

NM - 76

**GENERAL
CORRESPONDENCE**

YEAR(S):

2002 - 1997

Closed

Price, Wayne

From: Price, Wayne
Sent: Wednesday, October 30, 2002 4:42 PM
To: Price, Wayne; 'seay04@leaco.net'
Subject: RE: Salty Bill Disposal Facility Eddy Co. NM

Corrected for 2003.

-----Original Message-----

From: Price, Wayne
Sent: Wednesday, October 30, 2002 4:40 PM
To: 'seay04@leaco.net'
Subject: Salty Bill Disposal Facility Eddy Co. NM

Dear Mr. Seay:

The OCD is in receipt of the progress report and closure plan dated July 22, 2002. The OCD hereby approves of the plan with the following condition:

Please install an up-gradient monitor well to determine the water quality. Please submit your results by January 15, 2003[Price, Wayne] .

Sincerely:

<< OLE Object: Picture (Metafile) >>

Wayne Price

New Mexico Oil Conservation Division

1220 S. Saint Francis Drive

Santa Fe, NM 87505

505-476-3487

fax: 505-476-3462

E-mail: WPRICE@state.nm.us

RECEIVED
AUG 04 2002
Environmental Bureau
Oil Conservation Division

CORINNE B. GRACE
SALTY BILL FACILITY
CARLSBAD, NM

JULY 2002

EDDIE SEAY CONSULTING
HOBBS, NM

July 22, 2002

NMOCD Environmental
ATTN: Wayne Price
Box 6429
1220 S. Saint Francis Drive
Santa Fe, NM 87504

RE: Salty Bill Disposal Facility, 711-076
NE 1/4 of NW 1/4 Sect. 36, T. 22 S., R. 36 E.
Eddy Co., NM

Mr. Price:

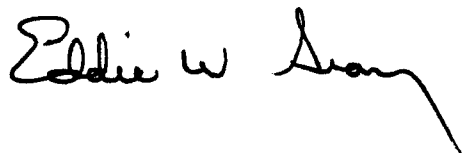
As requested, Grace has drilled, completed and tested a monitor well on the Salty Bill lease. The monitor well, SB #1, was completed at 195' below ground. The analytical, completion diagram and log are within.

Grace would also like to continue with the closure of the pit areas, as we previously proposed. The closure that we requested was to put two foot clay liner at the bottom of each pit opening. After compacting the clay in the bottom, the pit will be backfilled and mounded over to prevent any further leaching. A cross section of the plan is within. Also, with this is an analysis of the clay and its properties.

Within this report are the various documents and photographs of the operations.

If you have any questions, please call.

Thanks,

A handwritten signature in black ink, appearing to read "Eddie W. Seay". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

Eddie W. Seay, Agent
601 W. Illinois
Hobbs, NM 88242
(505)392-2236

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- 2. Map**
- 3. Analysis**
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CHRONOLOGY

Started drilling 7/3/02, OCD was notified by letter and called.

Drilling with 4" bit using foam and water, cuttings were examined to determine geology.

7/3/02 Drilled to 48'.

7/4/02 Shut down - holiday.

7/5/02 Called OCD, continue to drill to 60', rig broke down, order parts.

7/9/02 Back drilling, called OCD, drilled to 150'.

7/10/02 Continue drilling, hit water at 175' TD at 196'.

7/11/02 Re-ream and clean out hole.

7/12/02 Run 2" pvc well pipe with 25' of 10 slot screen.

TD 195' 2" pvc well screen.

Top H2O 175'.

Top of screen 170'.

Top 20/40 sand 162'.

Top of bentonite 153'.

Pump cement through trimmie pipe to surface, but cement fell back to 24'.

Place bentonite cap on cement.

7/13/02 Finish cementing to surface with redi mix.

