTW = 62.04' TOC T.D. = 171.45'
-40		SW						Bentonite Seal: 122' - 145' 8/16 Sand pack 145' - 171.45' 0.020 Slot Screen: 149.45' - 169.45' Sump and Screen
-45		SW						
-50		SW						
-55		SW						
-60		SW						
-65		SW						
-70		SW						
-75		SW						
-80		SW						
-85		SW						
-90		SW						
-95		SW						
-100		SW						
-105		SW						
-110		SW						
-115		SW						
-120		SW						
-125		SW						
-130		SW						
-135		SW						
-140		SW						
-145		SW						
-150		SW						
-155		SW						
-160		SW						
-165		SW						
-170		SW						
-175		Red Bed /	CL: Red Bed formation: Maroon siltstone /					
-180								

FIELD BOREHOLE LOG

BOREHOLE NO.: NW-2

TOTAL DEPTH: 75.35', 115.72', 148.87'

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	ES08.0118.01.00004	DRILLING CO.:	Peterson Drilling Co.
SITE LOCATION:	Lea Co., NM	DRILLER:	Charles Johnson
JOB NO.:	Salty Dog	RIG TYPE:	Ingersoll-Rand TH-60
LOGGED BY:	CM Barnhill, PG	METHOD OF DRILLING:	Air Rotary 6 1/4"
PROJECT MANAGER:	Mike McVey, PG	SAMPLING METHODS:	Split Spoon
DATES DRILLED:	04/01/09	HAMMER WT./DROP	N/A
NOTES: Split Spoon Pushed by TH-60 Drilling Rig.		<div> <div>☒</div> <div>Water level during drilling</div> </div> <div> <div>☒</div> <div>Water level in completed well</div> </div>	Page 1 of 1

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMP. #	Rec. / feet.	PPM TPH	BORING COMPLETION	WELL DESCRIPTION
0								
-5		GM	GM: Brown Silt, 5YR 5/3 to 8/2, Sand, Caliche mixture.	0' - 2'	0.3			NW-2 Shallow: DTW = 63.08'
-10		SW	SW: Tan brown, 5YR 6/6 to 7.5 YR 7/3 - 8/3,	10' - 12'	1.0			TOC, T.D. = 75.35'
-15		SS	SANDSTONE: Hard cemented tan brown SS.	20' - 22'	Grab			Cement: 0' - 5' Bentonite Seal 5' - 50',
-20				30' - 32'	0.5			8/16 Sand Pack: 50' - 75.35'
-25		SW	SW: Tan brown, 5YR 6/6 7/4 to 7.5 YR 7/3 - 8/3, medium to fine grained, well sorted, sugar sand. No Odor or staining. Capillary Fringe 60' - 62'	40' - 42'	1.0			0.020 Slot Screen: 53.35' - 73.35'
-30		SW	BGS Measured Water at 63.08' from TOC NW-2 Shallow; 63.27' NW-2 Middle; 66.41' NW-2 Deep. Three Nested wells placed in one large 9" inch Soil boring. All wells are cased to surface, but separated and isolated by different bentonite seals, 8/16 sand filter packs, and 20 foot screened intervals at different depths. Soil	50' - 52'	2.0			Sump and Screen Cap: 73.35' - 75.35'
-35		SW	SC: @ 115' BGS Clayey Sand, fine grained sand / clay mixture 2.5 YR 5/8	60' - 62'	0.5			
-40								NW-2 Middle DTW = 63.27' TOC
-45								T.D. = 115.72'
-50								Bentonite Seal: 80' - 90' 8/16 Sand pack 90' - 115.72' 0.020 Slot Screen: 93.72' - 113.72' Sump and Screen Cap 113.72' . 115.72'
-55								NW-2 Deep DTW = 66.41' TOC T.D. = 148.87'
-60								Bentonite Seal: 115' - 125' 8/16 Sand pack 125' - 148.87' 0.020 Slot Screen: 126.87' - 146.87' Sump and Screen
-65								
-70								
-75								
-80								
-85								
-90								
-95								
-100								
-105								
-110								
-115								
-120								
-125								
-130								
-135								
-140								
-145								
-150								
-155								
-160								
-165								
-170								
-175								
-180								

Appendix B

Laboratory Reports

Soil



COVER LETTER

Friday, April 17, 2009

Mike McVey
Daniel B. Stephens & Assoc.
6020 Academy NE Suite 100
Albuquerque, NM 87109

TEL: (505) 822-9400

FAX (505) 822-8877

RE: Salty Dog

Order No.: 0903463

Dear Mike McVey:

Hall Environmental Analysis Laboratory, Inc. received 67 sample(s) on 3/30/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425

AZ license # AZ0682

ORELAP Lab # NM100001

Texas Lab# T104704424-08-TX



Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.
Project: Salty Dog**Lab Order:** 0903463**Lab ID:** 0903463-01
Client Sample ID: DBS-1 10'-12'**Collection Date:** 3/25/2009 8:45:00 AM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	3600	15		mg/Kg	50	4/13/2009 7:09:37 PM

Analyst: RAGS

Lab ID: 0903463-02
Client Sample ID: DBS-1 20'-22'**Collection Date:** 3/25/2009 9:00:00 AM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	240	3.0		mg/Kg	10	4/13/2009 7:27:02 PM

Analyst: RAGS

Lab ID: 0903463-03
Client Sample ID: DBS-1 30'-32'**Collection Date:** 3/25/2009 9:15:00 AM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	1400	6.0		mg/Kg	20	4/13/2009 7:44:27 PM

Analyst: RAGS

Lab ID: 0903463-04
Client Sample ID: DBS-1 50'-52'**Collection Date:** 3/25/2009 9:50:00 AM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	380	3.0		mg/Kg	10	4/13/2009 8:01:52 PM

Analyst: RAGS

Lab ID: 0903463-05
Client Sample ID: DBS-1 60'-62'**Collection Date:** 3/25/2009 10:10:00 AM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	160	3.0		mg/Kg	10	4/13/2009 8:19:16 PM

Analyst: RAGS

Lab ID: 0903463-06
Client Sample ID: DBS-1 70'-72'**Collection Date:** 3/25/2009 10:30:00 AM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	230	3.0		mg/Kg	10	4/13/2009 8:36:41 PM

Analyst: RAGS

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.
Project: Salty Dog**Lab Order:** 0903463**Lab ID:** 0903463-07
Client Sample ID: DBS-1 80'-82'**Collection Date:** 3/25/2009 12:05:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	18	0.30		mg/Kg	1	Analyst: RAGS 4/13/2009 10:03:42 PM

Lab ID: 0903463-08
Client Sample ID: DBS-2 0'-2'**Collection Date:** 3/24/2009 4:05:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	2000	6.0		mg/Kg	20	Analyst: RAGS 4/13/2009 10:21:07 PM

Lab ID: 0903463-09
Client Sample ID: DBS-2 10'-12'**Collection Date:** 3/24/2009 4:15:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	940	3.0		mg/Kg	10	Analyst: RAGS 4/13/2009 10:38:32 PM

Lab ID: 0903463-10
Client Sample ID: DBS-2 20'-22'**Collection Date:** 3/24/2009 4:25:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	39	0.30		mg/Kg	1	Analyst: RAGS 4/13/2009 10:55:56 PM

Lab ID: 0903463-11
Client Sample ID: DBS-2 40'-42'**Collection Date:** 3/24/2009 4:45:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	42	0.30		mg/Kg	1	Analyst: RAGS 4/13/2009 11:13:21 PM

Lab ID: 0903463-12
Client Sample ID: DBS-2 50'-52'**Collection Date:** 3/24/2009 5:10:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	10	0.30		mg/Kg	1	Analyst: RAGS 4/13/2009 11:30:45 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.
Project: Salty Dog

Lab Order: 0903463

Lab ID: 0903463-13
Client Sample ID: DBS-2 60'-62'

Collection Date: 3/24/2009 5:20:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	7.9	0.30		mg/Kg	1	4/13/2009 11:48:10 PM

Analyst: RAGS

Lab ID: 0903463-14
Client Sample ID: DBS-2 70'-72'

Collection Date: 3/24/2009 5:45:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	7.7	3.0		mg/Kg	10	4/10/2009 2:56:20 AM

Analyst: RAGS

Lab ID: 0903463-15
Client Sample ID: DBS-2 80'-82'

Collection Date: 3/24/2009 6:10:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	5.8	3.0		mg/Kg	10	4/10/2009 3:13:45 AM

Analyst: RAGS

Lab ID: 0903463-16
Client Sample ID: DBS-3 0'-2'

Collection Date: 3/24/2009 12:45:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	170	3.0		mg/Kg	10	4/10/2009 3:31:10 AM

Analyst: RAGS

Lab ID: 0903463-17
Client Sample ID: DBS-3 10'-12'

Collection Date: 3/24/2009 1:00:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	58	3.0		mg/Kg	10	4/10/2009 3:48:34 AM

Analyst: RAGS

Lab ID: 0903463-18
Client Sample ID: DBS-3 20'-22'

Collection Date: 3/24/2009 1:10:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	41	3.0		mg/Kg	10	4/10/2009 4:05:59 AM

Analyst: RAGS

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.
Project: Salty Dog

Lab Order: 0903463

Lab ID: 0903463-19
Client Sample ID: DBS-3 30'-32'

Collection Date: 3/24/2009 1:25:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	44	0.30		mg/Kg	1	4/10/2009 4:23:24 AM

Analyst: RAGS

Lab ID: 0903463-20
Client Sample ID: DBS-3 40'-42'

Collection Date: 3/24/2009 1:45:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	35	0.30		mg/Kg	1	4/14/2009 10:26:44 AM

Analyst: RAGS

Lab ID: 0903463-21
Client Sample ID: DBS-3 50'-52'

Collection Date: 3/24/2009 2:00:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	3.4	0.30		mg/Kg	1	4/14/2009 11:18:58 AM

Analyst: RAGS

Lab ID: 0903463-22
Client Sample ID: DBS-3 60'-62'

Collection Date: 3/24/2009 2:15:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	8.5	0.30		mg/Kg	1	4/14/2009 11:36:23 AM

Analyst: RAGS

Lab ID: 0903463-23
Client Sample ID: DBS-3 80'-82'

Collection Date: 3/24/2009 3:00:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	6.6	0.30		mg/Kg	1	4/14/2009 11:53:47 AM

Analyst: RAGS

Lab ID: 0903463-24
Client Sample ID: DBS-4 0'-2'

Collection Date: 3/25/2009 1:45:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	18	0.30		mg/Kg	1	4/14/2009 1:03:25 PM

Analyst: RAGS

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.
Project: Salty Dog**Lab Order:** 0903463**Lab ID:** 0903463-25
Client Sample ID: DBS-4 10'-12'**Collection Date:** 3/25/2009 1:50:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	54	0.30		mg/Kg	1	Analyst: RAGS 4/14/2009 1:20:49 PM

Lab ID: 0903463-26
Client Sample ID: DBS-4 20'-22'**Collection Date:** 3/25/2009 2:00:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	39	0.30		mg/Kg	1	Analyst: RAGS 4/14/2009 1:38:14 PM

Lab ID: 0903463-27
Client Sample ID: DBS-4 30'-32'**Collection Date:** 3/25/2009 2:10:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	19	0.30		mg/Kg	1	Analyst: RAGS 4/14/2009 1:55:38 PM

Lab ID: 0903463-28
Client Sample ID: DBS-4 40'-42'**Collection Date:** 3/25/2009 2:20:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	55	0.30		mg/Kg	1	Analyst: RAGS 4/14/2009 2:13:03 PM

Lab ID: 0903463-29
Client Sample ID: DBS-4 50'-52'**Collection Date:** 3/25/2009 2:40:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	75	0.30		mg/Kg	1	Analyst: RAGS 4/14/2009 2:30:27 PM

Lab ID: 0903463-30
Client Sample ID: DBS-4 60'-62'**Collection Date:** 3/25/2009 3:00:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	44	0.30		mg/Kg	1	Analyst: RAGS 4/14/2009 2:47:52 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.
Project: Salty Dog**Lab Order:** 0903463**Lab ID:** 0903463-31
Client Sample ID: DBS-4 70'-72'**Collection Date:** 3/25/2009 3:20:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	9.7	0.30		mg/Kg	1	Analyst: RAGS 4/14/2009 3:05:16 PM

Lab ID: 0903463-32
Client Sample ID: DBS-4 80'-82'**Collection Date:** 3/25/2009 3:55:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	6.9	0.30		mg/Kg	1	Analyst: RAGS 4/14/2009 3:22:41 PM

Lab ID: 0903463-33
Client Sample ID: DBS-5 0'-2'**Collection Date:** 3/23/2009 3:40:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	19	0.30		mg/Kg	1	Analyst: RAGS 4/14/2009 4:32:19 PM

Lab ID: 0903463-34
Client Sample ID: DBS-5 10'-12'**Collection Date:** 3/23/2009 4:00:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	25	0.30		mg/Kg	1	Analyst: RAGS 4/14/2009 4:49:44 PM

Lab ID: 0903463-35
Client Sample ID: DBS-5 20'-22'**Collection Date:** 3/23/2009 4:20:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	17	0.30		mg/Kg	1	Analyst: RAGS 4/14/2009 5:07:09 PM

Lab ID: 0903463-36
Client Sample ID: DBS-5 40'-42'**Collection Date:** 3/23/2009 5:20:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	8.5	0.30		mg/Kg	1	Analyst: RAGS 4/14/2009 5:24:34 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.		Lab Order: 0903463	
Project: Salty Dog			
Lab ID: 0903463-37		Collection Date: 3/24/2009 7:50:00 AM	
Client Sample ID: DBS-5 50'-52'		Matrix: SOIL	
Analyses	Result	PQL Qual Units	DF Date Analyzed
EPA METHOD 300.0: ANIONS		Analyst: RAGS	
Chloride	3.1	0.30 mg/Kg	1 4/14/2009 5:41:58 PM
Lab ID: 0903463-38		Collection Date: 3/24/2009 8:10:00 AM	
Client Sample ID: DBS-5 60'-62'		Matrix: SOIL	
Analyses	Result	PQL Qual Units	DF Date Analyzed
EPA METHOD 300.0: ANIONS		Analyst: RAGS	
Chloride	18	0.30 mg/Kg	1 4/14/2009 5:59:23 PM
Lab ID: 0903463-39		Collection Date: 3/24/2009 8:45:00 AM	
Client Sample ID: DBS-5 70'-72'		Matrix: SOIL	
Analyses	Result	PQL Qual Units	DF Date Analyzed
EPA METHOD 300.0: ANIONS		Analyst: RAGS	
Chloride	12	0.30 mg/Kg	1 4/14/2009 6:51:36 PM
Lab ID: 0903463-40		Collection Date: 3/24/2009 9:20:00 AM	
Client Sample ID: DBS-5 80'-82'		Matrix: SOIL	
Analyses	Result	PQL Qual Units	DF Date Analyzed
EPA METHOD 300.0: ANIONS		Analyst: TAF	
Chloride	7.5	1.5 mg/Kg	5 4/11/2009 5:04:35 PM
Lab ID: 0903463-41		Collection Date: 3/26/2009 8:20:00 AM	
Client Sample ID: DBS-6 0'-2'		Matrix: SOIL	
Analyses	Result	PQL Qual Units	DF Date Analyzed
EPA METHOD 300.0: ANIONS		Analyst: TAF	
Chloride	4.7	1.5 mg/Kg	5 4/11/2009 6:14:13 PM
Lab ID: 0903463-42		Collection Date: 3/26/2009 8:35:00 AM	
Client Sample ID: DBS-6 10'-12'		Matrix: SOIL	
Analyses	Result	PQL Qual Units	DF Date Analyzed
EPA METHOD 300.0: ANIONS		Analyst: TAF	
Chloride	6.5	1.5 mg/Kg	5 4/12/2009 2:21:39 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.
Project: Salty Dog

Lab Order: 0903463

Lab ID: 0903463-43 **Collection Date:** 3/26/2009 8:45:00 AM
Client Sample ID: DBS-6 20'-22' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: TAF
Chloride	6.3	1.5		mg/Kg	5	4/12/2009 2:56:27 AM

Lab ID: 0903463-44 **Collection Date:** 3/26/2009 9:00:00 AM
Client Sample ID: DBS-6 30'-32' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: TAF
Chloride	31	1.5		mg/Kg	5	4/12/2009 3:31:16 AM

Lab ID: 0903463-45 **Collection Date:** 3/26/2009 9:15:00 AM
Client Sample ID: DBS-6 40'-42' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: TAF
Chloride	4.4	1.5		mg/Kg	5	4/12/2009 4:06:04 AM

Lab ID: 0903463-46 **Collection Date:** 3/26/2009 9:40:00 AM
Client Sample ID: DBS-6 50'-52' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: TAF
Chloride	3.8	1.5		mg/Kg	5	4/12/2009 4:40:53 AM

Lab ID: 0903463-47 **Collection Date:** 3/26/2009 10:00:00 AM
Client Sample ID: DBS-6 60'-62' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: TAF
Chloride	30	1.5		mg/Kg	5	4/12/2009 5:50:31 AM

Lab ID: 0903463-48 **Collection Date:** 3/26/2009 10:15:00 AM
Client Sample ID: DBS-6 70'-72' **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: TAF
Chloride	63	1.5		mg/Kg	5	4/12/2009 6:25:20 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.
Project: Salty Dog

Lab Order: 0903463

Lab ID: 0903463-49 Collection Date: 3/26/2009 10:45:00 AM

Client Sample ID: DBS-6 80'-82' Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 300.0: ANIONS

Analyst: TAF

Chloride	17	1.5		mg/Kg	5	4/12/2009 7:34:57 AM
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Lab ID: 0903463-50 Collection Date: 3/26/2009 1:00:00 PM

Client Sample ID: DBS-7 0'-2' Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 300.0: ANIONS

Analyst: RAGS

Chloride	16	1.5		mg/Kg	5	4/14/2009 8:36:03 PM
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Lab ID: 0903463-51 Collection Date: 3/26/2009 1:10:00 PM

Client Sample ID: DBS-7 10'-12' Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 300.0: ANIONS

Analyst: RAGS

Chloride	9.6	0.30		mg/Kg	1	4/14/2009 8:53:28 PM
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Lab ID: 0903463-52 Collection Date: 3/26/2009 1:20:00 PM

Client Sample ID: DBS-7 20'-22' Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 300.0: ANIONS

Analyst: RAGS

Chloride	9.8	0.30		mg/Kg	1	4/14/2009 9:45:42 PM
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Lab ID: 0903463-53 Collection Date: 3/26/2009 1:30:00 PM

Client Sample ID: DBS-7 30'-32' Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 300.0: ANIONS

Analyst: RAGS

Chloride	13	0.30		mg/Kg	1	4/14/2009 10:03:07 PM
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Lab ID: 0903463-54 Collection Date: 3/26/2009 1:45:00 PM

Client Sample ID: DBS-7 40'-42' Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 300.0: ANIONS

Analyst: RAGS

Chloride	16	1.5		mg/Kg	5	4/14/2009 10:20:32 PM
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Qualifiers: * Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.
Project: Salty Dog**Lab Order:** 0903463**Lab ID:** 0903463-55
Client Sample ID: DBS-7 50'-52'**Collection Date:** 3/26/2009 2:00:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	7.9	1.5		mg/Kg	5	Analyst: RAGS 4/14/2009 11:30:09 PM

Lab ID: 0903463-56
Client Sample ID: DBS-7 60'-62'**Collection Date:** 3/26/2009 2:15:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	33	1.5		mg/Kg	5	Analyst: RAGS 4/14/2009 11:47:35 PM

Lab ID: 0903463-57
Client Sample ID: DBS-7 70'-72'**Collection Date:** 3/26/2009 2:30:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	83	0.30		mg/Kg	1	Analyst: RAGS 4/15/2009 12:04:59 AM

Lab ID: 0903463-58
Client Sample ID: DBS-7 80'-82'**Collection Date:** 3/26/2009 3:00:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	130	1.5		mg/Kg	5	Analyst: RAGS 4/16/2009 1:02:12 AM

Lab ID: 0903463-59
Client Sample ID: DBS-8 0'2'**Collection Date:** 3/26/2009 4:40:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	9.5	1.5		mg/Kg	5	Analyst: RAGS 4/15/2009 12:39:49 AM

Lab ID: 0903463-60
Client Sample ID: DBS-8 10'-12'**Collection Date:** 3/26/2009 4:55:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	8.8	0.30		mg/Kg	1	Analyst: RAGS 4/15/2009 12:57:13 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc. Lab Order: 0903463
Project: Salty Dog

Lab ID: 0903463-61 Collection Date: 3/26/2009 5:13:00 PM

Client Sample ID: DBS-8 20'-22' Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 300.0: ANIONS Analyst: RAGS

Chloride	7.3	0.30		mg/Kg	1	4/15/2009 1:14:37 AM
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Lab ID: 0903463-62 Collection Date: 3/26/2009 5:25:00 PM

Client Sample ID: DBS-8 30'-32' Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 300.0: ANIONS Analyst: RAGS

Chloride	47	0.30		mg/Kg	1	4/15/2009 2:59:05 AM
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Lab ID: 0903463-63 Collection Date: 3/26/2009 5:40:00 PM

Client Sample ID: DBS-8 40'-42' Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 300.0: ANIONS Analyst: RAGS

Chloride	20	1.5		mg/Kg	5	4/15/2009 3:16:30 AM
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Lab ID: 0903463-64 Collection Date: 3/26/2009 5:55:00 PM

Client Sample ID: DBS-8 50'-52' Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 300.0: ANIONS Analyst: RAGS

Chloride	13	1.5		mg/Kg	5	4/15/2009 3:33:54 AM
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Lab ID: 0903463-65 Collection Date: 3/27/2009 8:30:00 AM

Client Sample ID: DBS-8 60'-62' Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 300.0: ANIONS Analyst: RAGS

Chloride	9.3	0.30		mg/Kg	1	4/15/2009 3:51:18 AM
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Lab ID: 0903463-66 Collection Date: 3/27/2009 8:45:00 AM

Client Sample ID: DBS-8 70'-72' Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 300.0: ANIONS Analyst: RAGS

Chloride	8.7	1.5		mg/Kg	5	4/15/2009 4:08:43 AM
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Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.
Project: Salty Dog**Lab Order:** 0903463**Lab ID:** 0903463-67**Collection Date:** 3/27/2009 9:25:00 AM**Client Sample ID:** DBS-8 80'-82'**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	11	1.5		mg/Kg	5	4/15/2009 4:26:08 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

QA/QC SUMMARY REPORT

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Work Order: 0903463

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions									
Sample ID: 0903463-19AMSD		MSD			Batch ID: 18770	Analysis Date: 4/10/2009 5:15:36 AM			
Chloride	60.43	mg/Kg	0.30	112	75	125	2.13	20	
Sample ID: 0903463-38AMSD		MSD			Batch ID: 18798	Analysis Date: 4/11/2009 4:28:19 AM			
Chloride	31.40	mg/Kg	0.30	94.2	75	125	2.17	20	
Sample ID: 0903463-40AMSD		MSD			Batch ID: 18807	Analysis Date: 4/11/2009 5:39:23 PM			
Chloride	22.33	mg/Kg	1.5	99.2	75	125	0.411	20	
Sample ID: 0903463-48AMSD		MSD			Batch ID: 18807	Analysis Date: 4/12/2009 7:17:33 AM			
Chloride	82.67	mg/Kg	1.5	128	75	125	9.33	20	S
Sample ID: 0903463-20AMSD		MSD			Batch ID: 18798	Analysis Date: 4/14/2009 11:01:34 AM			
Chloride	50.63	mg/Kg	0.30	103	75	125	3.79	20	
Sample ID: 0903463-51AMSD		MSD			Batch ID: 18810	Analysis Date: 4/14/2009 9:28:17 PM			
Chloride	25.35	mg/Kg	0.30	105	75	125	1.57	20	
Sample ID: 0903463-61AMSD		MSD			Batch ID: 18810	Analysis Date: 4/15/2009 1:49:27 AM			
Chloride	22.21	mg/Kg	0.30	99.4	75	125	0.417	20	
Sample ID: MB-18770		MBLK			Batch ID: 18770	Analysis Date: 4/9/2009 8:33:21 PM			
Chloride	ND	mg/Kg	0.30						
Sample ID: MB-18798		MBLK			Batch ID: 18798	Analysis Date: 4/10/2009 7:46:02 PM			
Chloride	ND	mg/Kg	0.30						
Sample ID: MB-18807		MBLK			Batch ID: 18807	Analysis Date: 4/11/2009 4:29:46 PM			
Chloride	ND	mg/Kg	0.30						
Sample ID: MB-18810		MBLK			Batch ID: 18810	Analysis Date: 4/14/2009 8:01:14 PM			
Chloride	ND	mg/Kg	0.30						
Sample ID: LCS-18770		LCS			Batch ID: 18770	Analysis Date: 4/9/2009 8:50:46 PM			
Chloride	13.87	mg/Kg	0.30	92.5	90	110			
Sample ID: LCS-18770		LCS			Batch ID: 18770	Analysis Date: 4/10/2009 2:50:06 PM			
Chloride	14.13	mg/Kg	0.30	94.2	90	110			
Sample ID: LCS-18798		LCS			Batch ID: 18798	Analysis Date: 4/10/2009 8:03:27 PM			
Chloride	15.05	mg/Kg	0.30	100	90	110			
Sample ID: LCS-18807		LCS			Batch ID: 18807	Analysis Date: 4/11/2009 4:47:10 PM			
Chloride	15.49	mg/Kg	0.30	103	90	110			
Sample ID: LCS-18798		LCS			Batch ID: 18798	Analysis Date: 4/14/2009 10:09:19 AM			
Chloride	15.30	mg/Kg	0.30	102	90	110			
Sample ID: LCS-18810		LCS			Batch ID: 18810	Analysis Date: 4/14/2009 8:18:39 PM			
Chloride	15.75	mg/Kg	0.30	105	90	110			
Sample ID: 0903463-19AMS		MS			Batch ID: 18770	Analysis Date: 4/10/2009 4:58:12 AM			
Chloride	61.73	mg/Kg	0.30	121	75	125			
Sample ID: 0903463-38AMS		MS			Batch ID: 18798	Analysis Date: 4/11/2009 4:10:54 AM			
Chloride	30.73	mg/Kg	0.30	89.7	75	125			
Sample ID: 0903463-40AMS		MS			Batch ID: 18807	Analysis Date: 4/11/2009 5:21:59 PM			
Chloride	22.24	mg/Kg	1.5	98.6	75	125			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Daniel B. Stephens & Assoc.

Project: Salty Dog

Work Order: 0903463

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 300.0: Anions

Sample ID: 0903463-48AMS		MS			Batch ID: 18807	Analysis Date: 4/12/2009 7:00:09 AM
Chloride	75.30	mg/Kg	1.5	79.2	75 125	
Sample ID: 0903463-20AMS		MS			Batch ID: 18798	Analysis Date: 4/14/2009 10:44:09 AM
Chloride	48.74	mg/Kg	0.30	90.8	75 125	
Sample ID: 0903463-51AMS		MS			Batch ID: 18810	Analysis Date: 4/14/2009 9:10:53 PM
Chloride	24.95	mg/Kg	0.30	102	75 125	
Sample ID: 0903463-61AMS		MS			Batch ID: 18810	Analysis Date: 4/15/2009 1:32:02 AM
Chloride	22.30	mg/Kg	0.30	100	75 125	

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name DBS

Date Received:

3/30/2009

Work Order Number 0903463

Received by: ARS

Checklist completed by:

Signature



3/30/09

Date

Sample ID labels checked by:

TS
Initials

Matrix:

Carrier name: Greyhound

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/> Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Water - Preservation labels on bottle and cap match?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Container/Temp Blank temperature?	3°	<6° C Acceptable If given sufficient time to cool.	

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Client: DBS & A

ATTN: Mike McVey

Mailing Address: 6001 Academy Road NE

Sta. 100, Albuquer Ave, NM 87109

Phone #: 505-822-9400

email or Fax#: 505-822-8877

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other☐ EDD (Type)☒ Standard ☐ Rush

Project Name:

Salty Dog

Project #:

6508.0118, 01. 00004

Project Manager:

Mike McVey, PE

Sampler: *CM Barahill, PT*

On Ice ☒ Fire ☐ No ☐

Sample Tendering

* NO Sample	Soil	DBS-1 0'-2' - No Sample
03/25/09 0845	Soil	DBS-1 10'-12'
03/25/09 0900	Soil	DBS-1 20'-22'
03/25/09 0915	Soil	DBS-1 30'-32'
NO Sample		DBS-1 40'-42'
03/25/09 0950	Soil	DBS-1 50'-52'
03/25/09 10:10	Soil	DBS-1 60'-62'
03/25/09 10:30	Soil	DBS-1 70'-72'
03/25/09 12:05	Soil	DBS-1 80'-82'

Date:	Time:
3/29/09	1200

Date:	Time:	Relinquished by:
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Received by: _____

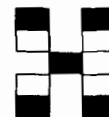
Received by:

Date 3/20/09 Time

Date _____ Time _____

Remarks:

Any Questions Please
Call Mike McVey
© 505-822-9400



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

	BTEX + MTBE + TMB's (8021)
	BTEX + MTBE + TPH (Gas only)
	TPH Method 8015B (Gas/Diesel))
	TPH (Method 418.1)
	EDB (Method 504.1)
	8310 (PNA or PAH)
	RCRA 8 Metals
	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)
	8081 Pesticides / 8082 PCB's
	8260B (VOA)
	8270 (Semi-VOA)
	X Chloride Epi 3m.0
	Air Bubbles (Y or N)

Chain-of-Custody Record

Client:

DBS & A

ATTN: Mike McVay

Mailing Address:

Mailing Address: 6020 Academy Road NE

STE 100, ALBUQUERQUE, NM 87102

Phone #: 505 - 822 - 9400

email or Fax#: 505-822-8877

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other☐ EDD (Type)

Turn-Around Time:

☒ **Standard** ☐ **Rush**

Project Name:

Salty Dog

Project #:

ES08, 0118, 01. 00004

Project Manager:

Mike McVey, PE.

Sampler: *CM Barnhill, PK*

Online

Sample Temperature

[illegible]

Date:

Time:

Relinquished by

Received by

Date _____

Time

Remarks:

Any Questions Please Call
Mike McVay @
505-822-9400

Date: _____

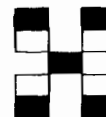
Time:

Relinquished by:

Received by:

Date _____

Time



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX + MTBE + TMB's (8021)	
BTEX + MTBE + TPH (Gas only)	
TPH Method 8015B (Gas/Diesel)	
TPH (Method 418.1)	
EDB (Method 504.1)	
8310 (PNA or PAH)	
RCRA 8 Metals	
Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	
8081 Pesticides / 8082 PCB's	
8260B (VOA)	
8270 (Semi-VOA)	
Chloride FPA 3000	
Air Bubbles (Y or N)	

Chain-of-Custody Record

Turn-Around Time:

☒ ~~Standard~~ ☐ **Rush**

Project Name:

Salty Dog

Project #:

ES08.0118.01.00004

Project Manager:

Mike McVay, PE

Sampler: *CM Barnhill Pt*

On the Edge

Sample Temperature: 25.00 °C

ATTN: Mike McVey

Mailing Address: 6020 Andrews Rd. NE

STE 100, Alburquerque, NM 87101

Phone #: 505-822-9400

email or Fax#: 505-822-8877

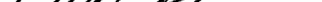
QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

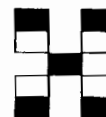
☐ NELAP ☐ Other☐ EDD (Type)[illegible]

Date:	Time:	Relinquished by:	Received by:	Date	Time
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3/29/09 1200   9.4533609

Date:	Time:	Relinquished by:	Received by:	Date	Time
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Remarks: Any Questions Please Call
Mike McVey @
505-822-9400



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX + MTBE + TMB's (8021)
BTEX + MTBE + TPH (Gas only)
TPH Method 8015B (Gas/Diesel)
TPH (Method 418.1)
EDB (Method 504.1)
8310 (PNA or PAH)
RCRA 8 Metals
Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)
8081 Pesticides / 8082 PCB's
8260B (VOA)
8270 (Semi-VOA)
X Chloride EA 300.0
Air Bubbles (Y or N)

Chain-of-Custody Record

Client: DBS & A

ATTN: Mike McVey

Mailing Address: 220 Howard Ave. NE

STR 100, Albuschale N17

Phone # 505-822-9400 8/1/97

email or Fax#: 505-822-8877

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:

☒ **Standard** ☐ **Rush**

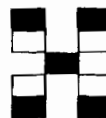
Project Name:

Project #:

Project Manager:

Sampler: *Tom Barkhill, PH*

Sample Temperature: 3



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

[illegible]

Date:	Time:	Relinquished by:	Received by:	Date	Time
-------	-------	------------------	--------------	------	------

26	10	1897				2015	23	10
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3/29/09	1200		MS	9:45	3:50	09
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Date:	Time:	Relinquished by:	Received by:	Date	Time
-------	-------	------------------	--------------	------	------

Remarks: Any Questions Please Call
Mike McVey @
505-822-9400

Chain-of-Custody Record

Client: DBS & A

ATTN: Mike McVey

Mailing Address: 6020 Academy RD NE Sandy, OR 97055

STE 100, ALBUQUERQUE NM

Phone #: 505-822-9400 87109

email or Fax#: 505 822-8877

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Salty Dog

Project #:

ES 08.0118.01.00004

Project Manager:

MIKE McVEY, PE.

Sampler:

Office

Sample Temperature

Container Type and #	Material	Quantity	Remarks
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
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80
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86
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88
89
90
91
92
93
94
95
96
97
98
99
100

Preservative
Type

HEALING NO

0903413

BTEX + MTBE + TMB's (8021)

BTEX + MTBE + TPH (Gas only)

TPH Method 8015B (Gas/Diesel)

TPH (Method 418.1)

EDB (Method 504.1)

8310 (PNA or PAH)

RCRA 8 Metals

Anions (F, Cl, NO₃)

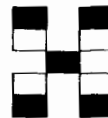
8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

CHLORIDE EPA 300.0

Air Bubbles (Y or N)



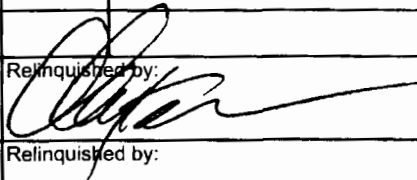
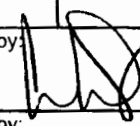
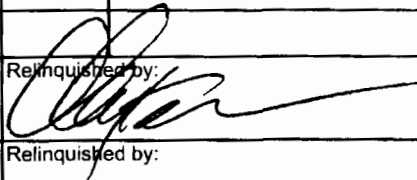
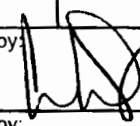
HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTE	BTEX + MTE	TPH Method	TPH (Method)	EDB (Method)	8310 (PNA c	RCRA 8 Met	Anions (F, Cl	8081 Pesticid	8260B (VOA	8270 (Semi-	CHLORID	Air Bubbles
03/23/09	15:40	Soil	DBS-5-0'-2'	1x4oz G/ Jar	None	36	33											X	N/A
03/23/09	16:01	Soil	DBS-5-10'-12'			37	34												
03/23/09	16:20	Soil	DBS-5-20'-22'			38	35												
03/23/09	17:20	Soil	DBS-5-40'-42'			39	36												
03/24/09	0750	Soil	DBS-5-56'-52'			40	37												
03/24/09	0810	Soil	DBS-5-60'-62'			41	38												
03/24/09	0845	Soil	DBS-5-70'-72'			42	39												
03/24/09	0920	Soil	DBS-5-80'-82'			43	40												
<div> <div> Date: 03/29/09 Time: 1200 Relinquished by:  </div> <div> Date: Time: Received by:  </div> </div> <div> <div> Date: 03/29/09 Time: 1200 Relinquished by:  </div> <div> Date: 9:45 Time: 3/30/09 Received by:  </div> </div>																			
Remarks: ANY QUESTIONS? Please Call Mike McVey C 505-822-9400																			

Chain-of-Custody Record

Client: DBS d A
ATTN: Mike McVey
Mailing Address: 6020 Academy RD, N.E.
STE 100 Albuquerque, NM 87109
Phone #: 505-822-9400
email or Fax#: 505-822-8877
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name: *Salty Dog*

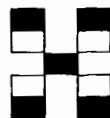
Project #: *ES08.0118.01.00004*

Project Manager: *Mike McVey, PE.*

Sampler: *CM Borahill, PE*

On Ice: ☒ Yes ☐ No

Sample Temperature: *5*



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEALTH	BTEX + MTE	BTEX + MTE	TPH Method	TPH (Method)	EDB (Method)	8310 (PNA c	RCRA 8 Met	Anions (F, Cl	8081 Pesticid	8260B (VOA	8270 (Semi-	Chlorine	Air Bubbles
03/26/09	0820	SOIL	DBS-6 0'-2'	1x 4oz / 6/5oz	None	44 41												X	
03/26/09	0835	SOIL	DBS-6 10'-12'			45 42													
03/26/09	0845	SOIL	DBS-6 20'-22'			46 43													
03/26/09	0900	SOIL	DBS-6 30'-32'			47 44													
03/26/09	0915	SOIL	DBS-6 40'-42'			48 45													
03/26/09	0940	SOIL	DBS-6 50'-52'			49 46													
03/26/09	1000	SOIL	DBS-6 60'-62'			50 47													
03/26/09	1015	SOIL	DBS-6 70'-72'			51 48													
03/26/09	1045	SOIL	DBS-6 80'-82'			52 49													
<div> <div> Date: 03/29/09 Time: 1200 Relinquished by: </div> <div> Date: 03/29/09 Time: 9:45 Received by: </div> </div> <div> Date: 3/30/09 Time: 330 Remarks: ANY Questions Please Call Mike McVey 505-822-9400 </div>																			

Chain-of-Custody Record

Client: DBS & A

ATTN: Mike McVey

Mailing Address: 0020 ACADEMY RD, NE.

575.100 ALBURN Ques MM 87109

Phone #: 505-822-9400

email or Fax#: 505-822-8877

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other☐ EDD (Type)

Turn-Around Time:

☒ ~~Standard~~ ☐ **Rush**

Project Name:

Sally Dog

Project #:

ES08,0118,01.00004

Project Manager:

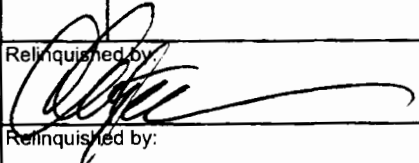
Mike McVey, PE.

Sampler: *CM Bernhill, P6*

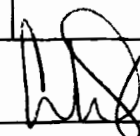
On 10/25/2011

2

Date		Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTB	BTEX + MTB	TPH Method	TPH (Method)	EDB (Method)	8310 (PNA)	RCRA 8 Meta	Anions (F, Cl, NO ₃)	8081 Pesticide	8260B (VOA)	8270 (Semi-VOCs)	Chloride	Air Bubbles (N/A)
03/26/09	1300	SOIL	DBS-7 0'-2'	1X40216	JAN -	None	53 50												X	N/A
03/26/09	1310	SOIL	DBS-7 10'-12'				54 51													
03/26/09	1320	SOIL	DBS-7 20'-22'				55 52													
03/26/09	1330	SOIL	DBS-7 30'-32'				56 53													
03/26/09	1345	SOIL	DBS-7 40'-42'				57 54													
03/26/09	1400	SOIL	DBS-7 50'-52'				58 55													
03/26/09	1415	SOIL	DBS-7 60'-62'				59 56													
03/26/09	1430	SOIL	DBS-7 70'-72'				60 57													
03/26/09	1500	SOIL	DBS-7 80'-82'				61 58													

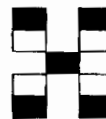
Date: 03/29/09 Time: 1200 Relinquished by: 

Date: Time: Relinquished by:

Received by:  Date: 9:45 3/30/09 Time:

Received by: Date: Time:

Remarks: Any Questions Please Call Mike McVey @ 505-822-9400



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

[illegible]

Chain-of-Custody Record

Client: DBS & A

ATTN: Mike McVey

Mailing Address: 6020 Academy RD, NE.

STR 100, Albany Ave, NY 8710

Phone #: 505-822-9400

email or Fax#: 505 - 822 - 8677

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

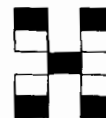
Project Name:

Project #:

Project Manager:

Sampler:

Sample Temperature



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX + MTBE + TMB's (8021)
BTEX + MTBE + TPH (Gas only)
TPH Method 8015B (Gas/Diesel)
TPH (Method 418.1)
EDB (Method 504.1)
8310 (PNA or PAH)
RCRA 8 Metals
Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)
8081 Pesticides / 8082 PCB's
8260B (VOA)
8270 (Semi-VOA)
X Chloride EPA
300.0
Air Bubbles (Y or N)

Date:	Time:	Relinquished by:
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Feb 1960

Relinquished by:

Received by:

Date	Time
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Time

Remarks:

Date: Time: Relinquished by:

Received by:

Date	Time
------	------

Time

Remarks: Any Questions
Please Call Mike McVey
@ 505- 822- 9400



COVER LETTER

Friday, April 17, 2009

Mike McVey
Daniel B. Stephens & Assoc.
6020 Academy NE Suite 100
Albuquerque, NM 87109

TEL: (505) 822-9400

FAX (505) 822-8877

RE: Salty Dog

Order No.: 0904064

Dear Mike McVey:

Hall Environmental Analysis Laboratory, Inc. received 22 sample(s) on 4/3/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", written over a horizontal line.

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX



Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS NW-1 10'-12'

Lab Order: 0904064

Collection Date: 3/31/2009 10:20:00 AM

Project: Salty Dog

Date Received: 4/3/2009

Lab ID: 0904064-01

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	1300	6.0		mg/Kg	20	4/16/2009 1:19:37 AM

Analyst: RAGS

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.**Client Sample ID:** DBS NW-1 20'-22'**Lab Order:** 0904064**Collection Date:** 3/31/2009 10:30:00 AM**Project:** Salty Dog**Date Received:** 4/3/2009**Lab ID:** 0904064-02**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	3600	15		mg/Kg	50	4/16/2009 1:37:02 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.**Client Sample ID:** DBS NW-1 30'-32'**Lab Order:** 0904064**Collection Date:** 3/31/2009 10:45:00 AM**Project:** Salty Dog**Date Received:** 4/3/2009**Lab ID:** 0904064-03**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	800	6.0		mg/Kg	20	4/16/2009 1:54:27 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.**Client Sample ID:** DBS NW-1 40'-42'**Lab Order:** 0904064**Collection Date:** 3/31/2009 11:00:00 AM**Project:** Salty Dog**Date Received:** 4/3/2009**Lab ID:** 0904064-04**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	2500	15		mg/Kg	50	4/16/2009 2:11:51 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Page 4 of 22

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.**Client Sample ID:** DBS NW-1 50'-52'**Lab Order:** 0904064**Collection Date:** 3/31/2009 11:15:00 AM**Project:** Salty Dog**Date Received:** 4/3/2009**Lab ID:** 0904064-05**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	2400	15		mg/Kg	50	4/16/2009 3:21:29 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.**Client Sample ID:** DBS NW-1 60'-62'**Lab Order:** 0904064**Collection Date:** 3/31/2009 11:30:00 AM**Project:** Salty Dog**Date Received:** 4/3/2009**Lab ID:** 0904064-06**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	1800	6.0		mg/Kg	20	4/16/2009 3:38:53 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.**Client Sample ID:** DBS NW-2 0'-2'**Lab Order:** 0904064**Collection Date:** 4/1/2009 10:10:00 AM**Project:** Salty Dog**Date Received:** 4/3/2009**Lab ID:** 0904064-07**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	12	0.30		mg/Kg	1	4/15/2009 11:52:35 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.

Client Sample ID: DBS NW-2 10'-12'

Lab Order: 0904064

Collection Date: 4/1/2009 10:25:00 AM

Project: Salty Dog

Date Received: 4/3/2009

Lab ID: 0904064-08

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	6.2	0.30		mg/Kg	1	4/16/2009 12:10:00 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.
Lab Order: 0904064
Project: Salty Dog
Lab ID: 0904064-09

Client Sample ID: DBS NW-2 20'-22'
Collection Date: 4/1/2009 10:30:00 AM
Date Received: 4/3/2009
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	12	0.30		mg/Kg	1	4/16/2009 12:27:24 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.**Client Sample ID:** DBS NW-2 30'-32'**Lab Order:** 0904064**Collection Date:** 4/1/2009 10:45:00 AM**Project:** Salty Dog**Date Received:** 4/3/2009**Lab ID:** 0904064-10**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	16	0.30		mg/Kg	1	4/16/2009 12:44:48 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.**Date:** 17-Apr-09**CLIENT:** Daniel B. Stephens & Assoc.**Client Sample ID:** DBS NW-2 40'-42'**Lab Order:** 0904064**Collection Date:** 4/1/2009 11:00:00 AM**Project:** Salty Dog**Date Received:** 4/3/2009**Lab ID:** 0904064-11**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	1.8	0.30		mg/Kg	1	4/16/2009 6:32:58 AM

Qualifiers:

- Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.**Date:** 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.
Lab Order: 0904064
Project: Salty Dog
Lab ID: 0904064-12

Client Sample ID: DBS NW-2 50'-52'
Collection Date: 4/1/2009 11:15:00 AM
Date Received: 4/3/2009
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	240	6.0		mg/Kg	20	4/15/2009 3:10:18 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.**Client Sample ID:** DBS NW-2 60'-62'**Lab Order:** 0904064**Collection Date:** 4/1/2009 11:30:00 AM**Project:** Salty Dog**Date Received:** 4/3/2009**Lab ID:** 0904064-13**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	47	6.0		mg/Kg	20	4/15/2009 8:58:28 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.**Date:** 17-Apr-09**CLIENT:** Daniel B. Stephens & Assoc.**Client Sample ID:** SB-1/DBS-9 0'-2'**Lab Order:** 0904064**Collection Date:** 3/30/2009 10:50:00 AM**Project:** Salty Dog**Date Received:** 4/3/2009**Lab ID:** 0904064-14**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	99	6.0		mg/Kg	20	4/15/2009 9:15:53 PM
EPA METHOD 418.1: TPH						Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	4/8/2009

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.**Client Sample ID:** SB-1/DBS-9 10'-12'**Lab Order:** 0904064**Collection Date:** 3/30/2009 11:05:00 AM**Project:** Salty Dog**Date Received:** 4/3/2009**Lab ID:** 0904064-15**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: TAF
Chloride	4100	15		mg/Kg	50	4/16/2009 6:24:02 PM
EPA METHOD 418.1: TPH						Analyst: LRW
Petroleum Hydrocarbons, TR	36	20		mg/Kg	1	4/8/2009

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.**Client Sample ID:** SB-1/DBS-9 20'-22'**Lab Order:** 0904064**Collection Date:** 3/30/2009 11:15:00 AM**Project:** Salty Dog**Date Received:** 4/3/2009**Lab ID:** 0904064-16**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	560	6.0		mg/Kg	20	4/15/2009 9:50:42 PM
EPA METHOD 418.1: TPH						Analyst: LRW
Petroleum Hydrocarbons, TR	220	20		mg/Kg	1	4/8/2009

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.
Lab Order: 0904064
Project: Salty Dog
Lab ID: 0904064-17

Client Sample ID: SB-1/DBS-9 30'-32'
Collection Date: 3/30/2009 11:30:00 AM
Date Received: 4/3/2009
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	480	6.0		mg/Kg	20	4/15/2009 10:08:07 PM
EPA METHOD 418.1: TPH						Analyst: LRW
Petroleum Hydrocarbons, TR	64	20		mg/Kg	1	4/8/2009

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.**Client Sample ID:** SB-1/DBS-9 40'-42'**Lab Order:** 0904064**Collection Date:** 3/30/2009 11:45:00 AM**Project:** Salty Dog**Date Received:** 4/3/2009**Lab ID:** 0904064-18**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	550	6.0		mg/Kg	20	4/15/2009 10:25:31 PM
EPA METHOD 418.1: TPH						Analyst: LRW
Petroleum Hydrocarbons, TR	40	20		mg/Kg	1	4/8/2009

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.**Client Sample ID:** SB-1/DBS-9 50'-52'**Lab Order:** 0904064**Collection Date:** 3/30/2009 1:00:00 PM**Project:** Salty Dog**Date Received:** 4/3/2009**Lab ID:** 0904064-19**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	160	6.0		mg/Kg	20	4/15/2009 10:42:56 PM
EPA METHOD 418.1: TPH						Analyst: LRW
Petroleum Hydrocarbons, TR	82	20		mg/Kg	1	4/8/2009

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.**Date:** 17-Apr-09**CLIENT:** Daniel B. Stephens & Assoc.**Client Sample ID:** SB-1/DBS-9 60'-62'**Lab Order:** 0904064**Collection Date:** 3/30/2009 1:20:00 PM**Project:** Salty Dog**Date Received:** 4/3/2009**Lab ID:** 0904064-20**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGE
Chloride	93	0.30		mg/Kg	1	4/16/2009 4:13:42 AM
EPA METHOD 418.1: TPH						Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	4/8/2009

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.**Client Sample ID:** SB-1/DBS-9 70'-72'**Lab Order:** 0904064**Collection Date:** 3/30/2009 1:40:00 PM**Project:** Salty Dog**Date Received:** 4/3/2009**Lab ID:** 0904064-21**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	65	3.0		mg/Kg	10	4/16/2009 5:05:55 AM
EPA METHOD 418.1: TPH						Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	4/8/2009

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Apr-09

CLIENT: Daniel B. Stephens & Assoc.**Client Sample ID:** SB-1/DBS-9 80'-82'**Lab Order:** 0904064**Collection Date:** 3/30/2009 2:00:00 PM**Project:** Salty Dog**Date Received:** 4/3/2009**Lab ID:** 0904064-22**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	9.7	3.0		mg/Kg	10	4/16/2009 5:23:19 AM
EPA METHOD 418.1: TPH						Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	4/8/2009

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

QA/QC SUMMARY REPORT

Client: Daniel B. Stephens & Assoc.
 Project: Salty Dog

Work Order: 0904064

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 300.0: Anions

Sample ID: MB-18826		MBLK			Batch ID: 18826	Analysis Date: 4/15/2009 5:53:11 AM
Chloride	ND	mg/Kg	0.30			
Sample ID: MB-18837		MBLK			Batch ID: 18837	Analysis Date: 4/15/2009 8:23:40 PM
Chloride	ND	mg/Kg	0.30			
Sample ID: LCS-18826		LCS			Batch ID: 18826	Analysis Date: 4/15/2009 6:10:36 AM
Chloride	15.39	mg/Kg	0.30	103	90	110
Sample ID: LCS-18837		LCS			Batch ID: 18837	Analysis Date: 4/15/2009 8:41:04 PM
Chloride	15.66	mg/Kg	0.30	104	90	110

Method: EPA Method 418.1: TPH

Sample ID: MB-18766		MBLK		Batch ID: 18766		Analysis Date: 4/8/2009	
Petroleum Hydrocarbons, TR	ND	mg/Kg	20				
Sample ID: LCS-18766		LCS		Batch ID: 18766		Analysis Date: 4/8/2009	
Petroleum Hydrocarbons, TR	103.7	mg/Kg	20	104	82	114	
Sample ID: LCSD-18766		LCSD		Batch ID: 18766		Analysis Date: 4/8/2009	
Petroleum Hydrocarbons, TR	105.1	mg/Kg	20	105	82	114	1.32 20

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name DBS

Date Received:

4/3/2009

Work Order Number 0904064

Received by: AT

Sample ID labels checked by:

Initials

Checklist completed by:

Signature

Date

Matrix:

Carrier name: Client drop-off

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/> Not Shipped <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Water - Preservation labels on bottle and cap match?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>

Container/Temp Blank temperature?

6°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

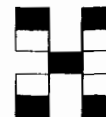
Comments: _____

Corrective Action _____

Page 1 of 3
Chain-of-Custody Record

Client: DBS & A
 ATTN: Mike McVey
 Mailing Address: 2020 Academy Road NE
STE 100, Albuquerque NM 87109
 Phone #: 505-822-9400
 email or Fax#: 505-822-8877
 QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
 Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____
 Project Name: Salty Dog
 Project #: ES08.0118.01.00004
 Project Manager: Mike McVey, PE.
 Sampler: CM Barnhill, PE.
 On Site: ☒ Yes ☐ No
 Sample Temperature: 6



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
<u>No Sample</u>			<u>DBS NW-1 0'-2'</u>	<u>1x402/G/HK</u>	<u>None</u>	<u>1</u>												
<u>03/24/09</u>	<u>10:20</u>	<u>SOIL</u>	<u>DBS NW-1 10'-12'</u>			<u>2</u>												
<u>03/31/09</u>	<u>10:30</u>	<u>SOIL</u>	<u>DBS NW-1 20'-22'</u>			<u>3</u>												
<u>03/31/09</u>	<u>10:45</u>	<u>SOIL</u>	<u>DBS NW-1 30'-32'</u>			<u>4</u>												
<u>03/31/09</u>	<u>11:00</u>	<u>SOIL</u>	<u>DBS NW-1 40'-42'</u>			<u>5</u>												
<u>03/31/09</u>	<u>11:15</u>	<u>SOIL</u>	<u>DBS NW-1 50'-52'</u>			<u>6</u>												
<u>03/31/09</u>	<u>11:30</u>	<u>SOIL</u>	<u>DBS NW-1 60'-62'</u>			<u>7</u>												

Date: 04/06/09 Time: 1600 Relinquished by: [Signature]
 Date: _____ Time: _____ Relinquished by: _____
 Received by: [Signature] Date: 4/3/09 Time: 1310
 Received by: _____ Date: _____ Time: _____

Remarks: Any Questions Please
Call Mike McVey @
505-822-9400

Groundwater



COVER LETTER

Wednesday, April 22, 2009

Mike McVey
Daniel B. Stephens & Assoc.
6020 Academy NE Suite 100
Albuquerque, NM 87109

TEL: (505) 822-9400

FAX (505) 822-8877

RE: Salty Dog Brine Station

Order No.: 0904165

Dear Mike McVey:

Hall Environmental Analysis Laboratory, Inc. received 21 sample(s) on 4/10/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425

AZ license # AZ0682

ORFLAP Lab # NM100001

Texas Lab# T104704424-08-TX



Hall Environmental Analysis Laboratory, Inc.

Date: 22-Apr-09

CLIENT: Daniel B. Stephens & Assoc.
Project: Salty Dog Brine Station**Lab Order:** 0904165

Lab ID: 0904165-01 **Collection Date:** 4/8/2009 2:57:00 PM
Client Sample ID: PMW-1 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: TAF
Chloride	11000	50		mg/L	500	4/21/2009 1:27:50 PM

Lab ID: 0904165-02 **Collection Date:** 4/7/2009 1:18:00 PM
Client Sample ID: MW-2 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: TAF
Chloride	1200	5.0		mg/L	50	4/22/2009 2:31:16 AM

Lab ID: 0904165-03 **Collection Date:** 4/7/2009 2:13:00 PM
Client Sample ID: MW-3 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: TAF
Chloride	17000	50		mg/L	500	4/21/2009 2:02:39 PM

Lab ID: 0904165-04 **Collection Date:** 4/7/2009 3:00:00 PM
Client Sample ID: MW-4 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: TAF
Chloride	6600	50		mg/L	500	4/22/2009 2:13:52 AM

Lab ID: 0904165-05 **Collection Date:** 4/7/2009 3:45:00 PM
Client Sample ID: MW-5 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: TAF
Chloride	1300	5.0		mg/L	50	4/22/2009 3:23:30 AM

Lab ID: 0904165-06 **Collection Date:** 4/7/2009 4:23:00 PM
Client Sample ID: MW-6 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: TAF
Chloride	25	0.10		mg/L	1	4/21/2009 2:54:52 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 22-Apr-09

CLIENT: Daniel B. Stephens & Assoc.
Project: Salty Dog Brine Station**Lab Order:** 0904165**Lab ID:** 0904165-07**Collection Date:** 4/8/2009 10:55:00 AM**Client Sample ID:** DBS-1**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 300.0: ANIONS

Analyst: TAF

Chloride	320	1.0		mg/L	10	4/21/2009 3:12:17 PM
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Lab ID: 0904165-08**Collection Date:** 4/8/2009 10:13:00 AM**Client Sample ID:** DBS-2**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 300.0: ANIONS

Analyst: TAF

Chloride	14	0.10		mg/L	1	4/21/2009 3:29:41 PM
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Lab ID: 0904165-09**Collection Date:** 4/8/2009 8:44:00 AM**Client Sample ID:** DBS-3**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 300.0: ANIONS

Analyst: TAF

Chloride	36	0.10		mg/L	1	4/21/2009 3:47:05 PM
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Lab ID: 0904165-10**Collection Date:** 4/8/2009 9:28:00 AM**Client Sample ID:** DBS-4**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 300.0: ANIONS

Analyst: TAF

Chloride	38	0.10		mg/L	1	4/21/2009 4:04:30 PM
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Lab ID: 0904165-11**Collection Date:** 4/8/2009 7:58:00 AM**Client Sample ID:** DBS-5**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 300.0: ANIONS

Analyst: TAF

Chloride	65	1.0		mg/L	10	4/21/2009 6:06:22 PM
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Lab ID: 0904165-12**Collection Date:** 4/7/2009 6:32:00 PM**Client Sample ID:** DBS-6**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 300.0: ANIONS

Analyst: TAF

Chloride	380	2.0		mg/L	20	4/21/2009 6:23:46 PM
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Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 22-Apr-09

CLIENT: Daniel B. Stephens & Assoc.
Project: Salty Dog Brine Station

Lab Order: 0904165

Lab ID: 0904165-13

Collection Date: 4/7/2009 5:07:00 PM

Client Sample ID: DBS-7

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	570	5.0		mg/L	50	Analyst: TAF 4/21/2009 6:41:10 PM

Lab ID: 0904165-14

Collection Date: 4/7/2009 5:52:00 PM

Client Sample ID: DBS-8

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	58	1.0		mg/L	10	Analyst: TAF 4/21/2009 6:58:34 PM

Lab ID: 0904165-15

Collection Date: 4/8/2009 6:01:00 PM

Client Sample ID: DBS-9

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	Analyst: SCC 4/13/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/13/2009
Surr: DNOP	115	58-140		%REC	1	4/13/2009
EPA METHOD 8015B: GASOLINE RANGE						
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	Analyst: DAM 4/15/2009 2:17:54 AM
Surr: BFB	89.1	59.9-122		%REC	1	4/15/2009 2:17:54 AM
EPA METHOD 300.0: ANIONS						
Chloride	210	10		mg/L	100	Analyst: TAF 4/21/2009 7:15:59 PM

Lab ID: 0904165-16

Collection Date: 4/8/2009 12:56:00 PM

Client Sample ID: NW-1 Shallow

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	630	5.0		mg/L	50	Analyst: TAF 4/21/2009 7:33:24 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 22-Apr-09

CLIENT: Daniel B. Stephens & Assoc.
Project: Salty Dog Brine Station**Lab Order:** 0904165**Lab ID:** 0904165-17
Client Sample ID: NW-1 Middle**Collection Date:** 4/8/2009 12:31:00 PM**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	57	1.0		mg/L	10	Analyst: TAF 4/21/2009 8:25:37 PM

Lab ID: 0904165-18
Client Sample ID: NW-1 Deep**Collection Date:** 4/8/2009 12:00:00 PM**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	38	0.10		mg/L	1	Analyst: TAF 4/21/2009 8:43:02 PM

Lab ID: 0904165-19
Client Sample ID: NW-2 Shallow**Collection Date:** 4/8/2009 5:07:00 PM**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	410	5.0		mg/L	50	Analyst: TAF 4/21/2009 9:00:26 PM

Lab ID: 0904165-20
Client Sample ID: NW-2 Middle**Collection Date:** 4/8/2009 4:51:00 PM**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	570	2.0		mg/L	20	Analyst: TAF 4/22/2009 11:06:09 AM

Lab ID: 0904165-21
Client Sample ID: NW-2 Deep**Collection Date:** 4/8/2009 4:19:00 PM**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	4700	20		mg/L	200	Analyst: TAF 4/21/2009 9:35:16 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

QA/QC SUMMARY REPORT

Client: Daniel B. Stephens & Assoc.
Project: Salty Dog Brine Station

Work Order: 0904165

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions									
Sample ID: 0904165-08AMSD		MSD							
Chloride	18.72	mg/L	0.10	87.9	75	125	1.09	20	
Sample ID: MB		MBLK							
Chloride	ND	mg/L	0.10						
Sample ID: MB		MBLK							
Chloride	ND	mg/L	0.10						
Sample ID: LCS		LCS							
Chloride	5.075	mg/L	0.10	101	90	110			
Sample ID: LCS		LCS							
Chloride	4.969	mg/L	0.10	99.4	90	110			
Sample ID: 0904165-08AMS		MS							
Chloride	18.92	mg/L	0.10	92.0	75	125			
Method: EPA Method 8015B: Diesel Range									
Sample ID: MB-18809		MBLK							
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Sample ID: LCS-18809		LCS							
Diesel Range Organics (DRO)	5.228	mg/L	1.0	105	74	157			
Sample ID: LCSD-18809		LCSD							
Diesel Range Organics (DRO)	5.455	mg/L	1.0	109	74	157	4.25	23	
Method: EPA Method 8015B: Gasoline Range									
Sample ID: 5ML RB		MBLK							
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 2.5UG GRO LCS		LCS							
Gasoline Range Organics (GRO)	0.5620	mg/L	0.050	112	80	115			

Qualifiers:

E Estimated value
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name DBS

Date Received:

4/10/2009

Work Order Number 0904165

Received by: TLS

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name: UPS

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/> Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Water - Preservation labels on bottle and cap match?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Container/Temp Blank temperature?	2°	<6° C Acceptable If given sufficient time to cool.	