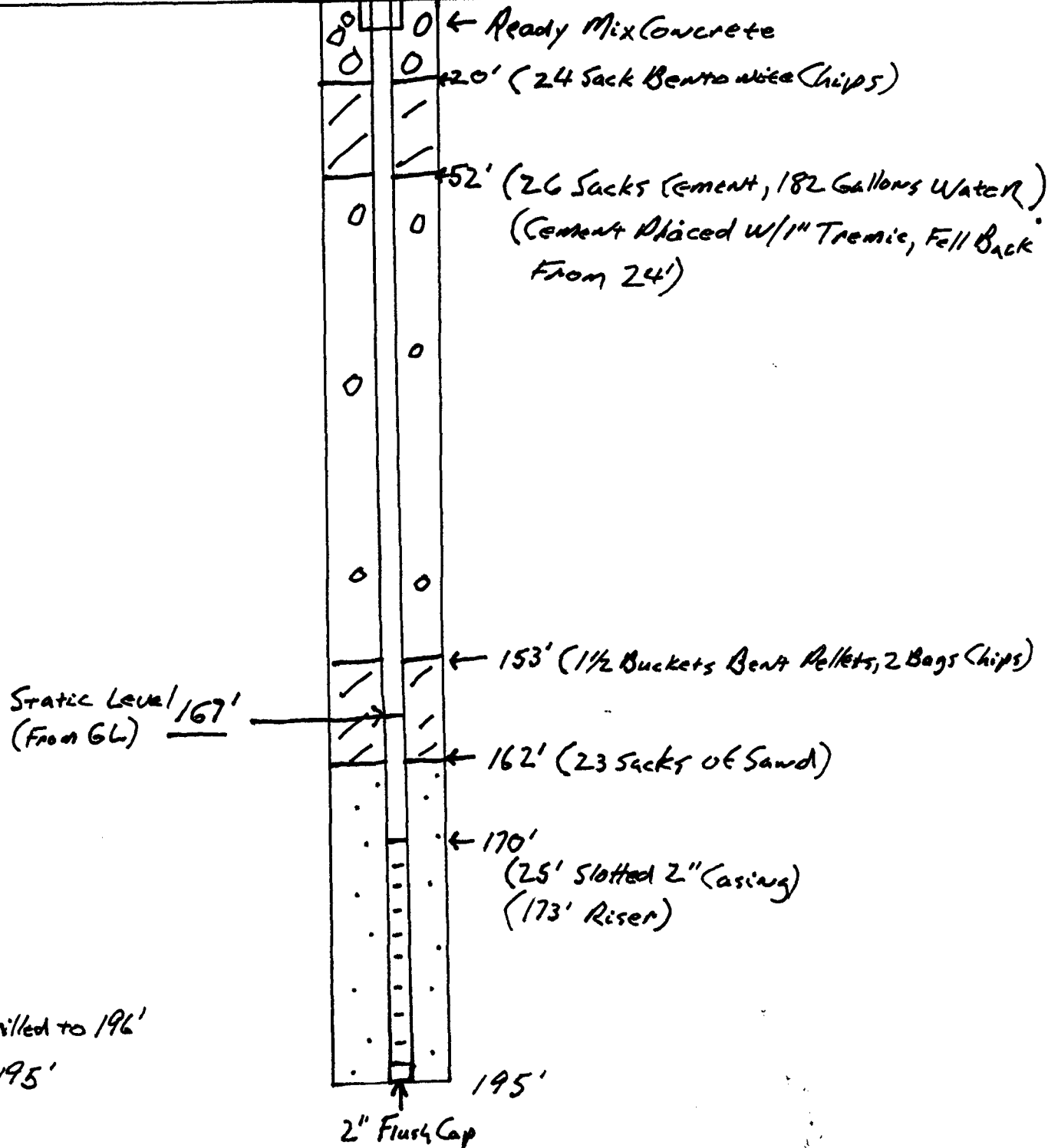
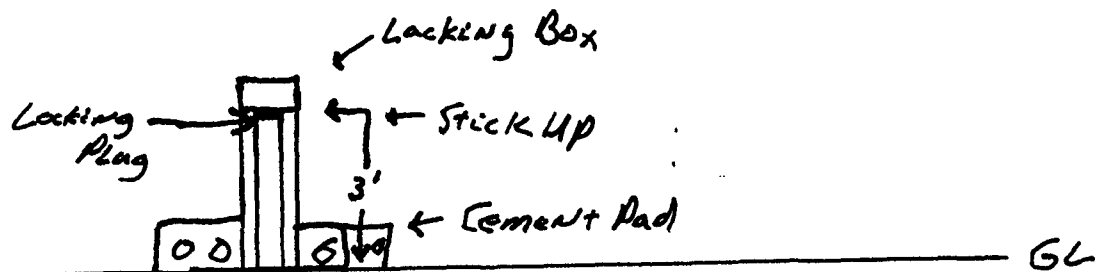
7/15/02 Run in hole with 1" pvc to develop and pump well.

Water level 167'.

Pumping at approximately 1 gal. per min. for 3 hrs., running conductivity to get stable reading.

After 3 hrs. of pumping of approximately 180 gal. of water, the 1" was pulled and a disposable baler was used to collect samples. Samples taken to lab.

7/16/02 Complete surface location and protective box.



6" Hole Drilled to 196'
Cased to 195'

Drill Rate

↓ min/2ft

0-2 1- 7/3/02

4 2 Soil
6 3
8 2-
10 5 ← 9' Cobble + Gravel: Gny, Lt Bwn, TN, BEE, LMY
2 5
4 5
6 5 ← 15'
8 3 Clay: Pnk, SLty
20 4 ← 19'
2 5 Cobble + Gravel; AA, Loose
4 3
6 3-
8 2
30 3
2 5
4 4 ← Clay: Rd, SLty
6 2
40 2-
2 4
4 2-
6 3
8 4
50 4 ← Conglomerate: Lt Bwn, Gny, TN, Yel Bwn, Sme Sndy, LMY
2 5
4 5- 7/8/02
6 6
8 6
60 7 Brake & Joint; Down for Repair 7/9/02
2 6
4 7
6 7-
8 7- Conglomerate: AA
70 5-
2 6-
4 6-
6 6
8-
80 7

Grace Mon. Well

80 2 4- ← Clay: Dull Rd, S+K4
4 3-
6 4-
8 2- Incr. Injection
90 2-
2 2
4 2
6 2
8 1-
100 1-
2 2
4 4
6 3- ← Conglomerate: Pnk, TN, BEE, Gny, VRY
8 2- Sandy IN Pnt, LMY
110 3-
2 2-
4 5 ← Clay: Rd, SLty, Sme
6 4- Fw Gravel
8 2-
120 3
2 3
4 4
6 3-
8 2
130 4
2 2
4 3
6 3- ← Conglomerate: OGG WHT, TN, BEE, TR Yel Bwn, LMY
8 4
140 4
2 18
4 12
6 7
8 8
150 8
2 6
4 6
6 4 ← Clay: Rd 7/10/02
8 8 Conglomerate: OGG WHT, TN, BEE, Yel Bwn, LMY
160 13

160 2 10
4 5
6 3- ← 165 Clay: Rd, S+K4
8 4-
170 8- ← 169
2 11 Conglomerate: Lt Bwn, TN, Sme Yel
4 13 Bwn, LMY
Water → 6 12 ← Water (Foam Wetter)
8 12
180 16
2 21 Very Rough Broke Drilling
4 7
6 12
8 13
190 13
2 11
4 12 ← Lost All Return
6 13



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

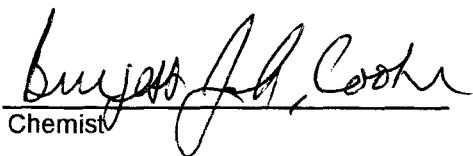
ANALYTICAL RESULTS FOR
EDDIE SEAY CONSULTING
ATTN: EDDIE SEAY
601 W. ILLINOIS
HOBBS, NM 88240
FAX TO:

Receiving Date: 07/15/02
Reporting Date: 07/18/02
Project Owner: C. GRACE
Project Name: SALTY BILL
Project Location: CARLSBAD, NM