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Page 2 of 2
Chain-of-Custody Record

Client: **DBS & A**

ATTN: **Mike McVey**

Mailing Address: **10020 Academy Road NE**
STE 100, Albuquerque, NM 87109

Phone #: **505-822-9400**

email or Fax#: **505-822-8877**

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush

Project Name:
Salty Dog Brine Station

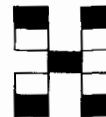
Project #:
ES08.0118.01.00004

Project Manager:
Mike McVey, PE.

Sampler: **CM Barnhill, PE**

On Ice: ☐ Yes ☒ No

Sample Temperature: _____



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	MEAL NO.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chlorine EPA 300.0	Air Bubbles (Y or N)
04/07/09	1707	H ₂ O	DBS-7	1x 125 ml plastic	None	13												X	N/A
04/07/09	1752	H ₂ O	DBS-8	1x 125 ml plastic	" "	14												X	N/A
04/08/09	1801	H ₂ O	DBS-9	1x 125 ml plastic	None	15			X									X	N/A
				1x 250 ml plastic	None	15													
				1x 250 ml plastic	None	15													
04/08/09	1256	H ₂ O	NW-1 Shallow	1x 125 ml plastic	None	16												X	N/A
04/08/09	1231	H ₂ O	NW-1 Middle			17													
04/08/09	1200	H ₂ O	NW-1 Deep			18													
04/08/09	1707	H ₂ O	NW-2 Shallow			19													
04/08/09	1651	H ₂ O	NW-2 Middle			20													
04/08/09	1619	H ₂ O	NW-2 Deep			21													

Date: **04/07/09** Time: **1430** Relinquished by: *[Signature]*

Date: **4/10/09** Time: **1800** Received by: *[Signature]*

Remarks: **Please Call Mike McVey @ 505-822-9400 to discuss Any Additional Analysis Needed on Sample DBS-9**

Appendix C

Well Data Forms

WELL DATA FORM

Type Well <input checked="" type="checkbox"/> MW <input type="checkbox"/> Production <input type="checkbox"/> Other _____		Type of Data <input type="checkbox"/> Development <input checked="" type="checkbox"/> Sampling <input type="checkbox"/> Pump Test <input type="checkbox"/> Other _____		Well No. DBS-1 Sheet 1 of 1 Sheets	
1. Project DBS-1 A		2. Project Location Salty Dog Brine Pond Area		3. Date 04/08/09	
4. Technician CM Barnhill, PE		Lea Co., NM			
7. Method <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Surging <input type="checkbox"/> Air Lift <input type="checkbox"/> Bailing <input type="checkbox"/> Other		8. Manufacturer's Designation of Rig DSR-2001		9. Location of Well (Site, Description) DBS-1	

Water Levels		
Initial	Final	Final + 24 Hours
Date: 04/08/09 Time: 10:30	Date: 04/08/09 Time: 11:00	
10. Total Depth of Well (from TOC) 78.50'	15. Total Depth of Well (from TOC) 78.50'	20. Total Depth of Well (from TOC)
11. Water Level (from TOC) 62.38'	16. Water Level (from TOC) 62.63'	21. Water Level (from TOC)

12. Water Column Height 16.12'	Nom Dia 8ch 40 x = gal/ft Sch 80	17. 3 Well Volumes 7.73 Gallons.	22. Size and Type of Pump or Bailor Red. Floz, 1.8" Submersible Set to T.O.
13. Well Diameter 2" SCH 40 PVC MW	② 0.16 0.1534 4" 0.65 0.5972 6" 1.47 1.3540 8" 2.61 2.3720	18. 5 Well Volumes 12.89 Gallons.	
14. Well Volume (gal) (s) w.e. height 2.57621		19. Purge Volume 10 Gallons	

Final Field Analysis			
23. Total Amount of Water Removed 10 Gallons	24. Was Well Pumped Dry? Yes <input checked="" type="checkbox"/> No	25. Was water added to well? <input checked="" type="checkbox"/> Yes If yes, source:	26. Was the Groundwater Sampled <input checked="" type="checkbox"/> Yes No If yes, what was the sample number & Date: Sampling Personnel? DBS-1, 04/08/09 CM Barnhill 10:55

27. Final Parameters								Photo Roll #,	
Time	Temp C	Conductivity	pH	NTUs	WL	Removed	Flow Rate	Observations	
10:54	19.99	1.383	8.35	clear	62.63	10 Gallons	1.0 GPM	clear	

IF PETROLEUM IS IN THE WELL, DO NOT TAKE pH AND CONDUCTIVITY PARAMETERS

28. Physical Appearance and Remarks Turbid initially - clear @ Sample.	
29. Purgewater disposal method: ON GROUND SURFACE	

Sampling / Development Parameters									
Time	Temp C	ms/cm Conductivity	pH	NTUs	WL (from TOC)	Volume (gallons)	Dissolved Oxygen	Flow Rate (gpm)	Photo #, Observ. (1)
10:42	21.53	1.343	8.11	TURBID	62.38'	initial	4.39	1.0	TURBID
10:45	20.99	1.366	8.27	TURBID	—	2.5	2.37	1.0	TURBID
10:48	20.30	1.394	8.33	TURBID	—	5.0	2.36	1.0	TURBID
10:51	19.72	1.386	8.35	clear	—	7.5	2.67	1.0	clear
10:54	19.99	1.383	8.35	clear	62.63'	10.0	2.71	1.0	clear

(1) Note volume and physical character of sediments removed.
 NTU = Nephelometric turbidity units
 WL = Water Level from Top of PVC Casing

Checked By [Signature] PG	Date 04/08/09
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CMB ENVIRONMENTAL & GEOLOGICAL SERVICES, INC.

WELL DATA FORM

Type Well <input checked="" type="checkbox"/> MW <input type="checkbox"/> Production <input type="checkbox"/> Other _____		Type of Data <input type="checkbox"/> Development <input checked="" type="checkbox"/> Sampling <input type="checkbox"/> Pump Test <input type="checkbox"/> Other _____		Well No. DBS-2 Sheet 1 of 1 Sheets	
1. Project DBS-A		2. Project Location Salty Dog Brine Station		3. Date 04/08/09	
4. Technician CM Barnhill, PE		5. Location Lee Co, N.M.			
7. Method <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Surging <input type="checkbox"/> Air Lift <input type="checkbox"/> Bailing <input type="checkbox"/> Other		8. Manufacturer's Designation of Rig DSR-2001		9. Location of Well (Site, Description) DBS-2	

Water Levels		
Initial	Final	Final + 24 Hours
Date: 04/08/09 Time: 0950	Date: 04/08/09 Time: 10:15	Date: _____ Time: _____
10. Total Depth of Well (from TOC) 79.80'	15. Total Depth of Well (from TOC) 79.60'	20. Total Depth of Well (from TOC)
11. Water Level (from TOC) 65.45'	16. Water Level (from TOC) 66.33'	21. Water Level (from TOC)

12. Water Column Height 14.35'	Nom Dia 2" x = gal/ft Sch 40 0.16 Sch 80 0.1534 0.65 0.5972 1.47 1.3540 2.61 2.3720	17. 3 Well Volumes 6.88 Gallons	22. Size and Type of <input checked="" type="checkbox"/> Pump or Bailer RediFlo 2, 1.8" Submersible Set c.T.D.
13. Well Diameter 2" SCH 40 PVC MW		18. 5 Well Volumes 11.48 Gallons	
14. Well Volume (gal) (s) w.e. height 2.2961		19. Purge Volume 10 Gallons	

Final Field Analysis			
23. Total Amount of Water Removed 10 Gallons	24. Was Well Pumped Dry? Yes <input checked="" type="checkbox"/> No	25. Was water added to well? <input checked="" type="checkbox"/> No Yes If yes, source:	26. Was the Groundwater Sampled <input checked="" type="checkbox"/> Yes No If yes, what was the sample number & Date: Sampling Personnel? DBS-2, 04/08/09 CM Barnhill 10:13

27. Final Parameters								Photo Roll #, Observations
Time	Temp C	Conductivity ^{mc/cm}	pH	NTUs	WL	Removed	Flow Rate	
10:12	20.08	0.451	8.24	Almost Clear	66.33	10 Gallons	1.06 gpm	Almost Clear

IF PETROLEUM IS IN THE WELL, DO NOT TAKE pH AND CONDUCTIVITY PARAMETERS

28. Physical Appearance and Remarks TURBID initially - almost clear @ Sample.

29. Purgewater disposal method: ON GROUND SURFACE

Sampling / Development Parameters									
Time	Temp C	Conductivity ^{mc/cm}	pH	NTUs	WL (from TOC)	Volume (gallons)	Dissolved Oxygen	Flow Rate (gpm)	Photo #, Observ. (1)
10:00	21.34	0.694	8.24	TURBID	65.45'	Initial	5.87	1.0	TURBID
10:03	20.79	0.494	8.28	TURBID	—	2.5	4.98	1.0	TURBID
10:06	20.29	0.461	8.24	TURBID	—	5.0	3.89	1.0	TURBID
10:09	20.12	0.452	8.24	TURBID	—	7.5	3.36	1.0	TURBID
10:12	20.08	0.451	8.23	Almost Clear	66.33'	10.0	3.61	1.0	Almost Clear

(1) Note volume and physical character of sediments removed.
 NTU = Nephelometric turbidity units
 WL = Water Level from Top of PVC Casing

Checked By CM Barnhill PE	Date 04/08/09
----------------------------------	----------------------

CMB ENVIRONMENTAL & GEOLOGICAL SERVICES, INC.

WELL DATA FORM

Type Well <input checked="" type="checkbox"/> MW <input type="checkbox"/> Production <input type="checkbox"/> Other _____		Type of Data <input type="checkbox"/> Development <input checked="" type="checkbox"/> Sampling <input type="checkbox"/> Pump Test <input type="checkbox"/> Other _____		Well No. DBS-3 Sheet 1 of 1 Sheets	
1. Project DBS-A Salty Dot Brine Station		2. Project Location Salty Dot Brine Pump Area		3. Date 04/08/09	
4. Technician CM Barnhill, PE		5. Location Lea Co., N.M.			
7. Method <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Surging <input type="checkbox"/> Air Lift <input type="checkbox"/> Bailing <input type="checkbox"/> Other		8. Manufacturer's Designation of Rig DSR-2001		9. Location of Well (Site, Description) DBS-3	

Water Levels		
Initial	Final	Final + 24 Hours
Date: 04/08/09 Time: 0820 10. Total Depth of Well (from TOC) 78.72'	Date: 04/08/09 Time: 0948 15. Total Depth of Well (from TOC) 78.60'	Date: _____ Time: _____ 20. Total Depth of Well (from TOC)
11. Water Level (from TOC) 60.67'	16. Water Level (from TOC) 61.44'	21. Water Level (from TOC)

12. Water Column Height 18.05'	Nom Dia Sch 40 x = gal/ft Sch 80	17.3 Well Volumes 8.66 Gallons	22. Size and Type of <input checked="" type="checkbox"/> Pump <input type="checkbox"/> Bailer
13. Well Diameter 2" SCH 40 PVC MW	4" 0.18 0.1534 6" 0.65 0.5972 8" 1.47 1.3540 8" 2.61 2.3720	18.5 Well Volumes 14.44 Gallons	Rediflow, 1.8" Submersible Set to T.O.
14. Well Volume (gal) (s) w.e. height) 2.88 Gal.		19. Purge Volume 10 Gallons	

Final Field Analysis			
23. Total Amount of Water Removed 10 Gallons	24. Was Well Pumped Dry? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	25. Was water added to well? No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> If yes, source:	26. Was the Groundwater Sampled <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, what was the sample number & Date: Sampling Personnel? DBS-3, 04/08/09 CM Barnhill, PE 0844

Time	Temp C	ms/cm Conductivity	pH	NTUs	WL (from TOC)	Volume (gallons)	Dissolved Oxygen	Flow Rate (gpm)	Photo Roll #, Observ. (1)
0843	19.53	0.552	7.44	Clear	61.44'	10.0	2.93	1.0	Clear

IF PETROLEUM IS IN THE WELL, DO NOT TAKE pH AND CONDUCTIVITY PARAMETERS

28. Physical Appearance and Remarks Turbid Initially - Clear @ Sample

29. Purgewater disposal method: ON GROUND SURFACE

Sampling / Development Parameters									
Time	Temp C	ms/cm Conductivity	pH	NTUs	WL (from TOC)	Volume (gallons)	Dissolved Oxygen	Flow Rate (gpm)	Photo #, Observ. (1)
0831	18.06	0.735	7.89	Turbid	60.67'	Initial	6.44	1.0	Turbid
0834	18.85	0.620	7.68	Turbid	—	2.5	4.56	1.0	Turbid
0837	19.34	0.583	7.52	Turbid	—	5.0	2.66	1.0	Turbid
0840	19.58	0.558	7.48	Turbid	—	7.5	2.55	1.0	Turbid
0843	19.53	0.552	7.44	Clear	61.44'	10.0	2.93	1.0	Clear

(1) Note volume and physical character of sediments removed.
 NTU = Nephelometric turbidity units
 WL = Water Level from Top of PVC Casing

Checked By CM Barnhill, PE	Date 04/08/09
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WELL DATA FORM

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CMB ENVIRONMENTAL & GEOLOGICAL SERVICES, INC.

WELL DATA FORM

Type Well <input checked="" type="checkbox"/> MW <input type="checkbox"/> Production <input type="checkbox"/> Other		Type of Data <input type="checkbox"/> Development <input checked="" type="checkbox"/> Sampling <input type="checkbox"/> Pump Test <input type="checkbox"/> Other		Well No. DBS-5 Sheet 1 of 1 Sheets					
1. Project DBS-A		2. Project Location Brine Pond Area		3. Date 04/08/2009					
4. Technician CM Barnhill, P.G.		5. Salty Dog Playa Lake Shad & Brine Wells Lea County, NM.							
7. Method <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Surging <input type="checkbox"/> Air Lift <input type="checkbox"/> Bailing Other		8. Manufacturer's Designation of Rig DSA-2001		9. Location of Well (Site, Description) DBS-5					
Water Levels									
Initial		Final		Final + 24 Hours					
Date: 04/08/09 Time: 0730		Date: 04/08/09 Time: 0800		Date: Time:					
10. Total Depth of Well (from TOC) 78.90'		15. Total Depth of Well (from TOC) 78.90'		20. Total Depth of Well (from TOC)					
11. Water Level (from TOC) 62.99'		16. Water Level (from TOC) 63.55'		21. Water Level (from TOC)					
12. Water Column Height 15.91'	Nom Dia 8ch 40 x = gal/ft Sch 80		17. 3 Well Volumes 7.63 Gallons		22. Size and Type of Pump or Bailer				
13. Well Diameter 2" SCH 40 PRC MW	2" 0.18 0.1534 4" 0.65 0.5972 6" 1.47 1.3540 8" 2.61 2.3720		18. 5 Well Volumes 12.72 Gallons		Redif/12, 1.8" Submersible Set to T.D.				
14. Well Volume (gal) (s) w.e. height 2.54 gal			19. Purge Volume 10 Gallons						
Final Field Analysis									
23. Total Amount of Water Removed 10 Gallons	24. Was Well Pumped Dry? No	25. Was water added to well? No If yes, source:	26. Was the Groundwater Sampled Yes No If yes, what was the sample number & Date: Sampling Personnel? DBS-5, 04/08/09 CM Barnhill 0758						
27. Final Parameters		Photo Roll #, Observations							
Time 0757	Temp C 19.60	ms/cm Conductivity 0.777	pH 7.15	NTUs Almost clear	WL 63.55'				
		Removed 10 Gallons	Flow Rate 1.0 gpm	Almost clear sample					
IF PETROLEUM IS IN THE WELL, DO NOT TAKE pH AND CONDUCTIVITY PARAMETERS									
28. Physical Appearance and Remarks Turbid Initially - Almost clear sample									
29. Purgewater disposal method: ON GROUND SURFACE									
Sampling / Development Parameters									
Time	Temp C	ms/cm Conductivity	pH	NTUs	WL (from TOC)	Volume (gallons)	Dissolved Oxygen	Flow Rate (gpm)	Photo #, Observ. (1)
0745	16.04	0.858	7.39	Turbid	62.99'	Initial	5.11	1.0	Turbid
0748	17.89	0.811	7.16	Turbid	—	2.5	4.07	1.0	Turbid
0751	19.09	0.758	7.19	Turbid	—	5.0	4.18	1.0	Turbid
0754	19.57	0.778	7.16	Turbid	—	7.5	4.57	1.0	Turbid
0757	19.60	0.777	7.15	Almost clear	63.55'	10.0	4.96	1.0	Almost clear
(1) Note volume and physical character of sediments removed. NTU = Nephelometric turbidity units WL = Water Level from Top of PVC Casing									
Checked By CM Barnhill P.G.								Date 04/08/09	

WELL DATA FORM

Type Well <input checked="" type="checkbox"/> MW <input type="checkbox"/> Production <input type="checkbox"/> Other _____			Type of Data <input type="checkbox"/> Development <input checked="" type="checkbox"/> Sampling <input type="checkbox"/> Pump Test <input type="checkbox"/> Other _____			Well No. DBS-6 Sheet 1 of 1 Sheets		
1. Project DBS-6			2. Project Location Salty Dog Playa Lake			3. Date 04/07/09		
4. Technician CM Barnhill, PE			5. Shed & Brine Well Area Lea Co., N.M.					
7. Method <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Surging <input type="checkbox"/> Air Lift <input type="checkbox"/> Bailing <input type="checkbox"/> Other			8. Manufacturer's Designation of Rig DSR-2001			9. Location of Well (Site, Description) DBS-6		

Water Levels			
Initial	Final	Final + 24 Hours	
Date: 04/07/09 Time: 18:15	Date: 04/07/09 Time: 18:36	Date: _____ Time: _____	
10. Total Depth of Well (from TOC) 78.70'	15. Total Depth of Well (from TOC) 78.40'	20. Total Depth of Well (from TOC) /	
11. Water Level (from TOC) 62.75'	16. Water Level (from TOC) 63.70'	21. Water Level (from TOC) /	

12. Water Column Height 15.95'	Norm Dia 4" x = gal/ft <input checked="" type="checkbox"/> Sch 40 <input type="checkbox"/> Sch 80	17. 3 Well Volumes 7.65 Gallons	22. Size and Type of Pump or Bailer
13. Well Diameter 2" SCH 40 PVC MW	<input checked="" type="checkbox"/> 4" 0.16 <input type="checkbox"/> 6" 0.65 <input type="checkbox"/> 8" 2.61	18. 5 Well Volumes 12.76 Gallons	Rediflo 2, 1.8" Submersible C.T.O.
14. Well Volume (gal) (s) w.e. height 2.5561		19. Purge Volume 10 Gallons	

Final Field Analysis			
23. Total Amount of Water Removed 10 Gallons	24. Was Well Pumped Dry? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	25. Was water added to well? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If yes, source: _____	26. Was the Groundwater Sampled <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, what was the sample number & Date: Sampling Personnel? DBS-6, 04/07/06 CM Barnhill 1833

27. Final Parameters								Photo Roll #
Time	Temp C	Conductivity ns/cm	pH	NTUs	WL	Removed	Flow Rate	Observations
18:32	20.12	1.566	6.95	clear	63.70	10 Gallons	1.06 gpm	almost clear

IF PETROLEUM IS IN THE WELL, DO NOT TAKE pH AND CONDUCTIVITY PARAMETERS

28. Physical Appearance and Remarks Turbid initially - almost clear sample	29. Purge water disposal method: ON GROUND SURFACE
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Sampling / Development Parameters									
Time	Temp C	Conductivity ns/cm	pH	NTUs	WL (from TOC)	Volume (gallons)	Dissolved Oxygen	Flow Rate (gpm)	Photo #, Observ. (1)
18:20	21.49	1.262	7.96	TURBID	62.75'	Initial	7.06	1.0	TURBID
18:23	21.06	1.308	7.37	TURBID	—	2.5	6.85	1.0	TURBID
18:26	20.45	1.434	7.06	TURBID	—	5.0	6.57	1.0	TURBID
18:29	20.16	1.545	6.99	TURBID	—	7.5	6.42	1.0	TURBID
18:32	20.12	1.566	6.95	almost clear	63.70	10.0	6.21	1.0	almost clear

(1) Note volume and physical character of sediments removed.
 NTU = Nephelometric turbidity units
 WL = Water Level from Top of PVC Casing

Checked By CM Barnhill - PE	Date 04/07/09
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CMB ENVIRONMENTAL & GEOLOGICAL SERVICES, INC.

WELL DATA FORM

Type Well <input checked="" type="checkbox"/> MW <input type="checkbox"/> Production <input type="checkbox"/> Other		Type of Data <input type="checkbox"/> Development <input checked="" type="checkbox"/> Sampling <input type="checkbox"/> Pump Test <input type="checkbox"/> Other		Well No. DBS-7 Sheet 1 of 1 Sheets					
1. Project DBS: A		2. Project Location Salty Dpt Playa Lake		3. Date 04/07/09					
4. Technician CM Barnhill, PG		5. Well Name Salty Dpt Brine Well Area							
6. Method Pumping Surging Air Lift Bailing Other		8. Manufacturer's Designation of Rig DSR-2018		9. Location of Well (Site, Description) DBS-7					
Water Levels									
Initial		Final		Final + 24 Hours					
Date: 04/07/09 Time: 16:45		Date: 04/07/09 Time: 17:10		Date: Time:					
10. Total Depth of Well (from TOC) 77.10'		15. Total Depth of Well (from TOC) 76.20'		20. Total Depth of Well (from TOC)					
11. Water Level (from TOC) 61.74'		16. Water Level (from TOC) 61.89		21. Water Level (from TOC)					
12. Water Column Height 15.36'		Nom Dia Sch 40 $x = \text{gal/ft}$ Sch 80		17. 3 Well Volumes 7.37 gal/1000					
13. Well Diameter 2" SCH 40 PVC MW		4" 0.65 0.5972 6" 1.47 1.3540 8" 2.61 2.3720		18. 5 Well Volumes 12.28 gallons					
14. Well Volume (gal) 2.45 gal (s) w.e. height		19. Purge Volume 10 gallons		22. Size and Type of Pump or Bailer Rediflow, 1.8" Submersible Set @ T.D.					
Final Field Analysis									
23. Total Amount of Water Removed 10 Gallons		24. Was Well Pumped Dry? No		25. Was water added to well? No					
		26. Was the Groundwater Sampled Yes No If yes, what was the sample number & Date: Sampling Personnel? DBS-7, 04/07/09 CM Barnhill 1767							
27. Final Parameters		Time 1706 Temp C 20.51 Conductivity 1.999 pH 7.03 NTUs Almost Clear WL 61.89 Removed 10 Gallons Flow Rate 1.06 gpm Photo Roll #, Observations Almost Clear							
IF PETROLEUM IS IN THE WELL, DO NOT TAKE pH AND CONDUCTIVITY PARAMETERS									
28. Physical Appearance and Remarks TURBID initially - almost clear @ Sample.									
29. Purge water disposal method: ON GROUND SURFACE									
Sampling / Development Parameters									
Time	Temp C	Conductivity mS/cm	pH	NTUs	WL (from TOC)	Volume (gallons)	Dissolved Oxygen	Flow Rate (gpm)	Photo #, Observ. (1)
16:54	21.79	3.051	7.37	TURBID	61.74'	initial	4.71	1.02.5	TURBID
16:57	21.16	1.776	7.36	TURBID	—	2.5	4.85	1.02.5	TURBID
1700	20.83	1.869	7.25	TURBID	—	5.0	5.23	1.02.5	TURBID
1703	20.69	1.959	7.15	TURBID	—	7.5	4.65	1.02.5	TURBID
1706	20.51	1.999	7.03	Almost Clear	61.89	10.0	4.30	1.02.5	Almost Clear
(1) Note volume and physical character of sediments removed. NTU = Nephelometric turbidity units WL = Water Level from Top of PVC Casing									
Checked By CM Barnhill PG								Date 04/07/09	

CMB ENVIRONMENTAL & GEOLOGICAL SERVICES, INC.

WELL DATA FORM

Type Well <input checked="" type="checkbox"/> MW <input type="checkbox"/> Production <input type="checkbox"/> Other _____		Type of Data <input type="checkbox"/> Development <input checked="" type="checkbox"/> Sampling <input type="checkbox"/> Pump Test <input type="checkbox"/> Other _____		Well No. DBS-8 Sheet 1 of 1 Sheets					
1. Project DBS-8A		2. Project Location Salty Dog Playa Lake		3. Date 04/07/09					
4. Technician CM Barnhill, PE		5. Well Location Salty Dog Brine Well Area Lech Co, NM							
7. Method <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Surging <input type="checkbox"/> Air Lift <input type="checkbox"/> Bailing <input type="checkbox"/> Other		8. Manufacturer's Designation of Rig DSR-2001		9. Location of Well (Site, Description) DBS-8					
Water Levels									
Initial		Final		Final + 24 Hours					
Date: 04/07/09 Time: 17:30		Date: 04/07/09 Time: 17:56		Date: _____ Time: _____					
10. Total Depth of Well (from TOC) 77.20'		15. Total Depth of Well (from TOC) 77.05'		20. Total Depth of Well (from TOC)					
11. Water Level (from TOC) 61.20'		16. Water Level (from TOC) 61.57'		21. Water Level (from TOC)					
12. Water Column Height 16.0'		Nom Dia Sch 40 x = gal/ft Sch 40		17.3 Well Volumes 7.68 Gallons					
13. Well Diameter 2" SCH 40 PVC MW		2" 0.16 0.1534 4" 0.65 0.5972 6" 1.47 1.3540 8" 2.61 2.3720		18.5 Well Volumes 12.8 Gallons					
14. Well Volume (gal) (s) w.e. height 2.56 Gallons				19. Purge Volume 10 Gallons					
22. Size and Type of Pump or Bailer Pump		22. Size and Type of Pump or Bailer Rediflow 1.8" Submersible Set to T.O.							
Final Field Analysis									
23. Total Amount of Water Removed 10 Gallons		24. Was Well Pumped Dry? No		25. Was water added to well? No If yes, source:					
				26. Was the Groundwater Sampled Yes No If yes, what was the sample number & Date: Sampling Personnel? DBS-8 04/07/09 CM Barnhill PE 17:52					
27. Final Parameters		Photo Roll #, Observations							
Time	Temp C	ms/cm Conductivity	pH	NTUs	WL (from TOC)	Removed	Flow Rate (gpm)	Photo Roll #, Observations	
17:51	20.52	0.884	7.52	Turbid	61.57'	10 Gallons	1.06 gpm	Turbid	
IF PETROLEUM IS IN THE WELL, DO NOT TAKE pH AND CONDUCTIVITY PARAMETERS									
28. Physical Appearance and Remarks Turbid H₂O									
29. Purge water disposal method: ON GROUND SURFACE									
Sampling / Development Parameters									
Time	Temp C	ms/cm Conductivity	pH	NTUs	WL (from TOC)	Volume (gallons)	Dissolved Oxygen	Flow Rate (gpm)	Photo #, Observ. (1)
17:39	21.42	2.374	8.62	Turbid	61.20'	14.112	3.91	1.0	Turbid
17:42	20.58	0.974	8.77	Turbid	—	2.5	4.65	1.0	Turbid
17:45	20.41	0.924	8.70	Turbid	—	5.0	4.34	1.0	Turbid
17:48	20.54	0.898	7.94	Turbid	—	7.5	4.37	1.0	Turbid
17:51	20.52	0.884	7.52	Turbid	61.57'	10.0	4.88	1.0	Turbid
(1) Note volume and physical character of sediments removed.									
NTU = Nephelometric turbidity units									
WL = Water Level from Top of PVC Casing									
Checked By CM Barnhill PE								Date 04/07/09	

WELL DATA FORM

Type Well <input checked="" type="checkbox"/> MW <input type="checkbox"/> Production <input type="checkbox"/> Other _____		Type of Data <input type="checkbox"/> Development <input checked="" type="checkbox"/> Sampling <input type="checkbox"/> Pump Test <input type="checkbox"/> Other _____		Well No. DBS-9 Sheet 1 of 1 Sheets	
1. Project DBS-9 A Salty Dog Brine Station		2. Project Location Salty Dog Playa Lake Shed 6 Brine Well Area Lea Co. NM		3. Date 04/08/09	
4. Technician CM Barnhill, PE					
7. Method <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Surging <input type="checkbox"/> Air Lift <input type="checkbox"/> Bailing <input type="checkbox"/> Other		8. Manufacturer's Designation of Rig DSR-2001		9. Location of Well (Site, Description) DBS-9	

Water Levels		
Initial	Final	Final + 24 Hours
Date: 04/08/09 Time: 17:35 10. Total Depth of Well (from TOC) 70.75' 11. Water Level (from TOC) 53.93'	Date: 04/08/09 Time: 18:05 15. Total Depth of Well (from TOC) 70.85' 16. Water Level (from TOC) 54.12'	Date: _____ Time: _____ 20. Total Depth of Well (from TOC) _____ 21. Water Level (from TOC) _____

12. Water Column Height 16.82'	Nom Dia 8" SCH 40 x = gal/ft Sch 80	17. 3 Well Volumes 8.07 Gallons	22. Size and Type of <input checked="" type="checkbox"/> Pump or Bailer
13. Well Diameter 2" SCH 40 PUL MW	4" 0.1534 6" 0.5972 8" 1.3540	18. 5 Well Volumes 13.45 Gallons	FS-120, 1.8" Submersible Set to T.O.
14. Well Volume (gal) (s) w.e. height) 2.696 gal	8" 2.61 2.3720	19. Purge Volume 10 Gallons	

Final Field Analysis			
23. Total Amount of Water Removed 10 Gallons	24. Was Well Pumped Dry? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	25. Was water added to well? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If yes, source:	26. Was the Groundwater Sampled <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, what was the sample number & Date: Sampling Personnel? DBS-9, 04/08/09 CM Barnhill @ 18:01

27. Final Parameters									
Time	Temp C	ms/cm Conductivity	pH	NTUs	WL	Removed	Flow Rate	Photo Roll #	Observations
18:00	18.48	1.176	7.12	Turbid	54.12	10 Gallons	1.0 GPM	Turbid	Turbid

IF PETROLEUM IS IN THE WELL, DO NOT TAKE pH AND CONDUCTIVITY PARAMETERS

28. Physical Appearance and Remarks Turbid H₂O

29. Purgewater disposal method: ON GROUND SURFACE

Sampling / Development Parameters									
Time	Temp C	ms/cm Conductivity	pH	NTUs	WL (from TOC)	Volume (gallons)	Dissolved Oxygen	Flow Rate (gpm)	Photo #, Observ. (1)
16:48	18.49	1.358	7.63	Turbid	53.93'	Initial	7.05	1.0	Turbid
16:51	18.45	1.217	7.20	Turbid	-	2.5	4.86	1.0	Turbid
16:54	18.35	1.203	7.14	Turbid	-	5.0	4.43	1.0	Turbid
16:57	18.48	1.201	7.13	Turbid	-	7.5	5.08	1.0	Turbid
18:00	18.48	1.176	7.12	Turbid	54.12	10.0	5.59	1.0	Turbid

(1) Note volume and physical character of sediments removed.
 NTU = Nephelometric turbidity units
 WL = Water Level from Top of PVC Casing

Checked By [Signature]	Date 04/08/09
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WELL DATA FORM

Type Well <input checked="" type="checkbox"/> MW	Type of Data <input type="checkbox"/> Development <input checked="" type="checkbox"/> Sampling <input type="checkbox"/> Pump Test <input type="checkbox"/> Other _____	Well No. Sheet 1 NW-1 Shallow of _____ Sheets
1. Project DBS & A Salty Dog Brine Station	2. Project Location Salty Dog Brine Pond Area	3. Date 04/08/09
4. Technician CM Barnhill, PG	Lew Co., NM	
7. Method <input checked="" type="radio"/> Pumping <input type="radio"/> Surging <input type="radio"/> Air Lift <input type="radio"/> Bailing <input type="radio"/> Other	8. Manufacturer's Designation of Rig DSR-2001	9. Location of Well (Site, Description) NN-1 Shallow
Water Levels		
Initial	Final	Final + 24 Hours
Date: 04/08/09 Time: 12:40	Date: 04/08/09 Time: 1300	Date: / Time:
10. Total Depth of Well (from TOC) 74.95'	15. Total Depth of Well (from TOC) 74.95'	20. Total Depth of Well (from TOC)
11. Water Level (from TOC) 62.35'	16. Water Level (from TOC) 62.35'	21. Water Level (from TOC)
12. Water Column Height 12.60'	Nom Dia x = gal/ft Sch 40 Sch 80 2" 0.16 0.1534 4" 0.65 0.5972 6" 1.47 1.3540 8" 2.61 2.3720	17. 3 Well Volumes 6.048 Gallons
13. Well Diameter 2" SCH 40 PVC MW	18. 5 Well Volumes 10.08 Gallons	22. Size and Type of <input checked="" type="radio"/> Pump or Bailor Rediflo 2, 1.8" Submersible Set T.D.
14. Well Volume (gal) (s.w.e. height) 2.01 Gal	19. Purge Volume 10 Gallons	
Final Field Analysis		
23. Total Amount of Water Removed 10 Gallons	24. Was Well Pumped Dry? Yes <input checked="" type="radio"/> No	25. Was water added to well? Yes <input checked="" type="radio"/> If yes, source: 26. Was the Groundwater Sampled Yes <input checked="" type="radio"/> No If yes, what was the sample number & Date: Sampling Personnel? NN-1 Shallow, 04/08/09 CM Barnhill 12:56
27. Final Parameters		
Time Temp C Conductivity pH NTUs WL Removed Flow Rate Photo Roll #, Observations		
12:55 20.36 1.404 7.39 TURBID 62.35' 10.0 1.0 TURBID		
IF PETROLEUM IS IN THE WELL, DO NOT TAKE PH AND CONDUCTIVITY PARAMETERS		
28. Physical Appearance and Remarks TURBID - Well NOT Well Developed		
29. Purgewater disposal method: ON GROUND SURFACE		
Sampling / Development Parameters		
Time Temp C ms/cm Conductivity pH NTUs WL (from TOC) Volume (gallons), Dissolved Oxygen Flow Rate (gpm) Photo #, Observ. (1)		
12:43 21.29 1.255 7.48 TURBID 62.35 initial 3.69 1.0 TURBID		
12:45 20.92 1.444 7.47 TURBID — 2.5 2.08 2.0 TURBID		
12:49 20.20 1.393 7.46 TURBID — 5.0 2.11 1.0 TURBID		
12:52 21.0 1.442 7.40 TURBID — 7.5 2.09 1.0 TURBID		
12:55 20.36 1.404 7.39 TURBID 62.35 10.0 2.08 1.0 TURBID		
(1) Note volume and physical character of sediments removed. NTU = Nephelometric turbidity units WL = Water Level from Top of PVC casing		
Checked By [Signature] PG	Date	04/08/09

CMB ENVIRONMENTAL & GEOLOGICAL SERVICES, INC.

WELL DATA FORM

Type Well <input checked="" type="checkbox"/> MW <input type="checkbox"/> Production <input type="checkbox"/> Other		Type of Data <input type="checkbox"/> Development <input checked="" type="checkbox"/> Sampling <input type="checkbox"/> Pump Test <input type="checkbox"/> Other		Well No. <u>NW-1 middle</u> Sheet 1 of 1 Sheets					
1. Project <u>DBS-A</u>		2. Project Location <u>Salty Dog Brine Station</u>		3. Date <u>04/08/09</u>					
4. Technician <u>CM Barnhill, PE</u>		5. Location <u>Lea Co., N.M.</u>							
7. Method <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Surging <input type="checkbox"/> Air Lift <input type="checkbox"/> Bailing <input type="checkbox"/> Other		8. Manufacturer's Designation of Rig <u>DSR-2001</u>		9. Location of Well (Site, Description) <u>NW-1 middle</u>					
Water Levels									
Initial		Final		Final + 24 Hours					
Date: <u>04/08/09</u> Time: <u>12:10</u>		Date: <u>04/08/09</u> Time: <u>12:35</u>		Date: _____ Time: _____					
10. Total Depth of Well (from TOC) <u>121.31'</u>		15. Total Depth of Well (from TOC) <u>121.31'</u>		20. Total Depth of Well (from TOC)					
11. Water Level (from TOC) <u>62.25'</u>		16. Water Level (from TOC) <u>62.51'</u>		21. Water Level (from TOC)					
12. Water Column Height <u>59.06'</u>		Nom Dia <u>Sch 40</u> x = gal/ft Sch 40 Sch 80		17. 3 Well Volumes <u>28.34 Gallons</u>					
13. Well Diameter <u>2" SCH 40 PVC MW</u>		2" 0.1534 4" 0.65 0.5972 6" 1.47 1.3540 8" 2.61 2.3720		18. 5 Well Volumes <u>47.24 Gallons</u>					
14. Well Volume (gal) (s) w.e. height <u>9.44 gal</u>		19. Purge Volume <u>306 gallons</u>		22. Size and Type of Pump or Bailer <u>Redfish 2, 1.8" submersible set to T.O.</u>					
Final Field Analysis									
23. Total Amount of Water Removed <u>30 Gallons</u>		24. Was Well Pumped Dry? Yes <input checked="" type="checkbox"/> No		25. Was water added to well? <input checked="" type="checkbox"/> No Yes If yes, source:					
				26. Was the Groundwater Sampled <input checked="" type="checkbox"/> Yes No If yes, what was the sample number & Date: Sampling Personnel? <u>NW-1, middle, 04/08/09</u> <u>CM Barnhill 12:31</u>					
27. Final Parameters		Photo Roll #, Observations							
Time	Temp C	ms/cm Conductivity	pH	NTUs	WL	Removed	Flow Rate	Photo Roll #, Observations	
<u>12:30</u>	<u>20.00</u>	<u>0.638</u>	<u>7.47</u>	<u>TURBID</u>	<u>62.51</u>	<u>306 gal</u>	<u>2.56 gpm</u>	<u>TURBID</u>	
IF PETROLEUM IS IN THE WELL, DO NOT TAKE pH AND CONDUCTIVITY PARAMETERS									
28. Physical Appearance and Remarks <u>TURBID H₂O</u>									
29. Purgewater disposal method: <u>ON GROUND SURFACE</u>									
Sampling / Development Parameters									
Time	Temp C	ms/cm Conductivity	pH	NTUs	WL (from TOC)	Volume (gallons)	Dissolved Oxygen	Flow Rate (gpm)	Photo #, Observ. (1)
<u>12:18</u>	<u>20.07</u>	<u>0.755</u>	<u>7.61</u>	<u>TURBID</u>	<u>62.25'</u>	<u>initial</u>	<u>6.17</u>	<u>3.0</u>	<u>TURBID</u>
<u>12:22</u>	<u>19.90</u>	<u>0.735</u>	<u>7.54</u>	<u>TURBID</u>	<u>—</u>	<u>10</u>	<u>2.87</u>	<u>2.5</u>	<u>TURBID</u>
<u>12:26</u>	<u>20.02</u>	<u>0.665</u>	<u>7.48</u>	<u>TURBID</u>	<u>—</u>	<u>20</u>	<u>2.86</u>	<u>2.5</u>	<u>TURBID</u>
<u>12:30</u>	<u>20.00</u>	<u>0.638</u>	<u>7.47</u>	<u>TURBID</u>	<u>62.51</u>	<u>30</u>	<u>3.37</u>	<u>2.5</u>	<u>TURBID</u>
(1) Note volume and physical character of sediments removed.									
NTU = Nephelometric turbidity units									
WL = Water Level from Top of PVC Casing									
Checked By <u>CM Barnhill PE</u>								Date <u>04/08/09</u>	

CMB ENVIRONMENTAL & GEOLOGICAL SERVICES, INC.

WELL DATA FORM

Type Well <input checked="" type="checkbox"/> MW <input type="checkbox"/> Production <input type="checkbox"/> Other		Type of Data <input type="checkbox"/> Development <input checked="" type="checkbox"/> Sampling <input type="checkbox"/> Pump Test <input type="checkbox"/> Other		Well No. <u>NW-1 Deep</u> Sheet 1 of 1 Sheets					
1. Project <u>DBS & A</u>		2. Project Location <u>Salty Dog Brine Station</u>		3. Date <u>04/08/09</u>					
4. Technician <u>CM Barnhill, PE</u>		5. Location of Well (Site, Description) <u>Lea Co., N.M.</u>							
7. Method <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Surging <input type="checkbox"/> Air Lift <input type="checkbox"/> Bailing Other		8. Manufacturer's Designation of Rig <u>DSR-2001</u>		9. Location of Well (Site, Description) <u>NW-1 Deep</u>					
Water Levels									
Initial		Final		Final + 24 Hours					
Date: <u>04/08/09</u> Time: <u>11:30</u>		Date: <u>04/08/09</u> Time: <u>12:02</u>		Date: / Time:					
10. Total Depth of Well (from TOC) <u>165.50'</u>		15. Total Depth of Well (from TOC) <u>171.45'</u>		20. Total Depth of Well (from TOC)					
11. Water Level (from TOC) <u>62.04'</u>		16. Water Level (from TOC) <u>62.60</u>		21. Water Level (from TOC)					
12. Water Column Height <u>103.46'</u>	Nom Dia <u>8ch 40</u> x = gal/ft Sch 40 Sch 80		17. 3 Well Volumes <u>49.66 gal</u>		22. Size and Type of <u>Pump</u> or Bailer				
13. Well Diameter <u>2" SCH 40 PVC MW</u>	2" 0.16 0.1534 4" 0.65 0.5972 6" 1.47 1.3540 8" 2.61 2.3720		18. 5 Well Volumes <u>82.76 gal</u>		<u>Red, fib. 1.8"</u> <u>Submersible</u> <u>Set T.D.</u>				
14. Well Volume (gal) (s.w.e. height) <u>16.55 gal</u>			19. Purge Volume <u>50 Gallons</u>						
Final Field Analysis									
23. Total Amount of Water Removed <u>50 Gallons</u>	24. Was Well Pumped Dry? <u>No</u>	25. Was water added to well? <u>No</u> If yes, source:	26. Was the Groundwater Sampled <u>Yes</u> No If yes, what was the sample number & Date: Sampling Personnel? <u>NW-1 Deep, 04/08/09</u> <u>CM Barnhill 11:00 12:00</u>						
27. Final Parameters									
Time <u>11:55</u>	Temp C <u>19.85</u>	Conductivity <u>0.497</u>	pH <u>7.44</u>	NTUs <u>Clear</u>	WL <u>62.60</u>				
Removed <u>50 Gallons</u>	Flow Rate <u>3.56 gpm</u>	Photo Roll #, Observations <u>Clear</u>							
IF PETROLEUM IS IN THE WELL, DO NOT TAKE pH AND CONDUCTIVITY PARAMETERS									
28. Physical Appearance and Remarks <u>Initially Turbid - Clear @ Sample.</u>									
29. Purge water disposal method: <u>ON GROUND SURFACE.</u>									
Sampling / Development Parameters									
Time	Temp C	Conductivity	pH	NTUs	WL (from TOC)	Volume (gallons)	Dissolved Oxygen	Flow Rate (gpm)	Photo #, Observ. (1)
<u>11:40</u>	<u>20.27</u>	<u>0.603</u>	<u>7.55</u>	<u>Turbid</u>	<u>62.04</u>	<u>10.12</u>	<u>4.92</u>	<u>3.5</u>	<u>Turbid</u>
<u>11:43</u>	<u>20.01</u>	<u>0.532</u>	<u>7.50</u>	<u>Turbid</u>	<u>—</u>	<u>10</u>	<u>3.59</u>	<u>3.5</u>	<u>Turbid</u>
<u>11:46</u>	<u>20.04</u>	<u>0.510</u>	<u>7.48</u>	<u>Turbid</u>	<u>—</u>	<u>20</u>	<u>3.53</u>	<u>3.5</u>	<u>Turbid</u>
<u>11:49</u>	<u>19.80</u>	<u>0.505</u>	<u>7.47</u>	<u>Almost Clear</u>	<u>—</u>	<u>30</u>	<u>3.62</u>	<u>3.5</u>	<u>Almost Clear</u>
<u>11:52</u>	<u>19.94</u>	<u>0.497</u>	<u>7.46</u>	<u>Clear</u>	<u>—</u>	<u>40</u>	<u>3.59</u>	<u>3.5</u>	<u>Clear</u>
<u>11:55</u>	<u>19.85</u>	<u>0.497</u>	<u>7.44</u>	<u>Clear</u>	<u>62.60</u>	<u>50</u>	<u>3.49</u>	<u>3.5</u>	<u>Clear</u>
(1) Note volume and physical character of sediments removed.									
NTU = Nephelometric turbidity units									
WL = Water Level from Top of PVC Casing									
Checked By <u>[Signature]</u>					Date <u>04/08/09</u>				

CMB ENVIRONMENTAL & GEOLOGICAL SERVICES, INC.

WELL DATA FORM

Type Well <input checked="" type="checkbox"/> NMW <input type="checkbox"/> Production <input type="checkbox"/> Other _____		Type of Data <input type="checkbox"/> Development <input checked="" type="checkbox"/> Sampling <input type="checkbox"/> Pump Test <input type="checkbox"/> Other _____		Well No. _____ Sheet 1 of 1 Sheets NW-2 Shallow					
1. Project DBS? A Salty Dog Brine station		2. Project Location Salty Dog Playa Lake Shed & Brine well Area Lee Co, NM		3. Date 04/08/09					
4. Technician CMBarnhill, PK		8. Manufacturer's Designation of Rig DSR-2001		9. Location of Well (Site, Description) NW-2 - Shallow					
7. Method <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Surging <input type="checkbox"/> Air Lift <input type="checkbox"/> Bailing <input type="checkbox"/> Other									
Water Levels									
Initial		Final		Final + 24 Hours					
Date: 04/08/09 Time: 16:45		Date: 04/08/09 Time: 17:15		Date: _____ Time: _____					
10. Total Depth of Well (from TOC) 74.15'		15. Total Depth of Well (from TOC) 75.35'		20. Total Depth of Well (from TOC)					
11. Water Level (from TOC) 63.08'		16. Water Level (from TOC) 63.68'		21. Water Level (from TOC)					
12. Water Column Height 11.07'		Norm Dia <input checked="" type="checkbox"/> Sch 40 <input type="checkbox"/> Sch 80 x = gal/ft 2" 0.16 0.1534 4" 0.65 0.5972 6" 1.47 1.3540 8" 2.61 2.3720		17. 3 Well Volumes 5.31 Gallons					
13. Well Diameter 2" SCH 40 PVC MN				18. 5 Well Volumes 8.8 Gallons					
14. Well Volume (gal) (s) w.e. height 1.77				19. Purge Volume 10.6 Gallons					
				22. Size and Type of Pump or Bailer ES 120, 1.8" Submersible Seta T.O.					
Final Field Analysis									
23. Total Amount of Water Removed 10.6 Gallons		24. Was Well Pumped Dry? Yes <input checked="" type="checkbox"/> No		25. Was water added to well? <input checked="" type="checkbox"/> Yes If yes, source: _____					
				26. Was the Groundwater Sampled <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, what was the sample number & Date: Sampling Personnel? NW-2 Shallow 04/08/09 CMBarnhill/E 17:07					
27. Final Parameters Time 17:06 Temp C 19.32		ms/cm Conductivity 1.883 pH 7.33		NTUs Turbid 63.68' Removed 10.6 Gallons Flow Rate 1.0 GPM Photo Roll #, Observations Turbid					
IF PETROLEUM IS IN THE WELL, DO NOT TAKE pH AND CONDUCTIVITY PARAMETERS									
28. Physical Appearance and Remarks TURBID - Poorly Developed Well									
29. Purgewater disposal method: ON GROUND SURFACE									
Sampling / Development Parameters									
Time	Temp C	ms/cm Conductivity	pH	NTUs	WL (from TOC)	Volume (gallons)	Dissolved Oxygen	Flow Rate (gpm)	Photo #, Observ. (1)
16:55	19.62	1.928	7.37	TURBID	63.08	Initial	5.46	1.0	TURBID
16:57	19.54	1.902	7.42	TURBID	—	2.5	4.22	1.0	TURBID
17:00	19.46	1.866	7.40	TURBID	—	5.0	4.03	1.0	TURBID
17:03	19.40	1.877	7.35	TURBID	—	7.5	4.37	1.0	TURBID
17:06	19.32	1.883	7.33	TURBID	63.68	10.0	4.43	1.0	TURBID
(1) Note volume and physical character of sediments removed. NTU = Nephelometric turbidity units WL = Water Level from Top of PVC Casing									
Checked By								Date 04/08/09	

WELL DATA FORM

Type Well <input checked="" type="checkbox"/> MW		Type of Data <input type="checkbox"/> Development <input checked="" type="checkbox"/> Sampling <input type="checkbox"/> Pump Test <input type="checkbox"/> Other _____	Well No. Sheet 1 NW-2 middle of / Sheets
1. Project DBS-A Salty Dog Brine Station	2. Project Location Salty Dog Playa Lake	3. Date 04/08/09	
4. Technician CM Barnhill, PE	Salty Dog Brine well Area Lea Co., NM.		
7. Method <input checked="" type="checkbox"/> Pumping Surging Air Lift Bailing Other	8. Manufacturer's Designation of Rig DSR-2001	9. Location of Well (Site, Description) NW-2 - middle	
Water Levels			
Initial	Final	Final + 24 Hours	
Date: 04/08/09 Time: 16:25	Date: 04/08/09 Time: 16:55		
10. Total Depth of Well (from TOC) 104.49'	15. Total Depth of Well (from TOC) 115.72'	20. Total Depth of Well (from TOC)	
11. Water Level (from TOC) 63.27'	16. Water Level (from TOC) 64.41'	21. Water Level (from TOC)	
12. Water Column Height 41.22'	Nom Dia x = gal/ft Sch 40 Sch 80	17. 3 Well Volumes 19.78 Gallons	22. Size and Type of Pump or Bailor
13. Well Diameter 2"	Q 0.16 0.1534	18. 5 Well Volumes 32.95	ES 120' 1.8" Submersible Set c.T.P.
14. Well Volume (gal) w.e. height 6.596 gal	4" 0.65 0.5972 6" 1.47 1.3540 8" 2.61 2.3720	19. Purge Volume 20 Gallons	
Final Field Analysis			
23. Total Amount of Water Removed 206 gallons	24. Was Well Pumped Dry? Yes <input checked="" type="radio"/> No	25. Was water added to well? No Yes If yes, source:	26. Was the Groundwater Sampled? <input checked="" type="radio"/> Yes No If yes, what was the sample number & Date: Sampling Personnel? NW-2, middle 04/08/09 CM Barnhill @ 16:55
27. Final Parameters	mS/cm Conductivity pH NTUs WL Removed Flow Rate Photo Roll #, Observations		
Time Temp C Conductivity pH NTUs WL Removed Flow Rate Observations			
16:50 19.04 2.172 7.17 TURBID 64.41 206 gallons 1.06 gpm Turbid			
IF PETROLEUM IS IN THE WELL, DO NOT TAKE pH AND CONDUCTIVITY PARAMETERS			
28. Physical Appearance and Remarks TURBID H ₂ O			
29. Purgewater disposal method: ON GROUND SURFACE.			
Sampling / Development Parameters			
Time Temp C mS/cm Conductivity pH NTUs WL (from TOC) Volume (gallons) Dissolved Oxygen Flow Rate (gpm) Photo #, Observ. (1)			
16:30 18.69 2.933 7.37 TURBID 63.27 initial 5.38 1.0 TURBID			
16:40 18.91 2.155 7.36 TURBID — 10 5.52 1.0 TURBID			
16:45 18.76 2.153 7.25 TURBID — 15 6.52 1.0 TURBID			
16:50 19.04 2.172 7.17 TURBID 64.41 20 6.63 1.0 TURBID			
(1) Note volume and physical character of sediments removed.			
NTU = Nephelometric turbidity units			
WL = Water Level from Top of PVC casing			
Checked By [Signature] PE	Date 04/08/09		

CMB ENVIRONMENTAL & GEOLOGICAL SERVICES, INC.

WELL DATA FORM

Type Well <input checked="" type="checkbox"/> MW <input type="checkbox"/> Production <input type="checkbox"/> Other		Type of Data <input type="checkbox"/> Development <input checked="" type="checkbox"/> Sampling <input type="checkbox"/> Pump Test <input type="checkbox"/> Other		Well No. NW-2 Deep Sheet 1 of 1 Sheets					
1. Project DBS & A		2. Project Location Salty Dog Playa Lake		3. Date 04/08/09					
4. Technician CM Barnhill, PE		5. Well Location Salty Dog Brine Well Area							
7. Method Pumping Surging Air Lift Bailing Other		8. Manufacturer's Designation of Rig DSR-2001		9. Location of Well (Site, Description) NW-2 - Deep					
Water Levels									
Initial		Final		Final + 24 Hours					
Date: 04/08/09 Time: 15:30		Date: 04/08/09 Time: 16:22		Date: / Time:					
10. Total Depth of Well (from TOC) 132.20'		15. Total Depth of Well (from TOC) 148.87'		20. Total Depth of Well (from TOC)					
11. Water Level (from TOC) 66.41'		16. Water Level (from TOC) 66.10'		21. Water Level (from TOC)					
12. Water Column Height 65.79'		Norm Dia Sch 40 x = gal/ft Sch 80		17. 3 Well Volumes 31.57 Gallons					
13. Well Diameter 2" SCH 40 PVC MW		2" 0.1534 4" 0.65 0.5972 6" 1.47 1.3540 8" 2.61 2.3720		18. 5 Well Volumes 52.63 Gallons					
14. Well Volume (gal) (s) w.e. height 10.52 Gal		19. Purge Volume 40 Gallons		22. Size and Type of Pump or Bailer ES 120 Set 1.8" @ 120' FROM TOC					
Final Field Analysis									
23. Total Amount of Water Removed 40 Gallons		24. Was Well Pumped Dry? No		25. Was water added to well? No Yes If yes, source:					
				26. Was the Groundwater Sampled Yes No If yes, what was the sample number & Date: Sampling Personnel? NW-2 Deep 04/08/09 CM Barnhill 16:11					
27. Final Parameters		Photo Roll #, Observations							
Time	Temp C	Conductivity ns/cm	pH	NTUs	WL	Removed	Flow Rate		
16:18	18.82	10.72	6.81	TURBID	66.10	30 Gallons	1.06 gpm	TURBID	
IF PETROLEUM IS IN THE WELL, DO NOT TAKE pH AND CONDUCTIVITY PARAMETERS									
28. Physical Appearance and Remarks TURBID H₂O									
29. Purge water disposal method: ON GROUND SURFACE									
Sampling / Development Parameters									
Time	Temp C	Conductivity ns/cm	pH	NTUs	WL (from TOC)	Volume (gallons)	Dissolved Oxygen	Flow Rate (gpm)	Photo #, Observ. (1)
15:38	19.15	1.548	7.69	TURBID	66.41	Initial	1.21	1.0	TURBID
15:48	19.86	3.646	7.53	TURBID	—	10	6.55	1.0	TURBID
15:58	18.79	5.694	7.01	TURBID	—	20	6.99	1.0	TURBID
16:08	18.65	8.751	6.88	TURBID	—	30	7.39	1.0	TURBID
16:18	18.82	10.72	6.81	TURBID	66.10	40	6.35	1.0	TURBID
(1) Note volume and physical character of sediments removed.									
NTU = Nephelometric turbidity units									
WL = Water Level from Top of PVC Casing									
Checked By CM Barnhill PE								Date 04/08/09	

CMB ENVIRONMENTAL & GEOLOGICAL SERVICES, INC.

WELL DATA FORM

Type Well <input checked="" type="checkbox"/> MW <input type="checkbox"/> Production <input type="checkbox"/> Other _____		Type of Data <input type="checkbox"/> Development <input checked="" type="checkbox"/> Sampling <input type="checkbox"/> Pump Test <input type="checkbox"/> Other _____		Well No. <i>MW-2</i> Sheet 1 of 1 Sheets					
1. Project <i>DBS: A</i>		2. Project Location <i>Salty Dog Brine Station, Playa Lake</i>		3. Date <i>04/07/09</i>					
4. Technician <i>CM Barnhill, PE</i>		<i>Shed & Brine Arch</i> <i>Lea Co., NM</i>							
7. Method <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Surging <input type="checkbox"/> Air Lift <input type="checkbox"/> Bailing <input type="checkbox"/> Other		8. Manufacturer's Designation of Rig <i>DSR-2001</i>		9. Location of Well (Site, Description) <i>MW-2</i>					
Water Levels									
Initial		Final		Final + 24 Hours					
Date: <i>04/07/09</i> Time: <i>12:00</i>		Date: <i>04/07/09</i> Time: <i>13:22</i>		Date: _____ Time: _____					
10. Total Depth of Well (from TOC) <i>137.35'</i>		15. Total Depth of Well (from TOC) <i>137.35'</i>		20. Total Depth of Well (from TOC)					
11. Water Level (from TOC) <i>61.65'</i>		16. Water Level (from TOC) <i>61.61'</i>		21. Water Level (from TOC)					
12. Water Column Height <i>75.70'</i>		Nom Dia <i>2"</i> x = gal/ft Sch 40 <i>0.16</i> Sch 80 <i>0.1534</i> 4" <i>0.65</i> <i>0.5972</i> 6" <i>1.47</i> <i>1.3540</i> 8" <i>2.61</i> <i>2.3720</i>		17. 3" Well Volumes <i>36.33 Gallons</i> 18. 5" Well Volumes <i>60.56 Gallons</i> 19. Purge Volume <i>40 Gallons</i>					
13. Well Diameter <i>2" SCH 40 PVC MW</i>				22. Size and Type of Pump or Bailer <i>Rediflo 2.1.8" Submersible Setc T.O.</i>					
14. Well Volume (gal) (s) w.e. height <i>12.1162'</i>									
Final Field Analysis									
23. Total Amount of Water Removed <i>40 Gallons</i>		24. Was Well Pumped Dry? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		25. Was water added to well? <input checked="" type="checkbox"/> No Yes <input type="checkbox"/> If yes, source: _____					
				26. Was the Groundwater Sampled <input checked="" type="checkbox"/> Yes No <input type="checkbox"/> If yes, what was the sample number & Date: Sampling Personnel? <i>MW-2, 04/07/09</i> <i>CM Barnhill @ 13:18</i>					
27. Final Parameters		Photo Roll #, Observations							
Time	Temp C	Conductivity	pH	NTUs	WL	Removed	Flow Rate	Photo Roll #, Observations	
<i>13:17</i>	<i>19.73</i>	<i>4.492</i>	<i>8.68</i>	<i>Clear</i>	<i>61.61'</i>	<i>40 gal</i>	<i>2.56 gpm</i>	<i>Clear</i>	
IF PETROLEUM IS IN THE WELL, DO NOT TAKE pH AND CONDUCTIVITY PARAMETERS									
28. Physical Appearance and Remarks <i>Turbid initially - Clear & Sample</i>									
29. Purgewater disposal method: <i>ON GROUND SURFACE</i>									
Sampling / Development Parameters									
Time	Temp C	Conductivity	pH	NTUs	WL (from TOC)	Volume (gallons)	Dissolved Oxygen	Flow Rate (gpm)	Photo #, Observ. (1)
<i>13:02</i>	<i>18.83</i>	<i>2.72</i>	<i>8.19</i>	<i>Turbid</i>	<i>61.65'</i>	<i>Initial</i>	<i>4.74</i>	<i>3.33</i>	<i>Turbid</i>
<i>13:05</i>	<i>19.32</i>	<i>4.204</i>	<i>8.47</i>	<i>Clear</i>	<i>—</i>	<i>10</i>	<i>4.16</i>	<i>3.33</i>	<i>Clear</i>
<i>13:09</i>	<i>19.76</i>	<i>4.472</i>	<i>8.66</i>	<i>Clear</i>	<i>—</i>	<i>20</i>	<i>4.04</i>	<i>2.5</i>	<i>Clear</i>
<i>13:13</i>	<i>19.80</i>	<i>4.443</i>	<i>8.68</i>	<i>Clear</i>	<i>—</i>	<i>30</i>	<i>3.80</i>	<i>2.5</i>	<i>Clear</i>
<i>13:17</i>	<i>19.73</i>	<i>4.492</i>	<i>8.68</i>	<i>Clear</i>	<i>61.61'</i>	<i>40</i>	<i>3.73</i>	<i>2.5</i>	<i>Clear</i>
(1) Note volume and physical character of sediments removed.									
NTU = Nephelometric turbidity units									
WL = Water Level from Top of PVC Casing									
Checked By <i>CM Barnhill, PE</i>								Date <i>04/07/09</i>	

CMB ENVIRONMENTAL & GEOLOGICAL SERVICES, INC.