Sampling Date: 07/15/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: BC

LAB NUMBER	SAMPLE ID	GRO	DRO
		(C ₆ -C ₁₀) (mg/Kg)	(>C ₁₀ -C ₂₈) (mg/Kg)
ANALYSIS DATE:		07/16/02	07/16/02
H6882-1	SB #1	<5.0	<5.0
Quality Control		13.4	13.5
True Value QC		15.0	15.0
% Recovery		89.5	89.8
Relative Percent Difference		9.1	5.2

METHOD: SW-846 8015 M


Chemist

7/18/02
Date

H6882T.XLS

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.



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ANALYTICAL RESULTS FOR
EDDIE SEAY CONSULTING
ATTN: EDDIE SEAY
601 W. ILLINOIS
HOBBS, NM 88242
FAX TO:

Receiving Date: 07/15/02
Reporting Date: 07/17/02
Project Number: GRACE OIL
Project Name: SALTY BILL
Project Location: CARLSBAD, NM

Sampling Date: 07/15/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER SAMPLE ID	P-Alkalinity (mg/L)	T-Alkalinity (mg/L)	Hardness (mg/L)	Chloride (mg/L)	Sulfates (mg/L)	pH (s.u.)
ANALYSIS DATE	07/16/02	07/16/02	07/16/02	07/16/02	07/16/02	07/16/02
H6882-1 SB #1	0	195	827	960	193	7.16
Quality Control	NR	NR	48.0	980	49.34	6.93
True Value QC	NR	NR	50.0	1000	50.00	7.00
% Recovery	NR	NR	96.1	98.0	98.7	99.0
Relative Percent Difference	NR	NR	4.4	2.0	0.2	0.1
METHODS: EPA 600/4-79-02	-	-	130.2	325.3	375.4	150.1
Standard Method	2320 B	2320 B	-	-	-	-

LAB NUMBER SAMPLE ID	Hydroxides (mg/L)	Carbonate (mg/L)	Bicarbonat (mg/L)	Conductivity (umhos/cm)	TDS (mg/L)
ANALYSIS DATE	07/16/02	07/16/02	07/16/02	07/16/02	07/17/02
H6882-1 SB #1	0	0	238	3334	2772
Quality Control	NR	NR	1016	1451	NR
True Value QC	NR	NR	1000	1413	NR
% Recovery	NR	NR	102	103	NR
Relative Percent Difference	NR	NR	13.6	0.1	8.8
METHODS: EPA 600/4-79-02	-	-	-	120.1	160.1
Standard Method	2320 B	2320 B	2320 B	-	-

Chemist

Date

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(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Page of

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

+ Cardinal  not accept verbal changes. Please fax written changes to 915-673-7020.

LABORATORY TEST REPORTS



PETTIGREW and ASSOCIATES

1110 N. GRIMES
HOBBS, NM 88240
(505) 393-9827

DEBRA P. HICKS, P.E.
WILLIAM M. HICKS, III, P.E.

Clay to
be used
at Grace

DATE OF TEST: July 8,

SOILS DESCRIPTION: Brown Clay

LOCATION: S&H Farms

SPECIMEN PREPARATION: Remolded to approximately 95% of maximum dry density at optimum moisture content according to ASTM D 698.

SPECIMEN DATA

Initial Diameter: 2 1/2"

Initial Area: 32.18 cm²

Initial Height: 1"

Initial Dry Unit Weight: 102.5 pcf

Initial Moisture Content: 14.2%

Cell Pressure: 8 psi

Head Pressure: 6 psi

Back Pressure: 4.5 psi

Corrected Hydraulic Conductivity, K_{20} (cm/sec)

Average Hydraulic Conductivity, $k = 1.21 \times 10^{-6}$ cm/sec

This test was performed in general accordance with ASTM D 5084 "Standard Test Method for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter", and Corp of Engineers Manual EM 1110-2-1906, Appendix VII, "Permeability Tests".