WELL DATA FORM

Type Well <input checked="" type="checkbox"/> MW <input type="checkbox"/> Production <input type="checkbox"/> Other		Type of Data <input type="checkbox"/> Development <input checked="" type="checkbox"/> Sampling <input type="checkbox"/> Pump Test <input type="checkbox"/> Other		Well No. MW-3 Sheet 1 of 1 Sheets					
1. Project DBS-A		2. Project Location Salty Dot, Playa Lake		3. Date 04/07/09					
4. Technician CM Barnhill, PE		5. Well Location Salty Dot Brine Well Area Lea Co. NM							
7. Method <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Surging <input type="checkbox"/> Air Lift <input type="checkbox"/> Bailing <input type="checkbox"/> Other		8. Manufacturer's Designation of Rig DSR-2001		9. Location of Well (Site, Description) Monitor Well 3					
Water Levels									
Initial		Final		Final + 24 Hours					
Date: 04/07/09 Time: 13:46		Date: 04/07/09 Time: 14:17		Date: _____ Time: _____					
10. Total Depth of Well (from TOC) 147.02'		15. Total Depth of Well (from TOC) 147.05'		20. Total Depth of Well (from TOC)					
11. Water Level (from TOC) 62.02'		16. Water Level (from TOC) 62.68'		21. Water Level (from TOC)					
12. Water Column Height 85.0'		Nom Dia Sch 40 x = gal/ft Sch 40 Sch 80 2" 0.16 0.1534 4" 0.65 0.5972 6" 1.47 1.3540 8" 2.61 2.3720		17.3 Well Volumes 40.80 Gallons					
13. Well Diameter 2" SCH 40 PVC				18.5 Well Volumes 68 Gallons					
14. Well Volume (gal) (s) w.e. height 13.6 Gallons				19. Purge Volume 41 Gallons					
22. Size and Type of Pump or Bailer Red. Floz, 1.8" Submersible Set to T.O.									
Final Field Analysis									
23. Total Amount of Water Removed 41 Gallons		24. Was Well Pumped Dry? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		25. Was water added to well? <input checked="" type="checkbox"/> No Yes <input type="checkbox"/> If yes, source:					
				26. Was the Groundwater Sampled? <input checked="" type="checkbox"/> Yes No <input type="checkbox"/> If yes, what was the sample number & Date: Sampling Personnel? MW-3, 04/07/09 CM Barnhill 14:13					
27. Final Parameters		Photo Roll #, Observations							
Time	Temp C	Conductivity	pH	NTUs	WL	Removed	Flow Rate	Observations	
14:12	19.90	36.61	6.39	Clear	62.68'	41 Gallons	2.5 gpm	Clear H₂O	
IF PETROLEUM IS IN THE WELL, DO NOT TAKE pH AND CONDUCTIVITY PARAMETERS									
28. Physical Appearance and Remarks Clear H₂O									
29. Purgewater disposal method: ON GROUND SURFACE									
Sampling / Development Parameters									
Time	Temp C	Conductivity	pH	NTUs	WL (from TOC)	Volume (gallons)	Dissolved Oxygen	Flow Rate (gpm)	Photo #, Observ. (1)
13:55	19.46	24.87	6.67	Clear	62.02	Initial	4.87	2.5	Clear
13:59	20.05	31.40	6.37	Clear	—	10	4.35	2.5	Clear
14:03	20.06	35.92	6.37	Clear	—	20	4.16	2.5	Clear
14:07	19.91	36.48	6.37	Clear	—	30	3.93	2.5	Clear
14:12	19.90	36.61	6.39	Clear	62.68	41	3.18	2.5	Clear
(1) Note volume and physical character of sediments removed.									
NTU = Nephelometric turbidity units									
WL = Water Level from Top of PVC Casing									
Checked By CM Barnhill								Date 04/07/09	

CMB ENVIRONMENTAL & GEOLOGICAL SERVICES, INC.

WELL DATA FORM

Type Well <input checked="" type="checkbox"/> MW <input type="checkbox"/> Production <input type="checkbox"/> Other _____		Type of Data <input type="checkbox"/> Development <input checked="" type="checkbox"/> Sampling <input type="checkbox"/> Pump Test <input type="checkbox"/> Other _____		Well No. <u>MW-4</u> Sheet 1 of 1 Sheets					
1. Project <u>DBS: A</u>		2. Project Location <u>Salty Dog Playa Lake</u>		3. Date <u>04/07/2009</u>					
4. Technician <u>CM Barnhill, PG</u>		5. <u>Shed & Brine Well Area</u> <u>Lea Co. NM</u>							
7. Method <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Surging <input type="checkbox"/> Air Lift <input type="checkbox"/> Bailing <input type="checkbox"/> Other		8. Manufacturer's Designation of Rig <u>DSR-2001</u>		9. Location of Well (Site, Description) <u>Monitor Well #4</u>					
Water Levels									
Initial		Final		Final + 24 Hours					
Date: <u>04/07/09</u> Time: <u>14:35</u>		Date: <u>04/07/09</u> Time: <u>15:05</u>		Date: _____ Time: _____					
10. Total Depth of Well (from TOC) <u>62.51' 147.3</u>		15. Total Depth of Well (from TOC) <u>147.31</u>		20. Total Depth of Well (from TOC)					
11. Water Level (from TOC) <u>62.51'</u>		16. Water Level (from TOC) <u>62.50</u>		21. Water Level (from TOC)					
12. Water Column Height <u>84.79'</u>		Nom Dia <u>Sch 40</u> <u>Y = gal/ft</u> Sch 80 3" <u>0.16</u> 0.1534 4" 0.65 0.5972 6" 1.47 1.3540 8" 2.61 2.3720		17. 3 Well Volumes <u>40.69 Gallons</u>					
13. Well Diameter <u>2" SCH 40 PVC MW</u>		18. 5 Well Volumes <u>67.83 Gallons</u>		22. Size and Type of <u>Pump or Bailer</u> <u>Rel. Flz 2, 1.8"</u> <u>Submersible</u> <u>Set C.T.D.</u>					
14. Well Volume (gal) <u>13.56 gal</u> (s) w.e. height)		19. Purge Volume <u>41 Gallons</u>							
Final Field Analysis									
23. Total Amount of Water Removed <u>41 Gallons</u>		24. Was Well Pumped Dry? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		25. Was water added to well? <input checked="" type="checkbox"/> No Yes If yes, source: _____					
26. Was the Groundwater Sampled <input checked="" type="checkbox"/> Yes No If yes, what was the sample number & Date: Sampling Personnel? <u>MW-4, 04/07/09</u> <u>CM Barnhill 15:00</u>									
27. Final Parameters		Photo Roll #, Observations							
Time	Temp C	Conductivity	pH	NTUs	WL	Removed	Flow Rate	Photo Roll #, Observations	
<u>14:59</u>	<u>19.67</u>	<u>15.58</u>	<u>6.65</u>	<u>Clear</u>	<u>62.50</u>	<u>41 Gallons</u>	<u>2.56 gpm</u>	<u>C/rea.</u>	
IF PETROLEUM IS IN THE WELL, DO NOT TAKE pH AND CONDUCTIVITY PARAMETERS									
28. Physical Appearance and Remarks <u>Clear H₂O</u>									
29. Purgewater disposal method: <u>ON GROUND SURFACE</u>									
Sampling / Development Parameters									
Time	Temp C	Conductivity	pH	NTUs	WL (from TOC)	Volume (gallons)	Dissolved Oxygen	Flow Rate (gpm)	Photo #, Observ. (1)
<u>14:42</u>	<u>19.64</u>	<u>12.68</u>	<u>6.80</u>	<u>Clear</u>	<u>initial</u>	<u>initial</u>	<u>2.42</u>	<u>2.56 gpm</u>	<u>Clear</u>
<u>14:46</u>	<u>19.76</u>	<u>15.52</u>	<u>6.72</u>	<u>Clear</u>	<u>—</u>	<u>10</u>	<u>3.45</u>	<u>2.5</u>	<u>Clear</u>
<u>14:50</u>	<u>19.91</u>	<u>15.80</u>	<u>6.74</u>	<u>Clear</u>	<u>—</u>	<u>20</u>	<u>3.67</u>	<u>2.5</u>	<u>Clear</u>
<u>14:54</u>	<u>19.83</u>	<u>15.72</u>	<u>6.64</u>	<u>Clear</u>	<u>—</u>	<u>30</u>	<u>3.89</u>	<u>2.5</u>	<u>Clear</u>
<u>14:59</u>	<u>19.67</u>	<u>15.58</u>	<u>6.65</u>	<u>Clear</u>	<u>62.50</u>	<u>41</u>	<u>3.93</u>	<u>2.5</u>	<u>C/rea</u>
(1) Note volume and physical character of sediments removed.									
NTU = Nephelometric turbidity units									
WL = Water Level from Top of PVC Casing									
Checked By <u>CM Barnhill PG</u>								Date <u>04/07/2009</u>	

WELL DATA FORM

Type Well <input checked="" type="checkbox"/> MW	Type of Data <input type="checkbox"/> Development <input checked="" type="checkbox"/> Sampling <input type="checkbox"/> Pump Test <input type="checkbox"/> Other	Well No. Sheet 1 of 1 MW-5 Sheets
1. Project DBS: A Salty Dog Brine Station	2. Project Location Salty Dog Playa Lake Shed & Brine Well Area Lea Co. NM	3. Date 04/07/09
4. Technician Cm Barnhill, PG	8. Manufacturer's Designation of Rig DSR-2001	9. Location of Well (Site, Description) Monitor Well #5
7. Method <input checked="" type="radio"/> Pumping <input type="radio"/> Surging <input type="radio"/> Air Lift <input type="radio"/> Bailing <input type="radio"/> Other		
Water Levels		
Initial	Final	Final + 24 Hours
Date: 04/07/09 Time: 15:23	Date: 04/07/09 Time: 15:48	Date: / Time:
10. Total Depth of Well (from TOC) 129.78'	15. Total Depth of Well (from TOC) 129.78'	20. Total Depth of Well (from TOC)
11. Water Level (from TOC) 60.79'	16. Water Level (from TOC) 60.85'	21. Water Level (from TOC)
12. Water Column Height 68.99'	Nom Dia <input checked="" type="radio"/> Sch 40 x = gal/ft Sch 80	17. 3 Well Volumes 33 Gallons
13. Well Diameter 2" SCH 40 PVC MW	4" 0.16 0.1534 6" 0.65 0.5972 8" 1.47 1.3540 2.61 2.3720	22. Size and Type of Pump or Bailer Rodiff 2, 1.8" Submersible Set c.T.O.
14. Well Volume (gal) (s) w.e. height 11 Gallons	18. 5 Well Volumes 55.19 Gallons	19. Purge Volume 35 Gallons
Final Field Analysis		
23. Total Amount of Water Removed 35 Gallons	24. Was Well Pumped Dry? Yes <input checked="" type="radio"/> No	25. Was water added to well? No <input checked="" type="radio"/> Yes If yes, source:
		26. Was the Groundwater Sampled? Yes <input checked="" type="radio"/> No If yes, what was the sample number & Date: Sampling Personnel? Cm Barnhill 15:45
27. Final Parameters Time Temp C Conductivity pH NTUs WL Removed Flow Rate Observations 15:43 20.07 3.679 6.97 Clear 60.85' 35 Gallons 2.56 gpm Clear	Photo Roll #	
IF PETROLEUM IS IN THE WELL, DO NOT TAKE pH AND CONDUCTIVITY PARAMETERS		
28. Physical Appearance and Remarks TURBID initially - clear @ Sample		
29. Purgewater disposal method: ON GROUND SURFACE		
Sampling / Development Parameters		
Time Temp C Conductivity pH NTUs WL (from TOC) Volume (gallons) Dissolved Oxygen Flow Rate (gpm) Photo #, Observ. (1).		
15:30 20.27 5.210 7.16 TURBID 60.79' initial 3.40 2.5 TURBID		
15:34 20.42 4.117 7.10 TURBID — 10 3.27 2.5 TURBID		
15:38 20.19 3.791 7.03 SLIGHT TURBID — 20 3.83 2.5 SLIGHT TURBID		
15:43 20.07 3.679 6.97 Clear 60.85' 35 3.95 2.5 Clear		
(1) Note volume and physical character of sediments removed.		
NTU = Nephelometric turbidity units WL = Water Level from Top of PVC Casing		
Checked By Cm Barnhill PG	Date 04/07/09	

WELL DATA FORM

(1) Note volume and physical character of sediments removed.
NTU = Nephelometric turbidity units
WL = Water Level from Top of PVC Casing

Type Well <input checked="" type="checkbox"/> MW <input type="checkbox"/> Production <input type="checkbox"/> Other		Type of Data <input type="checkbox"/> Development <input checked="" type="checkbox"/> Sampling <input type="checkbox"/> Pump Test <input type="checkbox"/> Other		Well No. <u>PMW-1</u> Sheet 1 of 1 Sheets	
1. Project <u>DBS: A</u>		2. Project Location <u>Salty Dog Brine Station</u>		3. Date <u>04/08/09</u>	
4. Technician <u>CMBarnhill, PK</u>		5. Location <u>Lea Co, NM</u>			
7. Method <u>Pumping</u> Surging Air Lift Bailing Other		8. Manufacturer's Designation of Rig <u>DSR-2001</u>		9. Location of Well (Site, Description) <u>PMW-1</u>	

Water Levels		
Initial	Final	Final + 24 Hours
Date: <u>04/08/09</u> Time: <u>14:35</u>	Date: <u>04/08/09</u> Time: <u>15:00</u>	Date: _____ Time: _____
10. Total Depth of Well (from TOC) <u>78.87'</u>	15. Total Depth of Well (from TOC) <u>79.41'</u>	20. Total Depth of Well (from TOC)
11. Water Level (from TOC) <u>65.97'</u>	16. Water Level (from TOC) <u>66.25'</u>	21. Water Level (from TOC)

12. Water Column Height <u>12.9</u>	Nom Dia <u>Sch 40</u> x = gal/ft Sch 40 2" 0.1534 4" 0.65 0.5972 6" 1.47 1.3540 8" 2.61 2.3720	17. 3 Well Volumes <u>6.19 Gallons</u>	22. Size and Type of Pump or Bailer <u>Rad. flo 2, 1.8" submersible 50ft T.D.</u>
13. Well Diameter <u>2" SCH 40 PVC MW</u>		18. 5 Well Volumes <u>10.32 Gallons</u>	
14. Well Volume (gal) (s.w.e. height) <u>2.06 Gal</u>		19. Purge Volume <u>10 Gallons</u>	

Final Field Analysis			
23. Total Amount of Water Removed <u>10 Gallons</u>	24. Was Well Pumped Dry? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	25. Was water added to well? No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> If yes, source:	26. Was the Groundwater Sampled <input checked="" type="checkbox"/> Yes No If yes, what was the sample number & Date: Sampling Personnel? <u>PMW-1, 04/08/09</u> <u>CMBarnhill 14:57</u>

Final Parameters							
Time	Temp C	Conductivity <u>ms/cm</u>	pH	NTUs	WL (from TOC)	Removed	Flow Rate
<u>1456</u>	<u>20.49</u>	<u>25.41</u>	<u>6.83</u>	<u>clear</u>	<u>66.25</u>	<u>10 Gallons</u>	<u>1.06 gpm</u>

IF PETROLEUM IS IN THE WELL, DO NOT TAKE pH AND CONDUCTIVITY PARAMETERS

28. Physical Appearance and Remarks <u>Turbid initially - clear @ Sample.</u>
--

29. Purgewater disposal method: <u>ON GROUND SURFACE</u>

Sampling / Development Parameters									
Time	Temp C	Conductivity <u>ms/cm</u>	pH	NTUs	WL (from TOC)	Volume (gallons)	Dissolved Oxygen	Flow Rate (gpm)	Photo #, Observ. (1)
<u>14:44</u>	<u>22.42</u>	<u>17.24</u>	<u>7.13</u>	<u>TURBID</u>	<u>65.97'</u>	<u>initial</u>	<u>8.30</u>	<u>1.0</u>	<u>TURBID</u>
<u>14:47</u>	<u>21.87</u>	<u>23.02</u>	<u>7.11</u>	<u>TURBID</u>	<u>—</u>	<u>2.5</u>	<u>6.62</u>	<u>1.0</u>	<u>TURBID</u>
<u>14:50</u>	<u>21.22</u>	<u>24.56</u>	<u>7.05</u>	<u>TURBID</u>	<u>—</u>	<u>5.0</u>	<u>6.61</u>	<u>1.0</u>	<u>TURBID</u>
<u>14:53</u>	<u>20.62</u>	<u>25.25</u>	<u>6.84</u>	<u>slight TURBID</u>	<u>—</u>	<u>7.5</u>	<u>6.42</u>	<u>1.0</u>	<u>slight TURBID</u>
<u>14:56</u>	<u>20.49</u>	<u>25.41</u>	<u>6.83</u>	<u>clear</u>	<u>66.25</u>	<u>10.0</u>	<u>6.32</u>	<u>1.0</u>	<u>clear</u>

(1) Note volume and physical character of sediments removed.
 NTU = Nephelometric turbidity units
 WL = Water Level from Top of PVC Casing

Checked By <u>CMBarnhill PK</u>	Date <u>04/08/09</u>
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Appendix D

Survey Report

WELL	EASTING	NORTHING	CASING_ELEV	CONCRETE_ELEV	NOTE	STICK_UP	Latitude	Longitude
DBS-1	837410.946	617873.964	3817.091	3817.360		-0.269	32.694886	-103.370911
DBS-2	837487.158	618138.347	3820.504	3817.524		2.980	32.69561	-103.370655
DBS-3	836956.004	617833.410	3816.662	3813.953		2.709	32.694786	-103.37239
DBS-4	837516.816	617707.515	3820.374	3817.441		2.933	32.694426	-103.370571
DBS-5	836851.361	618414.069	3820.659	3818.001		2.658	32.696384	-103.372714
DBS-6	836896.578	615374.784	3812.650	3810.213		2.437	32.68803	-103.372656
DBS-7	836875.641	614857.267	3810.210	3807.210		3.000	32.686608	-103.372739
DBS-8	836580.482	614947.540	3810.699	3808.051		2.648	32.686864	-103.373696
DBS-9	836485.585	615847.216	3806.264	3803.460		2.804	32.689339	-103.373978
PMW-1	837289.690	618038.544	3821.167	3818.646		2.521	32.695341	-103.3713
MW-2	836438.049	615454.721	3812.677	3810.259		2.418	32.688261	-103.374144
MW-3	836743.571	615186.298	3812.049	3809.616		2.433	32.687516	-103.373159
MW-4	836882.305	615061.483	3811.325	3808.643		2.682	32.687169	-103.372712
MW-5	837029.110	614930.722	3808.961	3808.058		0.903	32.686806	-103.372238
MW-6	837288.689	615041.326	3810.168	3808.590		1.578	32.687104	-103.371391
NW-1(s)	837369.632	617950.772	3817.325	3817.627	SHALLOW	-0.302	32.695098	-103.371043
NW-1(m)	837369.657	617950.542	3817.351	3817.627	MIDDLE	-0.276	32.695097	-103.371043
NW-1(d)	837369.402	617950.848	3817.352	3817.627	DEEP	-0.275	32.695098	-103.371043
NW-2(s)	836860.966	615088.572	3812.497	3809.156	SHALLOW	3.341	32.687244	-103.37278
NW-2(m)	836861.043	615088.794	3812.452	3809.156	MIDDLE	3.296	32.687245	-103.37278
NW-2(d)	836861.137	615088.531	3812.460	3809.156	DEEP	3.304	32.687244	-103.37278



COVER LETTER

Wednesday, April 22, 2009

Mike McVey
Daniel B. Stephens & Assoc.
6020 Academy NE Suite 100
Albuquerque, NM 87109

TEL: (505) 822-9400

FAX (505) 822-8877

RE: Salty Dog Brine Station

Order No.: 0904165

Dear Mike McVey:

Hall Environmental Analysis Laboratory, Inc. received 21 sample(s) on 4/10/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX



Hall Environmental Analysis Laboratory, Inc.

Date: 22-Apr-09

CLIENT: Daniel B. Stephens & Assoc.
Project: Salty Dog Brine Station**Lab Order:** 0904165

Lab ID:	0904165-01	Collection Date:	4/8/2009 2:57:00 PM
Client Sample ID:	PMW-1	Matrix:	AQUEOUS
Analyses	Result	PQL Qual Units	DF Date Analyzed
EPA METHOD 300.0: ANIONS			Analyst: TAF
Chloride	11000	50 mg/L	500 4/21/2009 1:27:50 PM
Lab ID:	0904165-02	Collection Date:	4/7/2009 1:18:00 PM
Client Sample ID:	MW-2	Matrix:	AQUEOUS
Analyses	Result	PQL Qual Units	DF Date Analyzed
EPA METHOD 300.0: ANIONS			Analyst: TAF
Chloride	1200	5.0 mg/L	50 4/22/2009 2:31:16 AM
Lab ID:	0904165-03	Collection Date:	4/7/2009 2:13:00 PM
Client Sample ID:	MW-3	Matrix:	AQUEOUS
Analyses	Result	PQL Qual Units	DF Date Analyzed
EPA METHOD 300.0: ANIONS			Analyst: TAF
Chloride	17000	50 mg/L	500 4/21/2009 2:02:39 PM
Lab ID:	0904165-04	Collection Date:	4/7/2009 3:00:00 PM
Client Sample ID:	MW-4	Matrix:	AQUEOUS
Analyses	Result	PQL Qual Units	DF Date Analyzed
EPA METHOD 300.0: ANIONS			Analyst: TAF
Chloride	6600	50 mg/L	500 4/22/2009 2:13:52 AM
Lab ID:	0904165-05	Collection Date:	4/7/2009 3:45:00 PM
Client Sample ID:	MW-5	Matrix:	AQUEOUS
Analyses	Result	PQL Qual Units	DF Date Analyzed
EPA METHOD 300.0: ANIONS			Analyst: TAF
Chloride	1300	5.0 mg/L	50 4/22/2009 3:23:30 AM
Lab ID:	0904165-06	Collection Date:	4/7/2009 4:23:00 PM
Client Sample ID:	MW-6	Matrix:	AQUEOUS
Analyses	Result	PQL Qual Units	DF Date Analyzed
EPA METHOD 300.0: ANIONS			Analyst: TAF
Chloride	25	0.10 mg/L	1 4/21/2009 2:54:52 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 22-Apr-09

CLIENT: Daniel B. Stephens & Assoc.
Project: Salty Dog Brine Station**Lab Order:** 0904165**Lab ID:** 0904165-07**Collection Date:** 4/8/2009 10:55:00 AM**Client Sample ID:** DBS-1**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: TAF
Chloride	320	1.0		mg/L	10	4/21/2009 3:12:17 PM

Lab ID: 0904165-08**Collection Date:** 4/8/2009 10:13:00 AM**Client Sample ID:** DBS-2**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: TAF
Chloride	14	0.10		mg/L	1	4/21/2009 3:29:41 PM

Lab ID: 0904165-09**Collection Date:** 4/8/2009 8:44:00 AM**Client Sample ID:** DBS-3**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: TAF
Chloride	36	0.10		mg/L	1	4/21/2009 3:47:05 PM

Lab ID: 0904165-10**Collection Date:** 4/8/2009 9:28:00 AM**Client Sample ID:** DBS-4**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: TAF
Chloride	38	0.10		mg/L	1	4/21/2009 4:04:30 PM

Lab ID: 0904165-11**Collection Date:** 4/8/2009 7:58:00 AM**Client Sample ID:** DBS-5**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: TAF
Chloride	65	1.0		mg/L	10	4/21/2009 6:06:22 PM

Lab ID: 0904165-12**Collection Date:** 4/7/2009 6:32:00 PM**Client Sample ID:** DBS-6**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: TAF
Chloride	380	2.0		mg/L	20	4/21/2009 6:23:46 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 22-Apr-09

CLIENT: Daniel B. Stephens & Assoc.
Project: Salty Dog Brine Station**Lab Order:** 0904165**Lab ID:** 0904165-13**Collection Date:** 4/7/2009 5:07:00 PM**Client Sample ID:** DBS-7**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	570	5.0		mg/L	50	Analyst: TAF 4/21/2009 6:41:10 PM

Lab ID: 0904165-14**Collection Date:** 4/7/2009 5:52:00 PM**Client Sample ID:** DBS-8**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	58	1.0		mg/L	10	Analyst: TAF 4/21/2009 6:58:34 PM

Lab ID: 0904165-15**Collection Date:** 4/8/2009 6:01:00 PM**Client Sample ID:** DBS-9**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	Analyst: SCC 4/13/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/13/2009
Surr: DNOP	115	58-140		%REC	1	4/13/2009

EPA METHOD 8015B: GASOLINE RANGE

Analyst: DAM

Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/15/2009 2:17:54 AM
Surr: BFB	89.1	59.9-122		%REC	1	4/15/2009 2:17:54 AM

EPA METHOD 300.0: ANIONS

Analyst: TAF

Chloride	210	10		mg/L	100	4/21/2009 7:15:59 PM
----------	-----	----	--	------	-----	----------------------

Lab ID: 0904165-16**Collection Date:** 4/8/2009 12:56:00 PM**Client Sample ID:** NW-1 Shallow**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	630	5.0		mg/L	50	Analyst: TAF 4/21/2009 7:33:24 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 22-Apr-09

CLIENT: Daniel B. Stephens & Assoc.
Project: Salty Dog Brine Station**Lab Order:** 0904165**Lab ID:** 0904165-17**Collection Date:** 4/8/2009 12:31:00 PM**Client Sample ID:** NW-1 Middle**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	57	1.0		mg/L	10	Analyst: TAF 4/21/2009 8:25:37 PM

Lab ID: 0904165-18**Collection Date:** 4/8/2009 12:00:00 PM**Client Sample ID:** NW-1 Deep**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	38	0.10		mg/L	1	Analyst: TAF 4/21/2009 8:43:02 PM

Lab ID: 0904165-19**Collection Date:** 4/8/2009 5:07:00 PM**Client Sample ID:** NW-2 Shallow**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	410	5.0		mg/L	50	Analyst: TAF 4/21/2009 9:00:26 PM

Lab ID: 0904165-20**Collection Date:** 4/8/2009 4:51:00 PM**Client Sample ID:** NW-2 Middle**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	570	2.0		mg/L	20	Analyst: TAF 4/22/2009 11:06:09 AM

Lab ID: 0904165-21**Collection Date:** 4/8/2009 4:19:00 PM**Client Sample ID:** NW-2 Deep**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	4700	20		mg/L	200	Analyst: TAF 4/21/2009 9:35:16 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

QA/QC SUMMARY REPORT

Client: Daniel B. Stephens & Assoc.
Project: Salty Dog Brine Station

Work Order: 0904165

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions									
Sample ID: 0904165-08AMSD		MSD							
Chloride	18.72	mg/L	0.10	87.9	75	125	1.09	20	
Sample ID: MB		MBLK							
Chloride	ND	mg/L	0.10						
Sample ID: MB		MBLK							
Chloride	ND	mg/L	0.10						
Sample ID: LCS		LCS							
Chloride	5.075	mg/L	0.10	101	90	110			
Sample ID: LCS		LCS							
Chloride	4.869	mg/L	0.10	99.4	90	110			
Sample ID: 0904165-08AMS		MS							
Chloride	18.92	mg/L	0.10	92.0	75	125			
Method: EPA Method 8015B: Diesel Range									
Sample ID: MB-18809		MBLK							
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Sample ID: LCS-18809		LCS							
Diesel Range Organics (DRO)	5.228	mg/L	1.0	105	74	157			
Sample ID: LCSD-18809		LCSD							
Diesel Range Organics (DRO)	5.455	mg/L	1.0	109	74	157	4.25	23	
Method: EPA Method 8015B: Gasoline Range									
Sample ID: 6ML RB		MBLK							
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 2.6UG GRO LCS		LCS							
Gasoline Range Organics (GRO)	0.5620	mg/L	0.050	112	80	115			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name DBS

Date Received:

4/10/2009

Work Order Number 0904165

Received by: TLS

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name: UPS

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - Preservation labels on bottle and cap match?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	

Container/Temp Blank temperature?

2°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: DBS: A

ATTN: Mike McVey

Mailing Address: 0020 ACADEMY ROAD NE
STE 100 ALBUQUERQUE NM 87109

Phone #: 505-822-9400

email or Fax#: 505-822-8877

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

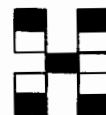
Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name:
Salty Dog Brine Station

Project #:
ES08.0118.01.0004

Project Manager:
Mike McVey, PE.

Sampler: DM Bernhill, PG.



HALL ENVIRONMENTAL
ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

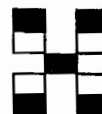
Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		BTEX + MTBE	BTEX + MTBE	TPH Method	TPH (Method	EDB (Method	8310 (PNA c	RCRA 8 Met	Anions (F, Cl	8081 Pesticid	8260B (VOA	8270 (Semi-	Chlorine	Air Bubbles (
04/08/09	1457	H ₂ O	PMW-1	1x 725 ml plastic	None	1														N/A
04/07/09	1318	H ₂ O	MW-2			2														
04/07/09	1413	H ₂ O	MW-3			3														
04/07/09	1500	H ₂ O	MW-4			4														
04/07/09	1545	H ₂ O	MW-5			5														
04/07/09	1623	H ₂ O	MW-6			6														
04/08/09	1055	H ₂ O	DBS-1			7														
04/08/09	1013	H ₂ O	DBS-2			8														
04/08/09	0844	H ₂ O	DBS-3			9														
04/08/09	0928	H ₂ O	DBS-4			10														
04/08/09	0758	H ₂ O	DBS-5			11														
04/07/09	1832	H ₂ O	DBS-6			12														
Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:														
04/09/09	1430			4/10/09	1000	Any Questions Please Call M. McVey e 505-822-9400														
Date:	Time:	Relinquished by:	Received by:	Date	Time															

Page 2 of 2
Chain-of-Custody Record

Client: **DBS & A**
ATTN: Mike McVey
 Mailing Address: **10020 Academy Road NE**
STE 100, Albuquerque, NM 87119
 Phone #: **505-822-9400**
 email or Fax#: **505-822-8877**
 QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
 Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____
 Project Name: **Salty Dog Brine Station**
 Project #: **E508.0118.01.00004**
 Project Manager: **Mike McVey, PE**
 Sampler: **CM Barnhill, PE**



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		BTEX + MT	BTEX + MT	TPH Method	TPH (Metho	EDB (Metho	8310 (PNA	RCRA 8 Me	Anions (F, Cl	8081 Pestic	8260B (VOA	8270 (Semi-	Chlorine		Air Bubbles
04/07/09	1707	H ₂ O	DBS-7	1x 125 ml plastic	None	13												X		N/A
04/07/09	1752	H ₂ O	DBS-8	" " " "	" " " "	14												X		N/A
04/08/09	1801	H ₂ O	DBS-9	1x 250 ml plastic	None	15			X									X		N/A
				1x 250 ml plastic	None	15														
				1x 250 ml plastic	None	15														
04/08/09	1256	H ₂ O	NW-1 Shallow	1x 125 ml plastic	None	16												X		N/A
04/08/09	1231	H ₂ O	NW-1 Middle			17														
04/08/09	1200	H ₂ O	NW-1 Deep			18														
04/08/09	1707	H ₂ O	NW-2 Shallow			19														
04/08/09	1651	H ₂ O	NW-2 Middle			20														
04/08/09	1619	H ₂ O	NW-2 Deep			21														

Date: 04/08/09 Time: 1434 Relinquished by: [Signature]
 Date: 4/10/09 Time: 1800 Received by: [Signature]

Remarks: Please call Mike McVey @ 505-822-9400 to discuss Any additional Analyses Needed on Sample DBS-9



July 15, 2008

Mr. James Millett
Operations Manager
PAB Services, Inc.
P.O. Box 2724
Lubbock, TX 79408

Re: Groundwater Monitoring Report
Salty Dog Brine Station, Lea County, New Mexico

Dear Mr. Millett:

Daniel B. Stephens & Associates, Inc. is pleased to submit the enclosed report documenting groundwater monitoring conducted at the Salty Dog brine station on June 23, 2008. This work has been performed in partial fulfillment of the requirements of the Notification of Compliance/Enforcement Action dated May 20, 2008, which includes the Compliance Order as to the 2005 Release regarding groundwater sampling and reporting.

Groundwater samples were collected from seven monitor wells (PMW-1, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6) and two water supply wells (ranch headquarters and brine station fresh water) for chloride analysis. Analytical results showed chloride concentrations above the New Mexico Water Quality Control Commission standard of 250 mg/L in monitor wells PMW-1, MW-2, MW-3, MW-4, and MW-5 and the brine station fresh water supply well.

The enclosed report should be forwarded to the OCD Environmental Bureau when the outstanding issues between PAB and OCD legal have been resolved. If you have any questions about the enclosed information, please contact me at (505) 822-9400.

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.

Michael D. McVey
Senior Hydrogeologist

MDM/js
Enclosure

Daniel B. Stephens & Associates, Inc.



Daniel B. Stephens & Associates, Inc.

GROUNDWATER MONITORING REPORT SALTY DOG BRINE STATION LEA COUNTY, NEW MEXICO

1. INTRODUCTION

Daniel B. Stephens & Associates, Inc. (DBS&A) has prepared this groundwater monitoring report for submission to the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD) on behalf of PAB Services, Inc. (PAB) for the Salty Dog brine station located in Lea County, New Mexico (Figure 1). This report summarizes groundwater monitoring activities conducted at the site on June 23, 2008. This work has been performed in partial fulfillment of the Notification of Compliance/Enforcement Action dated May 20, 2008, which includes the Compliance Order as to the 2005 Release regarding groundwater sampling and reporting. Other activities, including current remedial activities are not addressed herein.

2. SCOPE OF WORK

The scope of work consisted of measuring fluid levels in all accessible site monitor wells and collecting groundwater samples from seven monitor wells and two supply wells for laboratory analysis. Groundwater samples were submitted to TraceAnalysis, Inc. (TraceAnalysis) in Lubbock, Texas for chloride analysis using U.S. Environmental Protection Agency (EPA) Test Method 300.0.

3. MONITORING ACTIVITIES

On June 23, 2008, representatives of DBS&A and PAB measured the depth to water in monitor wells PMW-1, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 using a properly decontaminated electronic water level meter. Table 1 provides a summary of fluid level measurements. Water levels were not measured in the ranch headquarters water supply well and the brine station fresh water supply well because of the presence of permanent submersible downhole pumps that blocked access to the wells. A potentiometric surface map was not constructed because a report from a licensed surveyor denoting the x and y coordinates and top of casing elevations for the existing monitor wells was not available. It is assumed, based on previous reports supplied to



DBS&A and regional groundwater data that the direction of groundwater flow (without pumping) is to the southeast.

Groundwater samples were collected from monitor wells PMW-1, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 and from the ranch headquarters water supply well and the brine station fresh water supply well on June 23, 2008. A groundwater sample was not collected from the mobile home located west of the brine well because the mobile home and the ranch headquarters use the same water supply well. DBS&A followed corporate standard operating procedures developed from EPA guidance during collection of all groundwater samples. Prior to sampling, the well was purged of a minimum of three casing volumes using a submersible pump to ensure that a representative sample of groundwater was collected. During purging, the DBS&A field technician measured water quality parameters including temperature, specific conductance, and pH to ensure that these parameters were stabilized to within 10 percent for specific conductance, 2 degrees for temperature and ± 0.2 pH units prior to sampling. Sample containers were then filled, labeled, and placed on ice once the stabilization criteria were met. Groundwater samples were submitted under full chain-of-custody to TraceAnalysis for chloride analysis.

4. RESULTS

Table 2 summarizes chloride analytical results for the nine groundwater samples collected on June 23, 2008. Figure 2 shows the distribution of chloride in groundwater at the Salty Dog brine station for the sampling event. Complete laboratory reports and chain-of-custody documentation are provided in Appendix 1. Field notes recorded during groundwater monitoring activities are included in Appendix 2.

DBS&A was unsuccessful in locating an official survey from a New Mexico licensed land surveyor for the existing Salty Dog brine station monitor wells. When asked about the survey, PAB stated that that an official survey had not been completed at the site. Because no survey information was available, DBS&A could not determine groundwater elevations in the existing site wells nor could a potentiometric surface map be developed. DBS&A used regional groundwater data and information contained in previous reports provided by PAB in making the assumption that the direction of groundwater flow is to the southeast.

The average depth to water in the vicinity of the pump house monitor wells (MW-1, MW-2, MW-3,



MW-4, MW-5, and MW-6) was determined to be 61.37 feet below ground surface (ft bgs). The depth to water in the brine pit well (PMW-1) was determined to be 67.51 ft bgs (Table 1).

Since the last monitoring event performed by PAB in May 2008, the chloride concentrations increased in monitor wells PMW-1 (8,600 to 12,700 mg/L), MW-1 (75 to 243 mg/L), MW-2 (80 to 1,480 mg/L), MW-3 (360 to 1,090 mg/L), MW-4 (512 to 5,730 mg/L), MW-5 (1,220 to 1,260 mg/L), and the brine station fresh water well (590 to 650 mg/L). The only well showing a slight decrease in chloride was MW-6 (36 to 31.4 mg/L). The ranch headquarters water supply well contained a chloride concentration of 35.4 mg/L. Currently, six of the nine wells sampled contain concentrations of chloride in excess of the NMWQCC standard (Table 2).

The groundwater monitoring results indicate that the extent of the chloride groundwater plume in the vicinity of the brine pond has not been delineated. Monitor well PMW-1 (12,700 mg/L) and the brine station fresh water supply well (650 mg/L), both located southeast (downgradient) of the brine pond, contain chloride concentrations in excess of the New Mexico Water Quality Control Commission (NMWQCC) standard (Figure 2).

To the south in the area of the brine well, pump house monitor wells MW-2 (1,480 mg/L), MW-3 (1,090 mg/L), MW-4 (5,730 mg/L), and MW-5 (1,260 mg/L) contained chloride concentrations in excess of the NMWQCC standard. The chloride groundwater plume in this area extends from the brine well downgradient (southeast) to monitor wells MW-4 and MW-5. Assuming a southeasterly groundwater flow direction, the plume is bounded downgradient by monitor well MW-6, which contained a chloride concentration of 31.4 mg/L. The cross-gradient extent of the plume, however, has not been delineated in this area (Figure 2). Upgradient, the ranch headquarters water supply well contained a chloride concentration of 35.4 mg/L, below the NMWQCC standard.

5. RECOMMENDATIONS

Based on the current groundwater monitoring results and trends in chloride concentrations, DBS&A recommends the following:

- Determine the source of the chloride groundwater plume in the vicinity of the brine pond. To accomplish this, DBS&A has submitted a proposal to PAB for the installation of two angled soil borings beneath the brine pond to determine if the pond is leaking. In

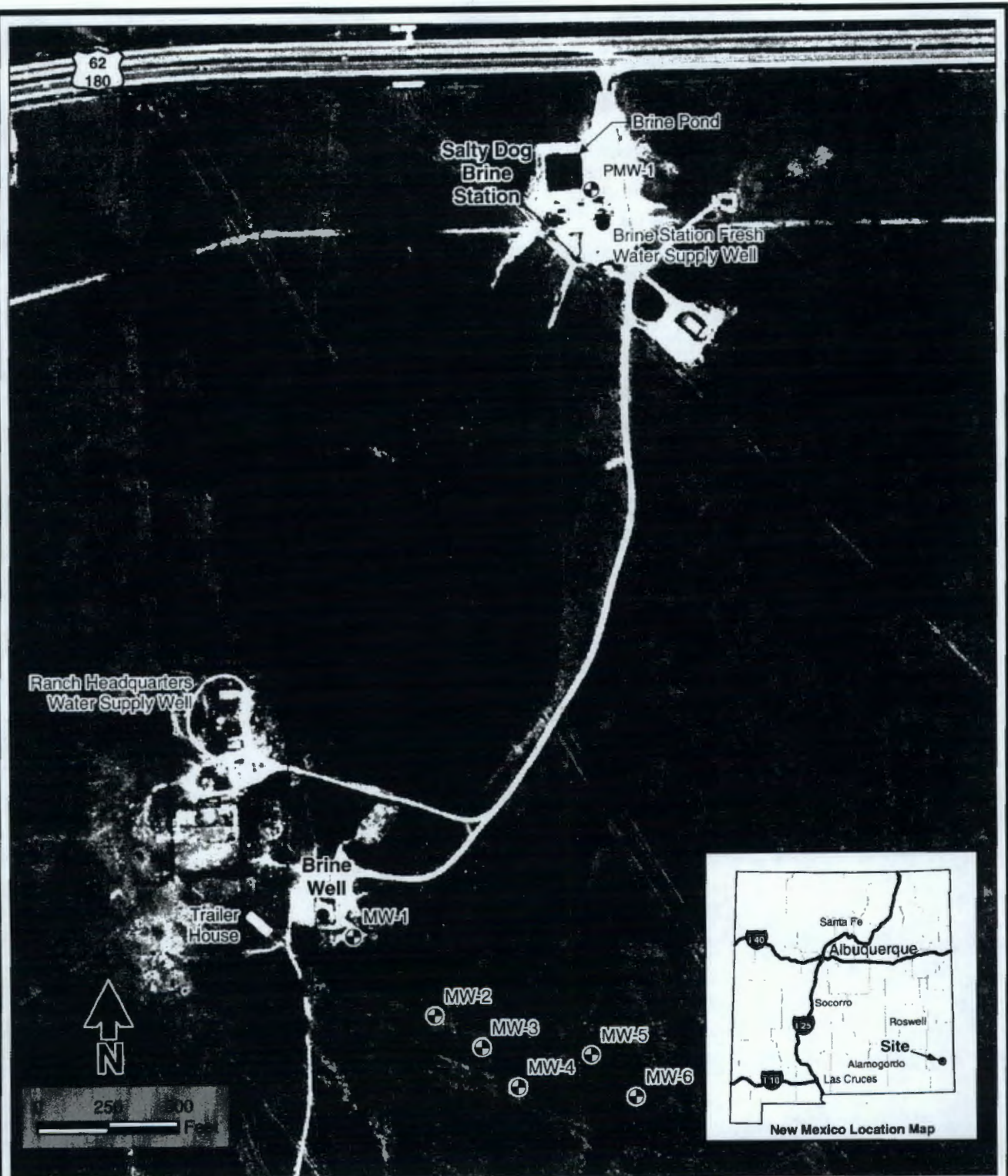


addition, DBS&A proposes to install soil borings in the brine filling stations area and through the concrete loading pad to determine if these areas are a source of groundwater contamination.

- Delineate the extent of the chloride groundwater plume in the vicinity of the brine pond. To accomplish this, DBS&A has submitted a proposal to PAB for the installation of five new monitor wells to be located northwest, east, southeast, and south of the brine pond. After installation of the monitor wells, a New Mexico licensed land surveyor will survey the x and y coordinates and top of casing elevations for all of the existing and newly installed site monitor wells. The survey will ensure that an accurate determination of groundwater flow direction and gradient can be determined.
- Delineate the cross-gradient extent of the chloride groundwater plume in the vicinity of the brine well. To accomplish this, DBS&A proposes to install three additional monitor wells: one south-southeast of MW-4, one north of MW-5, and one south of MW-2. When these wells are completed, they will be surveyed by a New Mexico licensed land surveyor. A proposal for these monitor wells has not yet been submitted to PAB.
- Continued quarterly groundwater sampling, as required by the Compliance Order, of all site monitor wells and water supply wells to monitor contaminant concentration trends in the existing site monitor wells and establish contaminant concentration trends in the newly installed monitor wells.
- Verify the direction of groundwater flow in the vicinity of the site to aid in future actions.

Figures

S:\PROJECTS\ES08.0118.01-SALTY DOG INC\GIS\MXD\SITE LOCATION MAP.MXD 8/20/07



Explanation

- ⊕ Existing monitor well
- Water supply well

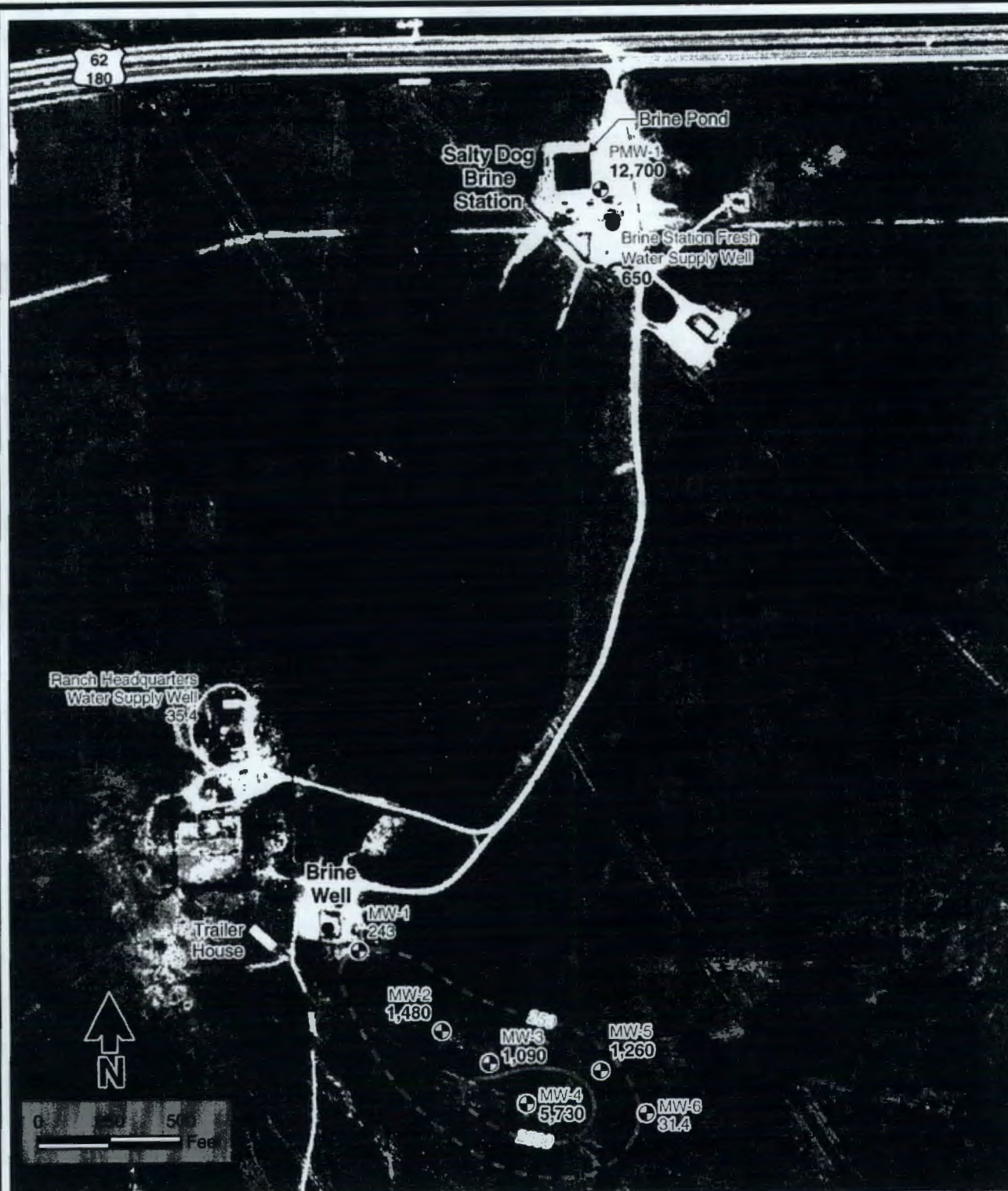
Source: RGIS aerial photograph dated July 2005



Daniel B. Stephens & Associates, Inc.
07/09/2008 JN ES08.0118.01

SALTY DOG BRINE STATION Site Location Map

Figure 1



Explanation

MW-4 Well designation

5,730 Chloride concentration (mg/L)

⊕ Existing monitor well

● Water supply well

--- Chloride concentration contour (dashed where inferred)

Note: Bold denotes concentration that exceeds the NMWQCC standard

Source: RGIS aerial photograph dated July 2005

SALTY DOG BRINE STATION Chloride Concentrations in Groundwater



Daniel B. Stephens & Associates, Inc.

07/09/2008

JN ES08.0118.01

Figure 2

Tables



Daniel B. Stephens & Associates, Inc.

**Table 1. Summary of Water Level Measurements
Salty Dog Brine Station, Lea County, New Mexico
Page 1 of 1**

Well	Screen Interval (ft bgs)	Date Measured	Depth to Groundwater (ft btoc)
Brine Pit Well (PMW-1)	63-78	06/23/08	67.51
Pump House MW-1	120-140	06/23/08	59.90
Pump House MW-2	127-147	06/23/08	61.42
Pump House MW-3	NA	06/23/08	62.06
Pump House MW-4	111-131	06/23/08	62.12
Pump House MW-5	112-132	06/23/08	60.60
Pump House MW-6	NA	06/23/08	62.17
Ranch Headquarters Water Supply Well	NA	06/23/08	NM
Brine Station Fresh Water Supply Well	NA	06/23/08	NM

ft bgs = Feet below ground surface
ft btoc = Feet below top of casing

NA = Not available
NM = Not measured



**Table 2. Summary of Chloride Groundwater Analytical Data
Salty Dog Brine Station, Lea County, New Mexico
Page 1 of 1**

Well Number	Date	Chloride Concentration (mg/L) ^a
<i>New Mexico Water Quality Control Commission Standard</i>		250
Brine Pit Well (PMW-1)	02/27/08	9,500 ^b
	05/30/08	8,600 ^b
	06/23/08	12,700
Pump House MW-1	05/30/08	75 ^b
	06/23/08	243
Pump House MW-2	02/27/08	120 ^b
	05/30/08	80 ^b
	06/23/08	1,480
Pump House MW-3	02/27/08	348 ^b
	05/30/08	360 ^b
	06/23/08	1,090
Pump House MW-4	02/27/08	476 ^b
	05/30/08	512 ^b
	06/23/08	5,730
Pump House MW-5	02/27/08	1,280 ^b
	05/30/08	1,220 ^b
	06/23/08	1,260
Pump House MW-6	02/27/08	32 ^b
	05/30/08	36 ^b
	06/23/08	31.4
Ranch Headquarters Water Supply Well	06/23/08	35.4
Brine Station Fresh Water Supply Well	02/27/08	630 ^b
	05/30/08	590 ^b
	06/23/08	650

Bold indicates concentrations that exceed the applicable standard.

^a All samples analyzed by EPA method 300.0, unless otherwise noted.

^b Samples analyzed by Standard Method 4500-Cl B.

mg/L = Milligrams per liter

Appendices

Appendix 1

Laboratory Report

Report Date: July 2, 2008
ES08.0118.01

Work Order: 8062417
Salty Dog Brine Station

Page Number: 1 of 2
P. O. Box 513, Hobbs, NM

Summary Report

Mike McVey
DBS-Lubbock
4611 50th St.
Lubbock, TX, 79424

Report Date: July 2, 2008

Work Order: 8062417

Project Location: P. O. Box 513, Hobbs, NM
Project Name: Salty Dog Brine Station
Project Number: ES08.0118.01

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
164466	Brine Pit Well (PMW-1)	water	2008-06-23	10:50	2008-06-24
164467	Pump House - MW1	water	2008-06-23	13:50	2008-06-24
164468	Pump House - MW2	water	2008-06-23	14:33	2008-06-24
164469	Pump House - MW3	water	2008-06-23	15:40	2008-06-24
164470	Pump House - MW4	water	2008-06-23	16:45	2008-06-24
164471	Pump House - MW5	water	2008-06-23	17:57	2008-06-24
164472	Pump House - MW6	water	2008-06-23	18:40	2008-06-24
164473	Ranch Headquarters WW	water	2008-06-23	19:10	2008-06-24
164474	Brine Station Fresh WW	water	2008-06-23	19:25	2008-06-24

Sample: 164466 - Brine Pit Well

Param	Flag	Result	Units	RL
Chloride		12700	mg/L	3.00

Sample: 164467 - Pump House - MW1

Param	Flag	Result	Units	RL
Chloride		243	mg/L	3.00

Sample: 164468 - Pump House - MW2

continued ...

Report Date: July 2, 2008
ES08.0118.01

Work Order: 8062417
Salty Dog Brine Station

Page Number: 2 of 2
P. O. Box 513, Hobbs, NM

sample 164468 continued ...

Param	Flag	Result	Units	RL
Param	Flag	Result	Units	RL
Chloride		1480	mg/L	3.00

Sample: 164469 - Pump House - MW3

Param	Flag	Result	Units	RL
Chloride		1090	mg/L	3.00

Sample: 164470 - Pump House - MW4

Param	Flag	Result	Units	RL
Chloride		5730	mg/L	3.00

Sample: 164471 - Pump House - MW5

Param	Flag	Result	Units	RL
Chloride		1260	mg/L	3.00

Sample: 164472 - Pump House - MW6

Param	Flag	Result	Units	RL
Chloride		31.4	mg/L	3.00

Sample: 164473 - Ranch Headquarters WW

Param	Flag	Result	Units	RL
Chloride		35.4	mg/L	3.00

Sample: 164474 - Brine Station Fresh WW

Param	Flag	Result	Units	RL
Chloride		650	mg/L	3.00



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1296
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

NELAP Certifications

Lubbock T104704219-08-TX El Paso T104704221-08-TX Midland T104704392-08-TX

Analytical and Quality Control Report

Mike McVey
DBS-Lubbock
4611 50th St.
Lubbock, TX, 79424

Report Date: July 2, 2008

Work Order: 8062417

Project Location: P. O. Box 513, Hobbs, NM
Project Name: Salty Dog Brine Station
Project Number: ES08.0118.01

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
164466	Brine Pit Well	water	2008-06-23	10:50	2008-06-24
164467	Pump House - MW1	water	2008-06-23	13:50	2008-06-24
164468	Pump House - MW2	water	2008-06-23	14:33	2008-06-24
164469	Pump House - MW3	water	2008-06-23	15:40	2008-06-24
164470	Pump House - MW4	water	2008-06-23	16:45	2008-06-24
164471	Pump House - MW5	water	2008-06-23	17:57	2008-06-24
164472	Pump House - MW6	water	2008-06-23	18:40	2008-06-24
164473	Ranch Headquarters WW	water	2008-06-23	19:10	2008-06-24
164474	Brine Station Fresh WW	water	2008-06-23	19:25	2008-06-24

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 7 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Salty Dog Brine Station were received by TraceAnalysis, Inc. on 2008-06-24 and assigned to work order 8062417. Samples for work order 8062417 were received intact at a temperature of 3.9 deg C.

Samples were analyzed for the following tests using their respective methods.

Test	Method
Chloride (IC)	E 300.0

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 8062417 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: July 2, 2008
ES08.0118.01

Work Order: 8062417
Salty Dog Brine Station

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P. O. Box 513, Hobbs, NM

Analytical Report

Sample: 164466 - Brine Pit Well

Laboratory: Lubbock
Analysis: Chloride (IC)
QC Batch: 49880
Prep Batch: 42821

Analytical Method: E 300.0
Date Analyzed: 2008-06-30
Sample Preparation: 2008-06-26

Prep Method: N/A
Analyzed By: RD
Prepared By: RD

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		12700	mg/L	1000	3.00

Sample: 164467 - Pump House - MW1

Laboratory: Lubbock
Analysis: Chloride (IC)
QC Batch: 49880
Prep Batch: 42821

Analytical Method: E 300.0
Date Analyzed: 2008-06-30
Sample Preparation: 2008-06-26

Prep Method: N/A
Analyzed By: RD
Prepared By: RD

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		243	mg/L	50	3.00

Sample: 164468 - Pump House - MW2

Laboratory: Lubbock
Analysis: Chloride (IC)
QC Batch: 49880
Prep Batch: 42821

Analytical Method: E 300.0
Date Analyzed: 2008-06-30
Sample Preparation: 2008-06-26

Prep Method: N/A
Analyzed By: RD
Prepared By: RD

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1480	mg/L	100	3.00

Sample: 164469 - Pump House - MW3

Laboratory: Lubbock
Analysis: Chloride (IC)
QC Batch: 49880
Prep Batch: 42821

Analytical Method: E 300.0
Date Analyzed: 2008-06-30
Sample Preparation: 2008-06-26

Prep Method: N/A
Analyzed By: RD
Prepared By: RD

continued ...

Report Date: July 2, 2008
ES08.0118.01

Work Order: 8062417
Salty Dog Brine Station

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P. O. Box 513, Hobbs, NM

sample 164469 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1090	mg/L	100	3.00

Sample: 164470 - Pump House - MW4

Laboratory: Lubbock
Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A
QC Batch: 49880 Date Analyzed: 2008-06-30 Analyzed By: RD
Prep Batch: 42821 Sample Preparation: 2008-06-26 Prepared By: RD

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5730	mg/L	500	3.00

Sample: 164471 - Pump House - MW5

Laboratory: Lubbock
Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A
QC Batch: 49880 Date Analyzed: 2008-06-30 Analyzed By: RD
Prep Batch: 42821 Sample Preparation: 2008-06-26 Prepared By: RD

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1260	mg/L	100	3.00

Sample: 164472 - Pump House - MW6

Laboratory: Lubbock
Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A
QC Batch: 49880 Date Analyzed: 2008-06-30 Analyzed By: RD
Prep Batch: 42821 Sample Preparation: 2008-06-26 Prepared By: RD

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		31.4	mg/L	5	3.00

Report Date: July 2, 2008
ES08.0118.01

Work Order: 8062417
Salty Dog Brine Station

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P. O. Box 513, Hobbs, NM

Sample: 164473 - Ranch Headquarters WW

Laboratory: Lubbock
Analysis: Chloride (IC)
QC Batch: 49880
Prep Batch: 42821

Analytical Method: E 300.0
Date Analyzed: 2008-06-30
Sample Preparation: 2008-06-26

Prep Method: N/A
Analyzed By: RD
Prepared By: RD

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		35.4	mg/L	5	3.00

Sample: 164474 - Brine Station Fresh WW

Laboratory: Lubbock
Analysis: Chloride (IC)
QC Batch: 49880
Prep Batch: 42821

Analytical Method: E 300.0
Date Analyzed: 2008-06-30
Sample Preparation: 2008-06-26

Prep Method: N/A
Analyzed By: RD
Prepared By: RD

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		650	mg/L	50	3.00

Method Blank (1) QC Batch: 49880

QC Batch: 49880
Prep Batch: 42821

Date Analyzed: 2008-06-30
QC Preparation: 2008-06-26

Analyzed By: RD
Prepared By: RD

Parameter	Flag	MDL Result	Units	RL
Chloride		<1.74	mg/L	3

Laboratory Control Spike (LCS-1)

QC Batch: 49880
Prep Batch: 42821

Date Analyzed: 2008-06-30
QC Preparation: 2008-06-26

Analyzed By: RD
Prepared By: RD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	13.8	mg/L	1	12.5	<1.74	110	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: July 2, 2008
ES08.0118.01

Work Order: 8062417
Salty Dog Brine Station

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Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	13.8	mg/L	1	12.5	<1.74	110	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 164466

QC Batch: 49880
Prep Batch: 42821

Date Analyzed: 2008-06-30
QC Preparation: 2008-06-26

Analyzed By: RD
Prepared By: RD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	26400	mg/L	1000	12500	12721.1	109	78.2 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	26300	mg/L	1000	12500	12721.1	109	78.2 - 120	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 49880

Date Analyzed: 2008-06-30

Analyzed By: RD

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	13.8	110	90 - 110	2008-06-30

Standard (CCV-1)

QC Batch: 49880

Date Analyzed: 2008-06-30

Analyzed By: RD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	13.7	110	90 - 110	2008-06-30

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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1 (888) 588-3443

8808 Camp Bowie Blvd. West, Suite 180
Ft. Worth, Texas 76116
Tel (817) 201-5260
Fax (817) 560-4336

Company Name: DBSA Phone #: 505-822-9400

Address: (Street, City, Zip) 4611-50th Lubbock Texas Fax #:

Contact Person: Mike McVey - DBSA E-mail: mrmcvey@dbstephens.com

Invoice to: (If different from above) DBSA - ABQ 6020 Academy Rd NE

Project #: ES08.0118.01 Project Name: Salty Dog Brine Station

Project Location (including state): P.O. Box 513 Hobbs New Mexico Sampler Signature: Dwaine Beard

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD						SAMPLING		MTBE 8021B / 602 BTX 8021B / 602 TPH 418.1 / TX100595 TPH 8015 GRO / DD PAH 8270C / 525 Total Metals Ag As Ba C TCPLP Metals Ag As TCPLP Volatiles TCPLP Semi Volatiles TCPLP Pesticides RCI GC/MS Vol. 8260B / GC/MS Semi. Vol. 8 PCB's 8082 / 608 Pesticides 8081A / 6 BOD, TSS, pH Moisture Content Chloride EPA	Turn Around Time if	Hold
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE	TIME			
16446	Brine Pit Well	1	250	X						X	X	6-23-08	1050			X		
467	Pump House - MW-1												1350			X		
468	MW-2												1433			X		
469	MW-3												1540			X		
470	MW-4												1645			X		
471	MW-5												1757			X		
472	MW-6												1840			X		
473	Ranch Headquarters WW												1910			X		
474	Brine Station Fresh WW												1925			X		
	Temp Blank																	

Relinquished by: <u>Dwaine Beard</u>	Company: <u>DBSA</u>	Date: <u>6-24-08</u>	Time: <u>1000</u>	Received by:	Company:	Date:	Time:	Temp °C:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp °C:
Relinquished by:	Company:	Date:	Time:	Received by: <u>Dwaine Beard</u>	Company: <u>Trace Analysis</u>	Date: <u>6/24/08</u>	Time: <u>10:00</u>	Temp °C: <u>3.9</u>

LAB USE ONLY

Initials: Y/N
Headspace: Y/N/NA
Log-In Review: W

REMARKS:

Send results to:
mrmcvey@dbstephens.com
Khopson@dbstephens.com

- ☐ Dry Weight Basis Required
☐ TRRP Report Required
☐ Check if Special Reporting Limits Are Needed

Appendix 2

Field Notes

6.28.08 " Been Raining (Salty Dog) 95+08

MW	DTW	DTP	TA	PV	TOS
2 Beneath Pump House	67.51	—	79.2-	58-50	1050
5-1 MW-1	59.90	—	132.95-	58-50	1850
2 MW-2	61.42	—	137.60-	38.0	1433
MW-3	62.06	—	147.15-	42.5	1540
MW-4	62.12	—	147.47-	42.6	1645
MW-5	60.60	—	139.08-	39.2	1715-7
MW-6	62.17	—	119.10-	22.6	1840
Ranch Headquarters			Water Well		1910
Grave Station			Fresh Water Well		1925

We are short one well because Headquarters and the Horse they say use same well. Found a well in the horse lot but it has no way to sample it!

6.23.08	Been Raining	95+08
500	Salty dog	
700	Leave Lubbock	
800	on site. Meet with Jim	
	start gauging wells, 10.00 am	
	E-line after every well	
920	Talk to Mike about purge volumes, parameters, depth of wells, start getting pump ready and calibrate slouber with 400 PH solution, 4.32 PH.	
Brine Pit	Lay out hose and cut it 7' 80' long, set pump at 44' 5' off of bottom. 10.00 am pump for 5' start up on Brine Pit well at 5.8 gal. purge. Take parameters every 2 gal. not about purged 10 gal. Started pumping at 1030 at about 1 gal per minute. Ended up purging 15 gal. 10.00 am pump in diguano pond water. Cut new hose for MW-1 pump house at 12.5' pump well only go to 120'.	
Pump House	Get set up on pump house well at 120' start pumping 11.00, about 1 gal per minute	

Clear off + Hot 94°

6-23-08	PH	Cond	Temp	95-08
MW-1	6.32	68.8	20.6	1033
Beire Pt	6.51	71.5	20.2	1036
water	6.74	72.5	20.0	1040
cloudy	6.80	70.4	19.7	1044
	6.82	72.5	19.7	1050
Pump House	9.40	1.79	21.6	1215
MW-1	9.38	1.77	21.7	1255
water	9.37	1.75	21.6	1330
clear				
MW-2	8.48	5.08	21.5	1400
water	8.52	6.68	21.6	1415
clear	8.55	6.71	21.4	1430
MW-3				
water	6.40	7.52	21.8	1509
is	6.50	8.24	21.7	1523
clear	6.52	8.22	21.6	1537
MW-4	6.75	33.7	22.7	1615
water	6.74	33.5	20.8	1630
clear	6.77	33.4	20.7	1643

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Hot 98°

6-23-08	PH	Cond	Temp	95-08
MW-5	6.95	44.8	21.7	1728
water	6.91	42.7	20.7	1742
clear	6.92	42.7	20.5	1755
MW-6	7.46	0.90	20.7	1819
water	7.43	0.90	20.6	1829
cloudy	7.44	0.90	20.7	1839
First thing in am and Jim looked over the HRS plan.				
We cleaned pump and used new hose on every well.				
Pumped mud well at 10 am when we took over sample we cut it back to about 1/2 am.				
Shovel Jim back to set up and run pump and what not inside on Duke's Rose list.				
Also showed him how to do his sampling event.				

Page 4 of 8

Cleared off + Hot

4-23-08

Satty Day

95-08

Pump House Pump is pretty much stayed out
flow rate is not steady.

Take parameters every 35
gal. Well locations are all
clean looking no big mess
around any of them.

Pull sample at 1330, down pump
cut new hose 82' set ~~at 80'~~
at 80' got ~~at 80'~~ - Purge 107 gal

Go to MW-2 will set pump
at 80' at take parameters at
13 gal intervals. Rased pump speed.

Start pumping at 1345
pump around 1 gal per min
well head and area clean.

Sets next to one of their fresh
water wells. Purge 39 gallons.

Full pump and clean layout
and cut hose for MW-3.

1455 start pumping at 1455
pumping about 1 gal. per min.

Pump set at 80 ft. Will take
parameters at 14.0 gal or so.

42.5 is purge volume.

Page 5 of 8

Cleared off + Hot

4-23-08

Satty Day

95-08

MW-3 raise pump up and down from 80'
to 70' to stir up water. Well area clean.

Down pump, and cut pipe for MW-4

MW-4 Start pumping at 1600. Set
pump at 80', move up to 70' and then
lower back to 80'.

Will take parameters at 14 gal intervals
purge volume is 42 gallons.

Set pump around 1 gal. per minute set
the control valve at 20.0 amp to get that
much mag is 24.0 amp

Have to down pump, and cut hose
for MW-5

Have to go and dump tank on til it
is clear to full with purge water come
back and start on MW-5

MW-5 start pumping at 1715
set pump at 80' and move the pump
up 10' or so and then back down will purge
39 gallons of water from MW-5, have pump
running at almost 1 gal per minute.

Take parameters at 14 gal intervals.
pull pump and down, and cut hose for
MW-6.

Page 6 of 8

Clouds + wind coming in

1-23-08

Salty Dog

Q5 + 10B

Area around MW-5 is clean,
see nothing on ground.

Sample at 1757, purged

MW-6 start pumping at 1810
set pump at 20; pull parameters
every 10 cal. intervals.

Purge volume is nearly 27
gal.

Area is clean around MW-6
no debris or spill residue.

Took sample at 1840, then use
Dean pump, then 4 gear pump
the pump hose, battery and charger
and Bonklet for pump.

Then we looked at Trailer house
for an outside faucet, but could
not find one. A ranch hand
pulled up and said it was on the
same well as the Ranch Headquarters.

We turned it on at 1900, will
sample at 1910. Cleaned
off faucet, had insulation over
it, but area was clean.

Page 7 of 8

Clouds + winds

1-23-08

Salty Dog

Q5 + 10B

Go to Brine 5 filling fresh water well.
Start water running at 1915, pull
sample at 1925. Wiped off faucet
and area was clean of debris.

Dump the rest of our pump water
on dirt tank into Brine pit.

1945 off site. Go to Redhook, will take in
sample Tuesday morning.

2200 stop

Page 8 of 8



June 22, 2009

Mr. James Millett
Project Manager
PAB Services, Inc.
PO Box 2724
Lubbock, TX 79408

Re: Pond release evaluation

Dear Mr Millett:

At your request, Daniel B. Stephens & Associates, Inc. (DBS&A) has assessed whether a sudden release from the Salty Dog Brine Station pond could cause the increase in chloride concentration observed at monitor well PMW-1 between May 30 and June 23, 2008. During this 24-day period chloride concentration increased from 8,600 to 12,700 mg/L. Our assessment demonstrates that chloride from a brine release due to rupturing of the pond liner could reach the water table within a 24-day period.

DBS&A used the program HYDRUS-1D (version 4 12) to determine whether a release from the pond could reach the water table within a 24-day period by simulating the vertical transport of chloride from the base of the pond to the water table. HYDRUS-1D is a public domain Windows-based modeling environment for analysis of water flow and solute transport in variably saturated porous media and is available online at www.pc-progress.com. Below is list of assumptions and values used for the modeling exercise:

- Default soil property values of sand were used (Table 1). These values were selected from the HYDRUS-1D soil catalog. The lithology at DBS-1, located approximately 200 feet to the southeast of PMW-1 and the pond, consists primarily of fine, well-sorted sand. The lithology is expected to be similar at PMW-1 and beneath the pond.
- The thickness of the unsaturated zone was set to 19 meters (~62 feet). Depth to water at the site is approximately 62 feet.
- The upper boundary condition was specified at a constant flux rate of 0.2 meters/day (m/d) (0.66 feet/day). This flux rate represents the release rate from the pond. Given the 120-foot by 120-foot footprint of the pond, this rate is equal to 49 gallons per minute.
- The lower boundary condition was specified at a constant pressure head value of zero to simulate a water table.

Daniel B. Stephens & Associates, Inc.

6020 Academy Rd. NE, Suite 100 505-822-9400

Albuquerque, NM 87109-3315 FAX 505-822-8877

- The initial pressure head and soil moisture distributions were established by performing a steady-state simulation with a recharge value of 8.6×10^{-6} m/d (3 millimeters/year).

Table 1. Soil Property Values

Parameter	Value
Residual soil water content	0.045
Saturated soil water content	0.43
Parameter α in the van Genuchten soil water retention function	14.5 m^{-1}
Parameter n in the van Genuchten soil water retention function	2.68
Saturated hydraulic conductivity	7 128 m/d
Tortuosity parameter in the conductivity function	0.5

HYDRUS-1D modeling shows that chloride can reach the water table in less than 20 days at a release rate of 0.2 m/d. Figure 1 shows chloride concentration at observation nodes placed along the simulated soil profile. Chloride reaches the node placed at the water table (19 m) in less than 20 days. Greater release rates will reduce the travel time for chloride to reach the water table and may be likely given the large capacity of the pond and volume of water that was kept in the pond.


If you have any comments or questions regarding this report, please contact me at (505) 822-9400.

Sincerely,

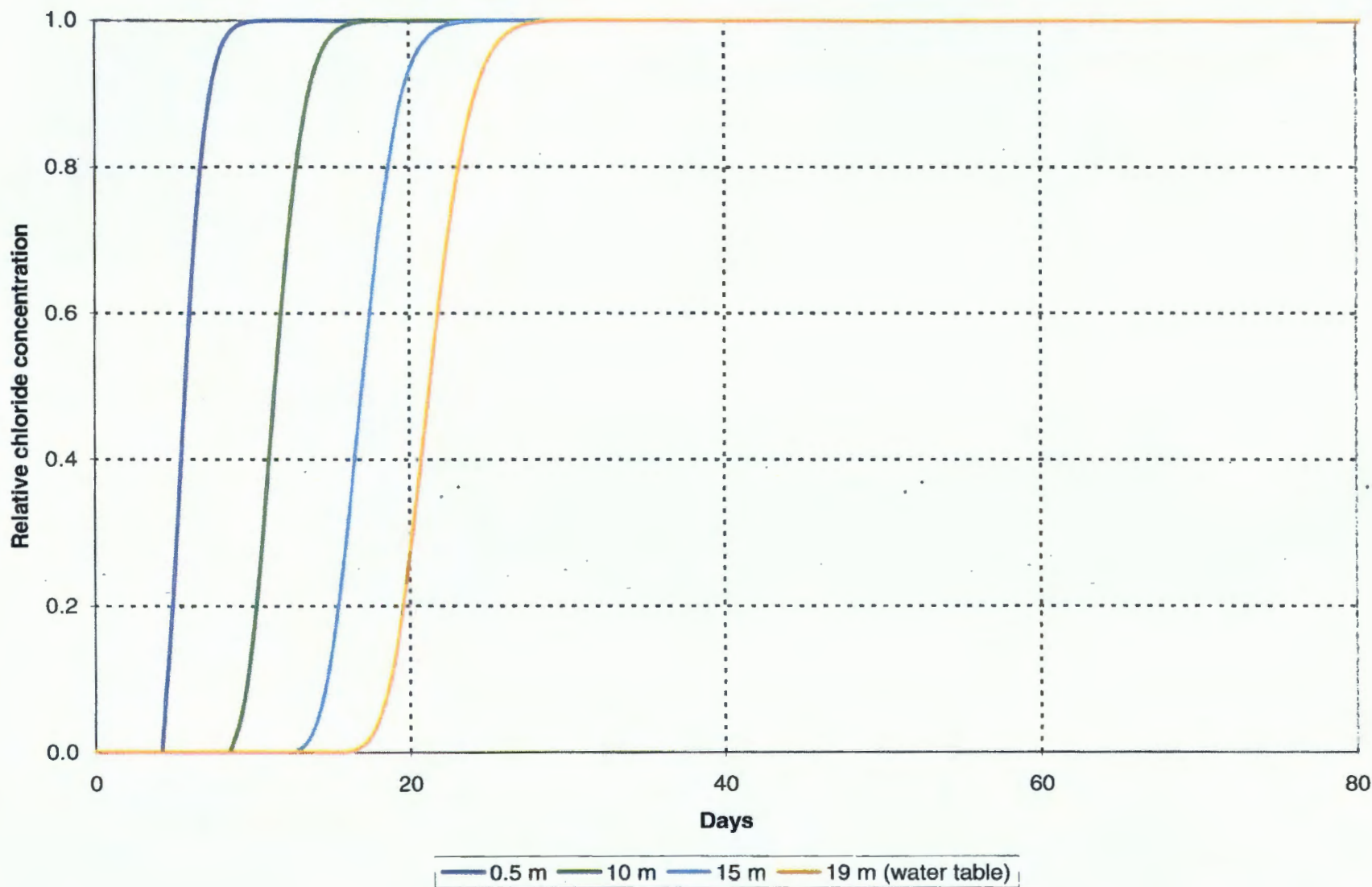
DANIEL B. STEPHENS & ASSOCIATES, INC.



John Ayarbe
Project Hydrologist



Michael D. McVey
Senior Hydrogeologist



Salty Dog Brine Station
**Chloride Concentration at Observation Nodes
In Simulated Soil Profile**



IV. Snyder Ranches Inc.

PO Box 2158

Hobbs, NM 882414

- V. Salty Dog produces and sells both fresh water and brine. The fresh water is contained in two 1000 bbl. Tanks. The brine pumped from the well approximately .5 miles to the storage facility. The brine is held here for purchase by trucking companies. There are never any trucks up around the well head.
- VI. The fluids, both fresh and brine, are transferred to and from the brine well in through 3" black poly pipe that is 3/8" thick, buried to a depth of 18". This line is inspected daily for leak when the entire facility is inspected.
- VII. See Attached bore sketch.
- VIII.

Salty Dog Emergency Action Plan

1. Should an accidental release occur the following actions will take place
 - a. Call James Millett at 806-241-7405
 - b. Call Terry Wallace at 5753938353
 - c. Hire Vacuum Trucks from Zia Transports INC
 - d. Notify the Oil Conservation Division
 - e. Manager will arrive on site and determine further action necessary.
- IX. A water sample report will be provided to the OCD within 30 days of this submission from Daniel B. Stephens.
- X. Salty Dog INC. is committed to complying with all OCD rules. We will be leveling our site and installing tanks on a concrete loading pad. Salty Dog will also continue to provide quarterly production reports.

Public Notice

Notice is hereby given that pursuant to the New Mexico Oil Conservation Division Regulations, the following application has been submitted for a discharge renewal to the Director of the Oil Conservation Division, P.O. Box 6429, 1220 South Saint Francis Drive, Santa Fe, NM 87505, (505) 476-3440.

The applicant, Salty Dog, Inc., PO Box 2724, Lubbock, TX 79408, has applied for a renewal to its existing discharge permit, BW-008. The facility is located approximately 12 miles West of Hobbs, New Mexico on Hwy. 62-180 in the NE $\frac{1}{4}$ of Section 5, Township 19 S., Range 36 E., Lea Co., New Mexico. The Facility produces and sells approximately 800 bbls. Of brine per day from an approved brine extraction well. Groundwater at this area is found at approximately 60 ft. and has chloride concentration that ranges from 75 milligrams per liter to 800 milligrams per liter and a total dissolved solids concentration that ranges from 500 milligrams per liter to 1500 milligrams per liter. The facility location is underlain by alluvial sediment and the Ogallala formation. The permit application addresses all phases of this operation.

Any interested person may obtain information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The application may be viewed at the above address or the Hobbs District Office at 1625 N. French Drive, Hobbs, NM, between 8:00 am and 4:00pm, Monday thru Friday, Prior to ruling on any proposed application, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of the notice, during which comments may be submitted and public hearing may be requested in by any interested person. Request for public hearing shall set forth the reasons why a hearing shall be held. A hearing will be held if the director determines that there is significant public interest.

**Preliminary Conceptual
Remedial Design Report
Salty Dog Brine Station
Lea County, New Mexico**

**Prepared for New Mexico Energy, Minerals and Natural
Resources Department
Oil Conservation Division, Environmental Bureau**

December 31, 2009



Daniel B. Stephens & Associates, Inc.

6020 Academy NE, Suite 100 • Albuquerque, New Mexico 87109



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1. Introduction

On behalf of PAB Services, Inc. (PAB), Daniel B. Stephens & Associates, Inc. (DBS&A) has prepared this *Preliminary Conceptual Remedial Design Report* for the Salty Dog brine station (Site). The Site is located in Lea County in southeastern New Mexico, approximately 12 miles west of Hobbs on the south side of the Hobbs/Carlsbad Highway (Figure 1). Formally, the Site is located in the J Unit of Section 5, Township 19 South, Range 36 East.

This report summarizes a hydrologic modeling effort conducted to determine groundwater extraction rates needed to capture chloride contamination originating from the area of a former brine pond and a historical release from the brine well. The report also presents an evaluation of groundwater treatment remedial alternatives and recommendations for groundwater treatment.

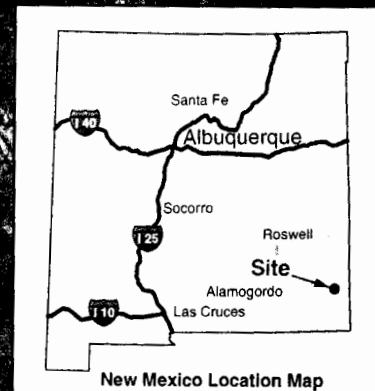
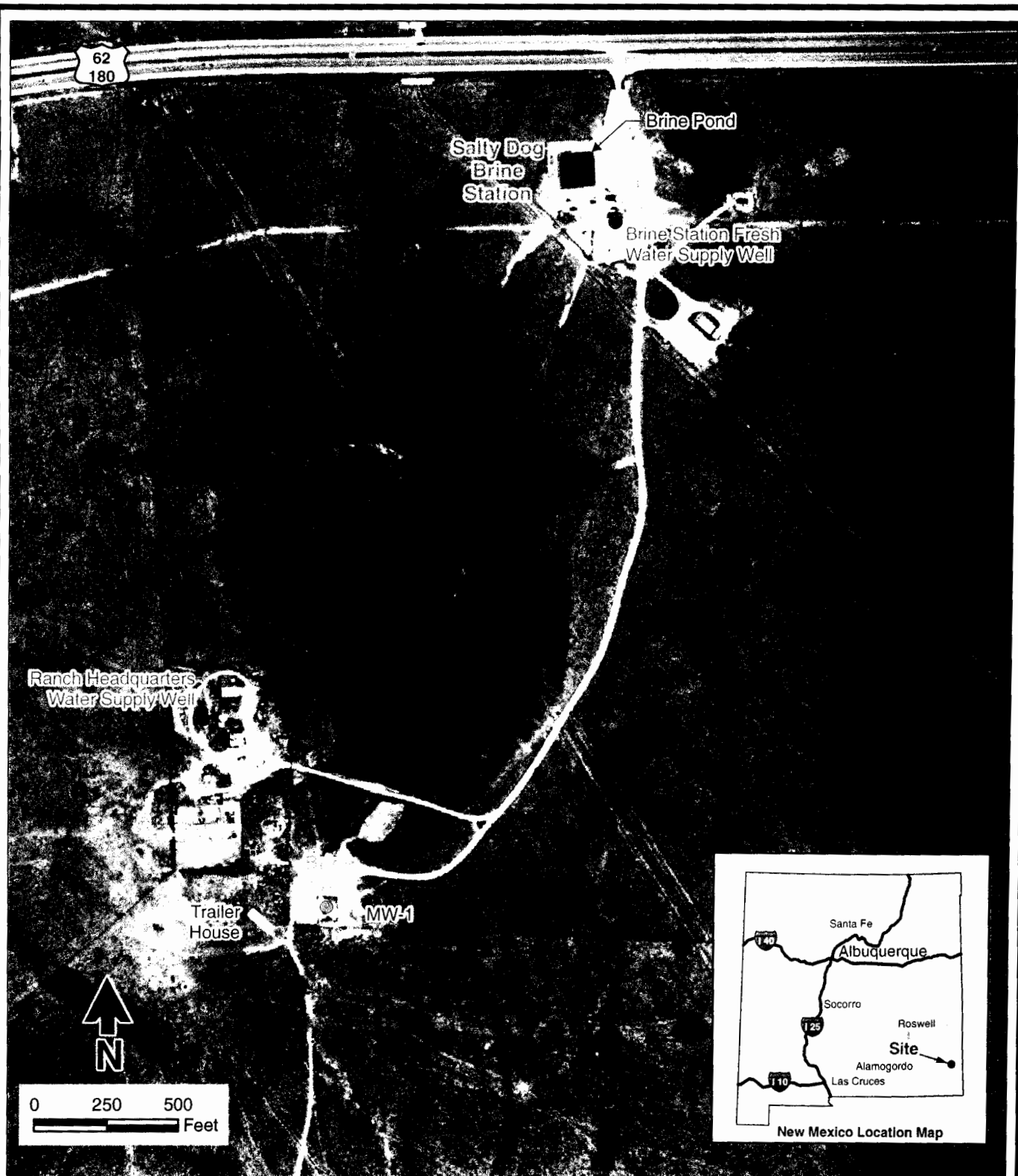
1.1 Background

On May 19, 2008, the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD) issued Administrative Compliance Order (ACO) ACO 2008-02 to Mr. Pieter Bergstein (d/b/a Salty Dog, Inc.) (NM OCD, 2008a). After issuance of the ACO, OCD and Mr. Bergstein engaged in settlement discussions to resolve the outstanding issues addressed by the ACO. The OCD and Mr. Bergstein agreed to a Settlement Agreement & Stipulated Revised Final Order (Order), NM-OCD 2008-2A (NM OCD, 2008b), for the purpose of resolving the violations outlined in the ACO.

The Order requires Mr. Bergstein to complete certain actions to address environmental compliance-related issues at the Site in accordance with milestone deliverable dates agreed upon by the OCD and Salty Dog, Inc. Specifically, the Order requires Salty Dog to address contamination resulting from documented releases in 1999, 2002, and 2005, as well as releases at the brine pond and brine loading/unloading area (brine pond area).

The ACO provides a description of each of these releases (NM OCD, 2008b). The 1999 release was caused by a hole in the casing of the Salty Dog brine well and resulted in

S:\PROJECTS\ES08.0118.01_SALTY DOG INC\GIS\MXDS\CAPTURE_SYSTEM_REPORT\FIG01_SITE_LOCATION_MAP.MXD 902221



Explanation

- Water supply well

Source: RGIS aerial photograph dated July 2005

SALTY DOG BRINE STATION Site Location Map

Figure 1



Daniel B. Stephens & Associates, Inc.
11/20/2009 JN ES08.0118.01



contamination of the fresh water well on Snyder Ranches, adjacent to the Site. The 2002 release was caused by a leaking tank in the vicinity of the brine well, and the 2005 release was caused by a rupture in the brine supply pipeline. The 2002 and 2005 releases were noted to have entered a fresh water playa located just north of the brine well (NM OCD, 2008b).

1.2 Previous Work Conducted by DBS&A at the Site

To date, DBS&A has performed the following activities at the Site under contract to PAB: (1) groundwater monitoring, (2) preparation of a Comprehensive Site Plan, (3) removal of the brine pond, (4) monitor well installation and groundwater monitoring, and (5) pumping tests. These activities are summarized in Sections 1.2.1 through 1.2.5.

1.2.1 Groundwater Monitoring

In June 2008, DBS&A collected groundwater samples from existing monitor wells PMW-1 and MW-1 through MW-6, and from the ranch headquarters' water supply well and the brine station fresh water supply (DBS&A, 2008a). Laboratory results showed that, since the wells were last sampled by employees of Salty Dog in May 2008, chloride concentrations increased in six of the seven existing groundwater monitor wells (PMW-1 and MW-1 through MW-5) and in the brine station fresh water well. In six of the nine samples collected (PMW-1, MW-2 through MW-5, and the brine station fresh water supply well), chloride concentrations exceeded the New Mexico Water Quality Control Commission (NMWQCC) standard of 250 milligrams per liter (mg/L).

The groundwater monitoring results indicated that the extent of the chloride groundwater plume beneath the brine pond area in the northern portion of the Site had not been delineated. In addition, the monitoring results indicated that the cross-gradient extent of the chloride groundwater plume at the brine well area in the southern portion of the Site had also not been delineated. Complete details and findings of the groundwater monitoring event are reported in the *Groundwater Monitoring Report* submitted to PAB on July 15, 2008 (DBS&A, 2008a).



1.2.2 Comprehensive Site Plan

In September 2008, DBS&A submitted a Comprehensive Site Plan (Plan) (DBS&A, 2008b) to OCD addressing the requirements set forth in Section 15 of the Order (NM OCD, 2008b). The Plan presented a proposed project schedule and individual specifications and proposals for addressing the environmental compliance-related issues at the Site and formed the basis for future investigation, characterization, and remediation of the Site. The OCD approved the Plan on September 17, 2008.

1.2.3 Brine Pond Removal

In October 2008, the brine pond located in the northern portion of the Site was removed in accordance with the Order (NM OCD, 2008b). Employees of Salty Dog pumped all of the aqueous brine from the pond into aboveground frac tanks located on-site. A trackhoe was then used to excavate the accumulated salt from the interior of the pond. The excavated salt was loaded into sealed bins and dump trucks and transported to Sundance Services, Inc. (Sundance) in Eunice, New Mexico for disposal. After the salt was removed from the pond interior, the underlying plastic liner was removed and 6 inches of clay beneath the liner was excavated. The liner and excavated clay were transported to Sundance for disposal. A total of 2,128 cubic yards of salt and contaminated soil were hauled to Sundance for disposal.

In November 2008, DBS&A completed soil sampling beneath the former brine pond and in the former brine loading area located on the east side of the pond. A total of 76 composite soil samples were submitted for chloride analysis using U.S. Environmental Protection Agency (EPA) method 300.0. Of those samples, 61 were collected from depths of 4 feet below ground surface (ft bgs) or less, and 15 were collected from depths greater than 4 ft bgs. Excavation to depths greater than 3 to 4 ft bgs was limited in most cases by the presence of caliche in the shallow subsurface.

Laboratory results indicated significant concentrations of chloride in the shallow interval (0 to 4 ft bgs) beneath the former brine pond and brine loading area. Although the number of samples collected at depths greater than 4 ft bgs was limited, there was no noticeable difference in chloride concentration between the shallower (0 to 4 ft bgs) and deeper (4 to 8 ft bgs) samples.



Complete details and findings of the brine pond excavation and soil sampling are reported in the *Closure Report, Brine Pond and Brine Loading Area*, submitted to the OCD on December 3, 2008 (DBS&A, 2008c).

1.2.4 Monitor Well Installation and Groundwater Monitoring

In March and April 2009, DBS&A completed a field investigation at the Site to determine the magnitude and extent of impacts to soil and groundwater from the 1999, 2002, 2005, and the brine pond area releases (DBS&A, 2009a). The investigation was performed in accordance with the requirements of the Order and Sections 3.1, 3.2, and 3.3 of the Plan (DBS&A, 2008b).

The Order (NM OCD, 2008b) identified three areas of primary concern (AOPCs) requiring investigation and/or further delineation of the extent of contamination: (1) the brine pond area, (2) the brine well, and (3) the playa. To address the AOPCs and groundwater quality at the Site, DBS&A completed a field investigation program that included the installation of nine groundwater monitor wells and two nested wells. DBS&A also instituted an analytical program to assess the likely contaminants of concern (COCs) in soil and groundwater at the Site.

The soil investigation program included the installation of 11 soil borings, all of which were later completed as monitor wells to assess groundwater quality. These included 6 soil borings installed at the brine pond area in the northern portion of the Site, 4 soil borings installed downgradient at the brine well area in the southern portion of the Site, and 1 soil boring installed in the fresh water playa lake located just north of the brine well. From the 11 soil borings, a total of 89 soil samples were submitted for chloride analysis. The samples collected from the boring installed in the fresh water playa lake were also analyzed for total petroleum hydrocarbons (TPH).

Chloride concentrations in the soil were generally below the OCD standard of 500 milligrams per kilogram (mg/kg). However, 2 or more samples taken from 3 borings installed downgradient and east of the brine pond and brine loading/unloading areas contained chloride concentrations in excess of 500 mg/kg.



TPH results from soil samples submitted from the playa lake boring showed TPH concentrations exceeding the New Mexico Environment Petroleum Storage Tank Bureau action level of 100 mg/kg in the 20 to 22-ft bgs sample.

The groundwater investigation included the installation of nine monitor wells and two nested wells and the collection of groundwater samples for chloride analysis. The sample collected from the playa lake well was also analyzed for TPH. The monitor and nested wells were completed at predetermined locations as specified in Sections 3.1 and 3.2 of the Plan (DBS&A, 2008b). The locations specified in the Plan were selected to delineate the extent of the chloride groundwater plume at the brine pond area and the cross-gradient extent of the chloride plume resulting from the 1999 release at the brine well, and to determine if groundwater beneath the playa lake was impacted as a result of the 2002 and 2005 releases. A total of 21 groundwater samples were submitted for laboratory analysis: 15 from the newly installed monitor wells and 6 from the existing monitor wells.

Complete details and findings of the soil and groundwater investigation are reported in the *Monitor Well Installation and Groundwater Monitoring Report* submitted to the OCD on September 18, 2009 (DBS&A, 2009a).

1.2.5 Pumping Tests

In November 2009, DBS&A oversaw the installation of two groundwater extraction wells (RW-1 and RW-2) at the Site. After the wells were installed, DBS&A performed pumping tests at both recovery wells to determine aquifer properties at the well locations (DBS&A, 2009b). These activities were performed in accordance with the requirements of the Order (NM OCD, 2008b) and Sections 3.1 and 3.4 of the Plan (DBS&A, 2008b).

RW-1 is located at the brine pond area and is screened across the top of the water table, where chloride concentrations appear to be greatest based on water quality data collected at nested well NW-1. Based on analysis of RW-1 recovery data, estimated aquifer transmissivity and hydraulic conductivity values in the area of RW-1 are 23 square feet per day (ft²/d) and 1.5 feet per day (ft/d), respectively. Analysis of step drawdown data shows that the well efficiency of RW-1 is approximately 53 percent.



RW-2 is located at the brine well area, completely penetrates the Ogallala aquifer, and is screened for 40 feet near the bottom of the aquifer. Water quality data collected at nested well NW-2 show that the greatest chloride concentrations are observed near the bottom of the aquifer. Estimated aquifer transmissivity in the area of RW-2 is 690 ft²/d and estimated hydraulic conductivity is 7.7 ft/d. The well efficiency of RW-2 is between 49 and 60 percent.

Complete details of the recovery well installations and pumping tests are reported in the *Recovery Well Installation and Pump Test Report* submitted to the OCD on November 20, 2009 (DBS&A, 2009a)

1.3 Purpose

The purpose of this preliminary conceptual remedial design study is to develop a groundwater extraction system approach and identify a groundwater treatment alternative that together will effectively abate groundwater impacts at both the brine pond and brine well areas. The study consists of a hydrologic modeling component and an evaluation of water treatment alternatives.

This report constitutes the last of three milestone deliverables: (1) the *Monitor Well Installation and Ground Water Monitoring* report, submitted to the OCD on September 18, 2009, (2) the *Recovery Well Installation and Pump Test* report, submitted to the OCD on November 20, 2009, and (3) this *Preliminary Conceptual Remedial Design Report*.

1.4 Project Scope

The Order (NM OCD, 2008b) requires that two recovery wells be installed at the Site: one at the brine pond area in the northern portion of the Site and one at the brine well area in the southern portion of the Site. The Order also specifies that aquifer pumping tests be conducted on each recovery well to demonstrate the aquifer characteristics.

To meet these requirements, DBS&A performed hydrologic modeling to determine the groundwater extraction rates necessary to establish capture zones to intercept chloride impacts at both the brine pond and brine wells areas, and evaluated various groundwater treatment



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alternatives for the extracted groundwater. Section 2 of this report describes the capture zone modeling performed for the two areas at the Site. Section 3 presents an evaluation of groundwater treatment alternatives, and Section 4 provides preliminary conceptual remedial system costs and DBS&A's recommendations.



2. Capture Zone Analyses

DBS&A performed hydrologic modeling to delineate capture zones at both the brine pond and brine well areas. DBS&A selected WinFlow (version 3.20) for the modeling exercise. WinFlow is distributed by Environmental Simulations, Inc. and is a Windows based analytical modeling program that simulates two-dimensional steady-state and transient groundwater flow. The model can be used to simulate the effects of wells, uniform recharge, circular recharge and discharge areas, and line sources or sinks in either confined or unconfined aquifers. The model depicts flow fields using streamlines, particle traces, and contours of hydraulic head. The model requires basic aquifer property values (e.g., hydraulic gradient and conductivity, storativity, thickness, and porosity).

The objectives of the hydrologic modeling were to:

- Determine whether pumping from existing extraction wells, RW-1 and RW-2, can provide sufficient capture of chloride-impacted groundwater at the brine pond and brine well areas
- Identify pumping rates necessary to achieve capture
- Evaluate drawdown caused by extraction well pumping and determine whether RW-1 and RW-2 have sufficient water columns to support the identified pumping rates

Before WinFlow simulations were conducted, simple capture zone width calculations were performed based on an equation presented by Fetter (1994). The purpose of the simple calculations was to explore whether pumping from only the existing extraction wells (RW-1 and RW-2) may provide sufficient capture or whether additional pumping wells may be required. This was done before more thorough analyses were performed using WinFlow and to help establish initial pumping rates used in WinFlow. The calculations demonstrated that pumping from existing extraction wells RW-1 and RW-2 can provide sufficient capture zone widths to intercept the transverse extent of chloride impacts in the two brine-impacted areas without the need for additional pumping wells. These calculations are provided in Appendix A. Appendix B contains the WinFlow modeling files.



2.1 Modeling Approach

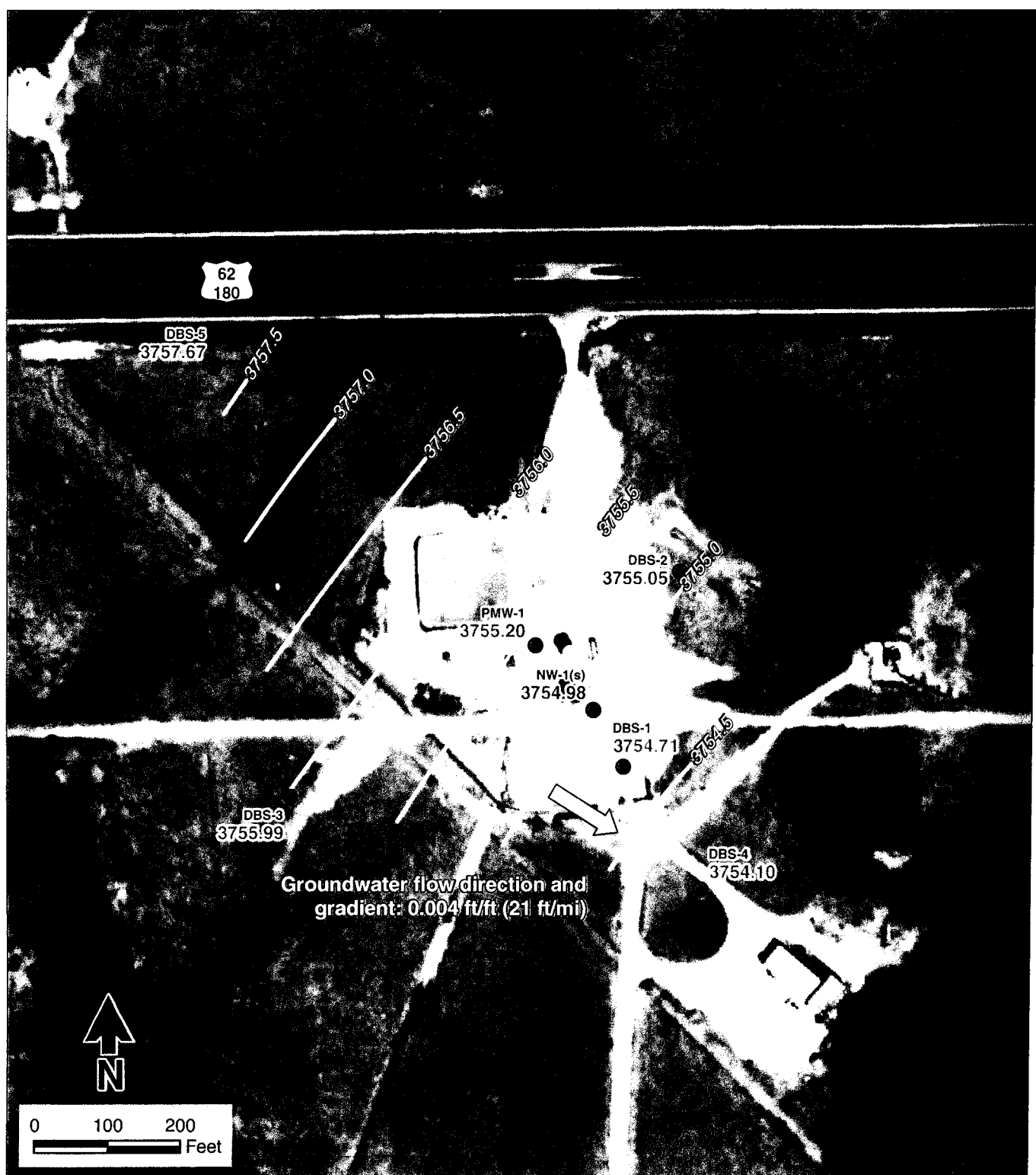
Two WinFlow simulations were performed:

- Brine pond area with pumping at RW-1
- Brine well area with pumping at RW-2

The WinFlow simulations were run using a steady-state solution to solve for contours of hydraulic head and to delineate capture zones at each pumping well. The capture zones were created by reverse-particle tracking: particles were placed at pumping wells, and their paths were tracked in a reverse direction upgradient of the pumping wells. Pumping rates at the extraction wells were adjusted so that capture zones enclosed the lateral extent of chloride impacts. The extents of chloride impacts at both the brine pond and brine well areas were determined from data collected in April 2009 (DBS&A, 2009a).

The WinFlow steady-state solution requires the following aquifer property values: magnitude and direction of hydraulic gradient, hydraulic conductivity, thickness, storativity, and porosity. These values were obtained from site-specific data generated during the field investigation performed in March and April 2009 (DBS&A, 2009a) and published information on the Ogallala aquifer:

- Based on groundwater elevation data collected during the field investigation (Figures 2 and 3) groundwater in both the brine pond and brine well areas flows to the southeast at a hydraulic gradient of 0.004 foot per foot (ft/ft). Table 1 summarizes historical groundwater level data, showing that groundwater levels have been fairly constant over the last two years.
- In November 2009, DBS&A performed pumping tests at both RW-1 and RW-2 (DBS&A, 2009b). Hydraulic conductivity and thickness values determined from these pumping tests were used in the modeling.
- Storativity and porosity values were obtained from information for the Ogallala aquifer presented in scientific literature (i.e., Blandford et al., 2008; Nativ and Smith, 1987).



Explanation

- DBS-1 Well designation
- 3754.71 Groundwater elevation, ft msl
- Monitor well location
- Water level elevation contour (ft msl)

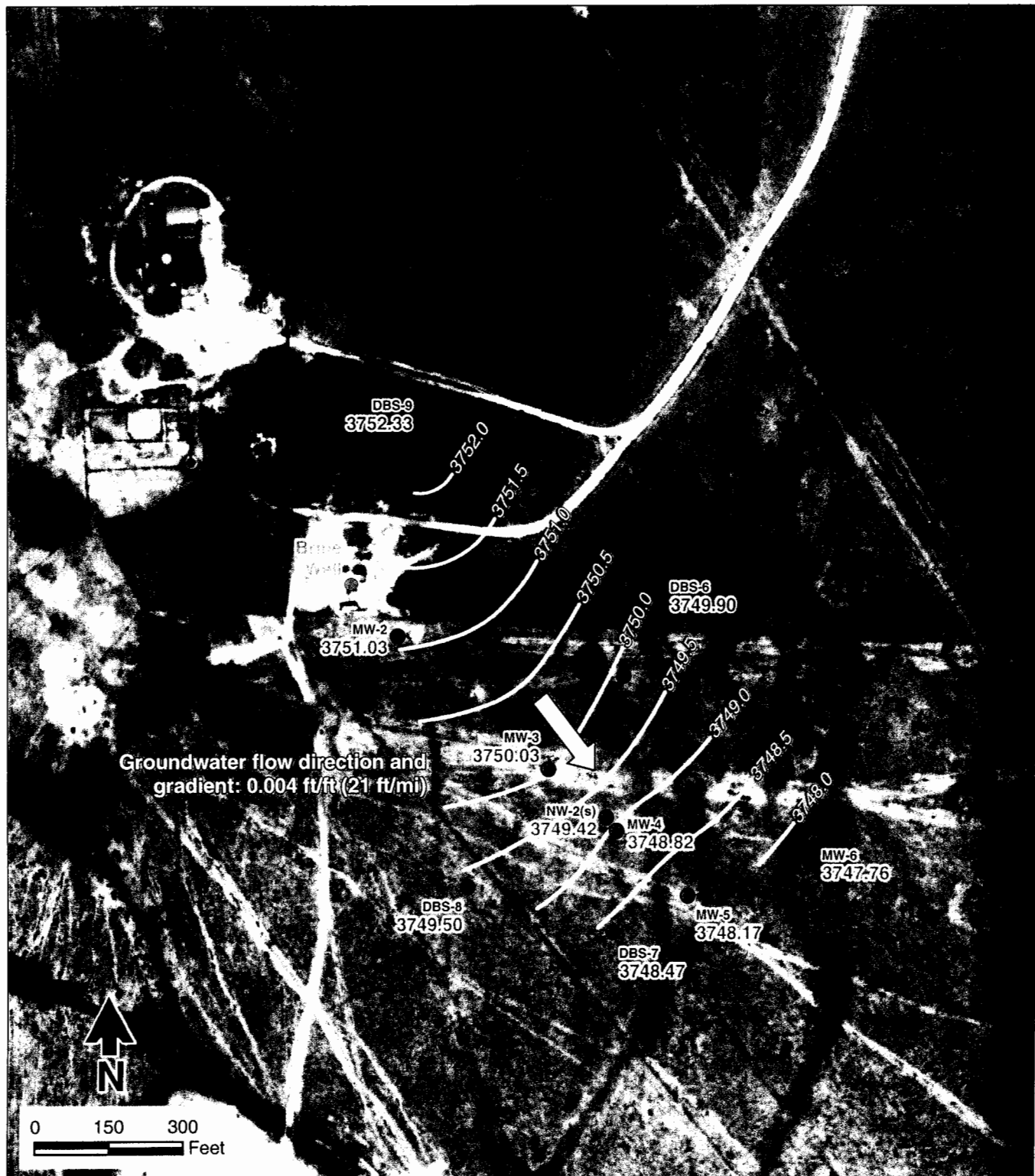
Source: Google Earth aerial photograph
dated September 2002

SALTY DOG BRINE STATION
Brine Pond Area
Water Level Elevations in
April 2009



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12/15/2009 JN ES08.0118.01

Figure 2



Source: Google Earth aerial photograph dated September 2002

Explanation

- MW-2 Well designation
- 3751.03 Groundwater elevation, ft msl
- Monitor well location
- Water level elevation contour (ft msl)

SALTY DOG BRINE STATION
Brine Well Area
Water level Elevations in
April 2009



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Figure 3



**Table 1. Summary of Historical Water Level Measurements
Salty Dog Brine Station, Lea County, New Mexico**

Monitor Well	Screen Interval (ft bgs)	Top of Casing Elevation ^a (ft msl)	Date Measured	Depth to Water (ft btoc)	Groundwater Elevation (ft msl)
DBS-1	56.0-76.0	3817.09	04/08/09	62.38	3754.71
DBS-2	58.0-78.0	3820.50	04/08/09	65.45	3755.05
DBS-3	56.0-76.72	3816.66	04/08/09	60.67	3755.99
DBS-4	56.0-76.0	3820.37	04/08/09	66.27	3754.10
DBS-5	56.9-76.9	3820.37	04/08/09	62.99	3757.67
DBS-6	56.7-76.7	3812.65	04/07/09	62.75	3749.90
DBS-7	55.1-75.1	3810.21	04/07/09	61.74	3748.47
DBS-8	55.2-75.2	3810.70	04/07/09	61.20	3749.50
DBS-9	48.0-68.0	3806.26	04/08/09	53.93	3752.33
NW-1(s)	52.95-72.95	3817.33	04/08/09	62.35	3754.98
NW-1 (m)	99.31-119.31	3817.35	04/08/09	62.25	3755.10
NW-1 (d)	149.45-169.45	3817.35	04/08/09	62.04	3755.31
NW-2 (s)	53.35-73.35	3812.50	04/08/09	63.08	3749.42
NW-2 (m)	93.72-113.72	3812.45	04/08/09	63.27	3749.18
NW-2 (d)	126.87-146.87	3812.46	04/08/09	66.41	3746.05
PMW-1	63-78	3821.17	06/23/08	67.51	3753.66
			04/08/09	65.97	3755.20
MW-1	120-140	NA	06/23/08	59.90	NA
MW-2	127-147	3812.68	06/23/08	61.42	3751.26
			04/07/09	61.65	3751.03
MW-3	NA	3812.50	06/23/08	62.06	3750.44
			04/07/09	62.02	3750.03
MW-4	111-131	3811.33	06/23/08	62.12	3749.21
			04/07/09	62.51	3748.82
MW-5	112-132	3808.96	06/23/08	60.60	3748.36
			04/07/09	60.79	3748.17
MW-6	NA	3810.17	06/23/08	62.17	3748.00
			04/07/09	62.41	3747.76

^a Top of casing elevations surveyed by Pettigrew & Associates on May 28, 2009.

ft bgs = Feet below ground surface

ft btoc = Feet below top of casing

ft msl = Feet above mean sea level

NA = Not available



Sections 2.1.1 and 2.1.2 provide details regarding the WinFlow simulations for each of the two areas.

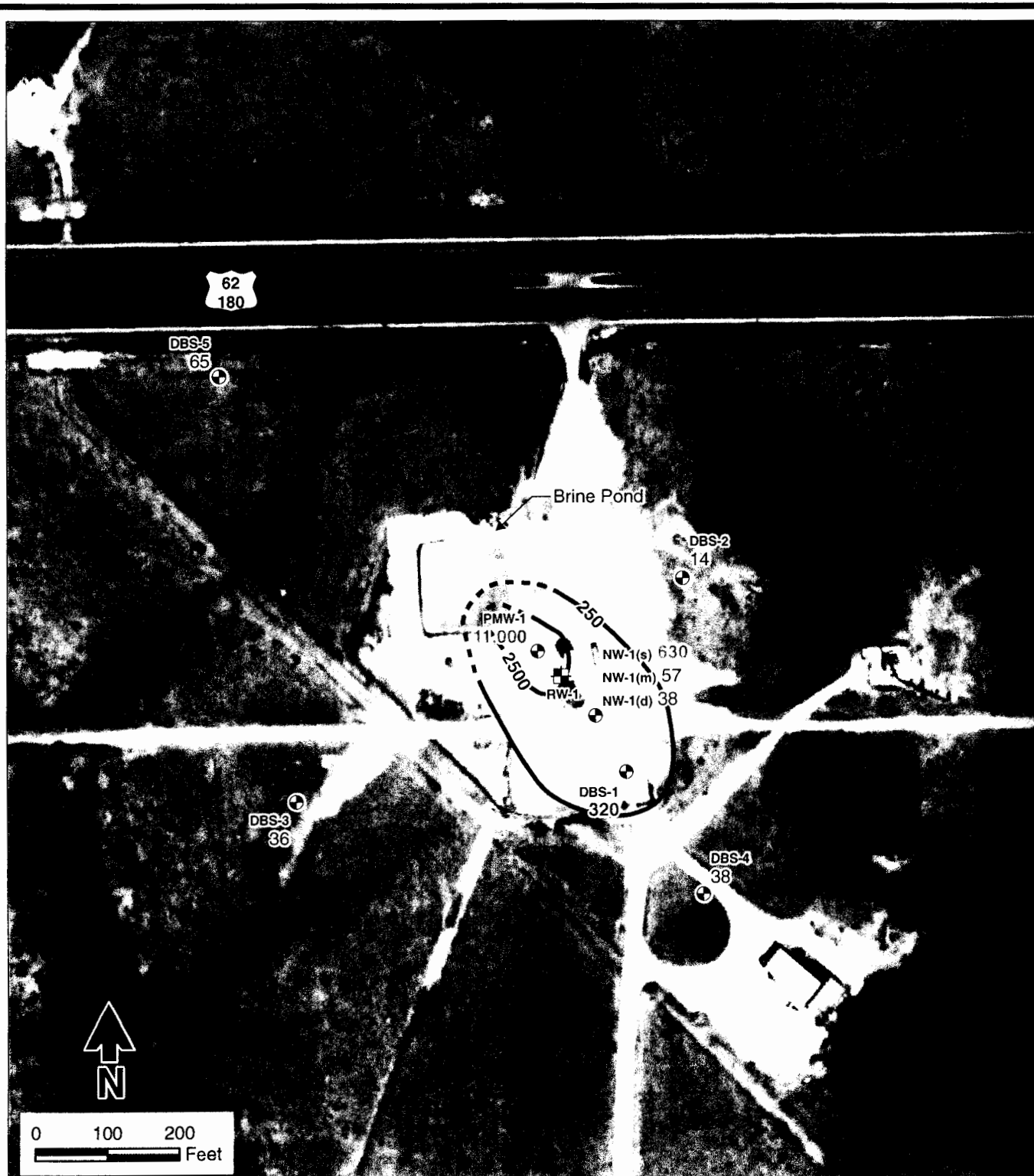
2.1.1 Brine Pond Area Capture

Capture at the brine pond area (including the brine loading/unloading area) was simulated through groundwater extraction at RW-1. Table 2 presents hydraulic property values used in the simulation. Well RW-1 partially penetrates the aquifer. The screen of RW-1 is 20 feet long and was placed across the water table with approximately 5 feet above and 15 feet below the static water table. Although only 15 feet of screen is saturated under static water table conditions, the aquifer thickness was doubled to 30 feet because the well partially penetrates the aquifer, and therefore, some extracted groundwater will be derived from deeper depths. This approach provides a more conservative estimate than using a thickness of 15 feet, as the greater 30-foot thickness results in a smaller capture zone.

Table 2. Brine Pond Area Simulated Hydraulic Property Values

Parameter	Value	Source
Hydraulic conductivity	1.5 ft/d	DBS&A (2009b)
Thickness	30 feet	Assumed
Specific yield	0.15	Based on information in Blandford et al. (2008) and Nativ and Smith (1987)
Effective porosity	0.15	
Hydraulic gradient		
Magnitude	0.004	DBS&A (2009a); Figure 1
Direction (counterclockwise from x-axis)	321°	

Figure 4 shows the approximate extent of chloride impacts at the brine pond area. The chloride plume extends approximately 375 feet from the vicinity of the former brine pond to just southeast of DBS-1. The highest chloride concentrations are observed at PNW-1, located just upgradient of RW-1. The width of the chloride plume is estimated to be approximately 200 feet (Figure 4). Chloride concentrations at nested well NW-1 show that chloride impacts are limited to the shallow screened zone.



Explanation

- DBS-1 Well designation
- 320 Chloride concentration (mg/L)
- ⊕ Monitor well location
- ⊞ Extraction well location
- ⊞ Chloride concentration contour (mg/L)
(dashed where inferred)
- ⊞ indicates concentration equal to or greater than the NMWQCC standard of 250 mg/L.

Source: Google Earth aerial photograph dated September 2002

**SALTY DOG BRINE STATION
Brine Pond Area
Extent of Chloride Impacts in
April 2009**



Daniel B. Stephens & Associates, Inc.
12/15/2009 JN ES08.0118.01

Figure 4



The pumping rate at RW-1 was adjusted in WinFlow until reverse-particle tracking analysis demonstrated that pumping created a capture zone that covered the width of the chloride plume shown on Figure 4.

2.1.2 Brine Well Area Capture

Capture at the brine well area was simulated through groundwater extraction at RW-2. Table 3 presents hydraulic property values used in the simulation. Well RW-2 fully penetrates and is screened for 40 feet above the base of the aquifer. The aquifer thickness is 90 feet (DBS&A, 2009b).

Table 3. Brine Well Area Simulated Hydraulic Property Values

Parameter	Value	Source
Hydraulic conductivity	7.7 ft/d	DBS&A (2009b)
Thickness	90 feet	
Specific yield	0.15	Based on information in Blandford et al. (2008) and Nativ and Smith (1987)
Effective porosity	0.15	
Hydraulic gradient		
Magnitude	0.004	DBS&A (2009a); Figure 2
Direction (counter clockwise from x-axis)	315°	

Figure 5 shows the approximate extent of the chloride plume at the brine well area, extending from the brine well for approximately 750 feet to the southeast. The highest chloride concentrations are observed at MW-3, located upgradient of RW-2. The width of the chloride plume is estimated to be approximately 325 feet (Figure 5). Chloride concentrations at nested well NW-2 increase with depth and are greatest in the deep screened zone near the base of the aquifer.

The pumping rate at RW-2 was adjusted in WinFlow until reverse-particle tracking analysis showed that pumping created a capture zone that covered the width of the chloride plume shown on Figure 5.



Explanation

MW-2 Well designation
1,200 Chloride concentration (mg/L)

⊕ Monitor well location

⊞ Extraction well location

⊞ Chloride concentration contour (mg/L)
(dashed where inferred)

⊞ indicates concentration equal to or greater than the NMWQCC standard of 250 mg/L.

Source: Google Earth aerial photograph
dated September 2002

**SALTY DOG BRINE STATION
Brine Well Area
Extent of Chloride Impacts in
April 2009**



2.2 Modeling Results

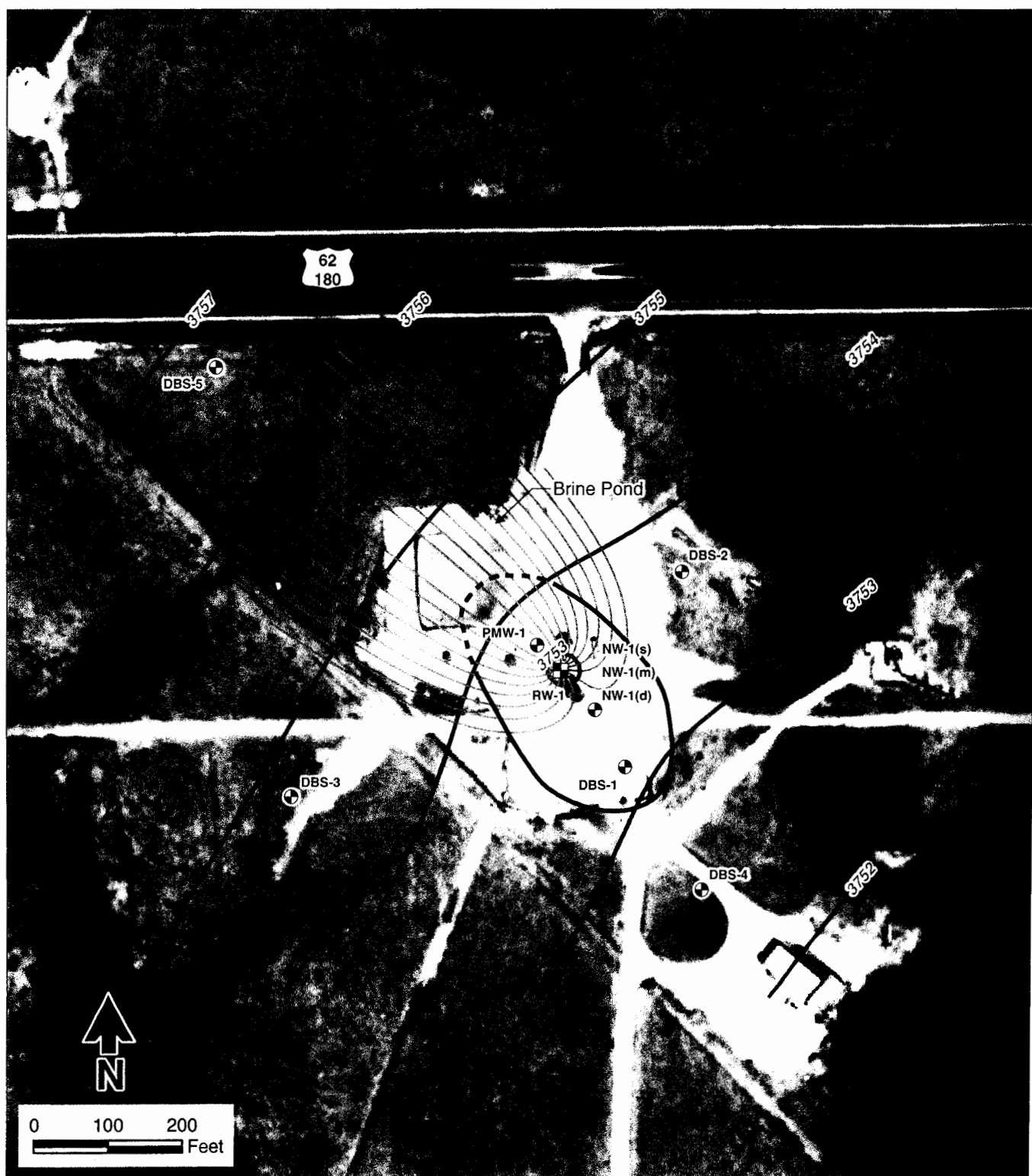
Sections 2.2.1 and 2.2.2 summarize the WinFlow modeling results and provide estimates of the expected duration of extraction system pumping for the two areas.

2.2.1 Brine Pond Area Capture

Pumping RW-1 at a rate of 0.5 gallon per minute (gpm) (720 gallons per day [gpd]) provides sufficient capture of chloride-impacted groundwater originating from the former brine pond and brine loading/unloading area. Figure 6 shows WinFlow simulation results for the brine pond area. Predicted total drawdown in the area of RW-1 is 2 feet. Well RW-1 has sufficient water column (~15 feet) to support a pumping rate of 0.5 gpm. Estimated drawdown within the well casing, including a well efficiency of 53 percent, is 4 feet. The well efficiency of 53 percent was determined from the RW-1 pumping test performed in November 2009 (DBS&A, 2009b). During that pumping test, RW-1 was pumped at a maximum rate of 4.6 gpm, and total drawdown at the well stabilized to approximately 9.5 feet. RW-1 is therefore expected to be able to sustain a pumping rate of 0.5 gpm.

The expected duration of extraction system operation at the brine pond area is 4.2 years. This estimate represents the time required to remove existing groundwater impacts upgradient of RW-1. The volume of impacted groundwater upgradient of RW-1 is approximately 1.10×10^{-6} gallons. This volume was calculated by multiplying the area of impacts intercepted by RW-1 (Figure 7) by a thickness of 30 feet (Table 2) and an effective porosity of 0.15 (Table 2). Pumping 1.10×10^{-6} gallons of chloride-impacted groundwater at 0.5 gpm will take 4.2 years. Appendix A contains a worksheet with the calculation.

Chloride impacts downgradient of RW-1 that are not captured by groundwater extraction have much lower chloride concentrations than those removed by RW-1 (Figure 4). These impacts are expected to be naturally attenuated through mixing and dilution with ambient groundwater, as the area with higher chloride concentration is removed and hydraulically contained. Wells located downgradient of RW-1 will be monitored. Chloride concentrations at these monitor wells are expected to decrease after the groundwater extraction system is operating.