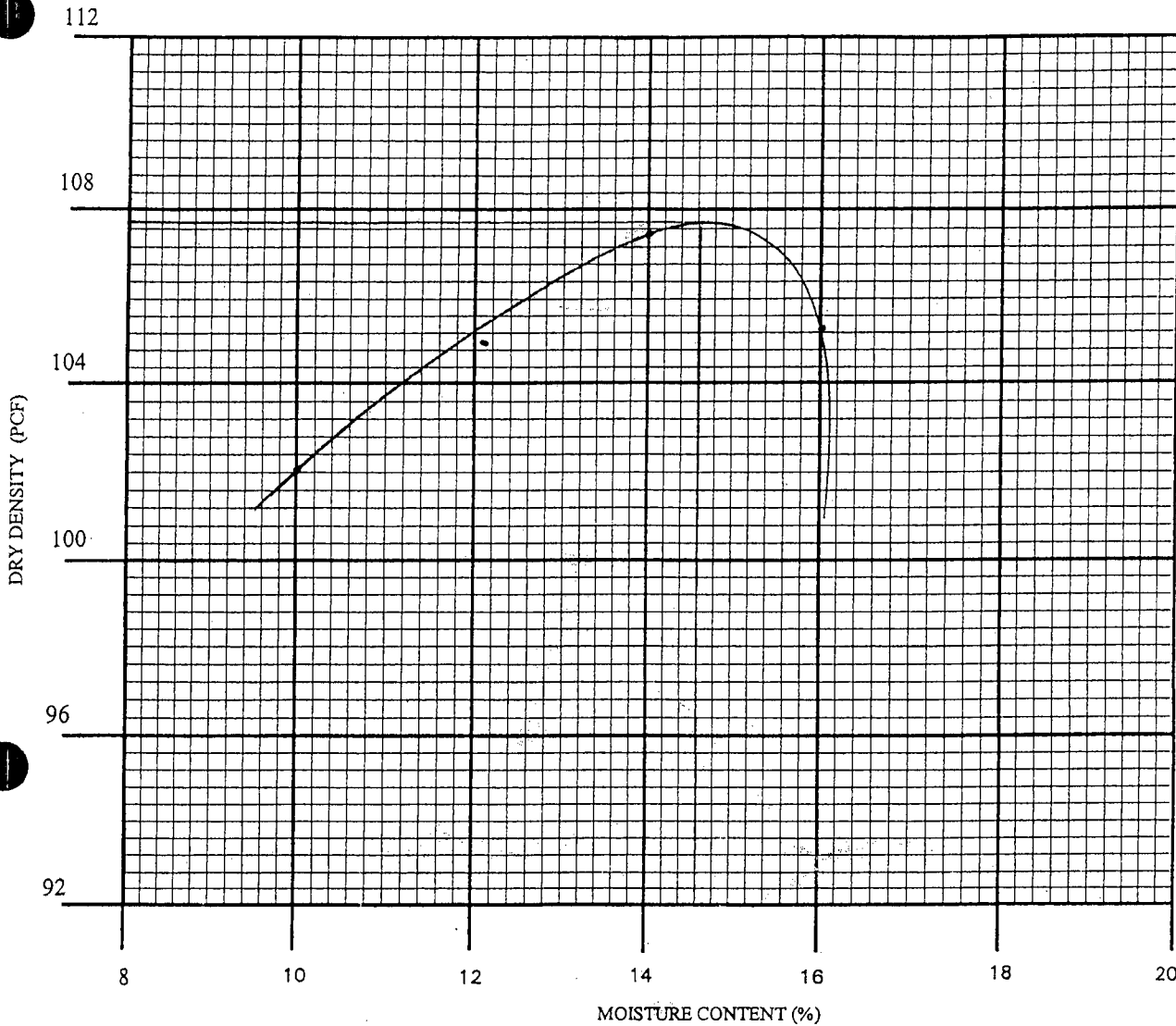
Lab No.: 9H-10889

PETTIGREW and ASSOCIATES, P.A.