Explanation

DBS-1 Well designation

⊕ Monitor well location

⊕ Extraction well location

⊕ Extent of Chloride impacts in April 2009

— Reverse particle path

— Simulated water level elevation (ft msl)

Source: Google Earth aerial photograph dated September 2002

Note: Reverse particle paths and simulated water levels created using WinFlow

**SALTY DOG BRINE STATION
Brine Pond Area
Simulated Capture Zone**

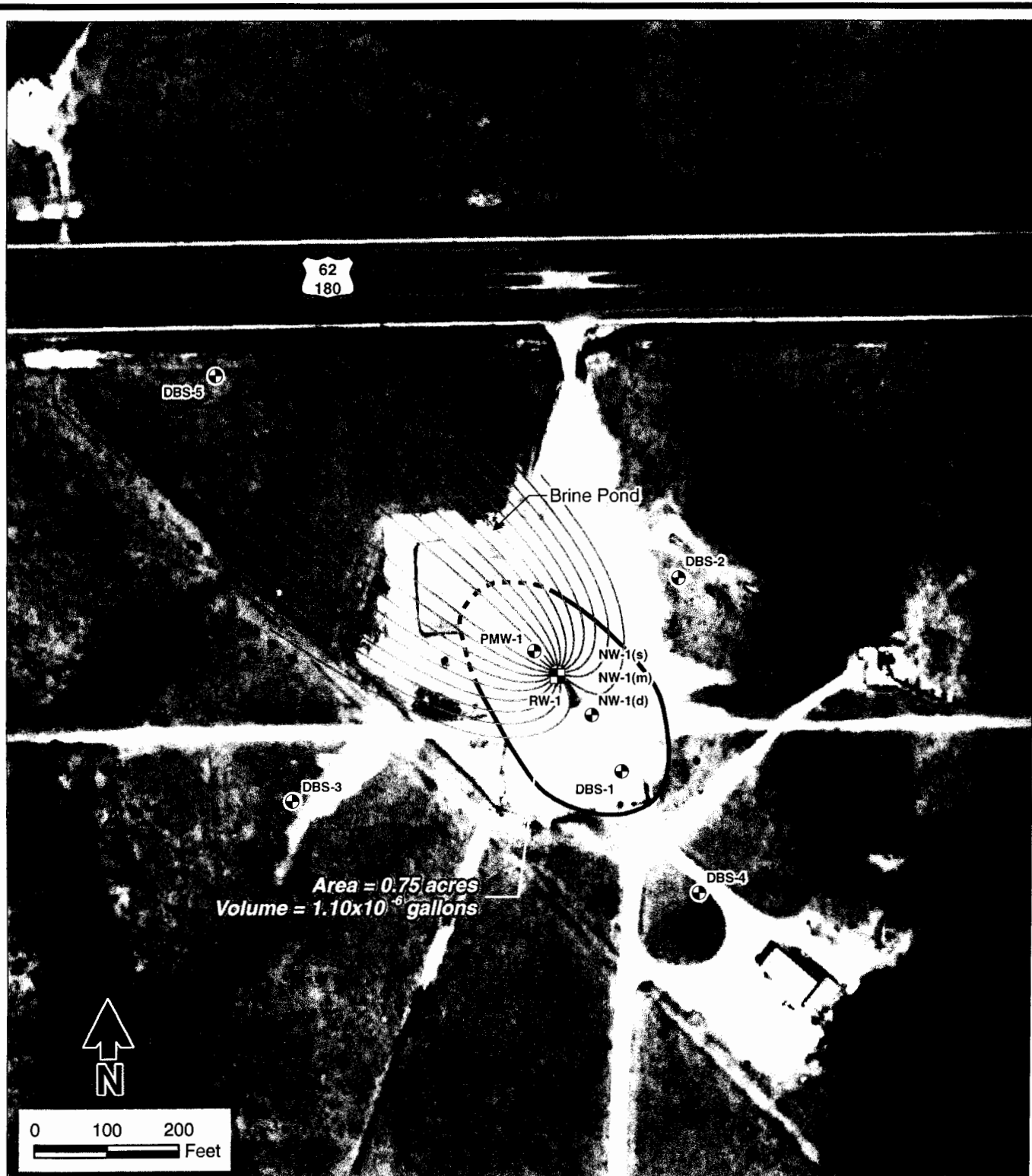
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JN ES08.0118.01

Figure 6

S:\PROJECTS\ES08.0118.01 SALTY DOG IN/IGIS/MXD/CAPTURE SYSTEM REPORT/FIG07 SIMULATED CAPTURE AREA BRINE STATION MXD 902221



Explanation

DBS-1 Well designation

☉ Monitor well location

☒ Extraction well location

☞ Extent of Chloride impacts in April 2009

Reverse particle path

Captured impacted area

Source: Google Earth aerial photograph dated September 2002

Note: Reverse particle paths and simulated water levels created using WinFlow

SALTY DOG BRINE STATION
Brine Pond Area
Captured Impacted Groundwater



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Figure 7



2.2.2 Brine Well Area Capture

Pumping RW-2 at 15 gpm (21,600 gpd) provides sufficient capture of chloride-impacted groundwater originating from the vicinity of the brine well. Figure 8 shows WinFlow simulation results from the brine well area capture zone analysis. Well RW-2 has sufficient water column (~90 feet) to support an extraction system pumping rate of 15 gpm. Predicted total drawdown in the vicinity of RW-1 is less than 4 feet. The well efficiency of RW-2, as determined from the November 2009 pumping test, ranges from 49 to 60 percent. Using the lower well efficiency value, estimated drawdown within the well casing of RW-2 is 8 feet. During the pumping test performed in November 2009, RW-2 sustained a pumping rate of 39.4 gpm with total drawdown stabilizing at approximately 23 feet. RW-2 is therefore expected to be able to sustain a pumping rate of 15 gpm.

The expected duration of extraction system operation at the brine well area is 3.7 years. This estimate represents the time required to remove existing chloride groundwater impacts upgradient of RW-2. The volume of impacted groundwater upgradient of RW-2 is approximately 29.0×10^6 gallons. This volume was calculated by multiplying the area of impacts intercepted by RW-2 (Figure 9) by an aquifer thickness of 90 feet (Table 3) and an effective porosity of 0.15 (Table 3). Pumping 29.0×10^6 gallons of chloride impacted groundwater at 15 gpm will take 3.7 years. Appendix A contains a worksheet with the calculation.

Chloride impacts downgradient of RW-2 that are not removed through pumping exhibit lower chloride concentrations than those captured by RW-2 (Figure 5). These impacts are expected to be naturally attenuated through mixing and dilution with ambient groundwater, as the area with the greatest chloride impact is removed and hydraulically contained. Wells located downgradient of RW-2 will be monitored and are expected to show decreases in chloride concentrations after the groundwater extraction system is operating.



Explanation

- MW-2 Well designation
- ⊕ Monitor well location
- ⊞ Extraction well location
- ☁ Extent of Chloride impacts in April 2009
- Reverse particle path
- Simulated water level elevation (ft msl)

Source: Google Earth aerial photograph dated September 2002

Note: Reverse particle paths and simulated water levels created using WinFlow

SALTY DOG BRINE STATION Brine Well Area Simulated Capture Zone



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Figure 8



Explanation

- MW-2 Well designation
- Monitor well location
- ⊕ Extraction well location
- Extent of chloride impacts in April 2009
- Reverse particle path
- Captured impacted area

Source: Google Earth aerial photograph dated September 2002

Note: Reverse particle paths and simulated water levels created using WinFlow

SALTY DOG BRINE STATION Brine Well Area Captured Impacted Groundwater



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Figure 9



3. Treatment Alternatives

Four groundwater treatment alternatives were evaluated for the extracted groundwater:

- Pumping and reinjection into existing brine well
- Pumping and treatment by reverse osmosis (RO)
- Pumping and evaporation
- Pumping and hauling for disposal at a permitted off-site facility

Based on the modeling results detailed in Section 2.2, pumping rates of 0.5 gpm for RW-1 and 15 gpm for RW-2 are required to hydraulically contain the chloride plumes at the brine pond and brine well areas. A total pumping rate for the treatment of the anticipated flows from the two recovery wells were rounded to 16 gpm (approximately 550 barrels per day) for the evaluation of the treatment alternatives. The expected duration of extraction system operation at the brine pond and brine well areas is approximately 5 years. Using the flow rates above, a 1/8-horsepower (HP) pump is required for RW-1 and a 1/2-HP pump is required for RW-2. The well casings for RW-1 and RW-2 are both 6-inch-diameter and will easily accommodate the installation of these pump sizes. The four alternatives are described and evaluated in Sections 3.1 through 3.2. A comparison of costs and DBS&A's recommendations are presented in the Section 4.

Each alternative discussed will require a pipeline to convey the extracted groundwater between the brine pond and brine well areas. DBS&A has assumed that only one treatment system will be installed at either the brine pond area or the brine well area. For the reinjection, RO, and pond alternatives, a discharge permit or injection permit will be required from either the OCD or the New Mexico Environment Department Groundwater Quality Bureau (NMED GWQB).

3.1 Pumping and Reinjection

The pumping and reinjection alternative will directly reinject the extracted groundwater from recovery wells RW-1 and RW-2 into the existing brine well. This alternative will require no



treatment of the extracted groundwater prior to reinjection. Under this alternative, groundwater extracted from RW-1 and RW-2 will be pumped to an equalization tank located near the brine well, and a third pump will be used to reinject the water into the brine well for disposal. Based on a discussion with James Millett of Salty Dog, approximately 1,000 to 1,500 barrels per day can be reinjected into the brine well.

A new pipeline from RW-1 will be installed under this option. Since the flow rate from RW-1 will be less than 1 gpm, the line can be either 1-inch Schedule 40 polyvinyl chloride (PVC) or high-density polyethylene (HDPE), approximately 2,600 feet in length.

Due to the high total dissolved solids (TDS) of the reinjected groundwater, rehabilitation of the brine well will be necessary on a regular basis. The efficiency of the well will decrease due to buildup of scaling on the well screen. Rehabilitation of the well would include acidification, scrubbing, and developing to remove the built-up scale from the well screen.

An Underground Injection Control (UIC) Class I well permit from the OCD will be required prior to beginning reinjection. The UIC permit will entail testing of the brine well and potentially groundwater monitoring.

3.2 Pumping and Treatment by Reverse Osmosis

The pumping and treatment by RO alternative will treat extracted groundwater from RW-1 and RW-2 by RO to remove chloride and other dissolved solids. RO is a membrane treatment process that separates the dissolved solids by pressure-driven diffusion across a permeable membrane. A typical RO membrane is made of synthetic material that is permeable to some components in the feed stream and impermeable to other components. Water to be treated is pumped at high pressure across the surface of the membranes, causing a portion of the water to pass through the membranes. Water passing through the membranes is greatly reduced of dissolved solids, while the rejected water is highly concentrated in dissolved solids (MWH, 2005).



Treatment of the extracted groundwater by RO will require construction of a new facility to house the treatment system. The RO facility will consist of a pre-engineered building (approximately 20 feet by 30 feet) on a slab and footings, three equalization tanks, and plumbing and connections to the discharge system. The treatment system will consist of one anthracite/greensand filter, an activated carbon filter, and one RO treatment skid. Other required site improvements will include a power drop to the building consisting of transformers, utility pole, and meter. Three storage tanks will be placed next to the building to provide equalization storage for the filtered well water, the treated water, and the rejected water.

Extracted groundwater from RW-1 and RW-2 will enter the treatment facility at a flow rate of approximately 16 gpm with a TDS concentration of greater than 10,000 mg/L. The TDS concentration was calculated from field conductivity measurements recorded during development of the recovery wells in November 2009. The extracted groundwater will be filtered by the anthracite/greensand filter to remove particulates and reduce dissolved iron and manganese. The filtered water will then be stored in a tank before being pumped through the activated carbon filters to reduce the levels of organics. Antiscalant will be injected after the activated carbon filters to protect the RO membranes from any residual silica or other fouling material. The water will then be sent to the RO membranes for final treatment.

The RO system will be designed to treat a flow of 16 gpm. The RO process typically removes more than 95 percent of TDS from the influent water. Of the total 16 gpm entering the treatment facility, 8.2 gpm will pass through the RO membranes and be stored in a treated water storage tank, and 7.8 gpm will be rejected by the membranes. The 7.8 gpm of rejected water, also known as concentrate, will be pumped to a holding tank for disposal by reinjection into the brine well. Treated water is expected to have a TDS concentration of about 525 mg/L. Water rejected by the reverse osmosis membranes is expected to have a concentration of approximately 42,000 mg/L (Appendix C).

The treated water will be adequate for construction, irrigation, or other non potable uses. If the water is disinfected and tested, it will be potable.



3.3 Pumping and Evaporation

The pumping and evaporation alternative will dispose of extracted groundwater through evaporation in a retention pond. Evaporation ponds are a common means of disposing of wastewater without contamination of groundwater or surface waters in semiarid regions such as New Mexico. Evaporation ponds are lined with an HDPE liner that allows for full evaporation of the wastewater. Successful use of evaporation for disposal requires that the net evaporation equal or exceed the total water input to the system, including precipitation. The net evaporation may be defined as the difference between the evaporation and precipitation during any time period.

Based on the monthly rainfall and pan evaporation rates from weather stations located in Hobbs and Clovis, New Mexico (WRCC, 2009; OCS, 2009), an approximate water surface area of 7.5 acres is required for the evaporation pond. The resulting pond dimensions are 3 to 4 feet in depth (including a freeboard of 2 feet) with a total footprint of approximately 8 acres (Appendix D). Assuming an expected duration of extraction system operation of approximately 5 years, there will not be a significant buildup of salt in the pond. Site improvements for the pond will include fencing and access roads.

Installation of the evaporation pond will require a discharge permit from the NMED GWQB. The permit will require installation of a leak detection system and groundwater monitoring wells and periodic monitoring of these components during the life of the project. Upon completion of the treatment, the pond will need to be closed according to the discharge permit requirements.

3.4 Pumping and Hauling for Off-Site Disposal

The pumping and hauling alternative will dispose of extracted groundwater at a licensed off-site facility. A daily production of approximately 550 barrels will be produced at a pumping rate of 16 gpm. Assuming 50 barrels per truck, 11 truck loads per day will be required for disposal. A truck filling station will be constructed at the brine pond area, including an appropriately sized holding tank and transfer pump and a properly designed loading pad. Other site improvements will include lighting and fencing.



4. Cost Comparison and Recommended Alternative

A budget level cost estimate was compiled for each conceptual treatment alternative for comparison purposes. A more accurate engineer's estimate of probable cost should be completed during the design process for the chosen alternative. Table 4 presents the capital and operations and maintenance (O&M) estimates for each alternative. Based on the modeling results, a 5-year operational period is used for the project duration.

Table 4. Treatment Alternatives Cost Comparison

Alternative	Common Components Capital Costs	Estimated Capital Costs	Estimated Annual O&M Costs	Capital plus 5 years of O&M
Reinjection	42,600	48,524	97,116	576,702
RO treatment	42,600	528,937	95,126	1,047,167
Evaporation pond	42,600	1,666,665	55,116	1,984,843
Hauling	42,600	15,490	601,937	3,067,775

The pumping and reinjection alternative is the least expensive option over the 5-year life of the project due to the small capital outlay and the low O&M costs. The pumping and treatment by RO alternative is the second least expensive, but entails more operational complexity and costs due to the increased electrical requirements and higher level of technology than the reinjection alternative. The pumping and evaporation pond alternative and the pumping and hauling alternative result in much higher costs over the life of the project, by \$1,000,000 and \$2,000,000, respectively. The cost spreadsheets for each of the alternatives are provided in Appendix E.

Considerations for each alternative include:

- The pumping and reinjection alternative requires the least amount of new construction, and the O&M requirements are minimal for the wells, pumps, and tanks.



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- The pumping and treatment by RO alternative is the only alternative producing potable water; however, the capital costs are high and O&M requirements are greatest of the four alternatives. The RO system also produces a waste stream that will require disposal, either by reinjection or hauling.
- The pumping and evaporation pond capital costs are highest of the four alternatives due to the pond size and required HDPE liner. O&M requirements for this option are the lowest of the four alternatives.
- The pumping and hauling alternative requires moderate capital and O&M costs for the loading pad and fill station, and high costs for the ongoing trucking and off-site disposal. The requirement for full-time truck drivers results in much higher labor costs than for the part-time operators needed for the other three alternatives.

Based on the costs and the minimal construction and O&M requirements, DBS&A recommends the pumping and reinjection alternative for the remediation of the chloride plumes at the brine pond and brine well areas.



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Appendix A

Capture Zone and Extracted Groundwater Volume Calculations

Project Name Salty Dog Inc. Number ES08.0118.01 Date 12/8/09
 Subject Estimation of Well Capture Zone Width and Well Spacing
 By J. Ayarbe Calculation No. 01

Purpose:

Calculate a well capture zone width for extraction well RW-01 at the PAB Salty Dog Site, Lea County, New Mexico. Capture zone width is calculated from a transmissivity value determined from a pumping test performed at well RW-01 in November 2009.

Extraction wells will be used to remove brine impacted groundwater caused by a release from a former brine pond.

Given:

$$W = \frac{Q}{T \cdot \Delta h} \quad \text{modified from Fetter (1994). } \textit{Applied Hydrogeology. page 502}$$

W = capture zone width, Q = pumping rate, T = aquifer transmissivity; Δh = hydraulic gradient

Potential pumping rate (Q):

$$Q := 0.5 \text{ gpm}$$

Hydraulic gradient (Δh) determined from a April 2009 groundwater elevation map (DBS&A [2009]. *Monitoring Well Installation and Groundwater Monitoring Report Lea County, New Mexico*. Figure 8. September 18, 2009):

$$\Delta h := 0.004$$

Transmissivity values from Theis analysis of RW-01 recovery data (DBS&A [2009]. *Recovery Well Installation and Pump Test Report Salty Dog Brine Station, Lea County, New Mexico*. page 18. November 20, 2009):

$$\text{Trans} := 23 \frac{\text{ft}^2}{\text{day}}$$

Solution:

Capture zone width (CZW) for a single pumping well:

$$\text{CZW} := \frac{Q}{\text{Trans} \cdot \Delta h}$$

$$\text{CZW} = 1046 \cdot \text{ft}$$

Assuming only 50% of pumping is from upper (more cemented) zone, RW-01 partially penetrating:

$$\text{Spacing} := \text{CZW} \cdot 0.5$$

$$\text{Spacing} = 523 \cdot \text{ft}$$

Potential number of wells needed to intercept impacted groundwater:

$$\text{Width} := 200 \text{ft}$$

Estimated plume width perpendicular to groundwater flow direction

$$\text{Wells} := \frac{\text{Width}}{\text{Spacing}}$$

$$\text{Wells} = 0.38$$

Project Name Salty Dog Inc. Number ES08.0118.01 Date 12/8/09
 Subject Estimation of Well Capture Zone Width and Well Spacing
 By J. Ayarbe Calculation No. 02

Purpose:

Calculate a well capture zone width for extraction well RW-02 at the PAB Salty Dog Site, Lea County, New Mexico. Capture zone width is calculated from a transmissivity value determined from a pumping test performed at well RW-02 in November 2009.

Extraction wells will be used to remove brine impacted groundwater caused by a release from brine well.

Given:

$$W = \frac{Q}{T \cdot \Delta h} \quad \text{modified from Fetter (1994). } \textit{Applied Hydrogeology. page 502}$$

W = capture zone width, Q = pumping rate, T = aquifer transmissivity; Δh = hydraulic gradient

Potential pumping rate (Q):

$$Q := 12 \text{ gpm}$$

Hydraulic gradient (Δh) determined from a April 2009 groundwater elevation map (DBS&A [2009]. *Monitoring Well Installation and Groundwater Monitoring Report Lea County, New Mexico*. Figure 8. September 18, 2009):

$$\Delta h := 0.004$$

Transmissivity value from Theis analysis of RW-02 pumping test data (DBS&A [2009]. *Recovery Well Installation and Pump Test Report Salty Dog Brine Station, Lea County, New Mexico*. page 18. November 20, 2009):

$$\text{Trans} := 690 \frac{\text{ft}^2}{\text{day}}$$

Solution:

Capture zone width (CZW) for a single pumping well:

$$\text{CZW} := \frac{Q}{\text{Trans} \cdot \Delta h}$$

$$\text{CZW} = 837 \cdot \text{ft}$$

Assuming a 20% margin of safety:

$$\text{Spacing} := \text{CZW} \cdot 0.8$$

$$\text{Spacing} = 670 \cdot \text{ft}$$

Number of wells needed to intercept impacted groundwater:

$$\text{Length} := 663 \text{ ft} \quad \begin{array}{l} \text{projected distance between DBS-8 and MW-6} \\ \text{measured perpendicular to hydraulic gradient} \end{array}$$

$$\text{Wells} := \frac{\text{Length}}{\text{Spacing}}$$

$$\text{Wells} = 0.99$$

Project Name Salty Dog Inc. Number ES08.0118.01 Date 12/21/09
 Subject Estimation of captured groundwater volumes and pumping duration
 By J. Ayarbe Calculation No. 03

Purpose:

Calculate the area of groundwater impacts intercepted by pumping at RW-01 at the PAB Salty Dog Site, Lea County, New Mexico. Then estimate the time required to remove impacted groundwater at a pumping rate determined from WinFlow modeling.

Given:

$$V = A \cdot b \cdot n_e$$

V = groundwater volume, A = captured area of impacts, b = aquifer or zone thickness;
 n_e = effective porosity

Area of impacts (A) determined in GIS by overlapping extent of chloride impacts and WinFlow reverse-particle tracks (see attached figure):

$$A := 0.75 \text{ acre}$$

Thickness (b) estimated to be two times the saturated length of the RW-01 well screen. RW-01 is partially penetrating with 15 feet of screen below the static water table. Thickness doubled to account for possibility of groundwater contributions from deeper depths:

$$b := 30 \text{ ft}$$

Effective porosity (n_e) (based on information in Blandford et al. [2008]; Native and Smith [1987]):

$$n_e := 0.15$$

$$t = \frac{V}{Q}$$

t = pumping duration, V = groundwater volume, Q = pumping rate

Pumping rate (Q) determined from WinFlow modeling:

$$Q := 0.5 \text{ gpm}$$

Solution:

Volume (V) of impacted groundwater captured by RW-1:

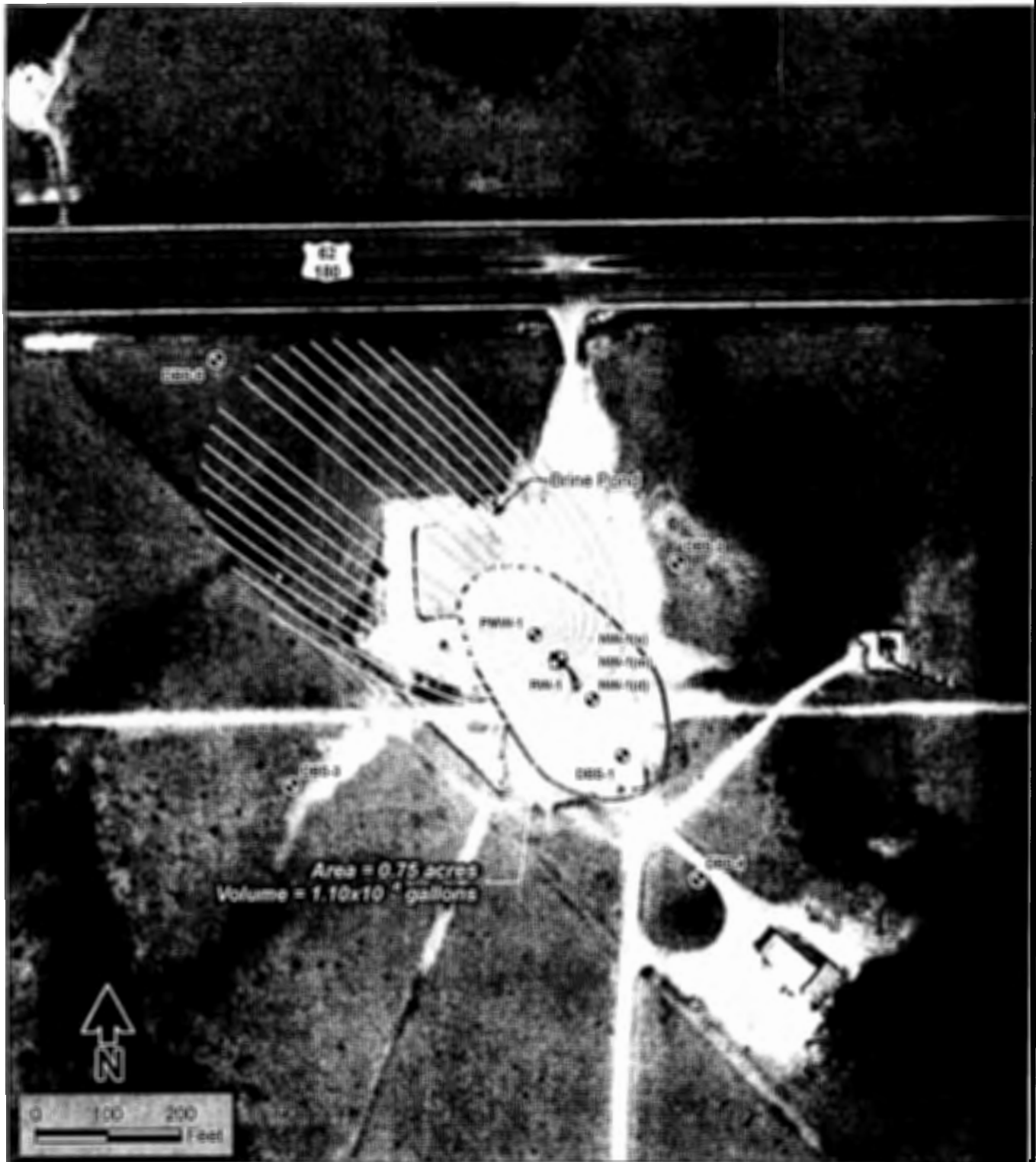
$$V := A \cdot b \cdot n_e$$

$$V = 1.10 \times 10^6 \cdot \text{gal}$$

Estimated time needed to completely pump impacted groundwater:

$$t := \frac{V}{Q}$$

$$t = 4.2 \cdot \text{yr}$$



Explanation

- DBS-1 Well designation
- Monitor well location
- Extraction well location
- Extent of Chloride impacts in April 2009
- Reverse particle path
- Captured impacted area

Source: Google Earth aerial photograph dated September 2002

Note: Reverse particle paths and simulated water levels created using WinFlow

SALTY DOG BRINE STATION
Brine Pond Area

Captured Impacted Groundwater



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Project Name Salty Dog Inc. Number ES08.0118.01 Date 12/21/09
 Subject Estimation of captured groundwater volumes and pumping duration
 By J. Ayarbe Calculation No. 04

Purpose:

Calculate the area of groundwater impacts intercepted by pumping at RW-02 at the PAB Salty Dog Site, Lea County, New Mexico. Then estimate the time required to remove impacted groundwater at a pumping rate determined from WinFlow modeling.

Given:

$$V = A \cdot b \cdot n_e$$

V = groundwater volume, A = captured area of impacts, b = aquifer or zone thickness;
 n_e = effective porosity

Area of impacts (A) determined in GIS by overlapping extent of chloride impacts and WinFlow reverse-particle tracks (see attached figure):

$$A := 6.6 \text{ acre}$$

Aquifer thickness (b) at RW-2. RW-2 fully penetrates the Ogallala aquifer:

$$b := 90 \text{ ft}$$

Effective porosity (n_e) (based on information in Blandford et al. [2008]; Native and Smith [1987]):

$$n_e := 0.15$$

$$t = \frac{V}{Q}$$

t = pumping duration, V = groundwater volume, Q = pumping rate

Pumping rate (Q) determined from WinFlow modeling:

$$Q := 15 \text{ gpm}$$

Solution:

Volume (V) of impacted groundwater captured by RW-2:

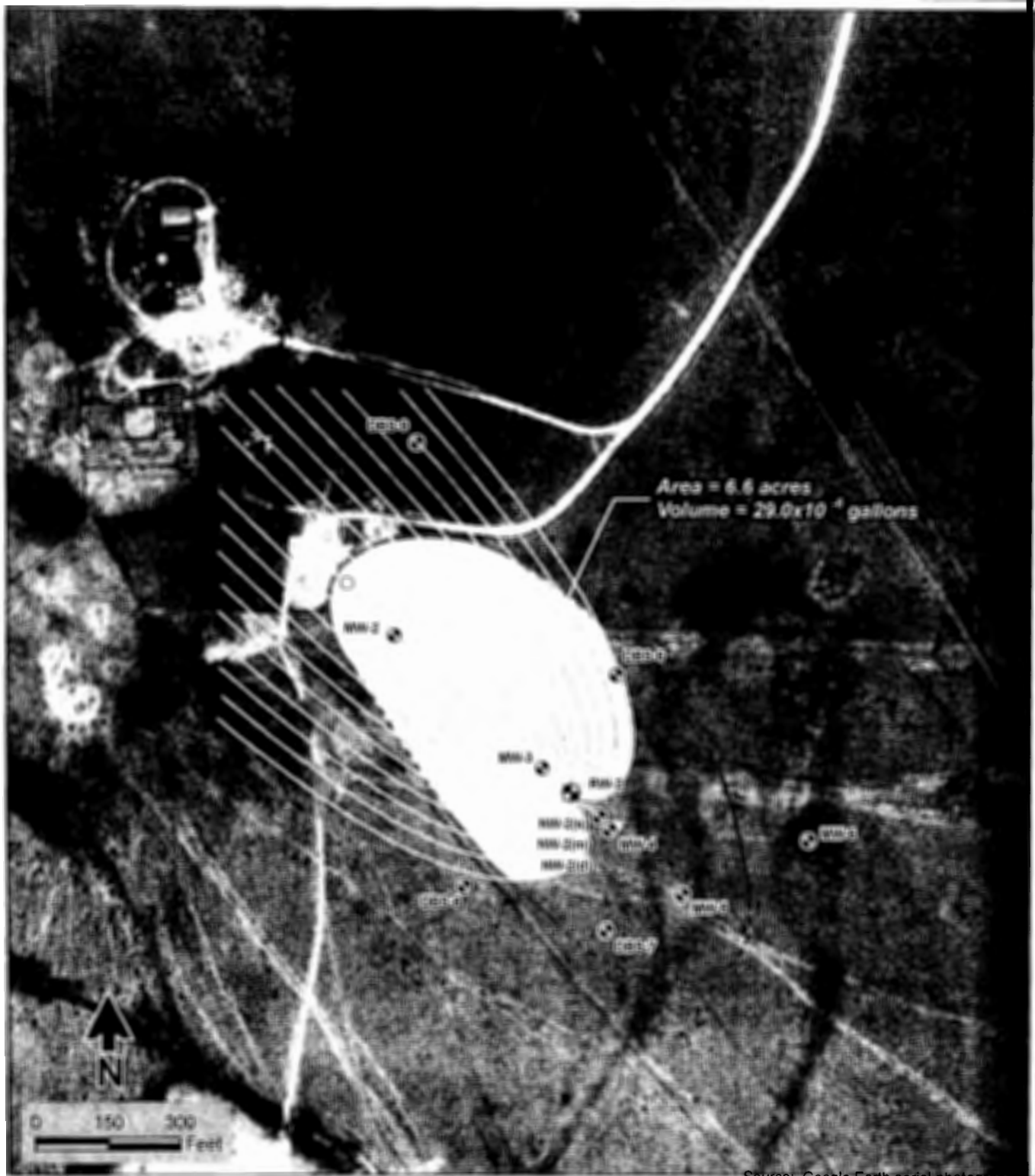
$$V := A \cdot b \cdot n_e$$

$$V = 2.90 \times 10^7 \cdot \text{gal}$$

Estimated time needed to completely pump impacted groundwater:

$$t := \frac{V}{Q}$$

$$t = 3.7 \cdot \text{yr}$$



Explanation

- MW-2 Well designation
- ⊙ Monitor well location
- ⊕ Extraction well location
- ⊕ Extent of chloride impacts in April 2009
- Reverse particle path
- ⊕ Captured impacted area

Source: Google Earth aerial photograph dated September 2002

Note: Reverse particle paths and simulated water levels created using WinFlow

**SALTY DOG BRINE STATION
Brine Well Area**

Captured Impacted Groundwater



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Appendix B
WinFlow Files

Appendix C

Reverse Osmosis Flows

Salty Dog Reverse Osmosis Flows

Well ID	Flow rate (gpm)	Flow rate (L/min)	Date of Sampling	CL- (mg/L)	TDS* (mg/L)
RW-1	1	4		5000	6700
RW-2	15	57		15000	10720
Totals	16	61			

$$(C_1V_1 + C_2V_2 + C_3V_3 + C_4V_4) / V_T = C_T$$

Chloride C_T = 14,375 mg/L (using measured values for all)

TDS C_T = 10,469 mg/L (using measured values for all)

Run time (hours/day)	Feed rate (gpm)	Recovery Rate (%) P/F	Run time (mins/day)	Rejection Rate
24	16	55%	1440	95%

Treated water		Reject water			Blended Water		Daily Production	
TDS (mg/L)	Flow (gpm)	Reject Flow	TDS (mg/L)	Flow (gpm)	TDS (mg/L)	Flow (gpm)	Treated and Blended (gpd)	Reject (gpd)
523	8.8	7.2	41875	0.00	523	8.8	12,672	10,368

Blue text are inputs

*TDS calculated from field specific conductivity (11/08/09) with $SpC(uS/cm)/0.66 = TDS (mg/L)$

Appendix D

Climate Data and Pond Design Spreadsheets

Pan Evaporation Station Clovis 13N
Precipitation Station Hobbs Airport

Month	Avg Precip (in)	Cumm. Precip (in)	Pan Evap (in)	Estimated Pond Evap (in)	Estimated Cum Pond Evap (in)
Jan	0.44	0.44	3.83	2.55	2.55
Feb	0.44	0.88	4.12	2.75	5.30
Mar	0.56	1.44	6.63	4.42	9.72
Apr	0.79	2.23	8.72	5.81	15.53
May	1.99	4.22	10.15	6.77	22.30
Jun	1.88	6.10	11.45	7.63	29.93
Jul	2.10	8.20	11.65	7.77	37.70
Aug	2.42	10.62	9.55	6.37	44.07
Sep	2.62	13.24	7.64	5.09	49.16
Oct	1.59	14.83	5.78	3.85	53.01
Nov	0.57	15.40	3.95	2.63	55.65
Dec	0.56	15.96	3.21	2.14	57.79
Annual	15.96		86.68	57.79	

Pan Evaporation

(inches)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Period
Clovis	3.83	4.12	6.63	8.72	10.15	11.45	11.65	9.55	7.64	5.78	3.95	3.21	86.68	1929-2005

Precipitation Source: <http://www.wrcc.dri.edu/summary/Climsmaz.html>

Pan data source: http://www.ocs.orst.edu/page_links/comparative_climate/new_mexico/new_mexico.html

Site Name Salty Dog Evaporation Pond
 Calcs by: Gwinn Hall
 Date: 12/21/09

Design Flow (gpm) 16
 Design Lifetime (yrs) 5
 Annual Influent Flow (gal) 8,409,600
 Annual Influent Flow (ft3) 1,124,278
 Lifetime Influent Flow (gal) 42,048,000
 Lifetime Influent Flow (ft3) 5,621,390

Mean Annual Precip (in) 15.97 Hobbs, NM data from WRCC website
 Mean Annual Precip (mm) 405.6
 Pan Evap Rate (in/yr) 80.57 Clovis, NM from WRCC website
 Pan Coefficient (Ep/Eo) 1.5 Linacre, 2002, www-das.uwyo.edu
 Est Pond Evap Rate (in/yr) 54 Clovis, NM from WRCC website

Evap Pond Dimensions:

Avg. Width at waterline (ft) 500
 Avg. Length at waterline (ft) 650
 Area (ft2) 325,000
 Area (m2) 30,204
 Area (acre) 7.46
 Water Height (ft) 2
 Storage Volume (ft3) 636,296
 Storage Volume (m3) 18,020
 Storage Volume (gal) 4,759,494

Water Balance Calculations:

Month	Inflow (gal)	Direct Precip (gal)	Total Inflow (gal)	Evap (gal)	Vol Chg (gal)	Pond Volume (gal)	Water Depth (ft)
Jan	700,416	89,137	789,553	517,263	272,290	272,290	0.1
Feb	700,416	89,137	789,553	556,429	233,124	505,414	0.2
Mar	700,416	113,447	813,863	895,418	-81,556	423,858	0.2
Apr	700,416	160,041	860,457	1,177,684	-317,228	106,630	0.0
May	700,416	403,141	1,103,557	1,370,814	-267,257	0	0.0
Jun	700,416	380,857	1,081,273	1,546,386	-465,113	0	0.0
Jul	700,416	425,425	1,125,841	1,573,397	-447,556	0	0.0
Aug	700,416	490,252	1,190,668	1,289,781	-99,113	0	0.0
Sep	700,416	530,768	1,231,184	1,031,824	199,360	199,360	0.1
Oct	700,416	322,108	1,022,524	780,621	241,902	441,262	0.2
Nov	700,416	115,473	815,889	533,469	282,419	723,681	0.3
Dec	700,416	113,447	813,863	433,528	380,334	1,104,016	0.5
Annual	8,404,992	3,233,230	11,638,222	11,706,616	-68,394		

Salty Dog Evaporation Pond

Inputs:

Width at waterline (ft)	500
Length at waterline (ft)	650
Sideslope:1 (below waterline)	3
Depth (ft) below waterline	2
Anchor Trench Runout (ft)	1
Sideslope:1 (above waterline)	3
Berm Height Above Waterline (ft)	2
Top of berm width (ft)	4

Outputs:

Width of pond base (ft) =	488
Length of pond base (ft) =	638
Volume of prismoid below waterline (cf) =	636,296
Volume of prismoid below waterline (cy) =	23,567
Volume of prismoid below waterline (gal) =	4,760,130
Approximate surface area of side slopes below waterline (sf) =	14,395
Approximate surface area base (sf) =	311,344
 Total liner area below water level (sf) =	 325,739
Total liner area above water level (sf) =	2,348
Total airspace volume (cf) =	1,272,592
Total airspace volume (cy) =	47,133
Total pond capacity (gal) =	9,520,261
Approximate total surface area (sf) =	325,739
Approximate total liner surface area (sf) =	328,087
Pond + Berm volume (cy) =	25,312

Footprint area (acres) with berm =	8.2
Footprint area (acres) at top at inside of berm =	7.78
Footprint area (acres) at waterline =	7.46
Width of top at inside of berm (ft) =	512
Length of top at inside of berm (ft) =	662
 Volume of prismoid above waterline (cf) =	 636,296
Volume of prismoid above waterline (cy) =	23,567
Volume of prismoid above waterline (gal) =	4,760,130
Approximate surface area of side slopes above waterline (sf) =	0
Approximate liner runout area, side slopes (sf) =	2,348

Berm dimensions:

Base (ft) =	16
Top Width (ft) =	4
Height (ft) =	2
X-Sect Area (sf) =	20
Perimeter (ft) =	2,356
Volume of berm around pond (cy) =	1,745

Notes:

This spreadsheet assumes waterline is at grade.
 Therefore below waterline is cut, and above waterline (ie the berm) is fill.
 The liner is calculated to run up to the top of the berm and then into an anchor trench.
 The berm is calculated as symmetrical above the waterline.

Appendix E

Treatment Alternatives Cost Spreadsheets

Summary Table

Alternative	Common Components Costs	Estimated Capital Costs	Estimated Annual O&M Costs	Capital plus 5 years of O&M
Direct Injection	\$ 42,600	\$ 48,524	\$ 97,116	\$ 576,702
RO Treatment	\$ 42,600	\$ 528,937	\$ 123,662	\$ 1,189,847
Evaporation Pond	\$ 42,600	\$ 1,666,665	\$ 55,116	\$ 1,984,843
Hauling	\$ 42,600	\$ 16,075	\$ 601,937	\$ 3,068,361

**Salty Dog
Remediation Alternative Evaluation**

Extraction pump sizing (after Driscoll, pg 585)	Depth to Water	Flow (gpm)	HP
RW-1	65.80	0.5	0.03
RW-2	60.32	15	0.65

GW extraction electrical costs

hours of pump operation per day	24.0
hp	0.68
w/hp	750
System kWhrs/day	12
\$/kWhr	0.1
\$/month \$	37.75
\$/yr \$	452.97

Pipeline and Well Pump Installation

Item	Unit	Quantity	Unit Cost	Total
1.5-inch PVC, DR-26 water line, common trenching, bedding, select backfill, testing and compaction, complete in place	LF	2600	\$8	\$ 20,800
Fittings (estimated at 10% of total pipe cost)	LS	1	\$2,080	\$ 2,080
Water meter 1.5-inch, installed	EA	1	\$2,750	\$ 2,750
RW-1 pump installation (0.125 HP)	EA	1	\$ 2,800	\$ 2,800
RW-2 pump installation (0.5 HP)	EA	1	\$ 3,600	\$ 3,600
Subtotal (excluding mobilization & demob)				\$32,030
Mobilization/Demobilization (10%)				\$ 3,203
Construction Staking (2.5%)				\$ 801
Survey (3%)				\$ 961
Engineering Services for Design and Construction (18%)				\$ -
Construction Permitting (2.5%)				\$ 801
Contingency (15%)				\$ 4,805
Total =				\$ 42,600

Alternative - Water Hauling (Costs per personal communication with Gandy-Marley, Inc.)

Hauling and Disposal

	23040 gallons per day
Using	2100 gallons per load
	11 loads per day
Assume a one year cost period	
Yields	365 days of hauling
Therefore	4015 loads per year
Using \$120 transport and \$0.60/barrel disposal costs \$	1,649 per day
Yields \$	601,937 per year for disposal

Fill Station Capital Costs

Item	Unit	Quantity	Unit Price	Total Price
Transfer pump installation (pump, pad, plumbing)	Lump sum	1	\$ 4,500	\$ 4,500
Power from existing transformer	Lump sum	1	\$ 3,000	\$ 3,000
Fencing, chain link, 6' high, w/ double 8-foot gates, 3 strand barbed wire	LF	80	\$ 26.00	\$ 2,080
Clear and grub	AC	0.2	\$ 4,475.00	\$ 895
Truck Pad				
Concrete pad	SY	40	\$ 140.00	\$ 5,600
Fill stations and road improvements capital cost is =				\$ 16,075

Salty Dog Reverse Osmosis Treatment Facility

Engineer's Estimate of Probable Cost

Item No.	Item	Quantity	Unit	Unit Cost	Total Price
1	Mobilization/Demobilization	1	LS	\$31,815.00	\$31,815
2	Construction staking by the contractor	1	LS	\$2,500.00	\$2,500
3	Clearing and grubbing land	1.0	AC	\$1,500.00	\$1,500
4	Geotech soil borings, testing, and reporting, for foundation data	1.0	LS	\$4,600.00	\$6,600
5	Testing soils, compaction, concrete	1	LS	\$2,500.00	\$2,500
6	Bollards, 4-inch diameter steel, concrete filled, cip	2	EA	\$400.00	\$800
7	Fencing, 6' high, w/ double 8-foot gates, 1 strand barbed wire	220	LF	\$26.00	\$5,720
8	General Site work			Subtotal	\$51,435
9	1.5-inch PE, SDR-26 water line, common trenching, bedding, select backfill, testing and compaction, cip	1,500	LF	\$12.50	\$18,750
10	Fittings, valves for water lines (estimated at 10% of total pipe cost)	1	LS	\$1,875.00	\$1,875
11	Heat tape, insulation, and pipe jacketing for all exterior above ground piping, cip	60	LF	\$35.00	\$2,100
12	Exterior Piping			Subtotal	\$22,725
13	Slab and footings, reinforced, cip	20	CY	\$195.00	\$3,900
14	Pre-Engineered building (40' X 40'), w/ interior walls, doors, and safety equipment, cip	600	SF	\$29.50	\$17,700
15	5,000 gal storage tanks (pre-RO and post-RO), tank, gravel ring w/ gravel, tank placement, plumbing, level controls, cip	3	EA	\$9,500.00	\$28,500
16	Electrical utility connection for RO plant	1	LS	\$25,000.00	\$25,000
17	HVAC, installation, ductwork, complete in place	1	LS	\$8,500.00	\$8,500
18	RO System (Siemens Skid Model M83R006 or EQ. plus pretreatment and peripheral equipment, and startup assistance)	1	LS	\$145,000.00	\$145,000
19	RO System Installation Labor and Materials, (Plumbing, electrical, mechanical)	1	LS	\$94,250.00	\$94,250
20	Plumbing, valves, and appurtenances	1	LS	\$14,000.00	\$14,000
21	RO Concentrate transfer pumps Grundfos CRN 10-2 or equivalent, cip	2	LS	\$3,500.00	\$7,000
22	Multimedia filter backwash pump Grundfos 15-2 or equivalent, cip	1	LS	\$4,500.00	\$4,500
23	Filtered water transfer pumps, Grundfos 10-3 or equivalent, cip	2	LS	\$3,500.00	\$7,000
	RO Facility			Subtotal	\$355,350

Subtotal (excluding mobilization)	\$397,695
Subtotal of Base Bid	\$429,510
Contingency @ 15%	\$64,427
Permitting	\$35,000
Total	\$528,937

Salty Dog RO System
Estimation of Monthly Expenses

Flows/Hours of operation

Input to skid	16 gpm
Total daily output	23040 gallons
Minutes of operation to get 30000 gallons	1440 minutes
hrs/day operation	24.0 hrs/day

Electricity

hours	24.0
hp	25
w/hp	750
System kWhrs/day	450
HVAC kWhrs/day	63
\$/kwhr	0.1
\$/month	\$ 1,590.30

Parts/Supplies (monthly estimate)

Disinfection	\$ -
Antiscalant	\$ 250.00
Membranes	\$ 400.00
Cartridge Filters	\$ 50.00
Sampling/Testing	\$ 450.00
Maint/Parts	\$ 250.00
	\$ 1,400.00

Total Electricity/Supplies/Parts(\$/month)	\$ 2,990.30
Monthly Labor (@ \$65.0/hr, 4 hrs/day/ 7 days/wk)	\$ 7,280.00
RO System monthly operation estimate	\$ 10,270.30

Well pump power costs

24.0 hours
1 hp
750 w/hp
11 kWhrs/day
0.1 \$/kwhr
34.88 \$/month

Direct Injection Capital Costs

10,000 Tank	LS	1	\$ 12,000.00	\$ 12,000
Injection Pump Installation	LS	1	\$ 1,500.00	\$ 1,500
Site Improvements	SY	1	\$ 23.82	\$ 24
Permitting	LS	1	\$ 35,000.00	\$ 35,000
Fill station and road improvements capital cost				\$ 48,524

Direction Injection O&M Costs

Total Electricity/Supplies/Parts(\$/month)				\$ 952.97
Monthly Labor (@\$65.0/hr, 2 hrs/day/ 7 days/wk)				\$ 3,640.00
Well Rehabilitation				\$ 3,500.00
Direction Injection System monthly operation estimate (onsite only - no hauling)				\$ 8,092.97

Salty Dog Brine Waste Disposal Ponds

Preliminary Cost Estimate

Item No.	Description	Quantity	Units	Unit Cost	Total Cost
Brine Waste Disposal System					
1	Mob/demob/grubbing/clean-up	1	ls	\$28,000	\$28,000
2	Pond excavation/preparation (8 acres)	25,000	cy	\$3	\$75,000
3	Berm preparation	0	cy	\$12	\$0
4	40 mil secondary HDPE pond liner	328,000	sf	\$1.45	\$475,600
5	Geonet between liner layers	0	sf	\$0.50	\$0
6	Leak detection & collection system	1	ea	\$12,500	\$12,500
7	Leak detection sump pumping equipment	2	ls	\$18,000	\$36,000
8	60 mil primary HDPE pond liner	328,000	sf	\$1.65	\$541,200
9	Seeding, erosion control fabric, and outside slope armoring with site gravel	1,000	sy	\$1.25	\$1,250
10	3" dia. brine waste discharge piping from entrance gate to pond, valving, flow control	1	ls	\$7,500	\$7,500
11	Site Perimeter Fencing (5' mesh), signage	2,600	lf	\$26	\$67,600
12	Perimeter drainage control	1	ls	\$5,000	\$5,000
14	Groundwater monitor wells	3	ea	\$15,000	\$45,000
Disposal System Subtotal					\$1,294,650
Support Services					
1	Construction surveying/staking/testing	8	acre	\$7,000	\$56,000
2	Construction oversight/inspection/admin	1	ls	\$65,000	\$65,000
3	Liner integrity QA/QC testing	8	acre	\$7,000	\$56,000
4	Record drawings	1	ls	\$8,500	\$8,500
5	Permitting	1	ls	\$35,000	\$35,000
Support Services Subtotal					\$220,500
CONSTRUCTION SUBTOTAL					\$1,515,150
Contingency				10.0%	\$151,515
CONSTRUCTION TOTAL					\$1,666,665

QA/QC = Quality Assurance/Quality Control

ls = lump sum, cy = cubic feet, sf = square feet, ea = each

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100039

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Gemini</u>	Time: <u>8:35</u>	<u>AM</u> /PM
Date: <u>10-20-08</u>	Vehicle No. <u>312</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: S&H

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER: G. I. Vazquez

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100040

Lease Operator/Shipper/Company:

Salty Dog

Lease Name:

Salty Dog

Transporter Company:

Coranza

Time

8:51

AM/PM

Date:

10-20-08

Vehicle No.

101

Driver No.

Charge To:

Salty Dog

TYPE OF MATERIAL

James

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

Description:

S&H

☐ JETOUT

☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER:

Don Ball

FACILITY REPRESENTATIVE:

[Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100041

Lease Operator/Shipper/Company: Sally Dog

Lease Name: Sally Dog

Transporter Company: Vazquez

Time 8:54 AM/PM

Date: 10-20-08

Vehicle No. 12

Driver No. _____

Charge To: Sally Dog

TYPE OF MATERIAL

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

Description: Sally

☐ JETOUT

☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 12

YARDS

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DRIVER: Henry Waller

FACILITY REPRESENTATIVE: _____

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100042

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Chavara</u>	Time <u>9:03</u> <u>AM</u> /PM	
Date: <u>10-20-08</u>	Vehicle No. <u>1</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL

James

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Se 4

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 12 YARDS

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DRIVER: Alfonse Chaves SR

FACILITY REPRESENTATIVE: _____

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100043

Lease Operator/Shipper/Company: <u>Sally Day</u>		
Lease Name: <u>Sally Day</u>		
Transporter Company: <u>Dominguez</u>	Time <u>9:05</u> <u>AM</u> /PM	
Date: <u>10-20-08</u>	Vehicle No. <u>101</u>	Driver No. _____
Charge To: <u>Sally Day</u>		

TYPE OF MATERIAL

James

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Sally Day

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100044

Lease Operator/Shipper/Company: <u>Sally Dog</u>	
Lease Name: <u>Sally Dog</u>	
Transporter Company: <u>Wildcat</u>	Time <u>9:15</u> <u>AM</u> /PM
Date: <u>10-20-09</u>	Vehicle No. <u>23</u> Driver No. _____
Charge To: <u>Sally Dog</u>	

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Sally Dog

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100086

Lease Operator/Shipper/Company: <u>Sally Dog</u>		
Lease Name: <u>Sally Dog</u>		
Transporter Company: <u>Gleete</u>	Time <u>12:03</u> <u>PM</u>	
Date: <u>10-20-08</u>	Vehicle No. <u>05</u>	Driver No. _____
Charge To: <u>Sally Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>S-17</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: Mano Alderete

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100084

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Gleeze</u>	Time <u>12:00</u> <u>AM</u> / <u>PM</u>	
Date: <u>10-20-08</u>	Vehicle No. <u>03</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>S/H</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

E. Elizabeth Gonzalez

FACILITY REPRESENTATIVE:

[Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100078

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>EVN</u>	Time <u>11:40</u> <u>AM</u> /PM	
Date: <u>10-20-08</u>	Vehicle No. <u>04</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

Albert Allen

FACILITY REPRESENTATIVE:

[Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100079

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Tuff Dawg</u>	Time <u>11:42</u> <u>AM</u> / <u>PM</u>	
Date: <u>10-20-08</u>	Vehicle No. <u>D1</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>S&H</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: Johnny T D1

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100097

Lease Operator/Shipper/Company:	Salty Dog		
Lease Name:	Salty Dog		
Transporter Company:	Chavarria	Time	1:03 AM/PM
Date:	10-20-08	Vehicle No.	1
		Driver No.	
Charge To:	Salty Dog		

TYPE OF MATERIAL

James

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description:

Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

172 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

Jose Chavarria Sr

FACILITY REPRESENTATIVE:

[Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100099

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Dominges</u>	Time <u>1:12</u>	AM/PM <u>(PM)</u>
Date: <u>10-20-08</u>	Vehicle No. <u>10</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLS.

17 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100101

Lease Operator/Shipper/Company: Salty Dog

Lease Name: Salty Dog

Transporter Company: James Parianza

Time 1:20

AM/PM (AM)

Date: 10-20-08

Vehicle No. 101

Driver No. _____

Charge To: Salty Dog

TYPE OF MATERIAL

James

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

Description: Salt

☐ JETOUT

☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER: Greg Belton

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100093

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Ganini</u>	Time <u>12:30</u> AM/PM	
Date: <u>10-20-08</u>	Vehicle No. <u>315</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Se 14</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL	BBLS. <u>12</u>	YARDS
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AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: HUCOCOBOS

FACILITY REPRESENTATIVE: _____

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100092

Lease Operator/Shipper/Company: <u>Sally Dog</u>		
Lease Name: <u>Sally Dog</u>		
Transporter Company: <u>Gemini</u>	Time <u>12:25</u> <u>AM/PM</u>	
Date: <u>10-20-08</u>	Vehicle No. <u>312</u>	Driver No. _____
Charge To: <u>Sally Dog</u>		

TYPE OF MATERIAL

Turn 8

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: 2 H

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL BBLS. 12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: G. V

FACILITY REPRESENTATIVE: _____

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100087

Lease Operator/Shipper/Company: Salty Dog

Lease Name: Salty Dog

Transporter Company: Rios

Time 12:08 PM

Date: 10-20-08

Vehicle No. 332

Driver No. _____

Charge To: Salty Dog

TYPE OF MATERIAL

Janice S

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

Description: Soil

☐ JETOUT

☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

Mike Padilla

FACILITY REPRESENTATIVE:

[Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100104

Lease Operator/Shipper/Company: Sally Dog

Lease Name: Sally Dog

Transporter Company: Wildcat

Time 1:25 AM/PM

Date: 10-20-08 Vehicle No. 23

Driver No. _____

Charge To: Sally Dog

TYPE OF MATERIAL

James

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

☐ JETOUT

Description: Salt

☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: Inferno

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100103

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Wildcat</u>	Time: <u>1:23</u>	AM/PM: <u>PM</u>
Date: <u>10-20-08</u>	Vehicle No. <u>22</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL	BBLs.	<u>12</u> YARDS
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AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED, FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER: <u>Rosie Lopez</u>
FACILITY REPRESENTATIVE: <u>[Signature]</u>

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100105

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Ronquillo</u>	Time: <u>1:28</u>	AM/PM <u>(PM)</u>
Date: <u>10-20-08</u>	Vehicle No. <u>2</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL

James

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: SH

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100106

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Camacho</u>	Time: <u>1:30</u>	AM/PM <u>(PM)</u>
Date: <u>10-20-08</u>	Vehicle No. <u>25</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL

James

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

17 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100107

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>BFI Transport</u>	Time: <u>1:31</u>	AM/PM <u>AM</u>
Date: <u>10.20.08</u>	Vehicle No. <u>103</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

FACILITY REPRESENTATIVE:

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100108

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>CYM</u>	Time <u>1:37</u>	AM/PM <u>(PM)</u>
Date: <u>10-20-08</u>	Vehicle No. <u>04</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs. 12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100112

Lease Operator/Shipper/Company: <u>S/Hy Dog</u>		
Lease Name: <u>S/Hy Dog</u>		
Transporter Company: <u>Gr H</u>	Time: <u>1:42</u>	AM/PM <u>(AM)</u>
Date: <u>10-20-08</u>	Vehicle No. <u>01</u>	Driver No. _____
Charge To: <u>S/Hy Dog</u>		

TYPE OF MATERIAL

Same S

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: S/H

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100113

Lease Operator/Shipper/Company: <u>Sally Dog</u>		
Lease Name: <u>Sally Dog</u>		
Transporter Company: <u>Gleeze</u>	Time <u>1:51</u>	AM/PM <u>PM</u>
Date: <u>10-20-08</u>	Vehicle No. <u>3</u>	Driver No. _____
Charge To: <u>Sally Dog</u>		

TYPE OF MATERIAL

James

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: SH

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS

12 YARDS

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DRIVER:

E. Elizabeth Gonzalez

FACILITY REPRESENTATIVE:

[Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100118

Lease Operator/Shipper/Company: <u>S/Hy Dog</u>		
Lease Name: <u>S/Hy Dog</u>		
Transporter Company: <u>Chase</u>	Time: <u>1:58</u>	AM/PM <u>(PM)</u>
Date: <u>10-20-08</u>	Vehicle No. <u>5</u>	Driver No. _____
Charge To: <u>S/Hy Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>S/H</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL	BBLS.	<u>17</u> YARDS
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AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: <u>Monico Alderete</u>
FACILITY REPRESENTATIVE: <u>[Signature]</u>

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100120

Lease Operator/Shipper/Company: Sally Dog

Lease Name: Sally Dog

Transporter Company: R.O.S Time 2:03 AM/PM (P)

Date: 10-26-08 Vehicle No. 522 Driver No. _____

Charge To: Sally Dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Sally

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs. 17 YARDS

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DRIVER: Mike Foubler

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100158

Lease Operator/Shipper/Company: <u>Sally Dog</u>		
Lease Name: <u>Sally Dog</u>		
Transporter Company: <u>Tuff Dawg</u>	Time <u>3:58</u> AM/PM	
Date: <u>10-20-08</u>	Vehicle No. <u>01</u>	Driver No. _____
Charge To: <u>Sally Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

AS-A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: Lehman T S-1

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100081

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>B.H. Trucking</u>	Time <u>11:52</u> <u>AM</u> <u>PM</u>	
Date: <u>10-20-08</u>	Vehicle No. <u>1</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Soil</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100138

Lease Operator/Shipper/Company: Selly Dog

Lease Name: Selly Dog

Transporter Company: Chavarria

Time 3:00 AM/PM

Date: 10-20-08

Vehicle No. 1

Driver No. _____

Charge To: Selly Dog

TYPE OF MATERIAL

James

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

Description: S/H

☐ JETOUT

☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

17

YARDS

AS-A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

Gene Chavarria SK

FACILITY REPRESENTATIVE:

[Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100139

Lease Operator/Shipper/Company:	Sally Dog		
Lease Name:	Sally Dog		
Transporter Company:	Carriance	Time	3:01 AM/PM
Date:	10-20-08	Vehicle No.	101
		Driver No.	
Charge To:	Sally Dog		

TYPE OF MATERIAL

Jame S

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: JH

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER:

FACILITY REPRESENTATIVE:

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100141

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Dominga</u>	Time <u>5:03</u> AM/PM <u>AM</u>	
Date: <u>10-20-08</u>	Vehicle No. <u>10P</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL	BBLs.	<u>12</u> YARDS
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AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER:	<u>[Signature]</u>
FACILITY REPRESENTATIVE:	<u>[Signature]</u>

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100145

Lease Operator/Shipper/Company: Salty Dog

Lease Name: Salty Dog

Transporter Company: BFI Time 3:21 AM/PM

Date: 10-20-08 Vehicle No. CR2 Driver No. _____

Charge To: Salty Dog

TYPE OF MATERIAL

James

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Se 14

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

FACILITY REPRESENTATIVE:

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100144

Lease Operator/Shipper/Company: <u>SEH Dog</u>		
Lease Name: <u>SEH Dog</u>		
Transporter Company: <u>Ronquillo</u>	Time <u>3:20</u> AM/PM	
Date: <u>10-20-09</u>	Vehicle No. <u>2</u>	Driver No. _____
Charge To: <u>SEH Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>SEH</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL	BBLS. <u>12</u>	YARDS
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AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: <u>Jose Ronquillo</u>
FACILITY REPRESENTATIVE: <u>[Signature]</u>

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100148

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Wildcat</u>	Time <u>3:25</u> AM/PM <u>PM</u>	
Date: <u>10.20-08</u>	Vehicle No. <u>23</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL	BBLs.	<u>12</u> YARDS
--------------------	-------	-----------------

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

FACILITY REPRESENTATIVE:

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100147

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Wildcat</u>	Time <u>3:24</u>	AM/PM <u>(AM)</u>
Date: <u>10-20-08</u>	Vehicle No. <u>22</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salty</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

Rosie Lopez

FACILITY REPRESENTATIVE:

[Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100149

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>EVM</u>	Time <u>3:32</u> AM/PM	
Date: <u>10-20-08</u>	Vehicle No. <u>4</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL

Same 3

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: SLT

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

[Signature]

FACILITY REPRESENTATIVE:

[Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100150

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>B&H</u>	Time <u>3:34</u> AM/PM	
Date: <u>10-26-08</u>	Vehicle No. <u>1</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLs. 12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100153

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Comacho</u>	Time <u>3:45</u>	AM/PM <u>(PM)</u>
Date: <u>10-20-08</u>	Vehicle No. <u>20</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Sal 4</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: _____

FACILITY REPRESENTATIVE: _____

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100155

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Gleco</u>	Time <u>3:55</u> AM/PM	
Date: <u>10/20/08</u>	Vehicle No. <u>CS</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: Monica Alderete

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100166

Lease Operator/Shipper/Company: <u>Salty dog</u>		<u>James</u>	
Lease Name: <u>Salty dog</u>			
Transporter Company: <u>Geminati</u>		Time <u>4:25</u> AM/PM	
Date: <u>10-20-09</u>	Vehicle No. <u>315</u>	Driver No. <u>315</u>	
Charge To: <u>Salty dog</u>			

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description:

salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12

YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: LUIS COBOS

FACILITY REPRESENTATIVE: A. Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100168

Lease Operator/Shipper/Company: <u>Salty dog</u>		
Lease Name: <u>Salty dog</u>		
Transporter Company: <u>Genini</u>	Time <u>4:35</u>	AM/PM <u>(P)</u>
Date: <u>10-20-09</u>	Vehicle No. <u>312</u>	Driver No. <u>312</u>
Charge To: <u>Salty dog</u>		

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

10 BBLS.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: G. U

FACILITY REPRESENTATIVE: N Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100171

Lease Operator/Shipper/Company: Salty Dog JAMES
Lease Name: Salty dog
Transporter Company: Chauarria Time 4:50 AM/PM (P)
Date: 10-20-08 Vehicle No. 1 Driver No. 1
Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

12

YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: Yere Chauarria SR

FACILITY REPRESENTATIVE: Al Espinosa

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100172

Lease Operator/Shipper/Company: Salty Dog
Lease Name: Salty dog
Transporter Company: Dominguez Trs. Time 4:55 AM/PM
Date: 10-20-10 Vehicle No. 101 Driver No. 101
Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs. 12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: A. Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100174

Lease Operator/Shipper/Company:	Salty Dog		
Lease Name:	Salty Dog		
Transporter Company:	Donquillos Trx	Time	5:10 AM/PM
Date:	10-20-08	Vehicle No.	Jr 2
		Driver No.	Jr 2
Charge To:	Salty Dog		

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description:

Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER:

Joe Kowalski

FACILITY REPRESENTATIVE:

Al Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100175

Lease Operator/Shipper/Company: Salty Dog

Lease Name: Salty Dog

Transporter Company: B+T Trans

Time 5:05 AM/PM

Date: 10-20-04

Vehicle No. 3

Driver No. 3

Charge To: Salty dog

TYPE OF MATERIAL

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

Description: Salt

☐ JETOUT

☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 12

ARDS

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100177

Lease Operator/Shipper/Company: Salty Dog

Lease Name: Salty Dog

Transporter Company: Wildcat 7th

Time 5:20 AM/PM

Date: 10-20-08

Vehicle No. 23

Driver No. 03

Charge To: Salty Dog

TYPE OF MATERIAL

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

☐ JETOUT

☐ CALLOUT

Description: Salt

VOLUME OF MATERIAL

12 BBLs.

17 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: M. J. J.

FACILITY REPRESENTATIVE: N. Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100178

Lease Operator/Shipper/Company: Salty Dog James

Lease Name: Salty dog

Transporter Company: Wildcat Truck Time 5:20 PM

Date: 10-20-08 Vehicle No. 22 Driver No. 22

Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

12 BBLS.

12 YARDS

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DRIVER:

Rosie Lyka

FACILITY REPRESENTATIVE:

Al Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100181

Lease Operator/Shipper/Company: Salty Dog James
Lease Name: Salty Dog
Transporter Company: E4 M. Inc. Time 5:30 AM/PM
Date: 10-20-08 Vehicle No. 04 Driver No. 04
Charge To: Salty Dog

TYPE OF MATERIAL

- | | | |
|--|--|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER:

Albert Alva

FACILITY REPRESENTATIVE:

N. Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100190

Lease Operator/Shipper/Company: Salty Day

Lease Name: Salty day

Transporter Company: Camacho Truck

Time 5:45 AM/PM

Date: 10-20-08

Vehicle No. 20

Driver No. 20

Charge To: Salty day

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: Al Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100188

Lease Operator/Shipper/Company: Salty Deer Jamez
Lease Name: Salty deer
Transporter Company: Tuff Tuff Time 8:45 AM/PM
Date: 10-20-08 Vehicle No. D1 Driver No. D1
Charge To: Salty deer

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12

YARDS

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DRIVER: Johnny T D-1

FACILITY REPRESENTATIVE: M. Spinger

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100186

Lease Operator/Shipper/Company: Salty Dog James
Lease Name: Salty dog
Transporter Company: R-H 7115 Time 5:40 AM/PM
Date: 10-20-01 Vehicle No. 01 Driver No. 01
Charge To: Salty Dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description:

Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12

YARDS

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DRIVER:

[Signature]

FACILITY REPRESENTATIVE:

A. Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100191

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty dog</u>		
Transporter Company: <u>So G. L. G. Inc.</u>	Time: <u>5:50</u>	AM/PM <u>(P)</u>
Date: <u>10-20-08</u>	Vehicle No. <u>03</u>	Driver No. <u>03</u>
Charge To: <u>Salty dog</u>		

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12

YARDS

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DRIVER:

E. Elizabeth Gonzalez

FACILITY REPRESENTATIVE:

N. Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100193

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Caraniga Inc.</u>	Time: <u>6:00</u>	AM/PM <u>(P)</u>
Date: <u>10-20-08</u>	Vehicle No. <u>06</u>	Driver No. <u>06</u>
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER: Chris Lerio

FACILITY REPRESENTATIVE: N. Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100192

Lease Operator/Shipper/Company: Salty Deer James
Lease Name: Salty deer
Transporter Company: Rico Truck Time 6:00 AM/PM
Date: 10-20-09 Vehicle No. 332 Driver No. 332
Charge To: Salty deer

TYPE OF MATERIAL

- | | | |
|--|--|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 12 YARDS

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DRIVER: Mike Smith

FACILITY REPRESENTATIVE: N. Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100125

Lease Operator/Shipper/Company: <u>Horton Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Elvis</u>	Time <u>2.20</u> AM/PM	
Date: <u>10/20/08</u>	Vehicle No. <u>41877</u>	Driver No. _____
Charge To: <u>Horton Salty Dog</u>		

TYPE OF MATERIAL

James

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☒ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

17 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

Luz De Leon

FACILITY REPRESENTATIVE: _____

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100124

Lease Operator/Shipper/Company: <u>Sally Dog</u>		
Lease Name: <u>Sally Dog</u>		
Transporter Company: <u>Gemin</u>	Time <u>2:16</u>	AM/PM <u>(M)</u>
Date: <u>10-20-09</u>	Vehicle No. <u>315</u>	Driver No. _____
Charge To: <u>Sally Dog</u>		

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: SH

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 12 YARDS

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DRIVER: Alvaro Robos

FACILITY REPRESENTATIVE: _____

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100123

Lease Operator/Shipper/Company: Sally Dog

Lease Name: Sally Dog

Transporter Company: Geac

Time 2:16 AM/PM

Date: 10-20-08

Vehicle No. 312

Driver No. _____

Charge To: Sally Dog

TYPE OF MATERIAL

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☐ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

Description: S/H

☐ JETOUT

☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

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DRIVER: G. V

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100121

Lease Operator/Shipper/Company: <u>S/Hy Dag</u>		
Lease Name: <u>S/Hy Dag</u>		
Transporter Company: <u>Callanza</u>	Time: <u>2:05</u>	AM/PM <u>(AM)</u>
Date: <u>10/20/08</u>	Vehicle No. <u>06</u>	Driver No. _____
Charge To: <u>S/Hy Dag</u>		

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: S/H

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 12 YARDS

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DRIVER: Chris George

FACILITY REPRESENTATIVE: _____

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100029

Lease Operator/Shipper/Company: Sally Dog

Lease Name: Sally Dog

Transporter Company: EYM

Time 7:54 AM/PM

Date: 10-20-08

Vehicle No. 009

Driver No. _____

Charge To: Sally Dog

TYPE OF MATERIAL

James

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

☐ JETOUT

☐ CALLOUT

Description: S&H

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER: *[Signature]*

FACILITY REPRESENTATIVE: *[Signature]*

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100030

Lease Operator/Shipper/Company: <u>SE/Hy Dog</u>		
Lease Name: <u>SE/Hy Dog</u>		
Transporter Company: <u>Carlanza</u>	Time <u>7:55</u> <u>AM/PM</u>	
Date: <u>10-20-08</u>	Vehicle No. <u>06</u>	Driver No. _____
Charge To: <u>SE/Hy Dog</u>		

TYPE OF MATERIAL

James

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: SE/H

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL BBLS. 12 YARDS

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DRIVER: Chris Arango

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100033

Lease Operator/Shipper/Company: Sally Dog

Lease Name: Sally Dog

Transporter Company: Tull Dawg

Time

8:06 AM/PM

Date: 10-20-08

Vehicle No. 01

Driver No. _____

Charge To: Sally Dog

TYPE OF MATERIAL

James

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

Description: S/H

☐ JETOUT

☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER: Anthony T D-1

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100035

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Greene</u>	Time <u>8.15</u>	<u>AM</u> /PM
Date: <u>10.20.08</u>	Vehicle No. <u>3</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salty</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER:

E. Elizabeth Gonzalez

FACILITY REPRESENTATIVE:

[Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100036

Lease Operator/Shipper/Company: Salty Dog

Lease Name: Salty Dog

Transporter Company: Greco

Time 8:16 AM/PM

Date: 10-20-08

Vehicle No. 5

Driver No. _____

Charge To: Salty Dog

TYPE OF MATERIAL

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

Description: SEA

☐ JETOUT

☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER: monica Alderete

FACILITY REPRESENTATIVE: _____

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100038

Lease Operator/Shipper/Company: Salty Dog

Lease Name: Salty Dog

Transporter Company: Gemini

Time 8:25 AM/PM

Date: 10-20-08

Vehicle No. 315

Driver No. _____

Charge To: Salty Dog

TYPE OF MATERIAL

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.: _____

☐ Other Materials

☐ BS&W Content:

Description: SA

☐ JETOUT

☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 17

YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: HUGO GONZALEZ

FACILITY REPRESENTATIVE: _____

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100199

Lease Operator/Shipper/Company: Sally dog

Lease Name: Sally dog

Transporter Company: Gemini

Time 6:15 AM/PM

Date: 10-20-06

Vehicle No. 315

Driver No. 315

Charge To: Sally dog

TYPE OF MATERIAL

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☐ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

Description: Salt

☐ JETOUT

☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: HUGO COBOS

FACILITY REPRESENTATIVE: M Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100200

Lease Operator/Shipper/Company: Sally Dog

James

Lease Name: Sally Dog

Transporter Company: Gemini

Time 10:15 AM/PM

Date: 10-20-06 Vehicle No. 312

Driver No. 312

Charge To: Sally Dog

TYPE OF MATERIAL

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

☐ JETOUT

☐ CALLOUT

Description: Salt

VOLUME OF MATERIAL

BBLS.

12

YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: G.V.

FACILITY REPRESENTATIVE: A. Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100207

Lease Operator/Shipper/Company: Salty Dog James
Lease Name: Salty dog
Transporter Company: Dominquez Trk. Time 6:44 AM/PM
Date: 10-20-08 Vehicle No. 101 Driver No. 101
Charge To: Saltydog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 18 YARDS

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DRIVER: Al. N. D.

FACILITY REPRESENTATIVE: N-Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100162

Lease Operator/Shipper/Company: Salty dog James

Lease Name: Salty dog

Transporter Company: Zia Time 4:15 AM/PM (P)

Date: 10-20-08 Vehicle No. 544 Driver No. 544

Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

12

YARDS

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DRIVER:

Randy Vento

FACILITY REPRESENTATIVE:

A. Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100161

Lease Operator/Shipper/Company: Salty Dog James

Lease Name: Salty Dog

Transporter Company: Sat Carranza Trx. Time 4:15 AM/PM (AM)

Date: 10-20-08 Vehicle No. 06 Driver No. 06

Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description:

Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12

YARDS

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DRIVER:

Chris George

FACILITY REPRESENTATIVE:

N Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100054

Lease Operator/Shipper/Company: Sally Doe

Lease Name: Sally Doe

Transporter Company: Carroll

Time 9:54 AM PM

Date: 10-20-08

Vehicle No. 86

Driver No. _____

Charge To: Sally Doe

TYPE OF MATERIAL

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

Description: S/H

☐ JETOUT

☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER: Chris George

FACILITY REPRESENTATIVE: _____

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100055

Lease Operator/Shipper/Company: Salty Dog

Lease Name: Salty Dog

Transporter Company: Tuff Dawg

Time 10:00 (AM/PM)

Date: 10-20-08

Vehicle No. 01

Driver No. _____

Charge To: Salty Dog

TYPE OF MATERIAL

James

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

Description: SH

☐ JETOUT

☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

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DRIVER: Johnny T. D-1

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100057

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Breeze</u>	Time <u>10:06</u> <u>AM</u> /PM	
Date: <u>10-20-08</u>	Vehicle No. <u>3</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>311</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL	BBLS.	<u>12</u> YARDS
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DRIVER: <u>E. Elizabeth Gonzalez</u>
FACILITY REPRESENTATIVE: <u>[Signature]</u>

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100058

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Greene</u>	Time <u>10:07</u>	<u>AM</u> /PM
Date: <u>10-20-08</u>	Vehicle No. <u>03</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL	BBLS.	<u>12</u> YARDS
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DRIVER: Monico Aldeco

FACILITY REPRESENTATIVE: _____

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100061

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>R.O.S.</u>	Time	<u>10:26</u> <u>AM</u> / <u>PM</u>
Date: <u>10-20-08</u>	Vehicle No. <u>332</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>S&H</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

Mark Portillo

FACILITY REPRESENTATIVE:

[Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100062

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Gemini</u>	Time <u>10:33</u> <u>AM</u> /PM	
Date: <u>10-20-08</u>	Vehicle No. <u>315</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL

James

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER:

HUGO COBOS

FACILITY REPRESENTATIVE:

[Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100063

Lease Operator/Shipper/Company: <u>Sally Dog</u>		
Lease Name: <u>Sally Dog</u>		
Transporter Company: <u>Gemini</u>	Time <u>10:38</u> <u>AM</u> /PM	
Date: <u>10/20/08</u>	Vehicle No. <u>312</u>	Driver No. _____
Charge To: <u>Sally Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: SU

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100066

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Dominges</u>	Time <u>11:00</u> <u>AM</u> /PM	
Date: <u>10.20-08</u>	Vehicle No. <u>101</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Se 14</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER:

[Signature]

FACILITY REPRESENTATIVE:

[Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 089935

Lease Operator/Shipper/Company: Salty dog James
Lease Name: Salty dog
Transporter Company: Bemini Time 6:36 AM/PM
Date: 10-18-08 Vehicle No. 315 Driver No. _____
Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

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DRIVER: Abrocozo S

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099934

Lease Operator/Shipper/Company:	<u>Salty Dog</u>	<u>James</u>
Lease Name:	<u>Saltydog</u>	
Transporter Company:	<u>Comacho TRK</u>	Time <u>6:17</u> AM/PM <u>(M)</u>
Date:	<u>10-18-08</u>	Vehicle No. <u>20</u> Driver No. _____
Charge To:	<u>Saltydog</u>	

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099931

Lease Operator/Shipper/Company: Salty dog James
Lease Name: Salty dog
Transporter Company: EYM TPK Time 5:44 AM/PM
Date: 10-18-08 Vehicle No. 04 Driver No. _____
Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER: Albert

FACILITY REPRESENTATIVE: C. J. H.

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099930

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Belmini</u>	Time: <u>5:36</u>	AM/PM <u>(M)</u>
Date: <u>10-18-08</u>	Vehicle No. <u>312</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099932

Lease Operator/Shipper/Company: Salty dog James
Lease Name: Salty dog
Transporter Company: B + H TRK Time 6:00 AM/PM
Date: 10-18-08 Vehicle No. 01 Driver No. _____
Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099933

Lease Operator/Shipper/Company: Salty Dog James
Lease Name: Salty dog
Transporter Company: Tuff dawg Time 6:10 AM/PM
Date: 10-18-08 Vehicle No. D-1 Driver No. _____
Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs. 12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: Johnny T.

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099929

Lease Operator/Shipper/Company: Salty dog james

Lease Name: Salty dog

Transporter Company: Dominique TRK Time 5:15 AM/PM PM

Date: 10-18-08 Vehicle No. 101 Driver No. _____

Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

17 ARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099920

Lease Operator/Shipper/Company: Salty dog James
Lease Name: Salty dog
Transporter Company: Comacho TRK Time 4:34 AM/PM
Date: 10-18-08 Vehicle No. 20 Driver No. _____
Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099918

Lease Operator/Shipper/Company: Salty dog James
Lease Name: Salty dog
Transporter Company: Tuff daisy Time 4:06 AM/PM
Date: 10-18-08 Vehicle No. D-1 Driver No. _____
Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER: Johnny T. D-1

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099916

Lease Operator/Shipper/Company: Saltydog James
Lease Name: Saltydog
Transporter Company: B-H TRK Time 3:57 AM/PM
Date: 10-18-08 Vehicle No. 01 Driver No. _____
Charge To: Saltydog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099915

Lease Operator/Shipper/Company: Salty dog James
Lease Name: Salty dog
Transporter Company: EYM TRK Time 3:47 AM/PM
Date: 10-18-08 Vehicle No. 04 Driver No. _____
Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

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DRIVER: *Alberto Alon*

FACILITY REPRESENTATIVE: *[Signature]*

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099912

Lease Operator/Shipper/Company: Salty dog James
Lease Name: Salty dog
Transporter Company: Genini Time 3:30 AM/PM
Date: 10-18-08 Vehicle No. 315 Driver No. _____
Charge To: LA

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER: HUGO ROBOS

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099911

Lease Operator/Shipper/Company: Salty dog James
Lease Name: Salty dog
Transporter Company: Gemini Time 3:28 AM/PM
Date: 10-18-08 Vehicle No. 312 Driver No. _____
Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099904

Lease Operator/Shipper/Company: <u>Salty dog</u> <u>James</u>		
Lease Name: <u>Salty dog</u>		
Transporter Company: <u>Dominguez TRK</u>	Time	<u>3:03</u> AM/PM
Date: <u>10-18-08</u>	Vehicle No. <u>101</u>	Driver No. _____
Charge To: <u>Salty dog</u>		

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description:

Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER:

[Signature]

FACILITY REPRESENTATIVE:

[Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099902

Lease Operator/Shipper/Company: Salty Dog James
Lease Name: Salty Dog
Transporter Company: Comacho TRK Time 1:35 AM/PM
Date: 10-18-08 Vehicle No. 20 Driver No. _____
Charge To: Salty Dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099895

Lease Operator/Shipper/Company: Salty dog James
Lease Name: Salty dog
Transporter Company: Tuff Dams Time 2:14 AM/PM
Date: 10-18-08 Vehicle No. D1 Driver No. _____
Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER: J. H. T. D1

FACILITY REPRESENTATIVE: C. Johnson

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099893

Lease Operator/Shipper/Company: Salty dog James
Lease Name: Salty dog
Transporter Company: BTH TRK Time 1:50 AM/PM
Date: 10-18-08 Vehicle No. 01 Driver No. _____
Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099890

Lease Operator/Shipper/Company: Salty Dog James
Lease Name: Salty Dog
Transporter Company: EXM TRK Time 1:37 AM/PM
Date: 10-18-08 Vehicle No. 04 Driver No. _____
Charge To: Salty Dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

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DRIVER:

Steve Allen

FACILITY REPRESENTATIVE:

C. P. H.

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 089889

Lease Operator/Shipper/Company:	Saltydog		
Lease Name:	Saltydog		
Transporter Company:	Gemini	Time	1:31 AM/PM
Date:	10-18-08	Vehicle No.	312
Driver No.			
Charge To:	Saltydog		

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description:

salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER:

[Signature]

FACILITY REPRESENTATIVE:

[Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099887

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Bemini</u>	Time <u>1:15</u>	AM/PM <u>(M)</u>
Date: <u>10-18-08</u>	Vehicle No. <u>315</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER: HUGO COBOS

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099884

Lease Operator/Shipper/Company: Salty Dog James
Lease Name: Salty Dog
Transporter Company: Zia Time 1:00 AM/PM
Date: 10-18-08 Vehicle No. 101 Driver No. _____
Charge To: Salty Dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 12 YARDS

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DRIVER: AM-12

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099849

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Gemini</u>	Time <u>8:52</u>	<u>AM</u> /PM
Date: <u>10-18-08</u>	Vehicle No. <u>315</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER: HUGO CORBOS

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099854

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Cearni</u>	Time	<u>9:05</u> <u>AM</u> <u>PM</u>
Date: <u>10-18-08</u>	Vehicle No. <u>312</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099857

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>EYM Trucking</u>	Time: <u>9:11</u>	<u>AM</u> /PM
Date: <u>10-18-08</u>	Vehicle No. <u>OH</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER:

FACILITY REPRESENTATIVE:

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099860

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>B&H Trucking</u>	Time: <u>9:35</u>	AM/PM <u>PM</u>
Date: <u>10-18-08</u>	Vehicle No. <u>01</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>James</u>		<input type="checkbox"/> JETOUT
		<input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

FACILITY REPRESENTATIVE:

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099866

Lease Operator/Shipper/Company: <u>Zia Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Dominges</u>	Time <u>10:55</u> <u>AM</u> /PM	
Date: <u>10-18-08</u>	Vehicle No. _____	Driver No. _____
Charge To: <u>Zia Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL	BBLS. <u>12</u>	YARDS
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AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: <u>[Signature]</u>
FACILITY REPRESENTATIVE: <u>[Signature]</u>

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099867

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Gemini</u>	Time <u>10:56</u> AM/PM	
Date: <u>10-18-08</u>	Vehicle No. <u>315</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL	BBLS. <u>12</u> YARDS
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AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: <u>HUGOBOS</u>
FACILITY REPRESENTATIVE: <u>[Signature]</u>

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099369

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Gemini</u>	Time <u>11:13</u> <u>AM</u> / <u>PM</u>	
Date: <u>10-18-08</u>	Vehicle No. <u>312</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099871

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>EVM</u>	Time: <u>11:24</u>	<u>AM</u> /PM
Date: <u>10-18-98</u>	Vehicle No. <u>04</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL	BBLS. <u>12</u>	YARDS
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AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: <u>Albert Atta</u>
FACILITY REPRESENTATIVE: <u>[Signature]</u>

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099875

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>B & H Trucking</u>	Time <u>11:51</u> <u>AM</u> /PM	
Date: <u>10-18-08</u>	Vehicle No. <u>01</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>mod Se 1+</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

Humberto Sandoval

FACILITY REPRESENTATIVE:

[Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099877

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Tuff Dawg</u>	Time <u>12:01</u> <u>AM</u> /PM	
Date: <u>10-18-08</u>	Vehicle No. <u>01</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Sa/H</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER: Johnny T.

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099847

Lease Operator/Shipper/Company: Zia

Lease Name: Salty Dog

Transporter Company: Dominguez

Time 8:35 AM/PM

Date: 10-18-08 Vehicle No. 101

Driver No. _____

Charge To: Zia

TYPE OF MATERIAL

☐ Produced Water

☐ Drilling Fluids

☒ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

Description: Salt

☐ JETOUT

☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099803

Lease Operator/Shipper/Company: <u>Salty Dog</u>		<u>James</u>
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Gemini</u>	Time <u>5:35</u>	AM/PM <u>(AM)</u>
Date: <u>10-17-08</u>	Vehicle No. <u>312</u>	Driver No. <u>312</u>
Charge To: <u>Zia</u>		

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs. 12

YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: N. Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099793

Lease Operator/Shipper/Company: Salty Dog James
Lease Name: Salty dog
Transporter Company: Zia Trans. Time 5:00 AM/PM
Date: 10-17-08 Vehicle No. 544 Driver No. 544
Charge To: Zia

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12

YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: Al Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099785

Lease Operator/Shipper/Company: Salty Dog James
Lease Name: Salt
Transporter Company: EJM Trucking Time 3:54 AM/PM
Date: 10-17-09 Vehicle No. 04 Driver No. 04
Charge To: ZIC

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: sand

- ☒ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs. 12 YARDS

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DRIVER: Albert

FACILITY REPRESENTATIVE: N. Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100154

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Gleena</u>	Time <u>3:50</u> AM/PM	
Date: <u>10-20-08</u>	Vehicle No. <u>3</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salty</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL	BBLs.	<u>12</u> YARDS
--------------------	-------	-----------------

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER:

Elizabeth Gonzalez

FACILITY REPRESENTATIVE:

[Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099758

Lease Operator/Shipper/Company: Salty dog James

Lease Name: Salty dog

Transporter Company: Gemini Time 1:35 AM/PM

Date: 10-17-08 Vehicle No. 312 Driver No. _____

Charge To: Salty dog Zia

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100204

Lease Operator/Shipper/Company: Salty Dog James
Lease Name: Salty Dog
Transporter Company: Carriager Time 6:25 AM/PM
Date: 10-20-08 Vehicle No. 101 Driver No. 101
Charge To: Salty Dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 16 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100169

Lease Operator/Shipper/Company: Salty Dog
Lease Name: Salty dog
Transporter Company: Cardenas Truck Time 4:40 AM/PM (P)
Date: 10-20-09 Vehicle No. 101 Driver No. 101
Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 16 YARDS

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: Al Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100680

Lease Operator/Shipper/Company: Ngia

Lease Name: Salter Dog Wastewater

Transporter Company: Ngia

Time

AM/PM

Date: 10-23-08

Vehicle No. 746 719

Driver No. 74 769

Charge To: Ngia

TYPE OF MATERIAL

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

Description: Oil

☐ JETOUT

☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

15

YARDS

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DRIVER: Henry W. Slope

FACILITY REPRESENTATIVE: Alcosta

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Lease Operator/Shipper/Company: <u>gila</u>		Ticket # <u>100735</u>
Lease Name: <u>Valley Dog</u>		
Transporter Company: <u>gila</u>	Time: <u>2:52</u>	AM/PM
Date: <u>10-23-08</u>	Vehicle No. <u>769</u>	Driver No. <u>769</u>
Charge To: <u>gila</u>		

TYPE OF MATERIAL

- | | | |
|--|--|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: oil

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 15

YARDS

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DRIVER: Henry W. Slape

FACILITY REPRESENTATIVE: DeCosta

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100304

Lease Operator/Shipper/Company: hja

Lease Name: Salter, Drey

Transporter Company: hja

Time 3:48

AM/PM (PM)

Date: 10-21-08

Vehicle No. 769

Driver No. 769

Charge To: hja

TYPE OF MATERIAL

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

Description: OLD Salt

☐ JETOUT

☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 15

YARDS

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DRIVER: Henry W. Lopez

FACILITY REPRESENTATIVE: Racosta

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100779

Lease Operator/Shipper/Company: <u>Zia</u>		
Lease Name: <u>Salty Dog Disposal</u>		
Transporter Company: <u>Zia</u>	Time <u>4:37</u>	AM/PM <u>(M)</u>
Date: <u>10-23</u>	Vehicle No. <u>769</u>	Driver No. _____
Charge To: <u>Zia</u>		

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: O/D

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

15 YARDS

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DRIVER: W. S. Lopez

FACILITY REPRESENTATIVE: D. Franco

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100291

Lease Operator/Shipper/Company: 219

Lease Name: Salty Dog Disposal

Transporter Company: 219

Time 2:00 AM/PM

Date: 10-21-08

Vehicle No. 769

Driver No. 769

Charge To: 219

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: DID Silt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

15

YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: Henry W. Slaze

FACILITY REPRESENTATIVE: R. Acosta

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100268

Lease Operator/Shipper/Company: Myia

Lease Name: Saltwater Dog 1000000000

Transporter Company: Myia

Time 12:14

AM/PM (AM)

Date: 10-21-08

Vehicle No. 769

Driver No. 769

Charge To: Myia

TYPE OF MATERIAL

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

Description: Saltwater Dog 1000000000

☒ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 15

YARDS

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DRIVER: Myia

FACILITY REPRESENTATIVE: Myia

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100195

Lease Operator/Shipper/Company: Salty Dog James
Lease Name: Salty dog
Transporter Company: 3a Trans Time 6:07 AM/PM
Date: 10-20-09 Vehicle No. 769 Driver No. 769
Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

15

YARDS

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DRIVER:

Henry W. Lane

FACILITY REPRESENTATIVE:

A. Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100165

Lease Operator/Shipper/Company: Salty Dog

Lease Name: Salty Dog

Transporter Company: Zia

Time 4:00 AM/PM

Date: 10-20-08

Vehicle No. 769

Driver No. 769

Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

15 YARDS

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DRIVER: Henry W. Elze

FACILITY REPRESENTATIVE: N. Espingosa

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100130

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Zia</u>	Time <u>2:42</u> AM/PM	
Date: <u>10-20-08</u>	Vehicle No. <u>769</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salty Dog</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL BBLs. 15 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100065

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Zia</u>	Time <u>10:54</u> <u>AM</u> /PM	
Date: <u>10-20-08</u>	Vehicle No. <u>769</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL

James

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 15 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: Henry Wilson

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100095

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Zia</u>	Time <u>12:58</u> AM/PM <u>(M)</u>	
Date: <u>10-20-08</u>	Vehicle No. <u>769</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL	BBLS.	<u>15</u> YARDS
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AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

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DRIVER: <u>Henry W. Sipe</u>
FACILITY REPRESENTATIVE: <u>[Signature]</u>

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099699

Lease Operator/Shipper/Company:

Lease Name:

Transporter Company:

Time

AM/PM

Date:

Vehicle No.

Driver No.

Charge To:

TYPE OF MATERIAL

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☒ Other Materials

☐ BS&W Content:

Description:

☐ JETOUT

☒ CALLOUT

VOLUME OF MATERIAL

BBLS.

YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

FACILITY REPRESENTATIVE:

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100253

Lease Operator/Shipper/Company: Mia

Lease Name: Battery Day Disposal

Transporter Company: Mia

Time 10:40 AM/PM

Date: 10-21-08

Vehicle No. 630

Driver No. 630

Charge To: Mia

TYPE OF MATERIAL

- | | | |
|---|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input checked="" type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Solid old

- ☒ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

20 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: L. Fey

FACILITY REPRESENTATIVE: R. Costa

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099881

Lease Operator/Shipper/Company: Salty Dog

Lease Name: Salty Dog

Transporter Company: Eia

Time 12:30

AM/PM

Date: 10-18-08

Vehicle No. 630

Driver No. _____

Charge To: Salty Dog

TYPE OF MATERIAL

James

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

☐ JETOUT

☐ CALLOUT

Description: Salt

VOLUME OF MATERIAL

BBLS.

20 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 089903

Lease Operator/Shipper/Company: Salty Dog James
Lease Name: Salty Dog
Transporter Company: Zia Time 2:45 AM
Date: 10-18-08 Vehicle No. 630 Driver No. _____
Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 20 YARDS

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099924

Lease Operator/Shipper/Company: Salty dog James
Lease Name: Salty dog
Transporter Company: Zia Time 5:04 AM/PM
Date: 10-18-08 Vehicle No. 630 Driver No. _____
Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

20 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099942

Lease Operator/Shipper/Company: Saltydog James

Lease Name: Saltydog

Transporter Company: Zia Time 7:14 AM/PM (M)

Date: 10-18-08 Vehicle No. 630 Driver No. _____

Charge To: Saltydog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: salt

☒ JETOUT
☒ CALLOUT

VOLUME OF MATERIAL

BBLS.

20 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099707

Lease Operator/Shipper/Company: Salty dog

Lease Name: Salty dog

Transporter Company: ZIA Transports Time 3:50 AM/PM

Date: 10/17/08 Vehicle No. 544 Driver No. 544

Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|---|--|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input checked="" type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☒ CALLOUT

VOLUME OF MATERIAL

BBLS. 20 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

Randy Verett

FACILITY REPRESENTATIVE:

SIDP

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099710

Lease Operator/Shipper/Company: Salty Dog

Lease Name: Salty Dog

Transporter Company: Zia Time 6:00 AM/PM

Date: 10-17-08 Vehicle No. 544 Driver No. _____

Charge To: Salty dog

TYPE OF MATERIAL

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☐ Contaminated Soil

☐ C-117 No.:

☒ Other Materials

☐ BS&W Content:

☐ JETOUT

Description:

Salt

☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

20

YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: Randy Visetti

FACILITY REPRESENTATIVE: SOP

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099703

Lease Operator/Shipper/Company:

Salty Dog

Lease Name:

Salty Dog

Transporter Company:

~~Salty Dog~~ Zia

Time

2:00

AM/PM

Date:

10-17-08

Vehicle No.

354

Driver No.

Charge To:

~~Sundance~~ Salty Dog

TYPE OF MATERIAL



Produced Water



Drilling Fluids



Completion Fluids



Tank Bottoms



Contaminated Soil



C-117 No.:



Other Materials



BS&W Content:

Description:

R/W Salt

☐ JETOUT

☒ CALLOUT

VOLUME OF MATERIAL

BBLS.

20

YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

Randy Verita

FACILITY REPRESENTATIVE:

SOP

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100067

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Cavaria</u>	Time <u>11:08</u> (AM/PM)	
Date: <u>10-20-08</u>	Vehicle No. <u>1</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL	BBLS.	<u>12</u> YARDS
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AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER: <u>Gene Chawana SR</u>
FACILITY REPRESENTATIVE: <u>[Signature]</u>

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100068

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Green Caravan</u>	Time: <u>11:10</u>	<u>AM</u> /PM
Date: <u>10-20-09</u>	Vehicle No. <u>101</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: S/H

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: Green

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100070

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Wildcat</u>	Time <u>11:13</u> <u>AM</u> /PM	
Date: <u>10-20-08</u>	Vehicle No. <u>22</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL

Same 3

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Silt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: R. J. J. J.

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100071

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Wildcat</u>	Time <u>11:15</u> <u>AM</u> <u>PM</u>	
Date: <u>10-20-08</u>	Vehicle No. <u>23</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER: _____

FACILITY REPRESENTATIVE: _____

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100075

Lease Operator/Shipper/Company: <u>Sally Dog</u>		
Lease Name: <u>Sally Dog</u>		
Transporter Company: <u>B2I</u>	Time <u>11:22</u> <u>AM</u> /PM	
Date: <u>10-20-08</u>	Vehicle No. <u>03</u>	Driver No. _____
Charge To: <u>Sally Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>SH</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL	BBLs. <u>12</u> YARDS
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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100074

Lease Operator/Shipper/Company: S/Hy Dag

Lease Name: S/Hy Dag

Transporter Company: Ronquillo

Time 11:22 AM/PM

Date: 10-20-08

Vehicle No. TR2

Driver No. _____

Charge To: S/Hy Dag

TYPE OF MATERIAL

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

Description: S/Hy

☐ JETOUT

☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

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DRIVER: Joe Ronquillo

FACILITY REPRESENTATIVE: _____

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100077

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Canacho</u>	Time <u>11:40</u> <u>AM</u> /PM	
Date: <u>10-20-09</u>	Vehicle No. <u>20</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL	BBLS. <u>12</u>	YARDS
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DRIVER: <u>[Signature]</u>
FACILITY REPRESENTATIVE: <u>[Signature]</u>

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100047

Lease Operator/Shipper/Company: <u>Boyan Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Ranquillo 3</u>	Time: <u>9:22</u>	<u>AM</u> PM
Date: <u>10-20-08</u>	Vehicle No. <u>JR2</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL

James

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

FACILITY REPRESENTATIVE:

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100048

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>B.I.P.</u>	Time <u>9:23</u>	<u>AM</u> / <u>PM</u>
Date: <u>10-20-08</u>	Vehicle No. <u>03</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL	BBLS. <u>12</u> YARDS
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AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: <u>[Signature]</u>
FACILITY REPRESENTATIVE: <u>[Signature]</u>

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100050

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>EYM</u>	Time <u>9:34</u>	<u>AM</u> /PM
Date: <u>10-20-08</u>	Vehicle No. <u>04</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL	BBLs.	<u>12</u> YARDS
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AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:	<u>Alberto</u>
FACILITY REPRESENTATIVE:	<u>[Signature]</u>

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100051

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Comacho</u>	Time <u>9:35</u> AM/PM	
Date: <u>10-20-08</u>	Vehicle No. <u>20</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL

Tones

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Self

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100160

Lease Operator/Shipper/Company: Salty Dog James
Lease Name: Salty dog
Transporter Company: PROFS Trk. Time 4:10 AM/PM
Date: 10-20-08 Vehicle No. 332 Driver No. 332
Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

18 BBLS.

12 YARDS

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DRIVER: Mike Little

FACILITY REPRESENTATIVE: N Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 100083

Lease Operator/Shipper/Company: <u>Salty Dog</u>		
Lease Name: <u>Salty Dog</u>		
Transporter Company: <u>Caltrans</u>	Time <u>11:56</u> <u>AM</u> /PM	
Date: <u>10-20-08</u>	Vehicle No. <u>DL6</u>	Driver No. _____
Charge To: <u>Salty Dog</u>		

TYPE OF MATERIAL		
<input type="checkbox"/> Produced Water	<input type="checkbox"/> Drilling Fluids	<input type="checkbox"/> Completion Fluids
<input type="checkbox"/> Tank Bottoms	<input checked="" type="checkbox"/> Contaminated Soil	<input type="checkbox"/> C-117 No.:
<input type="checkbox"/> Other Materials	<input type="checkbox"/> BS&W Content:	
Description: <u>Salt</u>		<input type="checkbox"/> JETOUT <input type="checkbox"/> CALLOUT

VOLUME OF MATERIAL	BBLS.	<u>12</u> YARDS
--------------------	-------	-----------------

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER: <u>Chris George</u>
FACILITY REPRESENTATIVE: <u>[Signature]</u>

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099783

Lease Operator/Shipper/Company:

Satty Doag

JAMES

Lease Name:

Satty Doag

Transporter Company:

Gemini

Time

3:46

AM/PM

Date:

10-17-08

Vehicle No.

315

Driver No.

315

Charge To:

TYPE OF MATERIAL

☐

Produced Water

☐

Drilling Fluids

☐

Completion Fluids

☐

Tank Bottoms

☒

Contaminated Soil

☐

C-117 No.:

☐

Other Materials

☐

BS&W Content:

☐

JETOUT

☐

CALLOUT

Description:

Salt

VOLUME OF MATERIAL

BBLs.

12

YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

HUGO COBOS

FACILITY REPRESENTATIVE:

M. Espingua

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099778

Lease Operator/Shipper/Company: <u>Salty Dog</u>			James	
Lease Name: <u>salty dog</u>				
Transporter Company: <u>Gemini</u>			Time <u>3:35</u>	AM/PM <u>(P)</u>
Date: <u>10-17-08</u>	Vehicle No. <u>312</u>	Driver No. <u>312</u>		
Charge To: <u>Zin</u>				

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12

YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

[Signature]

FACILITY REPRESENTATIVE:

Al Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099772

Lease Operator/Shipper/Company: Salty Dog James

Lease Name: saltydog

Transporter Company: Zia Trans Time 3:07 AM/PM (P)

Date: 10-17-04 Vehicle No. 544 Driver No. 544

Charge To: Zia

TYPE OF MATERIAL

- | | | |
|--|---|---|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input checked="" type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs. 10 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: N. Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099767

Lease Operator/Shipper/Company: Saltydog James

Lease Name: Saltydog

Transporter Company: Tuff DAWG Time 2:44 AM/PM PM

Date: 10-17-08 Vehicle No. 309 Driver No. _____

Charge To: Saltydog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099808

Lease Operator/Shipper/Company: Salty Dog James
Lease Name: salty dog
Transporter Company: Edm Trucking Time 5:50 AM/PM
Date: 10-17-08 Vehicle No. 04 Driver No. 04
Charge To: 216

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

12 BBLs.

YARDS

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DRIVER: Albert Atta

FACILITY REPRESENTATIVE: N. Espinoza

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099817

Lease Operator/Shipper/Company:	Salty Dog		
Lease Name:	Salty Dog		
Transporter Company:	Zia	Time	7:11 AM/PM
Date:	10-17-08	Vehicle No.	544
Driver No.			
Charge To:	Salty Dog		

TYPE OF MATERIAL

- | | | |
|---|--|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input checked="" type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description:

Salt

- ☐ JETOUT
☒ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER:

Ric

FACILITY REPRESENTATIVE:

SAP

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099805

Lease Operator/Shipper/Company: Salty Dog James
Lease Name: Salty dog
Transporter Company: Gemini Time 5:40 AM/PM
Date: 10-17-08 Vehicle No. 315 Driver No. 315
Charge To: 214

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: HUGO COBOS

FACILITY REPRESENTATIVE: N. Spingola

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099726

Lease Operator/Shipper/Company: Salty Dog James
Lease Name: Salty Dog
Transporter Company: Gemini Time 9:54 AM/PM
Date: 10-17-08 Vehicle No. 312 Driver No. _____
Charge To: Salty Dog

TYPE OF MATERIAL

- | | | |
|---|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input checked="" type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099727

Lease Operator/Shipper/Company: Salty Dog James

Lease Name: Salty Dog

Transporter Company: Gemini Time 9:54 AM/PM

Date: 10-17-08 Vehicle No. 315 Driver No. _____

Charge To: Salty Dog

TYPE OF MATERIAL

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☒ Other Materials

☐ BS&W Content:

☐ JETOUT

☐ CALLOUT

Description: salt

VOLUME OF MATERIAL

BBLS. 12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: HUGO COBOS

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099728

Lease Operator/Shipper/Company: Salty Dog James
Lease Name: Salty Dog
Transporter Company: Yanney Time 10:08 AM/PM
Date: 10-17-08 Vehicle No. 2 Driver No. _____
Charge To: Salty Dog

TYPE OF MATERIAL

- | | | |
|--|--|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description:

salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 12 YARDS

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DRIVER:

James M. Yanney

FACILITY REPRESENTATIVE:

[Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099729

Lease Operator/Shipper/Company: Salty Dog James
Lease Name: central Drinker Salty Dog
Transporter Company: E-X-M TRK Time 10:19 AM/PM
Date: 10-17-08 Vehicle No. 04 Driver No. _____
Charge To: Salty Dog

TYPE OF MATERIAL

- | | | |
|---|--|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input checked="" type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description:

Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

Albert Allen

FACILITY REPRESENTATIVE:

[Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099732

Lease Operator/Shipper/Company:	Salty Dog		James	
Lease Name:	Salty Dog			
Transporter Company:	Zia	TRANSPORT	Time	10:50 AM/PM
Date:	10-17-03	Vehicle No.	544	Driver No.
Charge To:	Salty Dog			

TYPE OF MATERIAL

- | | | |
|---|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input checked="" type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description:

salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

[Signature]

FACILITY REPRESENTATIVE:

[Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099742

Lease Operator/Shipper/Company: Salty dog James

Lease Name: Salty dog

Transporter Company: James Time 12:00 AM/PM

Date: 10-17-08 Vehicle No. 2 Driver No. _____

Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs. 12 YARDS

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. 6901, ET SEQ., THE NM HEALTH AND SAF. CODE 361.001 ET SEQ., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: Jesus M. Garcia

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099740

Lease Operator/Shipper/Company: Salty dog

Lease Name: Salty dog

Transporter Company: Gemini

Time 11:50 AM PM

Date: 10-17-08

Vehicle No. 315

Driver No. _____

Charge To: Salty dog

TYPE OF MATERIAL

☐ Produced Water

☐ Drilling Fluids

☐ Completion Fluids

☐ Tank Bottoms

☒ Contaminated Soil

☐ C-117 No.:

☐ Other Materials

☐ BS&W Content:

Description: Salt

☐ JETOUT

☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

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DRIVER: HUGO COBOS

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099739

Lease Operator/Shipper/Company: Salty Dog James
Lease Name: Salty Dog
Transporter Company: Gemini Time 11:46 AM/PM
Date: 10-17-08 Vehicle No. 312 Driver No. _____
Charge To: Saltydog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs.

12 YARDS

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099747

Lease Operator/Shipper/Company: Salty dog James

Lease Name: Salty dog

Transporter Company: E+M TRK Time 12:16 AM/PM

Date: 10-17-08 Vehicle No. 04 Driver No. _____

Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|---|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input checked="" type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS. 12 YARDS

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DRIVER: Robert Allen

FACILITY REPRESENTATIVE: C. Johnson

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099753

Lease Operator/Shipper/Company: Salty dog James

Lease Name: Salty dog

Transporter Company: Tuff Daulb Time 1:05 AM/PM PM

Date: 10-17-08 Vehicle No. 309 Driver No. _____

Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs. 12 YARDS

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099752

Lease Operator/Shipper/Company: Salty dog James

Lease Name: Salty dog

Transporter Company: Zia Time 1:01 AM/PM PM

Date: 10-17-08 Vehicle No. 544 Driver No. _____

Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLs. 12 YARDS

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DRIVER: [Signature]

FACILITY REPRESENTATIVE: [Signature]

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099764

Lease Operator/Shipper/Company: Salty Dog James

Lease Name: Salty dog

Transporter Company: E.V. M TRK Time 2:10 AM/PM PM

Date: 10-17-08 Vehicle No. 4 Driver No. _____

Charge To: Salty Dog Zia

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description: salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER: Albert

FACILITY REPRESENTATIVE: Chen

Sundance Services, Inc.

P.O. Box 1737 ★ Eunice, New Mexico 88231

(575) 394-2511

Ticket # 099760

Lease Operator/Shipper/Company: Salty dog James

Lease Name: Salty dog

Transporter Company: Benini Time 1:45 AM/PM (P)

Date: 10-17-08 Vehicle No. 315 Driver No. _____

Charge To: Salty dog

TYPE OF MATERIAL

- | | | |
|--|---|--|
| <input type="checkbox"/> Produced Water | <input type="checkbox"/> Drilling Fluids | <input type="checkbox"/> Completion Fluids |
| <input type="checkbox"/> Tank Bottoms | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> C-117 No.: |
| <input type="checkbox"/> Other Materials | <input type="checkbox"/> BS&W Content: | |

Description:

Salt

- ☐ JETOUT
☐ CALLOUT

VOLUME OF MATERIAL

BBLS.

12 YARDS

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DRIVER: HUGO COBOS

FACILITY REPRESENTATIVE: [Signature]

Public Notice

Notice is hereby given that pursuant to the New Mexico Oil Conservation Division Regulations, the following application has been submitted for a discharge renewal to the Director of the Oil Conservation Division, P.O. Box 6429, 1220 South Saint Francis Drive, Santa Fe, NM 87505, (505) 476-3440.

The applicant, Salty Dog, Inc., PO Box 2724, Lubbock, TX 79408, has applied for a renewal to its existing discharge permit, BW-008. The facility is located approximately 12 miles West of Hobbs, New Mexico on Hwy. 62-180 in the NE $\frac{1}{4}$ of Section 5, Township 19 S., Range 36 E., Lea Co., New Mexico. The Facility produces and sells approximately 800 bbls. Of brine per day from an approved brine extraction well. Groundwater at this area is found at approximately 60 ft. and has chloride concentration that ranges from 75 milligrams per liter to 800 milligrams per liter and a total dissolved solids concentration that ranges from 500 milligrams per liter to 1500 milligrams per liter. The facility location is underlain by alluvial sediment and the Ogallala formation. The permit application addresses all phases of this operation.

Any interested person may obtain information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The application may be viewed at the above address or the Hobbs District Office at 1625 N. French Drive, Hobbs, NM, between 8:00 am and 4:00pm, Monday thru Friday, Prior to ruling on any proposed application, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of the notice, during which comments may be submitted and public hearing may be requested in by any interested person. Request for public hearing shall set forth the reasons why a hearing shall be held. A hearing will be held if the director determines that there is significant public interest.

Posted In Lovington Paper

Posted at Monte's Cafe HWY 62/180
1.5 miles East
of Salty Dog

IV. Snyder Ranches Inc.

PO Box 2158

Hobbs, NM 882414

V. Salty Dog produces and sells both fresh water and brine. The fresh water is contained in two 1000 bbl. Tanks. The brine pumped from the well approximately .5 miles to the storage facility. The brine is held here for purchase by trucking companies. There are never any trucks up around the well head.

VI. The fluids, both fresh and brine, are transferred to and from the brine well in through 3" black poly pipe that is 3/8" thick, buried to a depth of 18". This line is inspected daily for leak when the entire facility is inspected.

VII. See Attached bore sketch.

VIII.

Salty Dog Emergency Action Plan

1. Should an accidental release occur the following actions will take place
 - a. Call James Millett at 806-241-7405
 - b. Call Terry Wallace at 5753938353
 - c. Hire Vacuum Trucks from Zia Transports INC
 - d. Notify the Oil Conservation Division
 - e. Manager will arrive on site and determine further action necessary.
- IX. A water sample report will be provided to the OCD within 30 days of this submission from Daniel B. Stephens.
- X. Salty Dog INC. is committed to complying with all OCD rules. We will be leveling our site and installing tanks on a concrete loading pad. Salty Dog will also continue to provide quarterly production reports.

Notes:

1) Well pressured up to top gauge pressure of 400 psig was found to be faulty when calibrated chart recorder was connected, pressure was at only 200 psig. Operator agreed to pressure up cavern overnight to run Formation MIT at greater than 300 psig the next morning. C-103 with Formation MIT (4 hrs) will be mailed to OCD the week of 8/17/2009.

- The gauge has been replaced and the test was preformed.

2) Black frac tanks temporarily used to store and sell brine are not within bermed and lined containment area(s) until tanks can be installed and operational as per item 3 below. The operator shall step up inspections around the tanks for any leakage and reporting under release reporting in the permit. What is the date for permanent brine well tanks to be installed to replace temporary frac tanks?

- We have a twice daily inspection of the entrie brine facility. This inspection includes but is not limited to a visual walk around the frac tanks.
- Sometime after the first of the year we look to install the permant tanks.

3) Tanks installed to replace brine ponds are not in service yet. What is the date on installation and operation? OCD requires a liner system of sufficient mil thickness with adequate dimensions for containing $1 + \frac{1}{3}$ the volume of a single enclosed tank and interconnected tanks enclosed within the berm area. For guidelines see recent OCD Pit and/or Surface Waste Management Regulations.

- Yes we are aware and will use these rules for guidance.

4) A new mobile home was recently placed within 300 ft. W of the brine wellhead.

5) Operator claims it can't make 10 lb. brine under conventional flow regime.

- This is true

6) OCD received chart from MIT (run on 8/14/2009) with calibration sheet via mail on 8/28/09 indicating the unwitnessed Formation MIT passed without any pressure loss at 320 psig.

7) OCD notes that his facility is under an NOV with remedial or corrective action issues ongoing.

BW-8

**ANNUAL
REPORT**

2009

Index Page

- I. Injection Pressures*
- II. Production and Injection Volumes*
- III. Reverse Flow Records*
- IV. Analysis of Injection Fluid & Brine*
- V. Spill Report*
- VI. House Keeping*
- VII. Solid Waste Disposed*
- VIII. Ground Water Report*
- IX. Pressure Tests*
- X. Capacity / Cavity Configuration & Subsidence Survey (September Only)*

I.

Injection Pressures

Salty Dog Weekly Report

Date	5-17-10
Inspectors Name	
<u>Injection Pressure</u>	
Casing PSI	375
Tubing PSI	125

Date	6-7
Inspectors Name	
<u>Injection Pressure</u>	
Casing PSI	375
Tubing PSI	125

Date	5-24-10
Inspectors Name	
<u>Injection Pressure</u>	
Casing PSI	375
Tubing PSI	125

Date	6-14
Inspectors Name	
<u>Injection Pressure</u>	
Casing PSI	375
Tubing PSI	125

Date	5-31
Inspectors Name	
<u>Injection Pressure</u>	
Casing PSI	375
Tubing PSI	125

Date	6-21
Inspectors Name	
<u>Injection Pressure</u>	
Casing PSI	375
Tubing PSI	125

II.

Production and Injection Volumes

Monthly Report

Inspector Name	Jon Ammons
Date:	7-1-10

<u>Production/ Injection Volumes</u>		
Fresh water Injected		Gallons
Brine water Produced		Gallons

Fresh water Injected		Gallons
Brine water Produced		Gallons

<u>Reverse Flow Report</u>	
Date:	
Time Start:	
Time Stop:	
Total hours of reverse flow:	

Note: Reverse flow will be allowed only once a month for up to 24 hours for clean out.

<u>Reverse Flow Report</u>	
Date:	
Time Start:	
Time Stop:	
Total hours of reverse flow:	

Note: Reverse flow will be allowed only once a month for up to 24 hours for clean out.

<u>Reverse Flow Report</u>	
Date:	
Time Start:	
Time Stop:	
Total hours of reverse flow:	

Note: Reverse flow will be allowed only once a month for up to 24 hours for clean out.

<u>Housekeeping</u>		
Inspection	Inspectors Initials	Date:
Check proper operation of overflow devices	<i>RL</i>	<i>6-21</i>
Check for leaks	<i>RL</i>	<i>6-21</i>
Check for spills	<i>RL</i>	<i>6-21</i>

<u>Housekeeping</u>		
Inspection	Inspectors Initials	Date:
Check proper operation of overflow devices	<i>RL</i>	<i>6-21</i>
Check for leaks	<i>RL</i>	<i>6-21</i>
Check for spills	<i>RL</i>	<i>6-21</i>

<u>Housekeeping Report</u>		
Date:	6-19	
Malfunction:	Fresh Water Pump	
Correction and Date:	Replaced 6-21 w/ New Pump	
Note: All problems found shall be corrected within 48 hours and noted.		

<u>Housekeeping Report</u>		
Date:	6-19	
Malfunction:	Fresh Water Pump	
Correction and Date:	Replaced 6-21 w/ New Pump	
Note: All problems found shall be corrected within 48 hours and noted.		

<u>Housekeeping Report</u>		
Date:	6-19	
Malfunction:	Fresh Water Pump	
Correction and Date:	Replaced 6-21 w/ New Pump	
Note: All problems found shall be corrected within 48 hours and noted.		

[illegible][illegible]

III.

Reverse Flow Records

Monthly Report

Inspector Name	
Date:	

Production/ Injection Volumes

Fresh water Injected		Gallons
Brine water Produced		Gallons

Reverse Flow Report ⚡

Date:	
Time Start:	
Time Stop:	
Total hours of reverse flow:	

Note: Reverse flow will be allowed only once a month for up to 24 hours for clean out.

Housekeeping

Inspection	Inspectors Initials	Date:
Check proper operation of overfill devices		
Check for leaks		
Check for spills		

Housekeeping Report

Date:	
Malfunction:	
Correction and Date:	

Note: All problems found shall be corrected within 48 hours and noted.

Additional Notes

No Reverse flow recorded in the 2nd quarter of 2010.

J. J. Mat

IV.

Analysis of Injection Fluid & Brine

V.

Spill Report

Monthly Report

Inspector Name	Jon Ammons
Date:	7-1-10

Production/ Injection Volumes

Fresh water Injected		Gallons
Brine water Produced		Gallons

Reverse Flow Report

Date:	
Time Start:	
Time Stop:	
Total hours of reverse flow:	

Note: Reverse flow will be allowed only once a month for up to 24 hours for clean out.

Housekeeping

Inspection	Inspectors Initials	Date:
Check proper operation of overfill devices	JA	6-21
Check for leaks	JA	6-21
Check for spills	JA	6-21

Housekeeping Report

Date:	6-19
Malfunction:	Fresh Water Pump
Correction and Date:	Replaced 6-21 w/ New Pump
Note: All problems found shall be corrected within 48 hours and noted.	

Additional Notes

No spills reported in the 2nd quarter of 2010.

Jeff Mart

VI.

House Keeping

Monthly Report

Inspector Name	Jon Ammons
Date:	7-1-10

<u>Production/ Injection Volumes</u>		
Fresh water Injected		Gallons
Brine water Produced		Gallons

<u>Reverse Flow Report</u>	
Date:	
Time Start:	
Time Stop:	
Total hours of reverse flow:	

Note: Reverse flow will be allowed only once a month for up to 24 hours for clean out.

<u>Reverse Flow Report</u>	
Date:	
Time Start:	
Time Stop:	
Total hours of reverse flow:	

Note: Reverse flow will be allowed only once a month for up to 24 hours for clean out.

<u>Reverse Flow Report</u>	
Date:	
Time Start:	
Time Stop:	
Total hours of reverse flow:	

Note: Reverse flow will be allowed only once a month for up to 24 hours for clean out.

<u>Housekeeping</u>		
Inspection	Inspectors Initials	Date:
Check proper operation of overflow devices	RL	6-21
Check for leaks	RL	6-21
Check for spills	RL	6-21

<u>Housekeeping</u>		
Inspection	Inspectors Initials	Date:
Check proper operation of overflow devices	RL	6-21
Check for leaks	RL	6-21
Check for spills	RL	6-21

<u>Housekeeping Report</u>	
Date:	6-19
Malfunction:	Fresh Water Pump
Correction and Date:	Replaced 6-21 w/ New Pump
Note: All problems found shall be corrected within 48 hours and noted.	

<u>Housekeeping Report</u>	
Date:	6-19
Malfunction:	Fresh Water Pump
Correction and Date:	Replaced 6-21 w/ New Pump
Note: All problems found shall be corrected within 48 hours and noted.	

<u>Housekeeping Report</u>	
Date:	6-19
Malfunction:	Fresh Water Pump
Correction and Date:	Replaced 6-21 w/ New Pump
Note: All problems found shall be corrected within 48 hours and noted.	

[illegible]

VII.

Solid Waste Disposed

Solid Waste Disposed Report

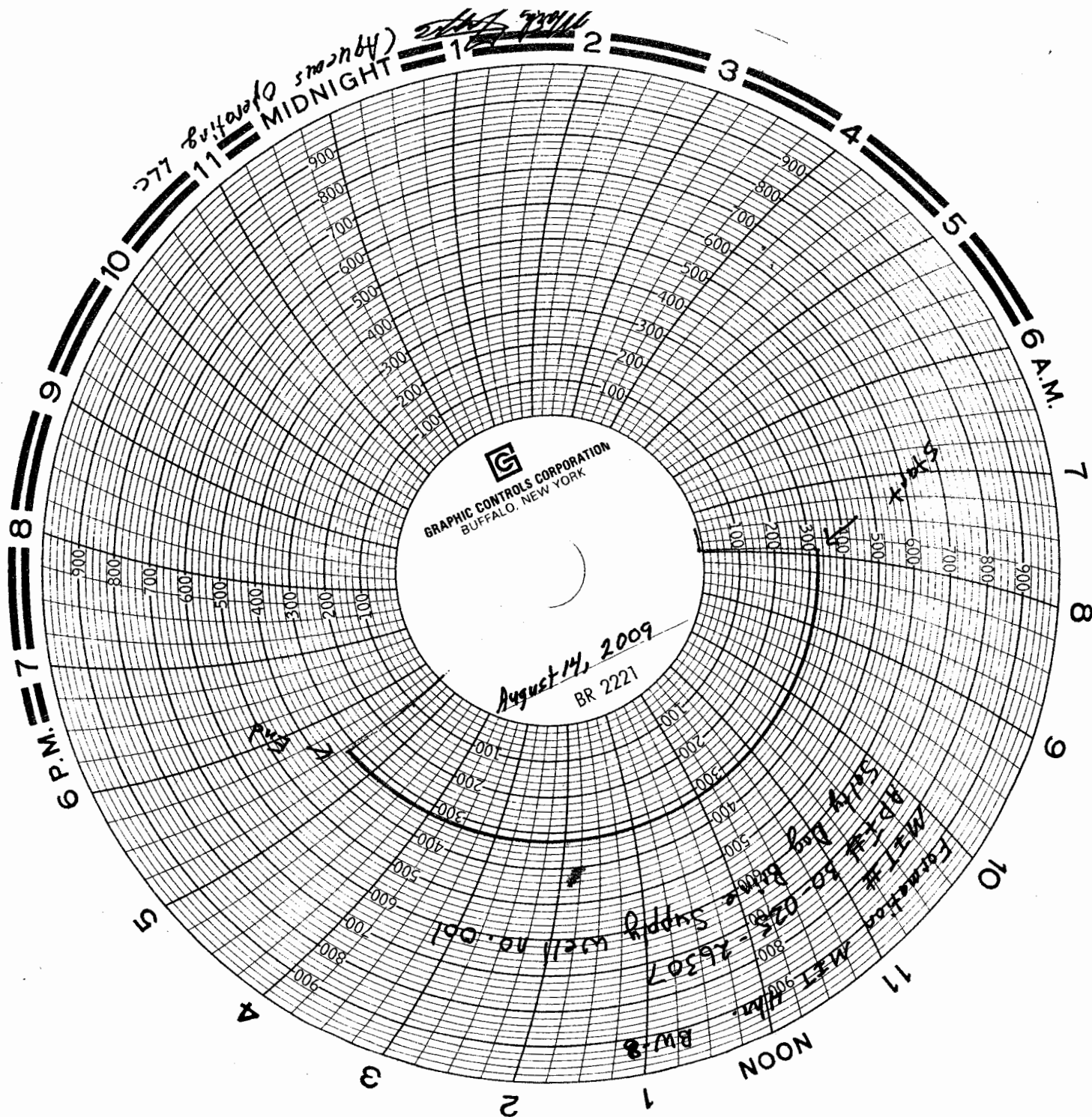
No solid waste was disposed of in the 2nd Quarter of 2010

VIII.

Ground Water Report

IX.

Pressure Tests



X.

**Capacity / Cavity
Configuration &
Subsidence Survey**



SOCON Sonar Well Services, Inc.

ECHO – LOG

Salty Dog, Inc.

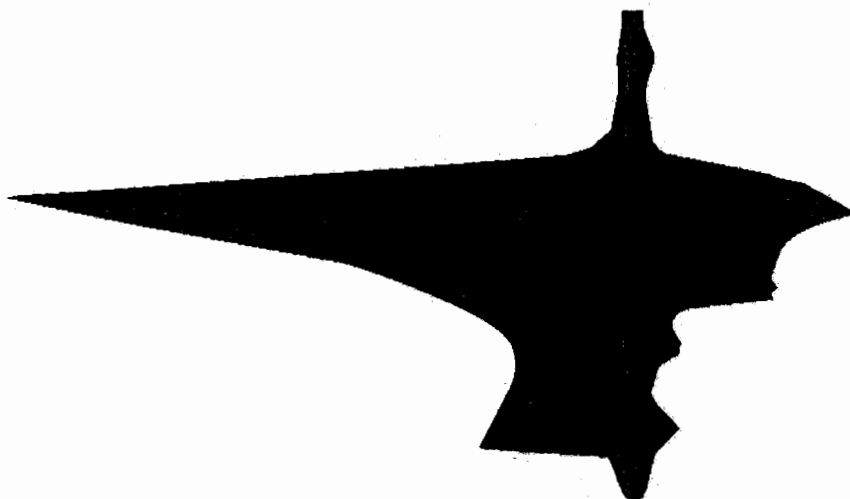
Brine Well No: 1

Hobbs, New Mexico

First SOCON Sonar Well Services Survey

02/05/2009

093013



SOCON Sonar Well Services, Inc.

11133 I-45 South, Ste. E

Conroe, Texas 77302

Phone (936) 441-5801

Fax (936) 539-6847

e-mail: soconusa@socon.com



SOCON Sonar Well Services, Inc.

Brine Well No: 1

093013

02/05/2009

**Results of the Cavern Survey
by means of Echo-Sounding
in the cavern**

Brine Well No: 1

Date: 02/05/2009

093013

Customer:

Salty Dog Inc.