BY:

Jeremy Baker

E.I.



CLIENT: _____ PROJECT: _____

SAMPLE LOCATION: S&H Farms

SOIL DESCRIPTION: Brown Clay

SOIL CLASSIFICATION: _____ TEST METHOD: ASTM D 698

DATE: July 8, LAB NO. 9H-10150 ATTERBERG: LL _____ % PI _____

DRY WEIGHT LB/CU.FT. 107.7 MOISTURE CONTENT %: 14.6

SIEVE ANALYSIS - % PASSING

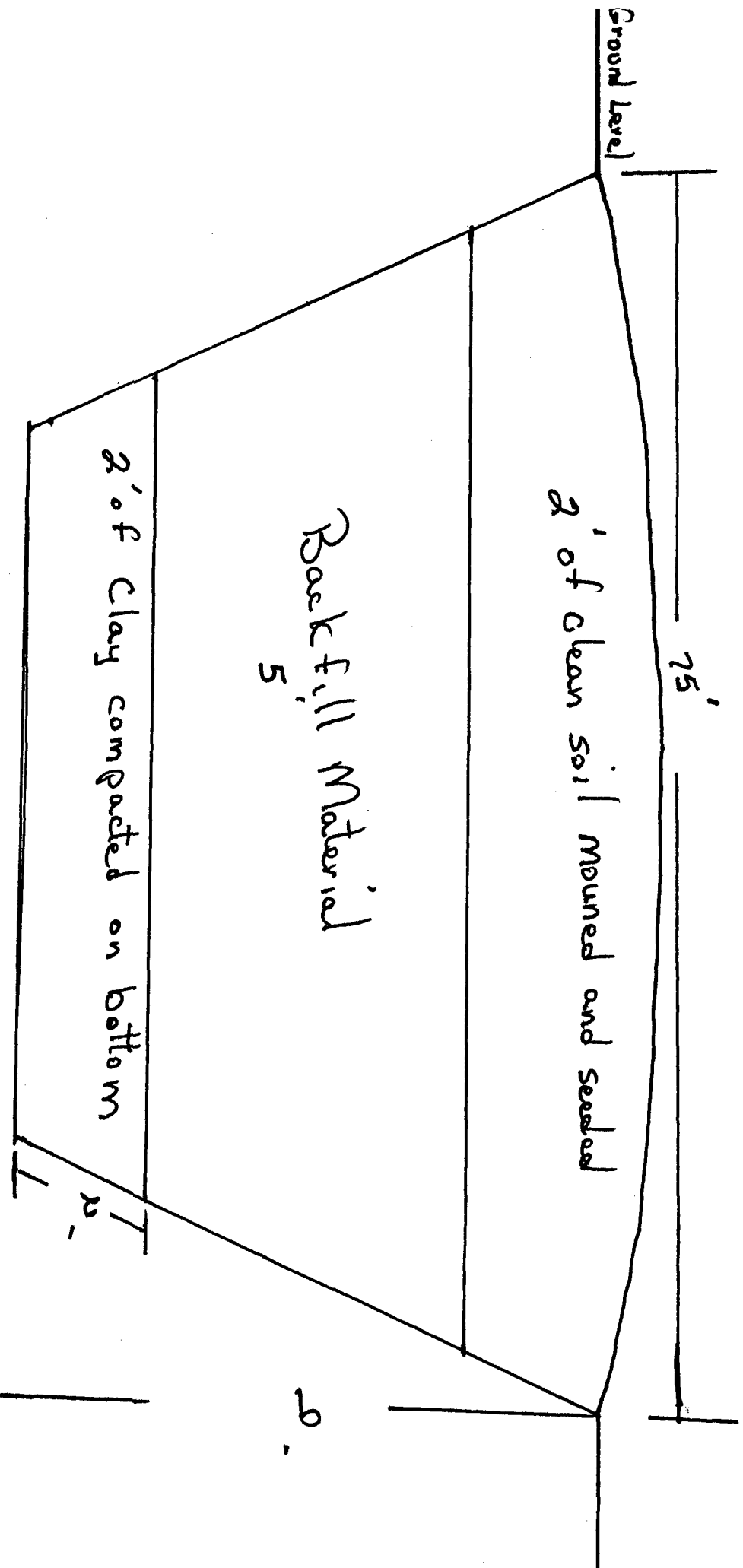
C:\FORMS\PETFRMS\LABTESTS\PROCTFIL.FRM

COPIES: Helms

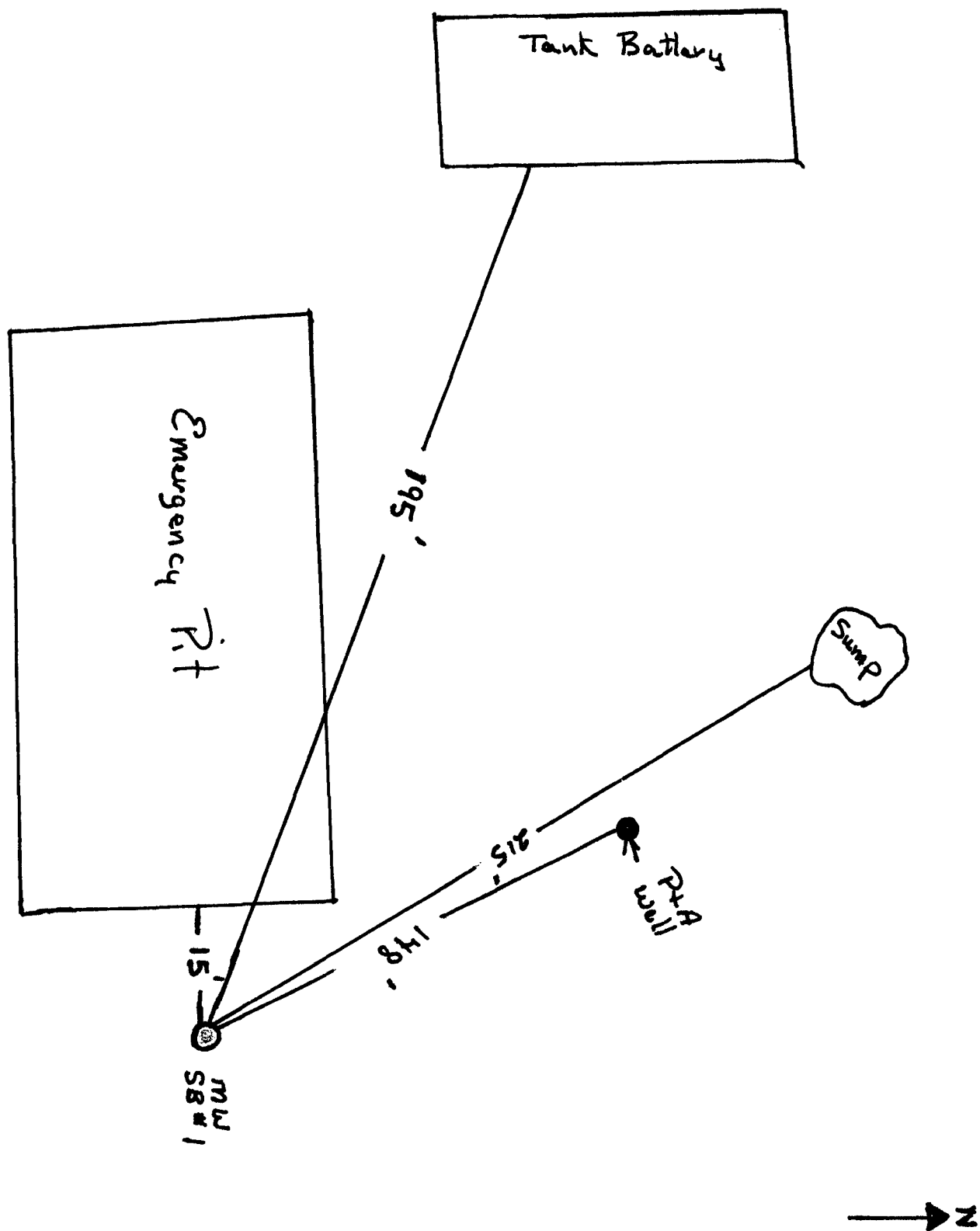
PETTIGREW and ASSOCIATES

RY. [Signature] S.E.T.