Lubbock, Texas

Responsible for the survey:

Surveyor:	HL Van Metre
Leadership:	Mr. James Millet
Interpreter:	HL Van Metre
Control:	Mr. Richard Lawrence



Contents

Summary of results

Legend

Enclosures:

Volume (diagrams and lists)

Diameter and radii (diagrams and lists)

Perspective views

Maximum plots (top view)

Horizontal sections

Maximum plot (side view)

Vertical sections



Summary of results

Well details

All depths are given as:	MD
Datum level for all depths:	surface
Shoe of the cemented 5-1/2" - casing:	1871.0 ft
Reference depth for ECHO-LOG:	1871.0 ft
Depth correction:	0.0 ft
Pressure at the well head:	0.0 psi

Details of survey equipment

Measuring vehicle used:	Grey Wireline
Tools used:	XN02 - R185

General details

Number of runs:	1
Measured horizontal sections:	18
Measured tilted sections:	0
Lowest survey depth:	1903.0 ft

**Maximum and minimum dimensions with ref. to the measuring axis**

Reference direction:

magnetic north

Determination out of 12 vertical sections derived from horizontally and tilted measured data at 15 degree intervals:

Minimum radius: 0.0 ft
Depth: 1903.1 ft
Direction: 0°

Maximum radius: 38.2 ft
Depth: 1882.0 ft
Direction: 195°

Highest point of cavern: 1871.0 ft
Horizontal distance: 0.6 ft
Direction: 0°

Lowest point of cavern: 1903.1 ft
horizontal distance: 0.0 ft
Direction: 0°

Lowest point in the measuring axis: 1903.1 ft

Determination out of 18 horizontal sections in the depths between 1871 feet and 1903 feet at 5 degree intervals:

Maximum radius: 41.0 ft
Depth: 1882.0 ft
Direction: 200°

Maximum diameter: 52.1 ft
Depth: 1882.0 ft
Direction: 20 - 200°

Volume

Volume: 720.0 Bbls

Depth range: 1871.0 ft <--> 1903.0 ft



Interpretation

Supposing a rectilinear propagation of ultrasonic waves all recorded echo travel times were converted into distances by using the subsequent speeds of sound:

5020 feet/second to 5020 feet/second in brine (measured)

In the case of recording several echoes along one trace of echo signals, the representative echo signal was selected according to the level of amplitude, transmission time, and density of measured points and the shape of the cavern.

Horizontal sections

18 horizontal sections at following measured depths are included as graphical plots in this report:

1871.0 ft	1872.0 ft	1874.0 ft	1876.0 ft	1878.0 ft	1880.0 ft	1882.0 ft
1884.0 ft	1886.0 ft	1888.0 ft	1890.0 ft	1892.0 ft	1894.0 ft	1896.0 ft
1898.0 ft	1900.0 ft	1902.0 ft	1903.0 ft			

Tilted sections

0 sections recorded with tilted echo-transducer at following measured depths are presented in the vertical sections:

Vertical sections

The shape of the cavern was determined by interpretation of all horizontally and tilted measured data and is presented by 36 vertical sections in this report.



Maximum plots (top view)

The maximum plot presents the largest extension of the cavern in a top view. The first picture shows the areas of all horizontal sections and the area resulting out of the vertical sections (hatched). The resulting total area is shown in the second picture (cross hatching) together with the largest single area.

In both pictures the total centre of gravity of the cavern is shown with its distance and its direction referring to the measuring axis.

The total centre of gravity is derived out of the envelope, which is the connection line of the largest cavern extension in every direction

Perspective views

Several perspective drawings are included in this report to give a quick review of detailed relations.

Pockets in the cavern wall

Pockets in the cavern wall, which have been identified by the tilted echo-transducer, were transferred from the vertical sections to the respective horizontal sections.

The resulting additional areas have been added to the calculated areas.



LEGEND

- Measured point recorded with horizontal adjusted ultrasonic transducer
- Measured point recorded with tilted or vertical orientated ultrasonic transducer
- ▲ Interpolated point derived from the vertical sections
- Connection line between two measured points in order to calculate the volume
- Assumed connection line (in areas which are not sufficiently covered by measured points)
- N Magnetic north determined with compass inside the tool
(Magnetic compass in areas without tubing)
(Fibre gyro compass in areas with tubing)
- (N) Assumed north direction (for sections in magnetic disturbed surroundings without fibre gyro compass)
- a Longest extension in section
(Without considering of hidden leached pockets)
- b Longest extension in section perpendicular to a
(Without considering of hidden leached pockets)
- a/b Ratio of longest extensions in section which are perpendicular to each other
- (xx m²) Area in actual section resulting from hidden leached pockets
- r~ Average radius

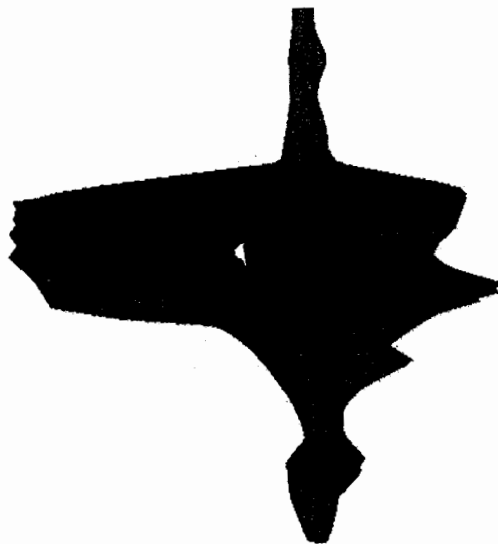


SOCON Sonar Well Services, Inc.

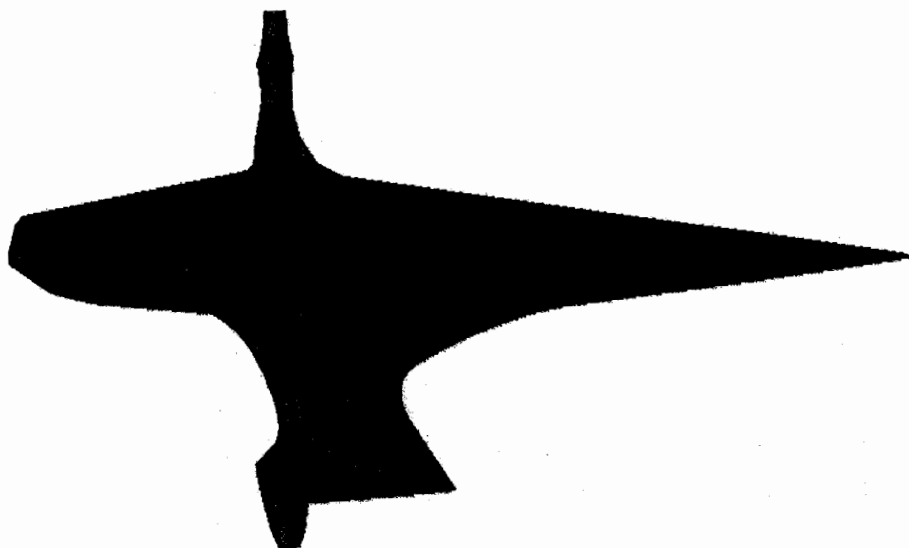
Brine Well No: 1

093013

02/05/2009



Brine Well No: 1 --> 0° <--



Brine Well No: 1 --> 60° <--

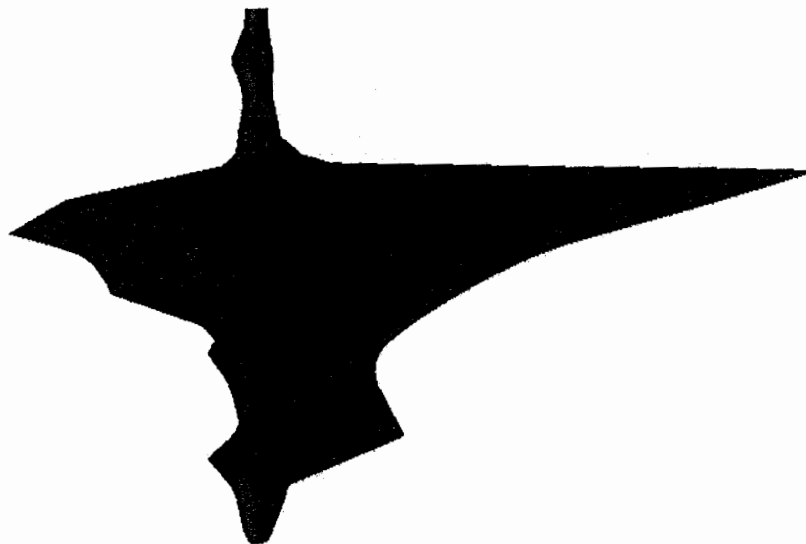


SOCON Sonar Well Services, Inc.

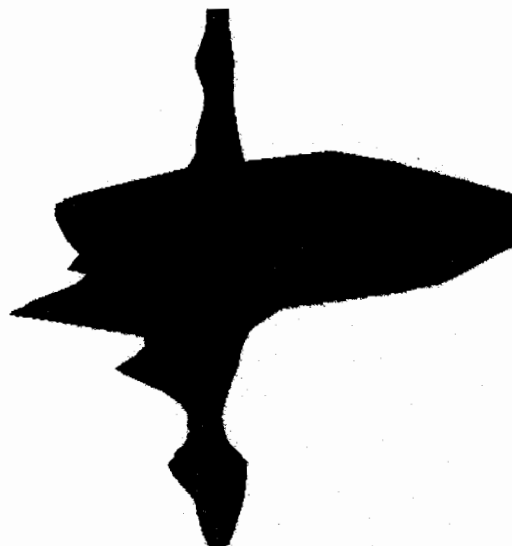
Brine Well No: 1

093013

02/05/2009



Brine Well No: 1 --> 120° <--



Brine Well No: 1 --> 180° <--

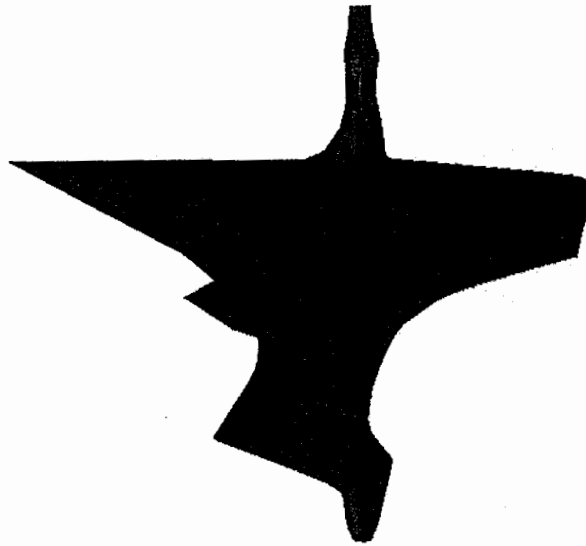


SOCON Sonar Well Services, Inc.

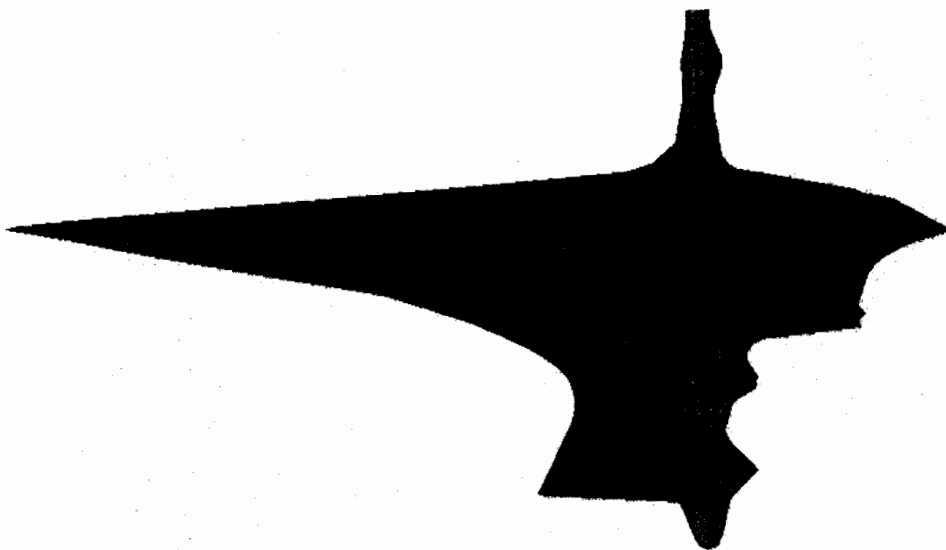
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093013

02/05/2009



Brine Well No: 1 --> 240° <--



Brine Well No: 1 --> 300° <--

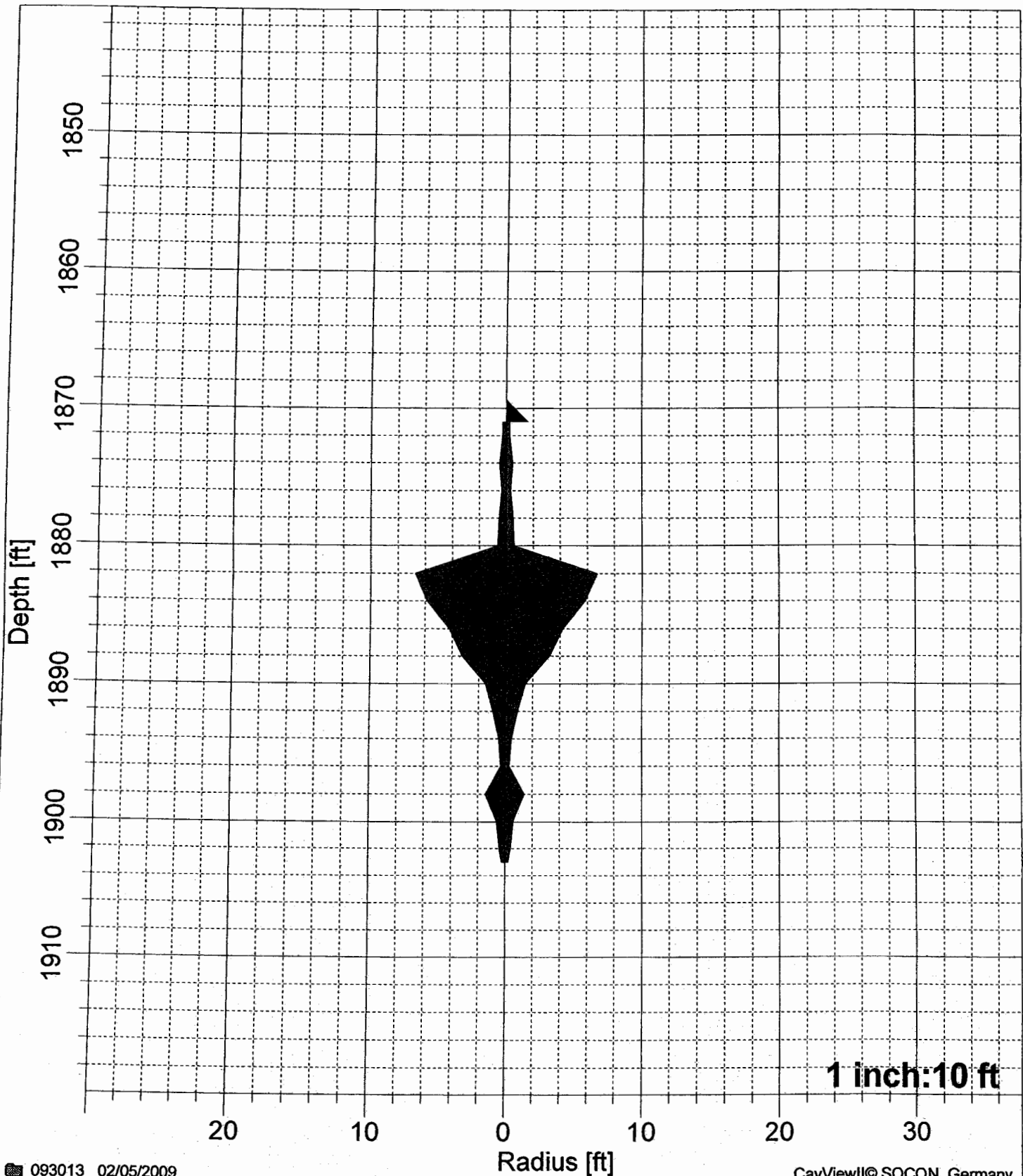


SOCON Sonar Well Services, Inc.

Brine Well No: 1

AVERAGE RADIUS

02/05/2009



5-1/2" : 1871.0 ft

Average radius (02/05/2009)

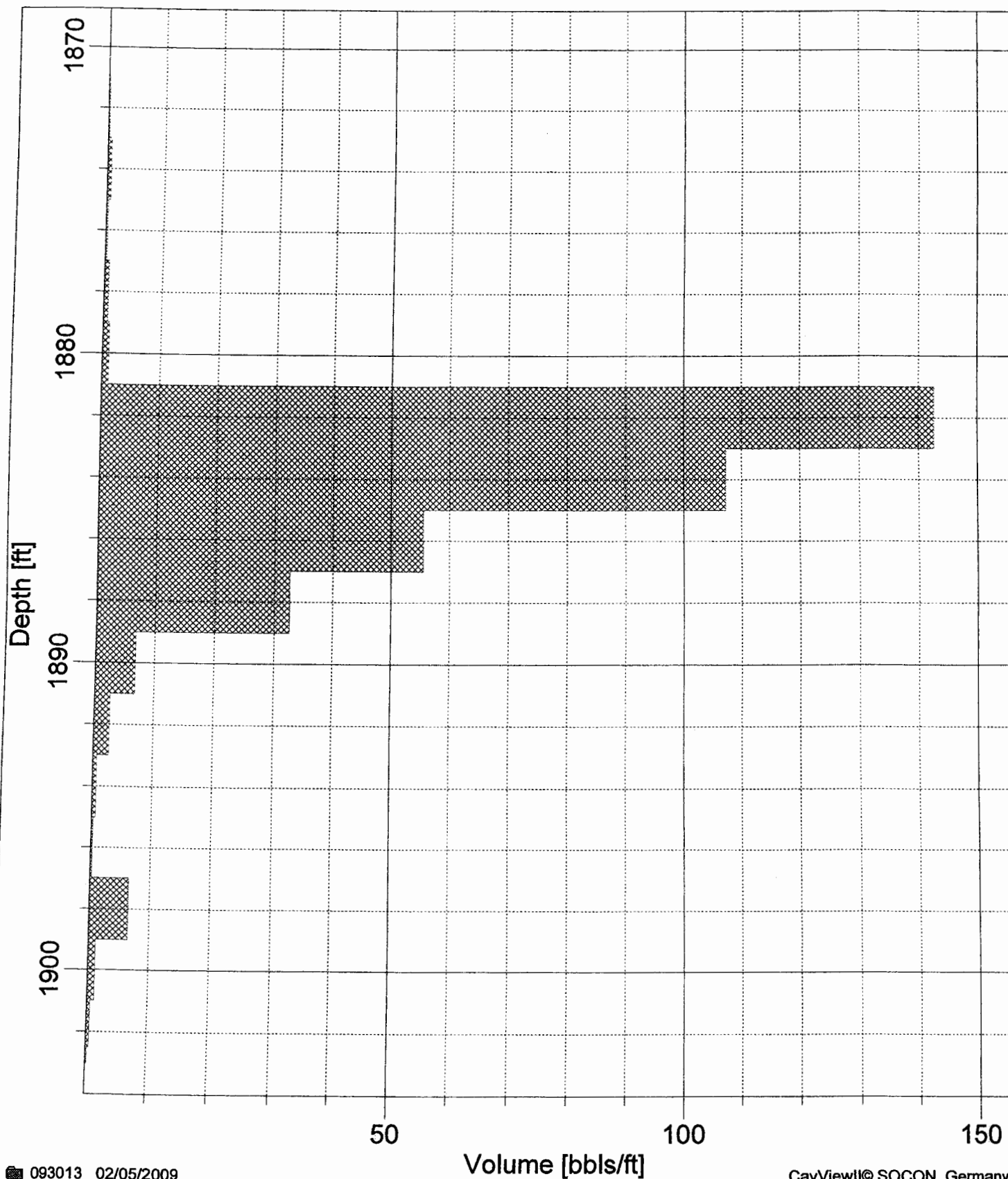


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Brine Well No: 1

PARTIAL VOLUME

02/05/2009



093013 02/05/2009

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Partial volume



SOCON Sonar Well Services, Inc.

Volume list

Brine Well No: 1

093013

02/05/2009

Depth [ft]	Radius [ft]	Area [ft ²]	Depth range [ft]		Volume [bbls]	
			from	to	partial	total
1871.0	0.6	1	1871.0	1871.5	0	0
1872.0	0.7	1	1871.5	1873.0	0	0
1874.0	1.1	4	1873.0	1875.0	1	2
1876.0	0.8	2	1875.0	1877.0	1	3
1878.0	1.2	5	1877.0	1879.0	2	4
1880.0	1.5	7	1879.0	1881.0	2	7
1882.0	16.0	800	1881.0	1883.0	285	292
1884.0	13.8	602	1883.0	1885.0	214	506
1886.0	10.0	312	1885.0	1887.0	111	617
1888.0	7.6	183	1887.0	1889.0	65	683
1890.0	3.5	38	1889.0	1891.0	14	696
1892.0	2.2	15	1891.0	1893.0	5	702
1894.0	1.1	4	1893.0	1895.0	1	703
1896.0	0.8	2	1895.0	1897.0	1	704
1898.0	3.4	37	1897.0	1899.0	13	717
1900.0	1.5	7	1899.0	1901.0	2	719
1902.0	1.0	3	1901.0	1902.5	1	720
1903.0	0.6	1	1902.5	1903.0	0	720

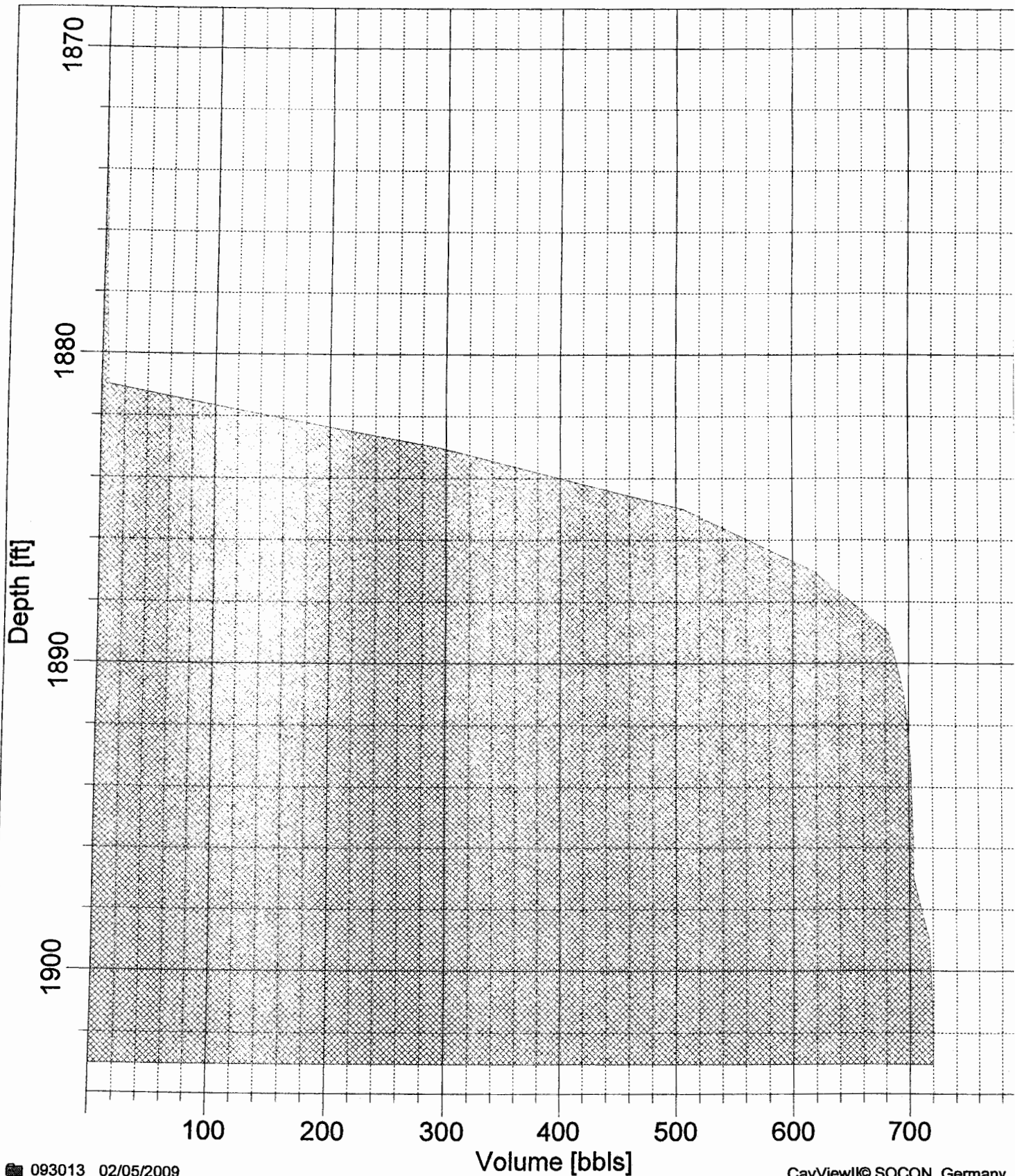


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Brine Well No: 1

TOTAL VOLUME

02/05/2009



093013 02/05/2009

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Total volume = 720.0 bbls



SOCON Sonar Well Services, Inc.

Table of volumes (foot by foot)

Job-No.: 093013, Name: Brine Well No: 1, Date: 02/05/2009

depth [ft]	volume [bbls]	depth [ft]	volume [bbls]	depth [ft]	volume [bbls]	depth [ft]	volume [bbls]	depth [ft]	volume [bbls]
		1871	0	1872	0	1873	0	1874	1
1875	2	1876	2	1877	3	1878	3	1879	4
1880	5	1881	7	1882	149	1883	292	1884	399
1885	506	1886	562	1887	617	1888	650	1889	683
1890	689	1891	696	1892	699	1893	702	1894	702
1895	703	1896	703	1897	704	1898	710	1899	717

1900	718	1901	719	1902	720	1903	720		

Brine Well No: 1 Report number: 093013 Date: 02/05/2009

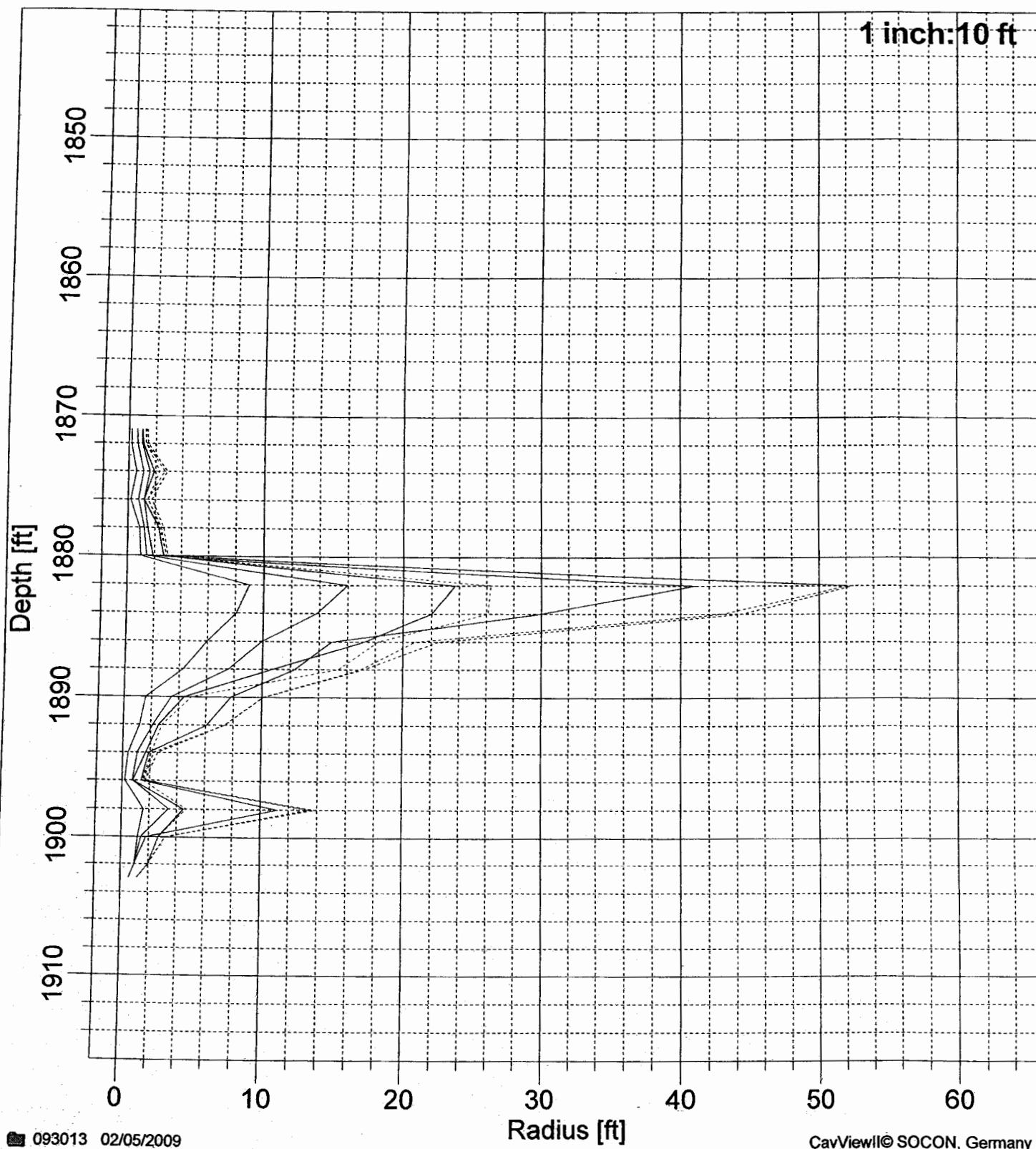


SOCON Sonar Well Services, Inc.

Brine Well No: 1

RADII / DIAMETERS

02/05/2009



— Average radius
— Minimum diameter
— Largest perpendicular extension

— Minimum radius
— Maximum diameter

— Maximum radius
— Largest extension



SOCON Sonar Well Services, Inc.

Table of radii and diameters

Brine Well No: 1

093013

02/05/2009

Depth [ft]	Radius [MIN]		Radius [MAX]		Diameter [MIN]		[MAX]	
	[ft]	[°]	[ft]	[°]	[ft]	[°]	[ft]	[°]
1871.0	0.2	121	1.0	240	1.0	22 <-> 202	1.3	60 <-> 240
1872.0	0.2	76	1.0	240	1.1	173 <-> 353	1.3	45 <-> 225
1874.0	0.6	122	1.6	0	1.9	122 <-> 302	2.7	5 <-> 185
1876.0	0.2	110	1.2	235	1.2	167 <-> 347	1.5	45 <-> 225
1878.0	0.9	37	1.5	220	2.3	15 <-> 195	2.5	155 <-> 335
1880.0	1.0	72	1.9	255	2.7	165 <-> 345	2.9	45 <-> 225
1882.0	9.0	95	41.0	200	23.7	145 <-> 325	52.1	20 <-> 200
1884.0	8.1	117	29.9	195	22.0	65 <-> 245	43.0	20 <-> 200
1886.0	6.0	107	14.9	290	17.2	75 <-> 255	20.9	110 <-> 290
1888.0	4.3	292	12.3	75	10.7	15 <-> 195	17.0	75 <-> 255
1890.0	1.6	277	7.8	155	4.4	85 <-> 265	10.1	160 <-> 340
1892.0	1.2	2	6.1	100	2.6	2 <-> 182	7.4	100 <-> 280
1894.0	0.4	246	1.9	75	1.7	12 <-> 192	2.3	75 <-> 255
1896.0	0.2	216	1.4	80	0.8	19 <-> 199	1.6	95 <-> 275
1898.0	1.6	307	11.2	180	4.5	115 <-> 295	13.4	0 <-> 180
1900.0	1.2	117	1.8	220	2.7	122 <-> 302	3.2	40 <-> 220
1902.0	1.0	2	1.0	0	2.0	2 <-> 182	2.0	0 <-> 180
1903.0	0.6	2	0.6	0	1.2	2 <-> 182	1.2	0 <-> 180



Brine Well No: 1

02/05/2009

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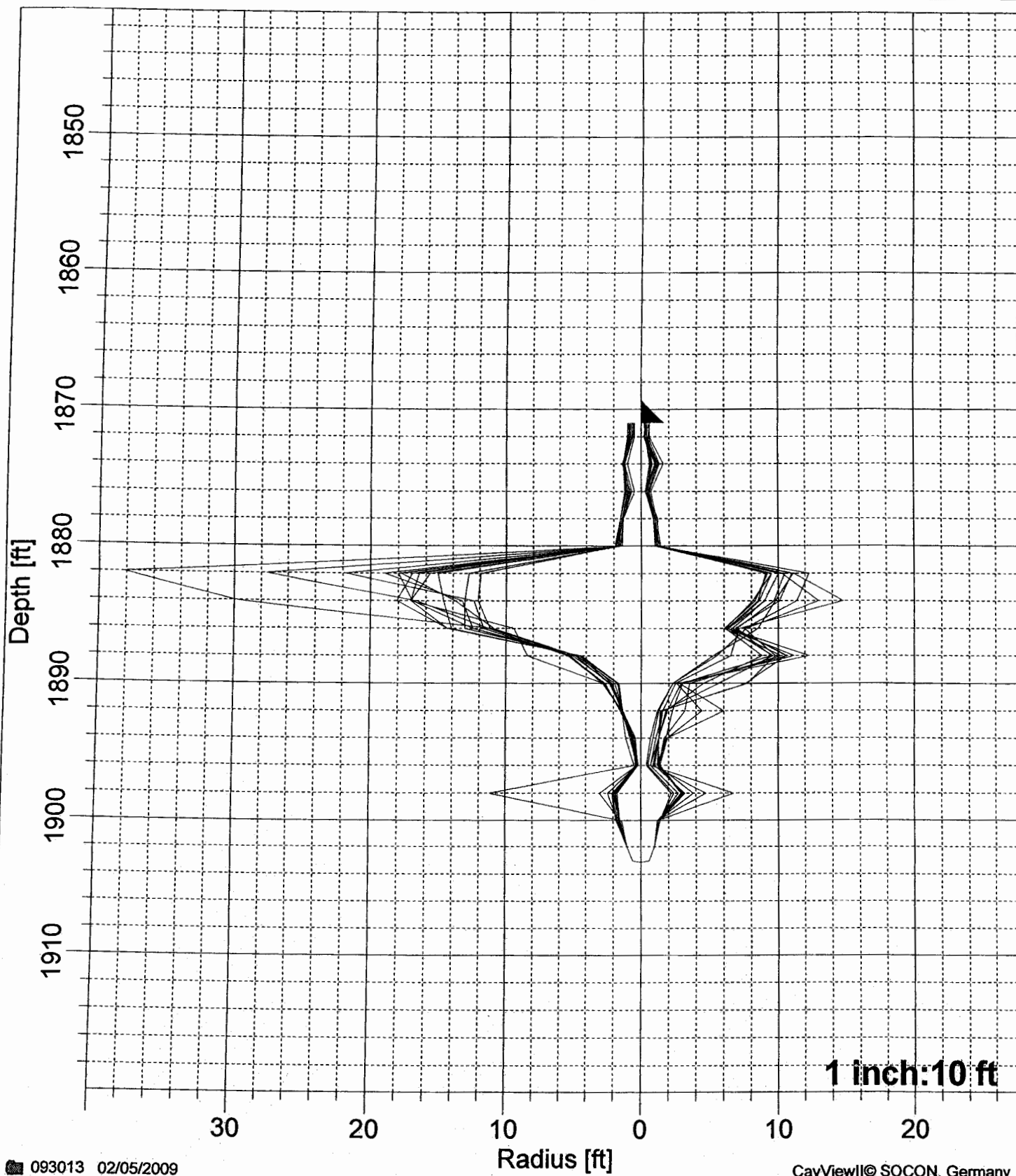


SOCON Sonar Well Services, Inc.

Brine Well No: 1

MAXPLOT

02/05/2009



093013 02/05/2009

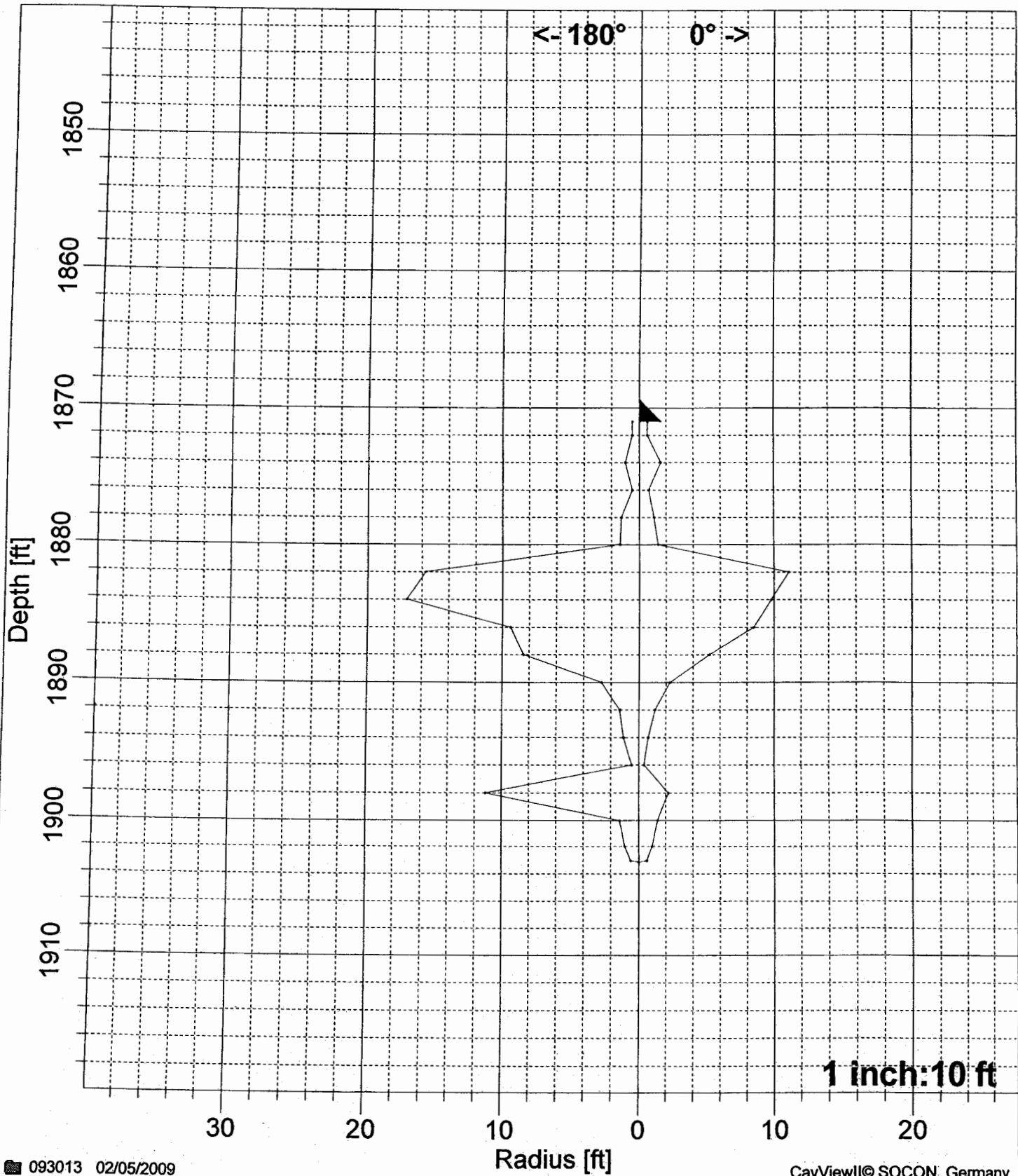
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5-1/2" : 1871.0 ft

Brine Well No: 1

02/05/2009



093013 02/05/2009

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(02/05/2009)

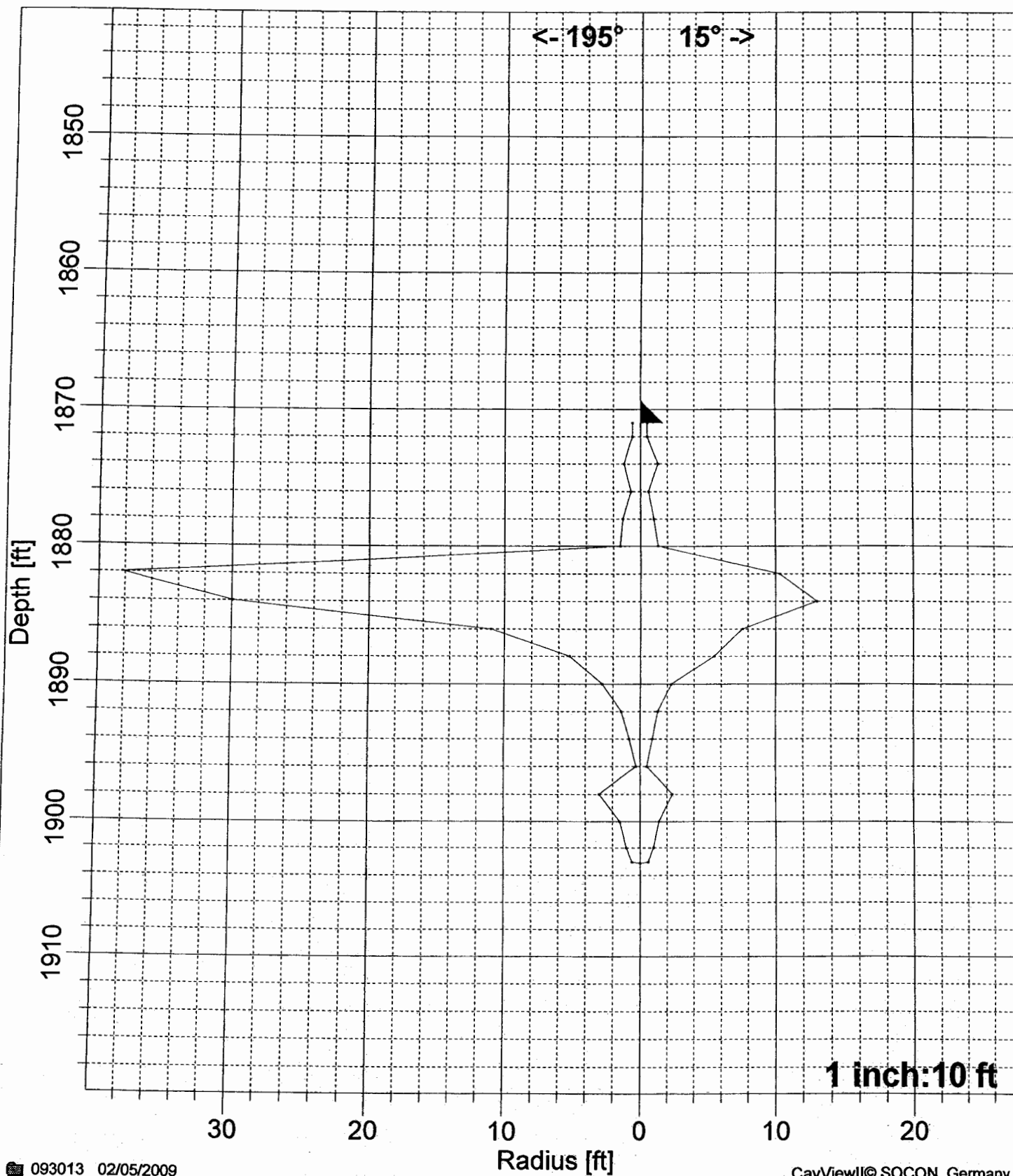
5-1/2" : 1871.0 ft



SOCON Sonar Well Services, Inc.

Brine Well No: 1

02/05/2009



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(02/05/2009)

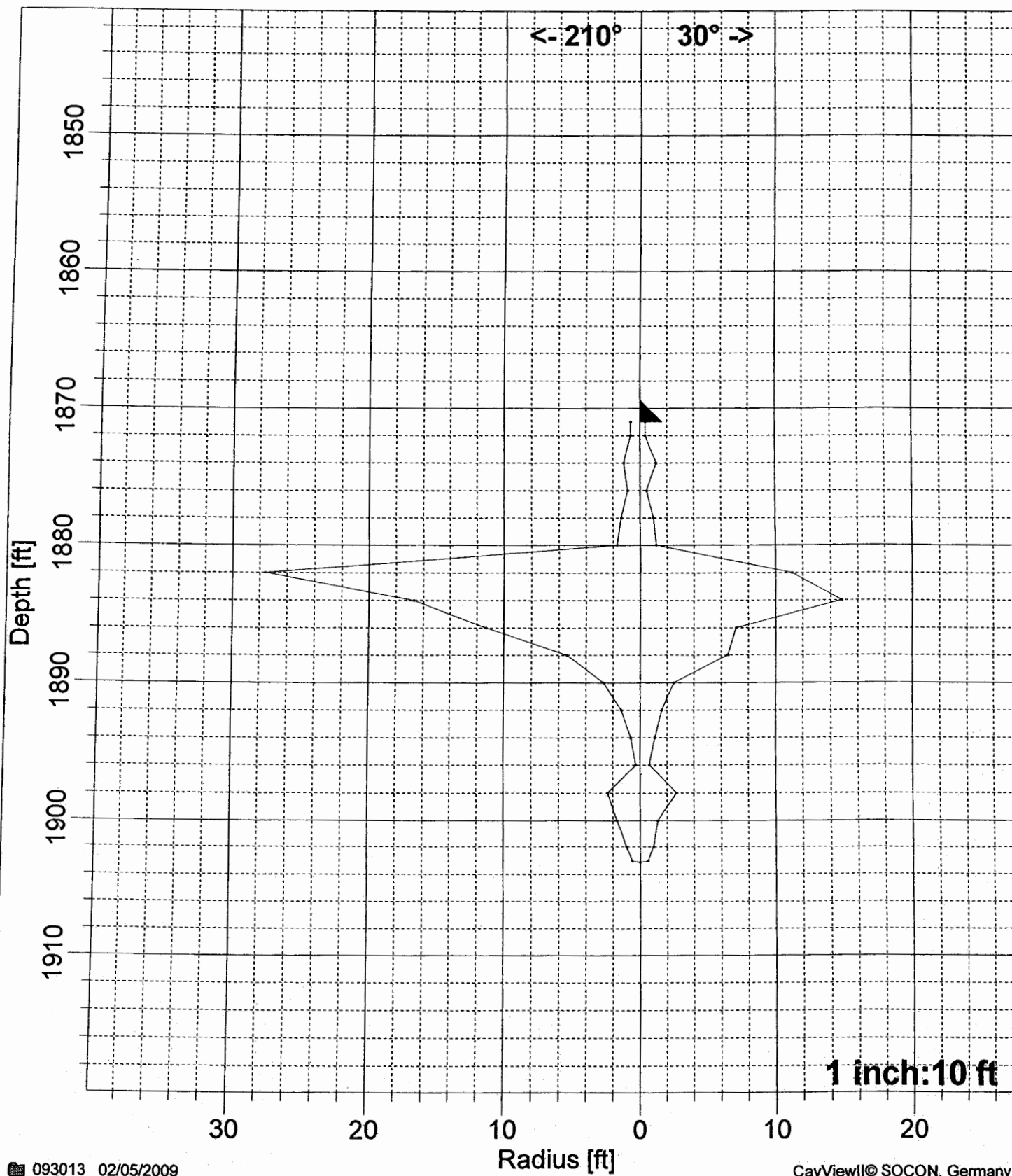
5-1/2" : 1871.0 ft



SOCON Sonar Well Services, Inc.

Brine Well No: 1

02/05/2009



(02/05/2009)

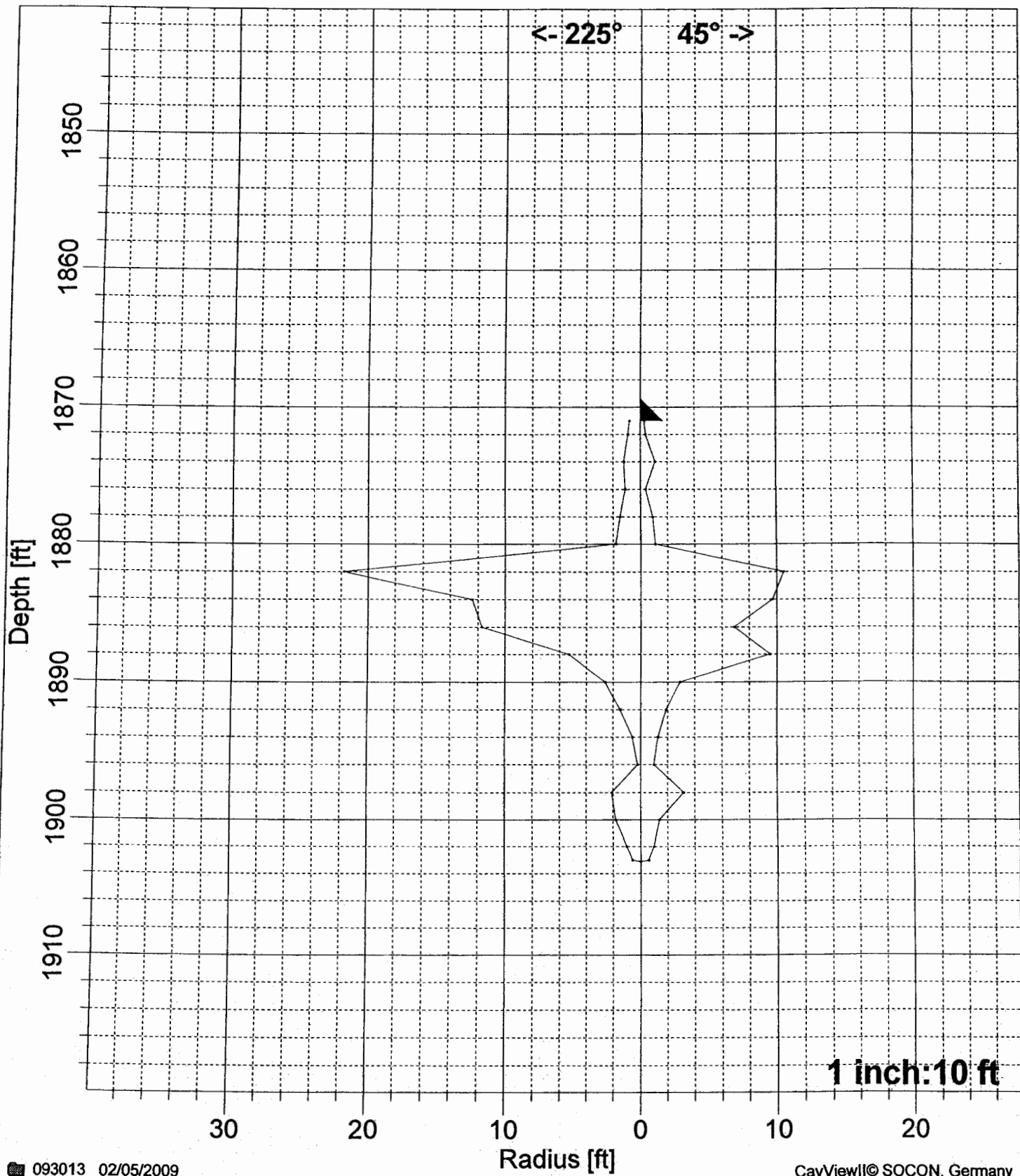
5-1/2" : 1871.0 ft



SOCON Sonar Well Services, Inc.

Brine Well No: 1

02/05/2009

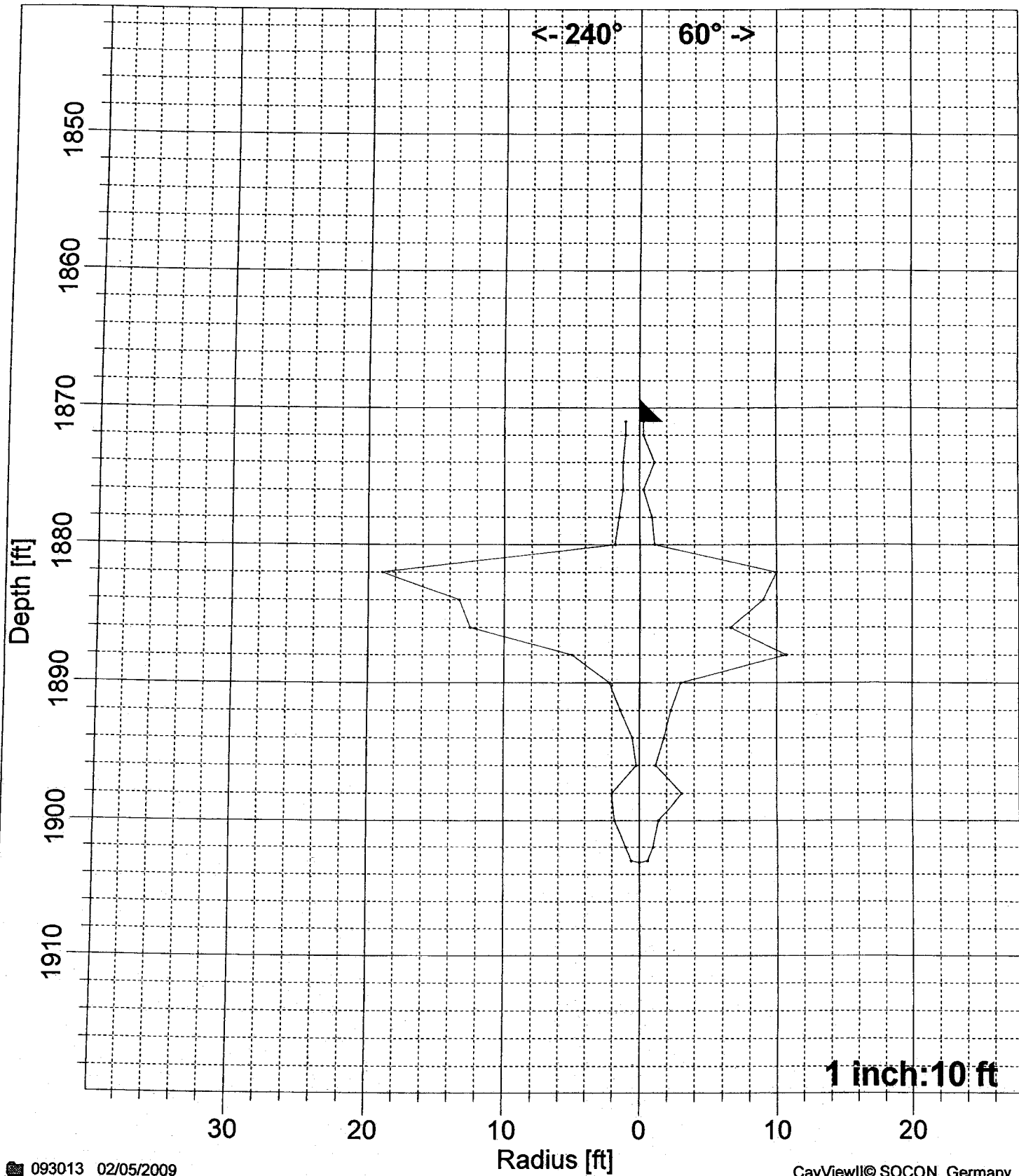




SOCON Sonar Well Services, Inc.

Brine Well No: 1

02/05/2009



(02/05/2009)

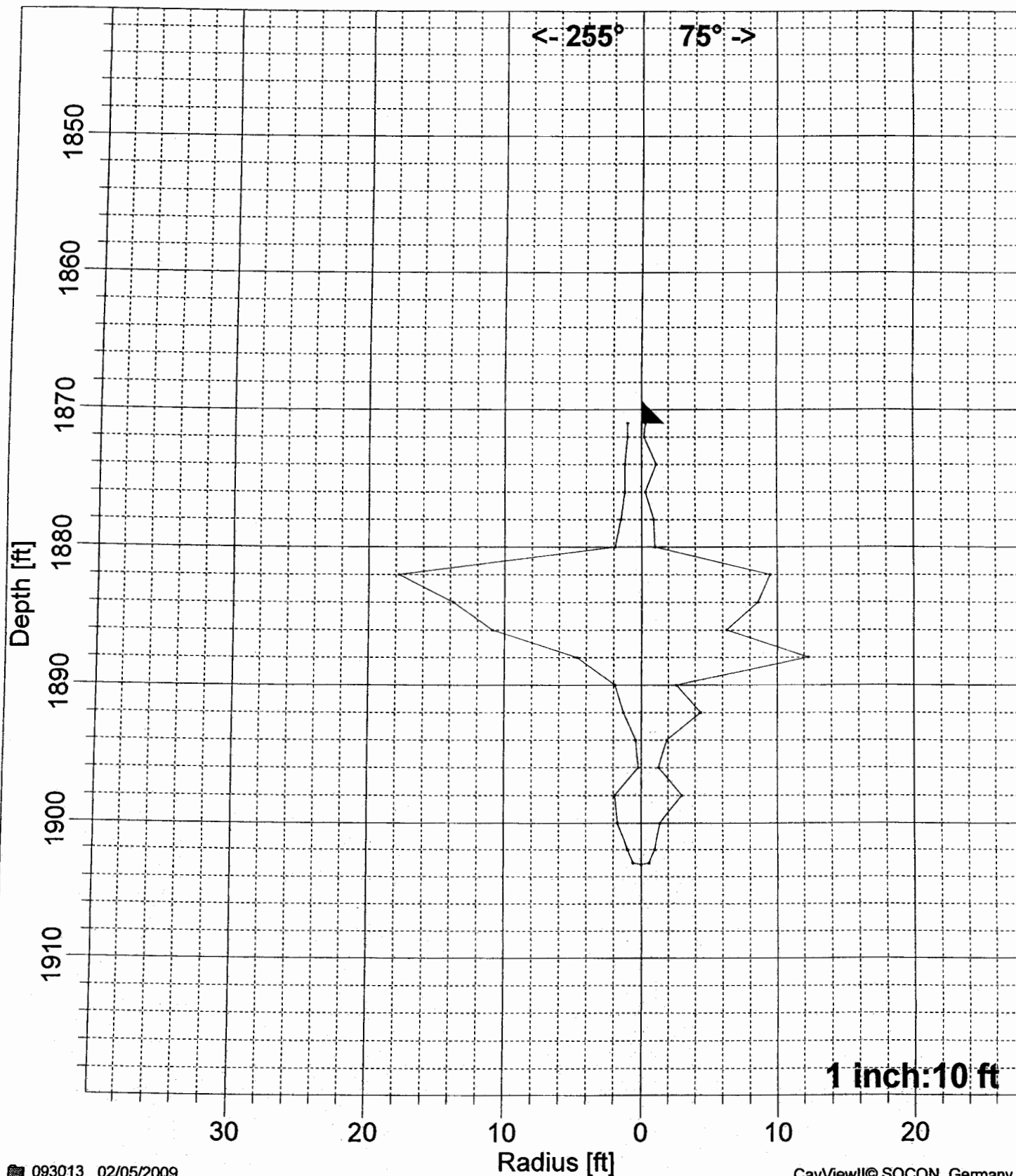
5-1/2" : 1871.0 ft



SOCON Sonar Well Services, Inc.

Brine Well No: 1

02/05/2009



093013 02/05/2009

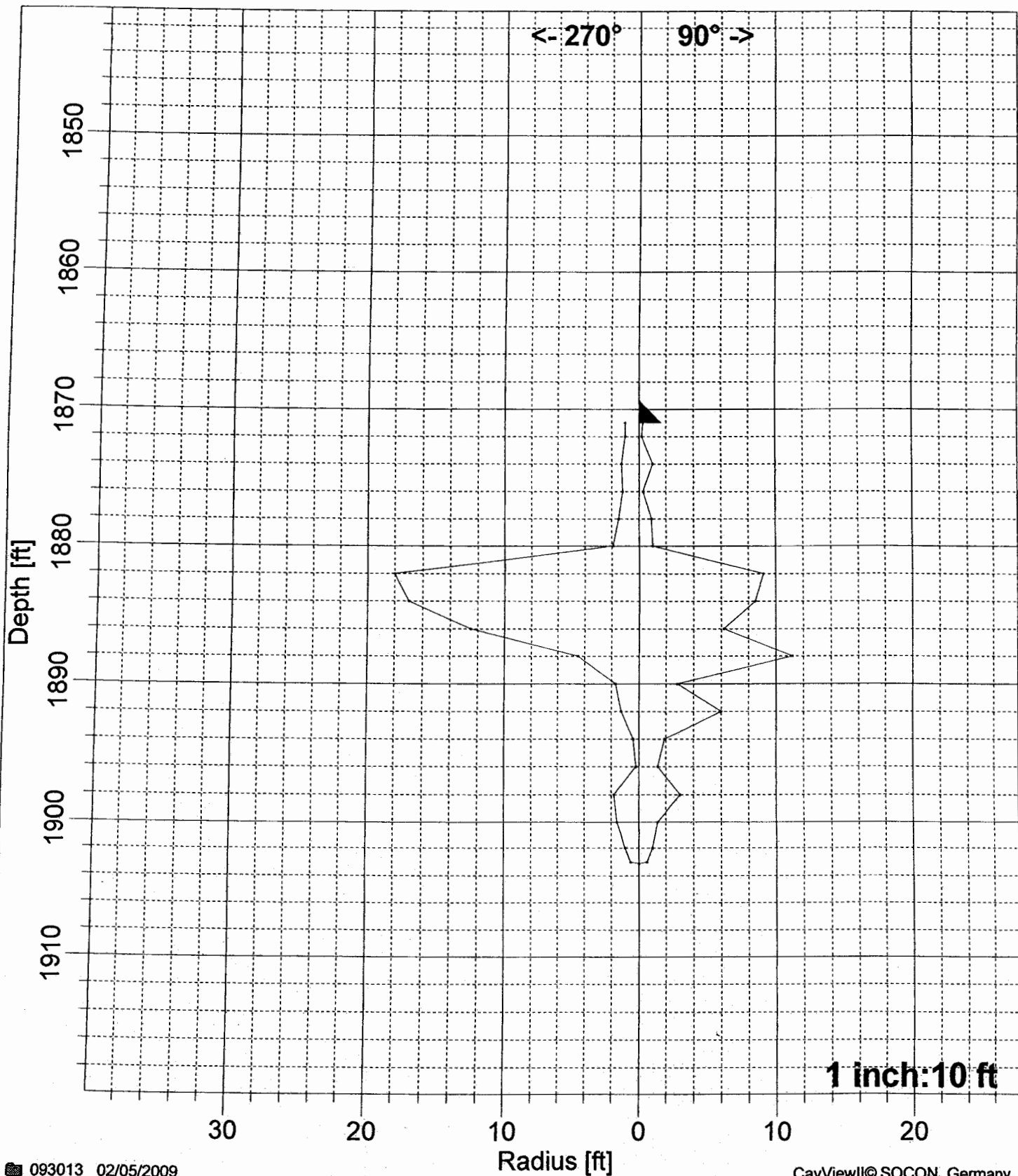
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(02/05/2009)

5-1/2" : 1871.0 ft

Brine Well No: 1

02/05/2009



093013 02/05/2009

CavViewII© SOCON, Germany

(02/05/2009)

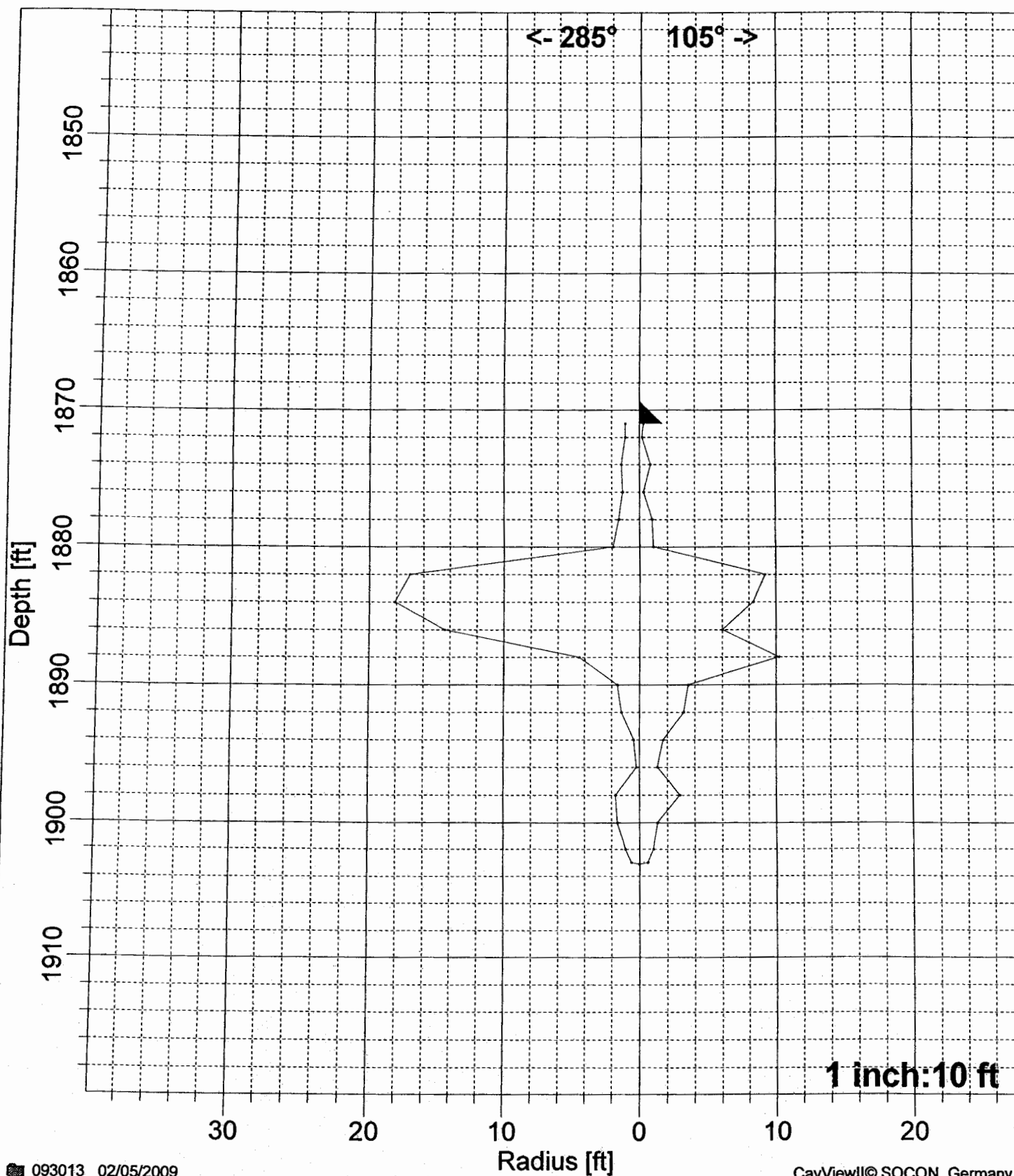
5-1/2" : 1871.0 ft



SOCON Sonar Well Services, Inc.

Brine Well No: 1

02/05/2009



(02/05/2009)

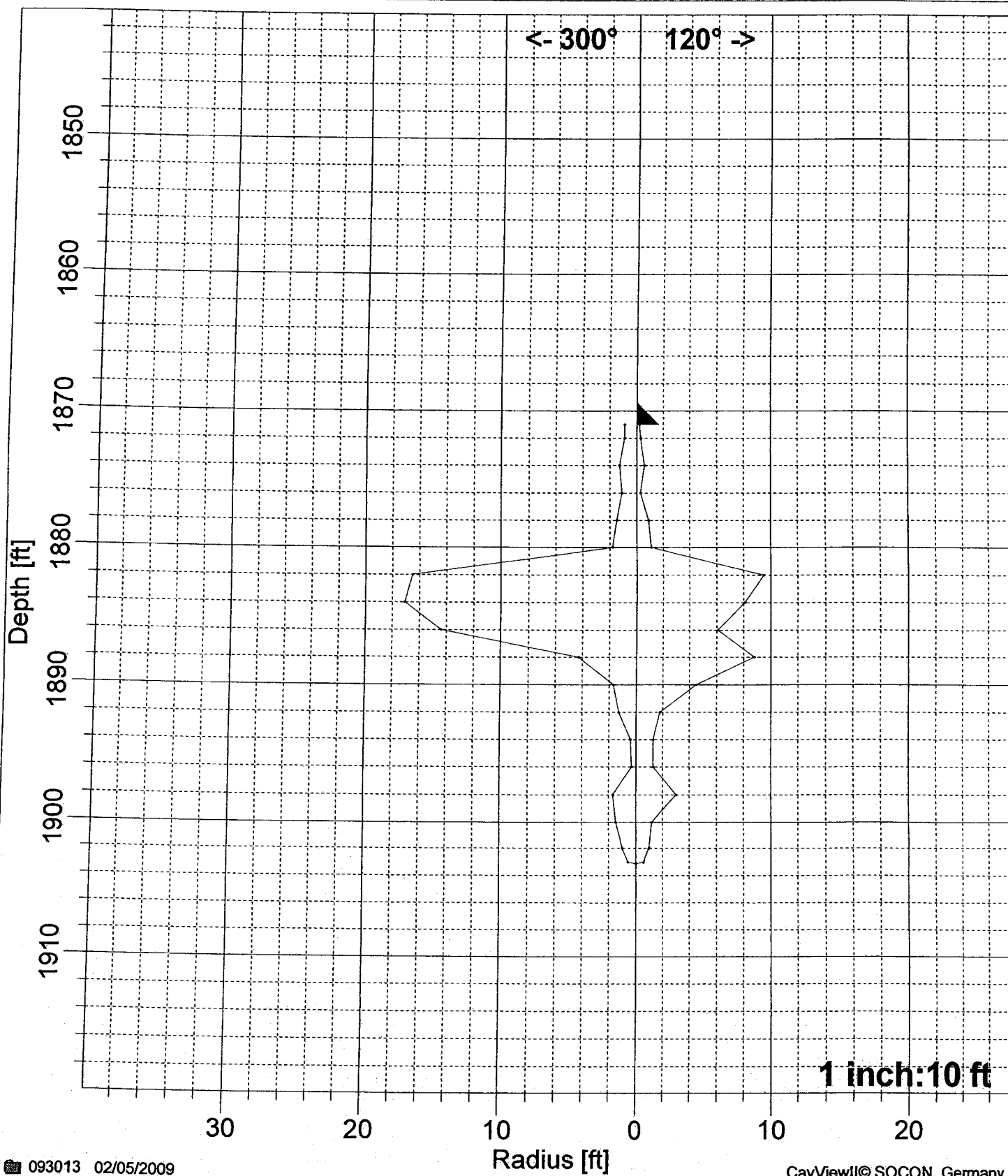
5-1/2" : 1871.0 ft



SOCON Sonar Well Services, Inc.

Brine Well No: 1

02/05/2009



093013 02/05/2009

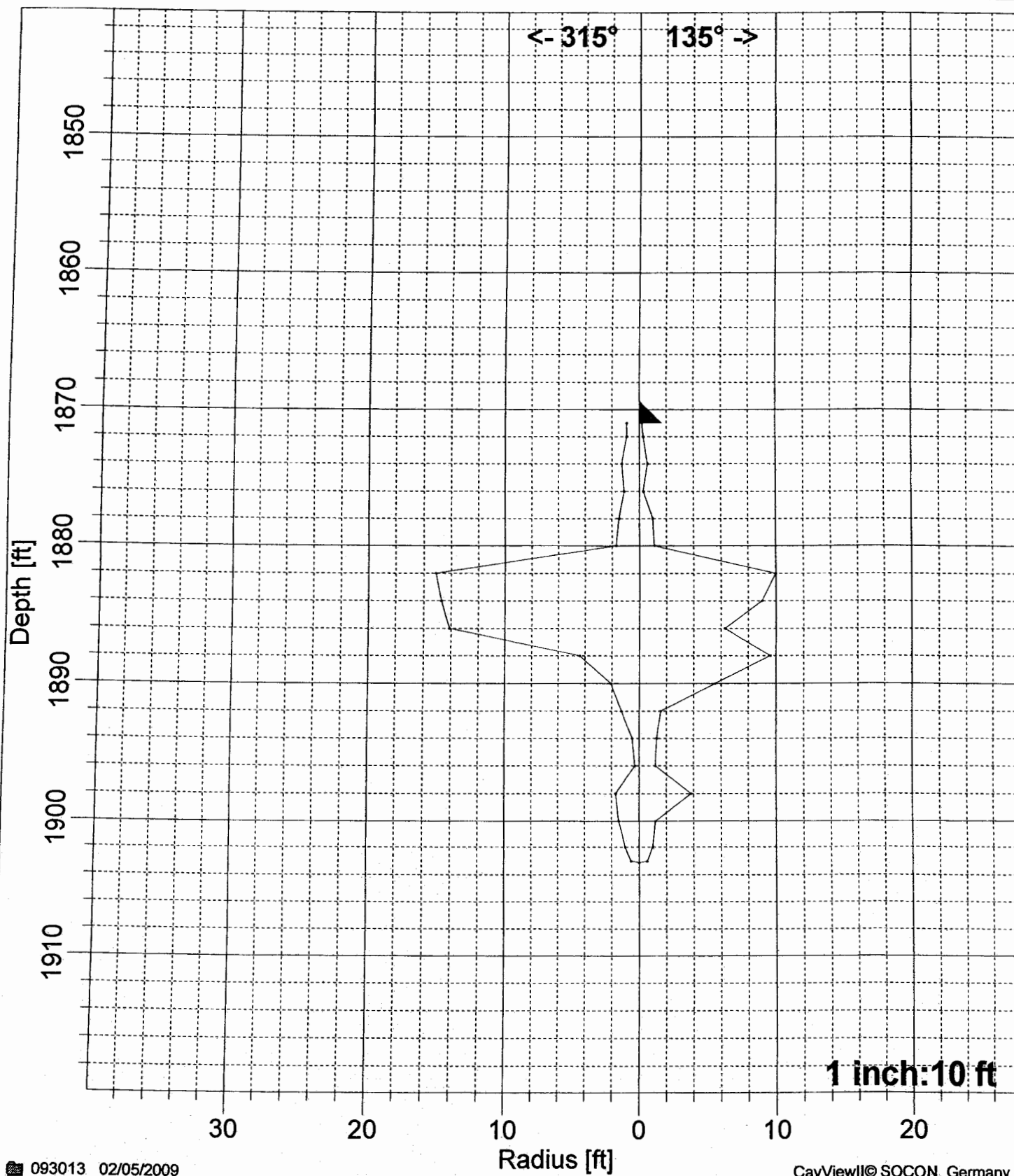
CavViewII© SOCON, Germany

(02/05/2009)

5-1/2" : 1871.0 ft

Brine Well No: 1

02/05/2009



093013 02/05/2009

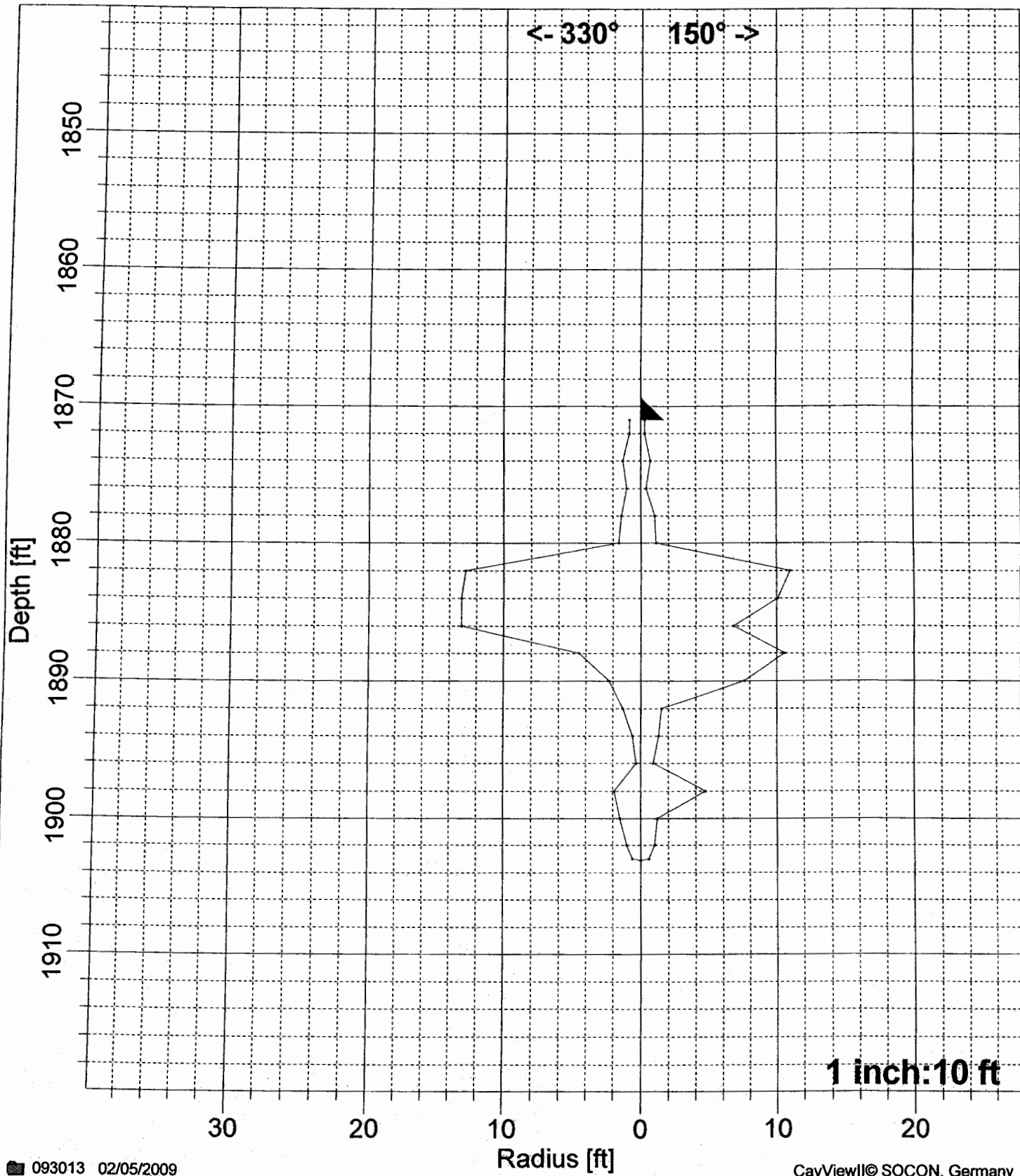
CavViewII© SOCON, Germany

(02/05/2009)

5-1/2" : 1871.0 ft

Brine Well No: 1

02/05/2009



(02/05/2009)

5-1/2" : 1871.0 ft



02/05/2009



5-1/2" : 1871.0 ft



SOCON Sonar Well Services, Inc.

Brine Well No: 1

093013

02/05/2009

HORIZONTAL SECTIONS

Brine Well No: 1

Report No.: 093013

Utilized speed of sound: 5020 ft/s to 5020 ft/s

Measuring date: 02/05/2009

Scale: 1: 10

Horizontal sections measured at following depths:

1871.0 ft	1872.0 ft	1874.0 ft	1876.0 ft	1878.0 ft	1880.0 ft	1882.0 ft
1884.0 ft	1886.0 ft	1888.0 ft	1890.0 ft	1892.0 ft	1894.0 ft	1896.0 ft
1898.0 ft	1900.0 ft	1902.0 ft	1903.0 ft			

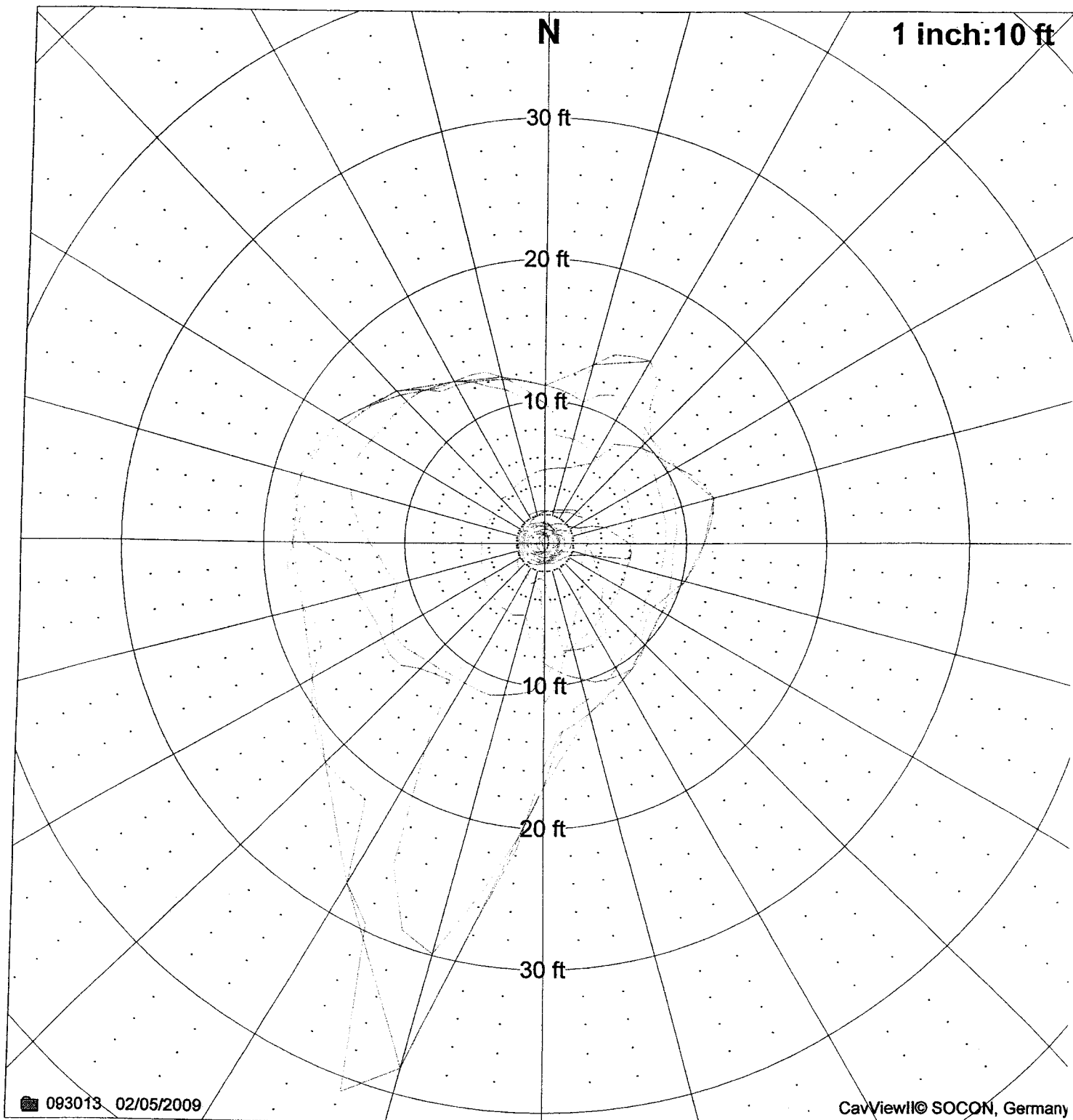


SOCON Sonar Well Services, Inc.

Brine Well No: 1

MAXPLOT

02/05/2009



093013 02/05/2009

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Vertical maximum plot

Horizontal sections

a/b

d_{max} : 55.1 ft 20° <--> 200° r_{min} : 9.5 ft -> 120° r_{\sim} : 16.5 ft r_{max} : 41.0 ft -> 200°

a/b = 2.021 a = 55.6 ft (29°-200°) b = 27.5 ft (108°-295°)

Area from vertical sections: 829 ft², Area from horizontal and vertical sections: 860 ft²

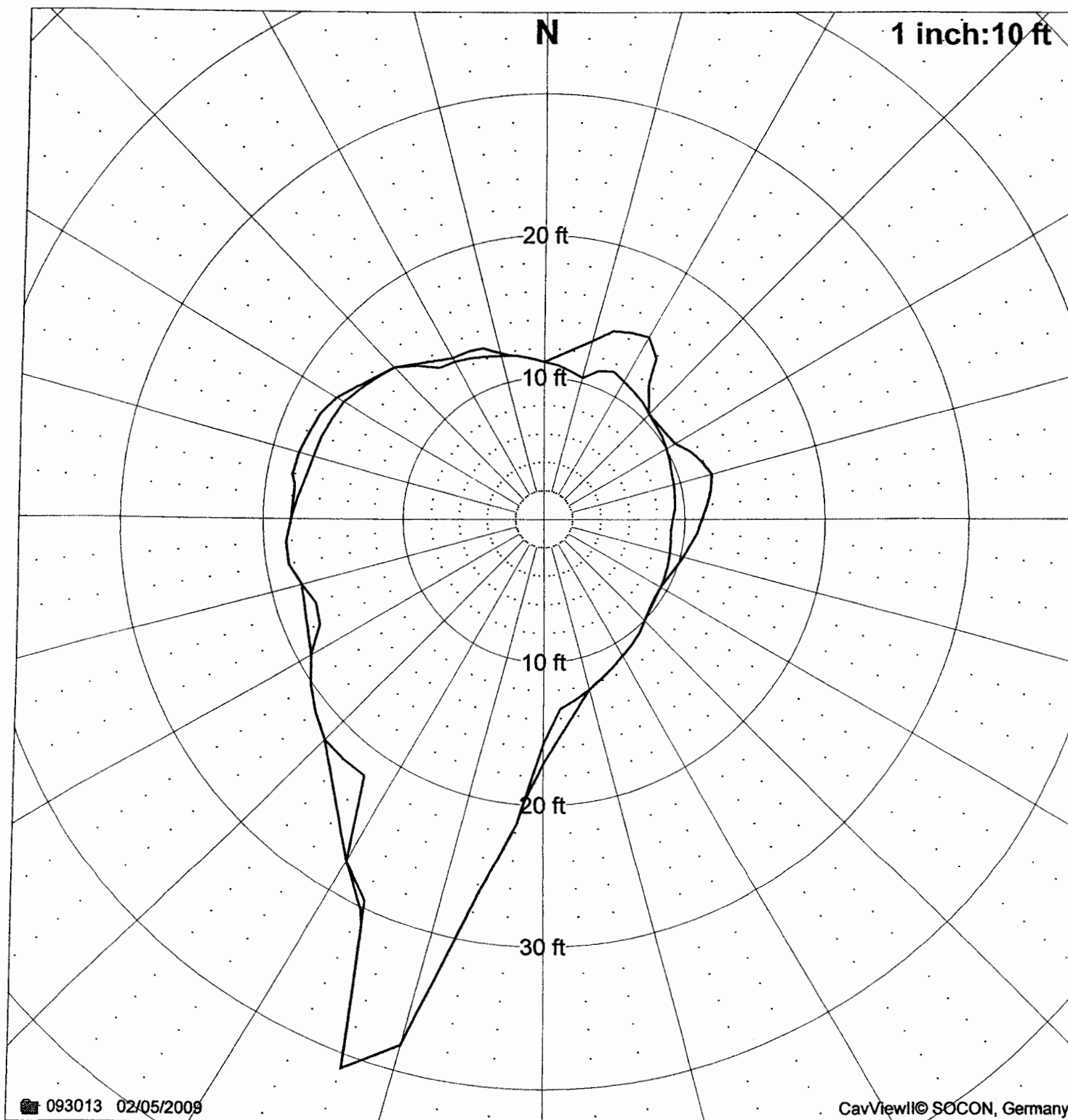


SOCON Sonar Well Services, Inc.

Brine Well No: 1

MAXPLOT

02/05/2009



a/b

Horizontal/vertical maximum plot

Largest single area

d_{max} : 55.1 ft 20° <--> 200° r_{min} : 9.5 ft -> 120° r_{\sim} : 16.5 ft r_{max} : 41.0 ft -> 200°

a/b = 2.021 a = 55.6 ft (29°-200°) b = 27.5 ft (108°-295°)

Largest single area: 800 ft² in depth: 1882.0 ft, Area from horizontal and vertical sections: 860 ft²



SOCON Sonar Well Services, Inc.

Table of radii

Brine Well No: 1

093013

2/5/2009

Depth: 1871.0 ft

[°]	Radii in [ft]									
0	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3
50	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
100	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3
150	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6
200	0.6	0.6	0.7	0.7	0.7	0.8	0.9	0.9	1.0	1.0
250	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9
300	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.7
350	0.6	0.6								

Depth: 1872.0 ft

[°]	Radii in [ft]									
0	0.6	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4
50	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2
100	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
150	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6
200	0.6	0.7	0.7	0.8	0.8	0.9	0.9	0.9	1.0	1.0
250	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
300	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.7
350	0.7	0.6								

Depth: 1874.0 ft

[°]	Radii in [ft]									
0	1.6	1.5	1.4	1.3	1.3	1.2	1.2	1.1	1.1	1.1
50	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0	0.9
100	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.7
150	0.7	0.7	0.8	0.8	0.8	0.9	1.0	1.2	1.3	1.2
200	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
250	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3
300	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.4
350	1.5	1.5								

Depth: 1876.0 ft

[°]	Radii in [ft]									
0	0.7	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.4
50	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
100	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4
150	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.7	0.7
200	0.8	0.8	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.2
250	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
300	1.1	1.1	1.1	1.1	1.1	1.0	1.0	0.9	0.9	0.8
350	0.8	0.8								



SOCON Sonar Well Services, Inc.

Table of radii

Brine Well No: 1

093013

2/5/2009

Depth: 1878.0 ft

[°]	Radii in [ft]									
0	1.1	1.1	1.1	1.0	1.0	1.0	1.0	0.9	0.9	0.9
50	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
100	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0
150	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.3	1.3
200	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5
250	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
300	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.3	1.3
350	1.2	1.2								

Depth: 1880.0 ft

[°]	Radii in [ft]									
0	1.4	1.3	1.3	1.3	1.2	1.2	1.2	1.1	1.1	1.1
50	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0
100	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1
150	1.1	1.2	1.2	1.2	1.3	1.3	1.4	1.4	1.5	1.5
200	1.6	1.6	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8
250	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
300	1.8	1.8	1.8	1.7	1.7	1.7	1.6	1.6	1.6	1.5
350	1.5	1.4								

Depth: 1882.0 ft

[°]	Radii in [ft]									
0	11.1	10.9	10.6	10.3	11.1	11.5	11.2	11.0	10.8	10.5
50	10.3	10.2	10.0	9.8	9.6	9.5	9.4	9.3	9.1	9.0
100	9.1	9.2	9.3	9.4	9.5	9.5	9.7	10.0	10.4	10.7
150	11.0	11.4	11.8	12.3	12.8	13.3	15.7	21.4	26.9	38.2
200	41.0	29.5	27.6	21.9	21.9	21.8	21.0	20.1	19.0	17.5
250	17.2	17.8	18.4	18.4	18.0	17.6	17.2	17.0	16.9	16.7
300	16.5	16.0	15.5	15.1	14.1	13.0	12.8	12.5	12.2	11.9
350	11.7	11.4								

Depth: 1884.0 ft

[°]	Radii in [ft]									
0	9.8	9.0	10.2	13.0	14.1	14.5	14.8	13.8	11.0	9.7
50	9.5	9.2	9.0	8.8	8.7	8.6	8.6	8.5	8.5	8.4
100	8.4	8.3	8.2	8.1	8.1	8.4	8.7	9.0	9.3	9.6
150	10.1	10.5	10.9	11.4	11.8	13.5	17.1	20.7	24.9	29.9
200	28.9	24.9	16.7	11.7	12.0	12.4	13.3	13.5	13.3	13.2
250	13.4	13.8	14.2	14.6	17.0	17.6	18.2	18.1	17.8	17.6
300	17.1	16.3	15.4	14.7	13.9	13.3	13.1	13.0	12.8	12.1
350	11.3	10.5								



SOCON Sonar Well Services, Inc.

Table of radii

Brine Well No: 1

093013

2/5/2009

Depth: 1886.0 ft

[°]

Radii in [ft]

0	8.5	7.7	7.6	7.6	7.5	7.3	7.1	7.0	6.9	6.9
50	6.8	6.8	6.6	6.5	6.4	6.3	6.2	6.2	6.2	6.1
100	6.1	6.0	6.0	6.1	6.1	6.2	6.2	6.3	6.4	6.6
150	6.8	7.0	7.1	7.5	7.8	8.4	9.4	10.4	10.7	11.0
200	11.3	11.3	11.3	11.3	11.5	11.7	12.0	12.4	12.5	12.0
250	11.5	10.9	11.4	11.8	12.5	13.3	13.9	14.4	14.9	14.7
300	14.4	14.2	14.1	14.1	13.9	13.5	13.1	12.5	11.7	11.2
350	10.5	9.5								

Depth: 1888.0 ft

[°]

Radii in [ft]

0	5.2	5.3	5.4	5.5	5.7	6.1	6.5	8.5	9.0	9.5
50	9.9	10.2	10.7	11.4	11.9	12.3	12.0	11.6	11.2	10.9
100	10.5	10.2	9.6	9.2	8.8	8.8	9.1	9.6	10.2	10.7
150	10.6	10.5	10.3	9.8	9.4	8.9	8.4	7.8	6.5	5.2
200	5.3	5.5	5.4	5.4	5.3	5.3	5.2	5.1	5.0	4.9
250	4.8	4.7	4.6	4.5	4.5	4.5	4.4	4.4	4.3	4.3
300	4.3	4.3	4.4	4.4	4.3	4.4	4.5	4.6	4.7	4.8
350	5.0	5.1								

Depth: 1890.0 ft

[°]

Radii in [ft]

0	2.3	2.3	2.3	2.3	2.3	2.4	2.5	2.7	2.8	2.9
50	3.0	3.2	3.0	2.8	2.7	2.6	2.6	2.6	2.8	3.0
100	3.3	3.5	3.7	4.1	4.5	4.9	5.3	5.6	5.7	7.5
150	7.6	7.8	7.8	7.7	7.6	4.0	2.7	2.5	2.5	2.8
200	3.0	2.9	2.7	2.7	2.6	2.6	2.5	2.4	2.2	2.1
250	2.0	1.9	1.9	1.8	1.7	1.6	1.6	1.6	1.6	1.7
300	1.7	1.9	2.0	2.1	2.1	2.2	2.3	2.3	2.3	2.3
350	2.3	2.3								

Depth: 1892.0 ft

[°]

Radii in [ft]

0	1.2	1.2	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9
50	2.0	2.1	2.3	2.6	3.6	4.4	4.8	5.3	6.0	6.0
100	6.1	3.2	2.4	2.0	1.8	1.7	1.6	1.6	1.5	1.5
150	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4
200	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.4	1.4
250	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
300	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
350	1.3	1.3								



SOCON Sonar Well Services, Inc.

Table of radii

Brine Well No: 1

093013

2/5/2009

Depth: 1894.0 ft

[°]	Radii in [ft]									
0	0.7	0.7	0.8	0.9	1.0	1.0	1.1	1.2	1.2	1.3
50	1.5	1.6	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.8
100	1.8	1.7	1.7	1.3	1.3	1.3	1.3	1.3	1.3	1.3
150	1.3	1.3	1.3	1.3	1.2	1.2	1.1	1.0	0.9	0.8
200	0.8	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.4
250	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
300	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
350	0.7	0.7								

Depth: 1896.0 ft

[°]	Radii in [ft]									
0	0.4	0.5	0.5	0.5	0.5	0.6	0.7	0.8	0.9	1.0
50	1.0	1.1	1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.4
100	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.1	1.0
150	0.9	0.8	0.8	0.7	0.6	0.6	0.5	0.4	0.4	0.3
200	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
250	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
300	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
350	0.4	0.4								

Depth: 1898.0 ft

[°]	Radii in [ft]									
0	2.2	2.3	2.3	2.4	2.5	2.6	2.7	2.9	3.1	3.2
50	3.2	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0	2.9
100	2.9	2.9	2.9	2.8	3.0	3.2	3.5	3.8	4.1	4.4
150	4.7	5.2	5.9	6.7	8.0	10.0	11.2	3.3	3.2	3.0
200	2.8	2.6	2.4	2.2	2.1	2.1	2.0	2.0	2.0	2.0
250	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.7	1.7	1.7
300	1.7	1.6	1.6	1.7	1.7	1.8	1.9	1.9	2.0	2.0
350	2.1	2.2								

Depth: 1900.0 ft

[°]	Radii in [ft]									
0	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.4	1.4
50	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3
100	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2
150	1.2	1.2	1.2	1.2	1.3	1.3	1.4	1.4	1.5	1.5
200	1.6	1.6	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.7
250	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6
300	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
350	1.5	1.5								

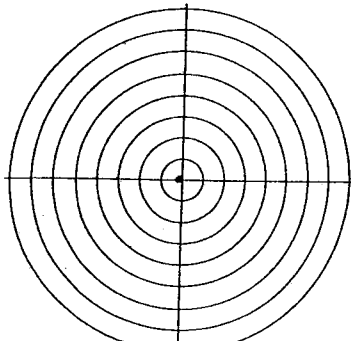


SOCON Sonar Well Services, Inc.

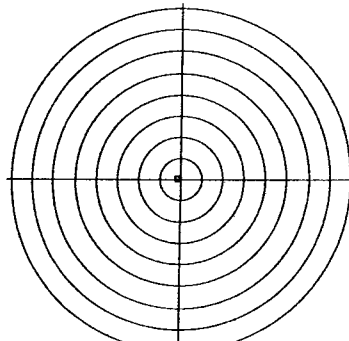
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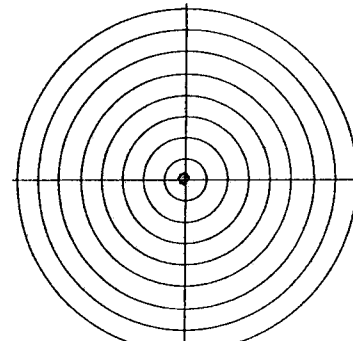
Cavity: Brine Well No: 1 Report number: 093013 Date: 02/05/2009



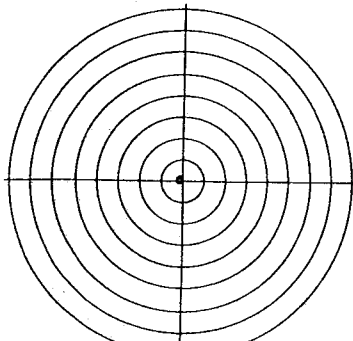
1871.0 ft / 1 ft²



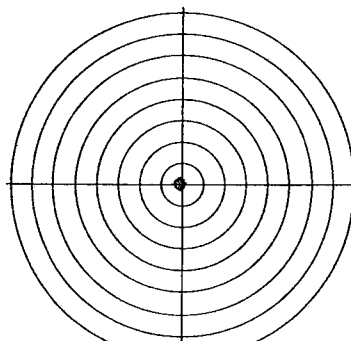
1872.0 ft / 1 ft²



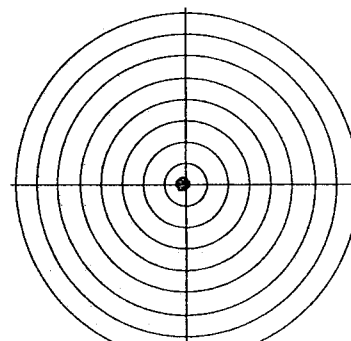
1874.0 ft / 4 ft²



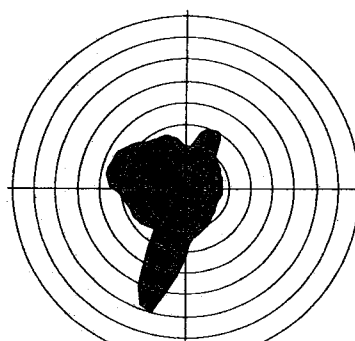
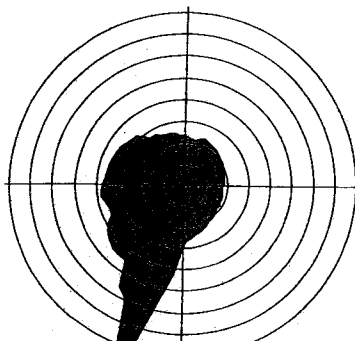
1876.0 ft / 2 ft²



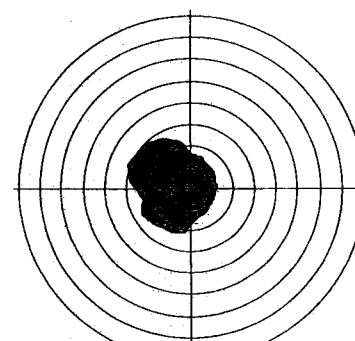
1878.0 ft / 5 ft²



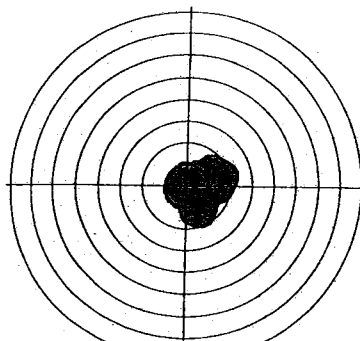
1880.0 ft / 7 ft²



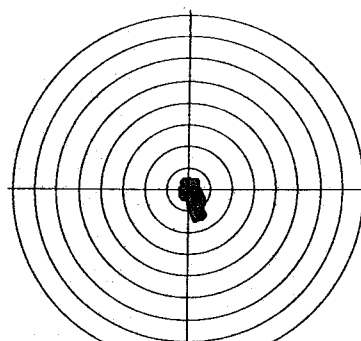
1884.0 ft / 602 ft²



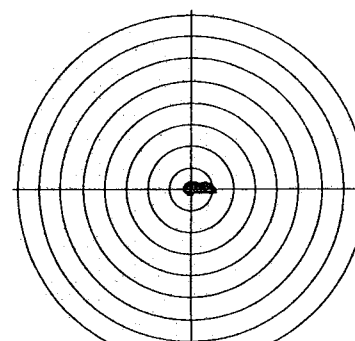
1886.0 ft / 312 ft²



1888.0 ft / 183 ft²



1890.0 ft / 38 ft²



1892.0 ft / 15 ft²

The distance between 2 circles equals 5 ft.

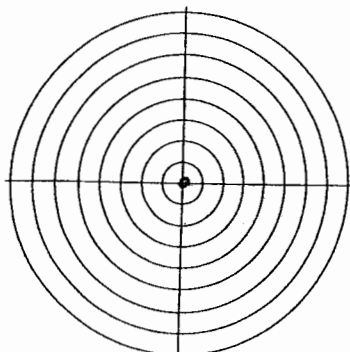


SOCON Sonar Well Services, Inc.

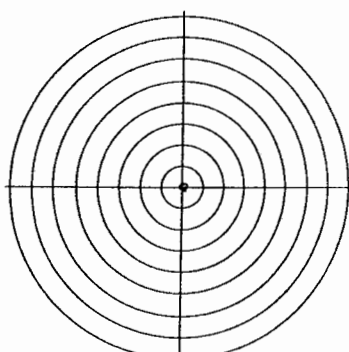
Horizontal slices 13 - 18



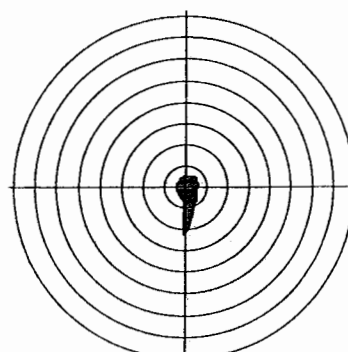
Cavity: Brine Well No: 1 Report number: 093013 Date: 02/05/2009



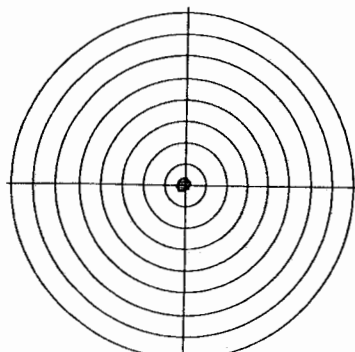
1894.0 ft / 4 ft²



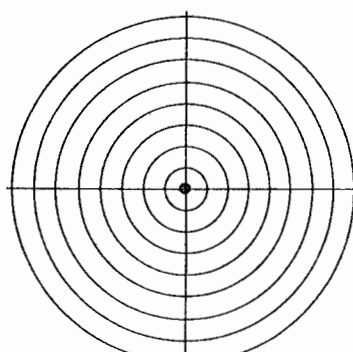
1896.0 ft / 2 ft²



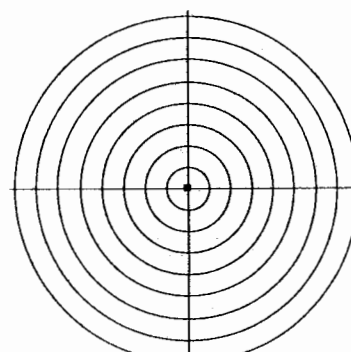
1898.0 ft / 37 ft²



1900.0 ft / 7 ft²



1902.0 ft / 3 ft²



1903.0 ft / 1 ft²

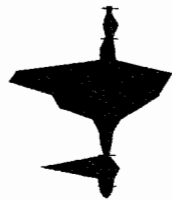


SOCON Sonar Well Services, Inc.

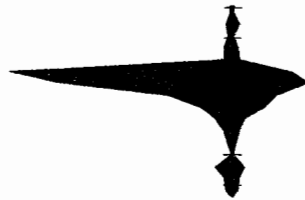
Vertical slices 1 - 6



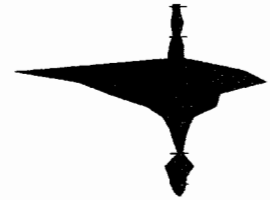
Cavity: Brine Well No: 1 Report number: 093013 Date: 02/05/2009



180° 0°



195° 15°



210° 30°



225° 45°



240° 60°



255° 75°



SOCON Sonar Well Services, Inc.

Vertical slices 7 - 12



Cavity: Brine Well No: 1 Report number: 093013 Date: 02/05/2009



270° 90°



285° 105°



300° 120°



315° 135°



330° 150°

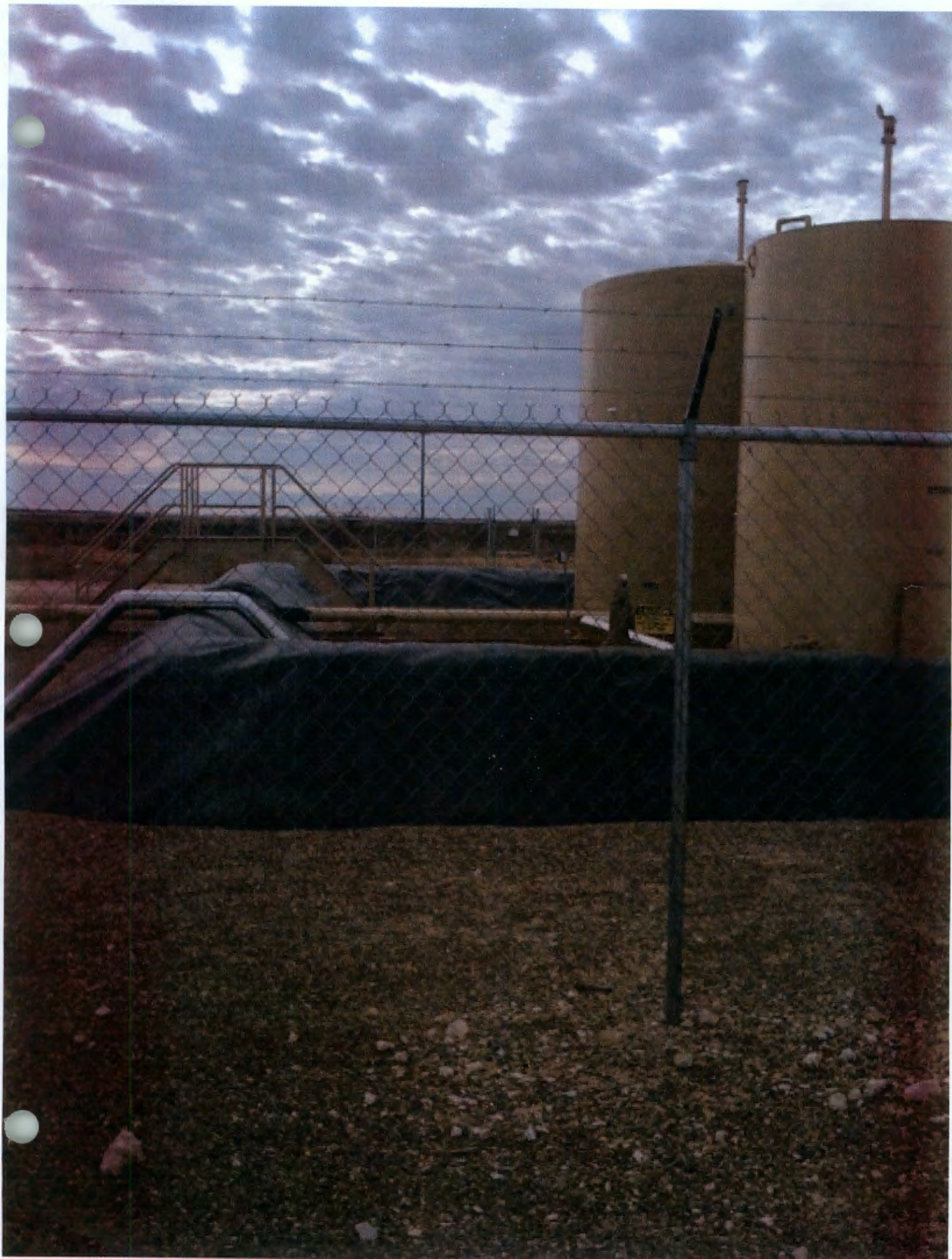


345° 165°

Example of Future Modifications to Salty Dog



CAUTION
THIS EQUIPMENT MAY
START AUTOMATICALLY
AT ANY TIME





Salty Dog Pictures



Tully Martin

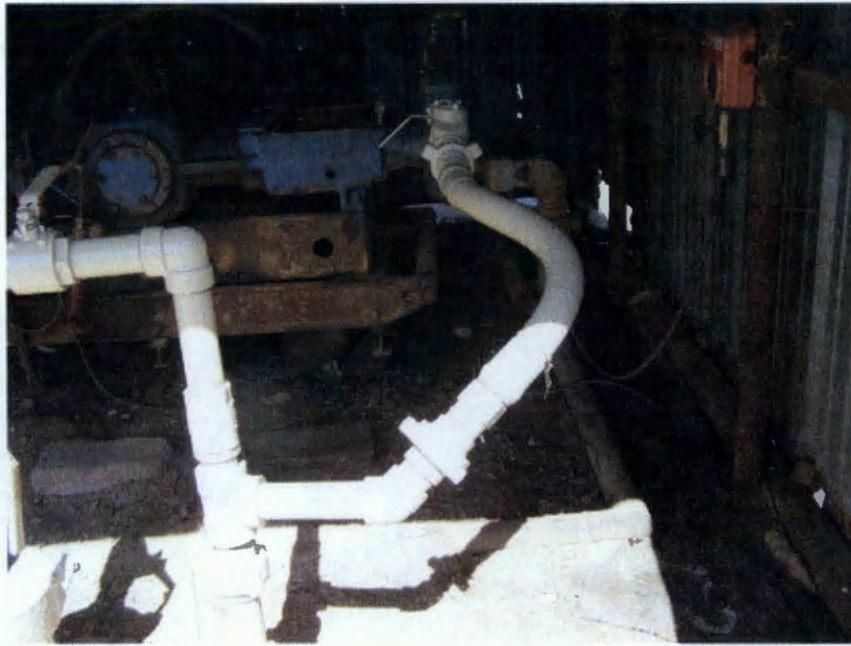
From: jon@thestandardenergy.com
Sent: Wednesday, June 23, 2010 7:21 AM
To: tully@thestandardenergy.com; jon@thestandardenergy.com
Subject: Saltydog

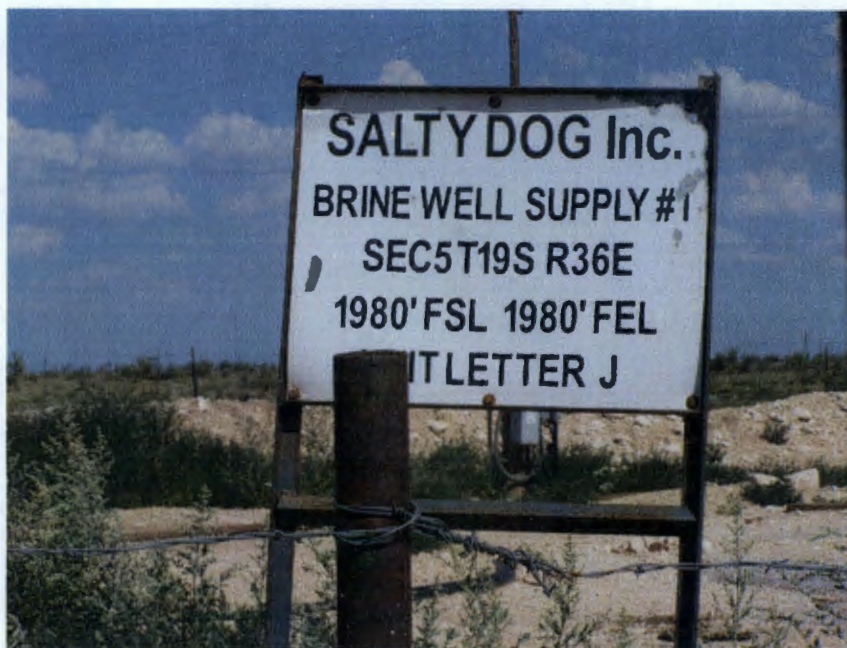
Get Kodak prints of this picture, and all your other favorites, at www.kodakgallery.com!













How to save a picture

Simply right-click on it, then "Save Image As...". (Mac users: drag the picture to your desktop.)









EDD

TOTALS

3749

BARRELS

FLOW RATE

0

BPD

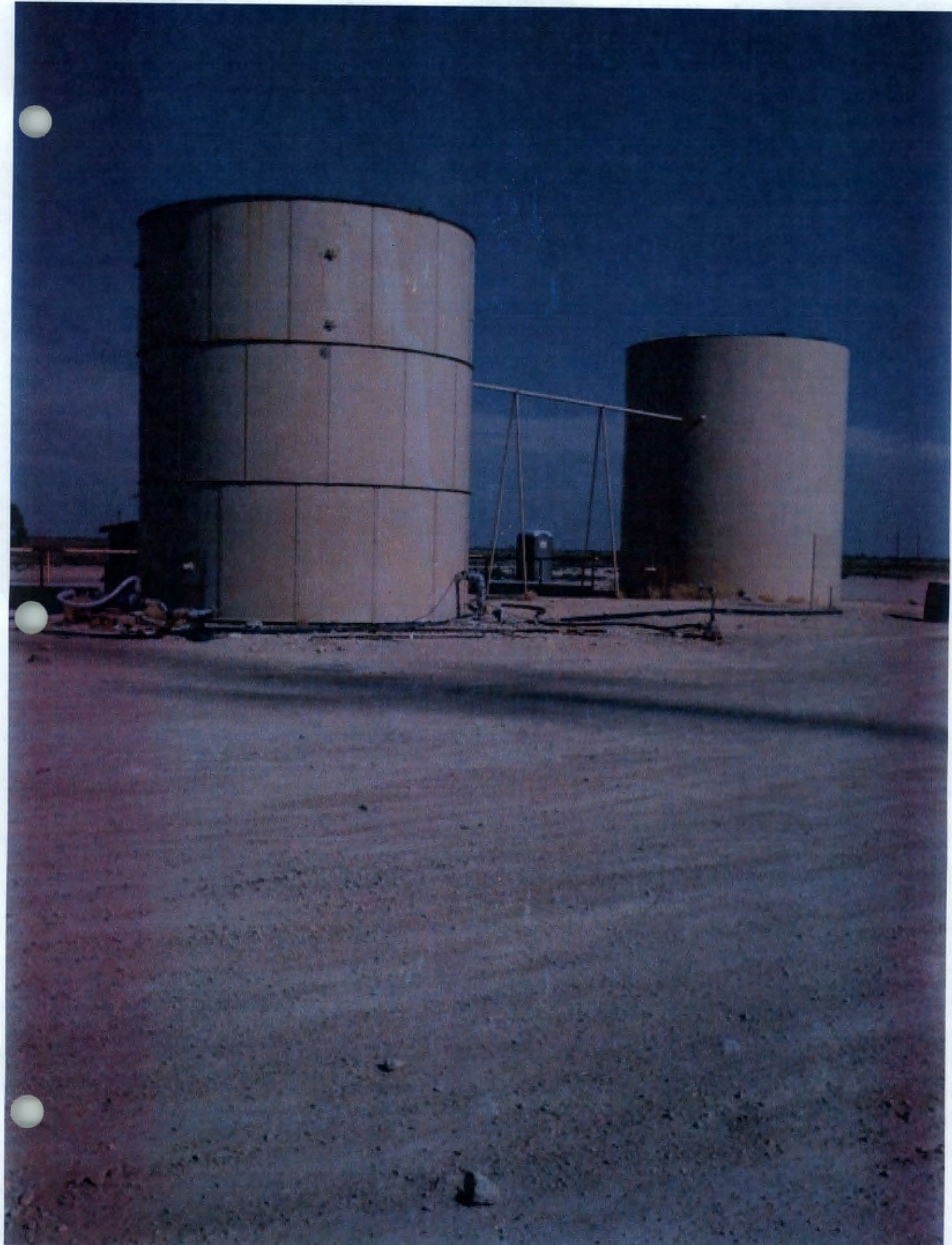
Electronic Data Devices

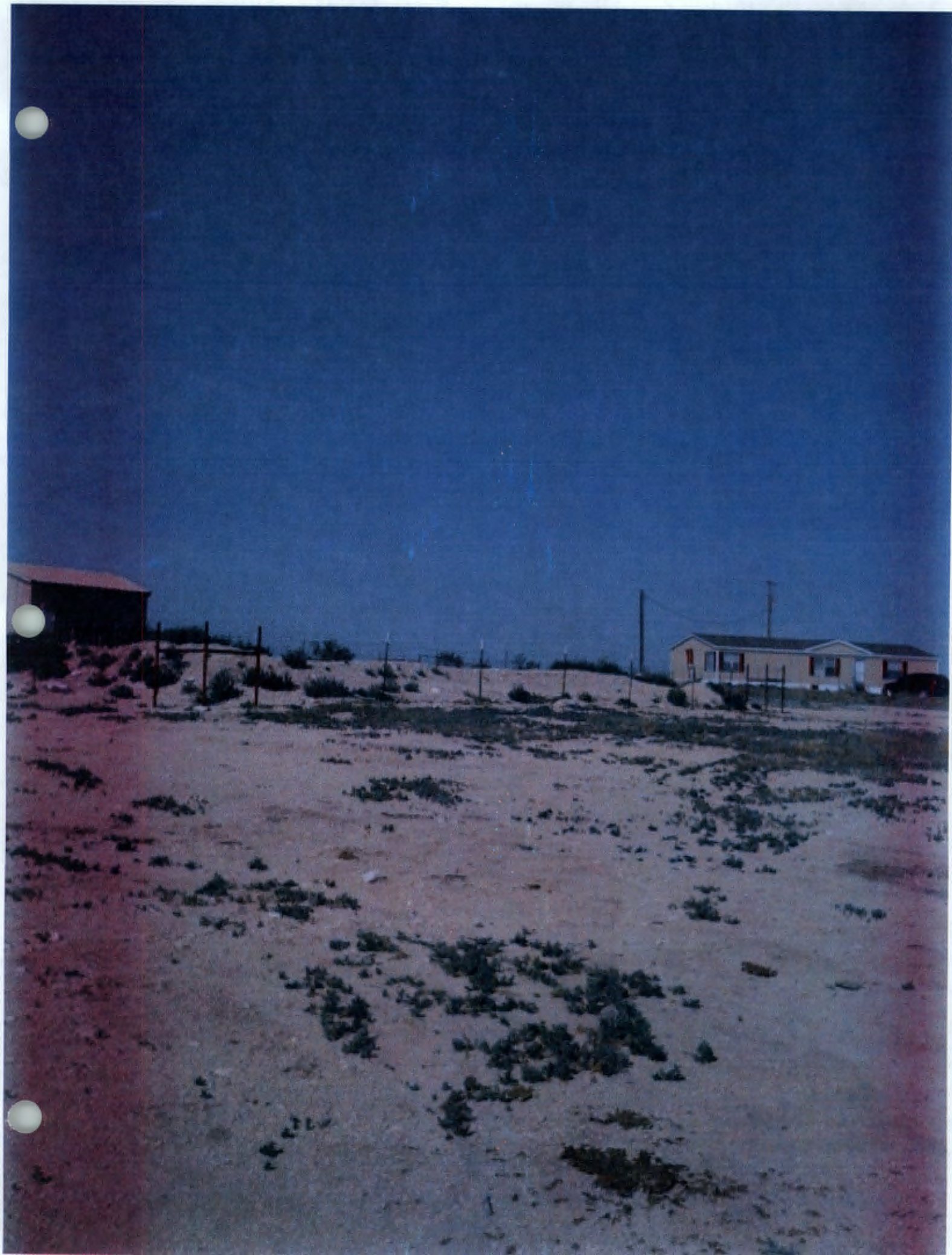
EDD-600

P.O. Box 12129
Odessa, Texas 79758 U.S.A.
409-365-8039
eddi@eddevices.com











Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, September 25, 2009 1:48 PM
To: 'Prather, Steve'; 'gandy2@leaco.net'; 'James Millett'; 'Clay Wilson'; 'Bob Patterson'; 'Blevins, Sam'; 'David Pyeatt'; 'garymschubert@aol.com'
Cc: Sanchez, Daniel J., EMNRD; VonGonten, Glenn, EMNRD; Griswold, Jim, EMNRD; Jones, William V., EMNRD
Subject: New Mexico Oil Conservation Division Class III Solution Mining Well Operator Notice-- ANNUAL REPORTS

Gentlemen:

Re: **Annual Reporting**

You are receiving this message because you are currently operating a Underground Injection Control (UIC) Class III Solution Mining Well in New Mexico under an Oil Conservation Division (OCD) Discharge Permit. You may be aware of the most recent events related to OCD Class III Wells in New Mexico and can find out more by visiting the OCD's Website at <http://www.emnrd.state.nm.us/OCD/brinewells.htm> and OCD Brine Well Work Group Website at <http://ocdimage.emnrd.state.nm.us/imaging/AEOrderFileView.aspx?appNo=pCJC0906359521>.

The OCD is writing to inform you that it will be monitoring the receipt of your "Annual Reports" under the applicable section of your OCD discharge permit. The OCD has been deficient in tracking reporting obligations in the past; however, the OCD has recently upgraded our online system to track operators who are not meeting the reporting requirements specified in OCD Discharge Permits. Please plan on submitting the report with the required information by the date required in your discharge permit.

To access your OCD Discharge Permit Online for the date of submittal and contents of the report, please go to OCD Online at <http://ocdimage.emnrd.state.nm.us/imaging/AEOrderCriteria.aspx> (enter "Order Type" as BW and your "Order Number"). If you have not submitted an Annual Report (report) for your well, a historical review of your injection and production records will be required in order to provide cumulative injection and production information in this year's report.

Please contact me if you have questions or need assistance.

Thank you in advance for your cooperation in this matter.

Copy: Brine Well Files BWs 2, 4, 8, 22, 25, 27, 28, 30 & 31

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(Pollution Prevention Guidance is under "Publications")