Cross Section
Pit,
Tank Battery and Sump will be similar



Grace
Salty Bill





CORINNE GRACE
SALTY BILL SWD
NE/4 NW/4, SEC. 36-T22S-R26E
EDDY COUNTY, NEW MEXICO
(505) 887-5581
(505) 885-4485 (505) 887-0980











Filter
Industrial Quartz
QUALITY, CONSISTENCY AND UNIFORMITY FROM UNIMIN CORPORATION
Net Weight 50 lb / 22.6 kg
SEE BACK PANEL FOR HEALTH WARNING

Filter
Industrial Quartz
QUALITY, CONSISTENCY AND UNIFORMITY FROM UNIMIN CORPORATION
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FILTERSIL #000

Filter
Industrial Quartz
QUALITY, CONSISTENCY AND UNIFORMITY FROM UNIMIN CORPORATION
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Filter
Industrial Quartz
QUALITY, CONSISTENCY AND UNIFORMITY FROM UNIMIN CORPORATION
Net Weight 50 lb / 22.6 kg
SEE BACK PANEL FOR HEALTH WARNING

FILTERSIL #000











CITY OF CARLSBAD



AIRPORT WATER WELL #1

NON POTABLE WATER



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
BETTY RIVERA
Cabinet Secretary

October 3, 2002

Lori Wrotenbery
Director
Oil Conservation Division

Ms. Corinne Grace
PO Box 1418
Carlsbad, NM 88220

Re: 5,000 Single-Well Cash Bond
Corinne Grace, Principal
Wells Fargo Bank – Carlsbad – Acct. No. 1353243552
Salty Bill No. 1 – 660' FNL and 1980' FWL
Section 36, Township 22 South, Range 26 East,
Eddy County, New Mexico
Bond No. OCD-723

Dear Ms. Grace:

The New Mexico Oil Conservation Division hereby approves the above-captioned single-well cash bond.

Sincerely,

DAVID K. BROOKS
Assistant General Counsel

DKB/dp

cc: Oil Conservation Division – Artesia, NM

Wells Fargo Bank
Carlsbad West Fox Office
115 West Fox Street
PO Box 1689
Carlsbad, NM 88221-1689

May 2, 2003

Wayne Price
NMOCD Environmental
Box 6429
1220 S. Saint Francis Drive
Santa Fe, NM 87504

RE: Corine B. Grace
Salty Bill Water Disposal Facility
Carlsbad, NM

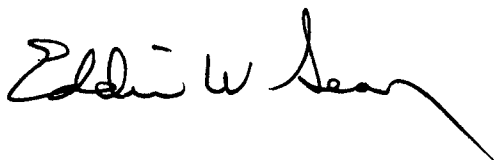
Mr. Price:

As your correspondence directed, the two monitor wells have been properly plugged and await your closure approval.

OCD, Artesia was notified of the plugging on April 25. Taylor Water Well Service conducted the plugging operations, mixing portland cement with bentonite, running 1" pvc inside the monitor wells to 180' in monitor well #1 and 160' in monitor well #3. Cement was circulated from bottom to top of ground. The 1" pipe was pulled and 2" hole was topped off at surface with cement. All surface equipment was removed. (Photos attached.)

This concludes Mrs. Grace's obligation and will look forward to final closure and bond release.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie W. Seay", with a long, sweeping underline that extends to the right.

Eddie W. Seay, Agent
601 W. Illinois
Hobbs, NM 88242
(505)392-2236

cc: Artesia OCD

Grace Salty B.W Mw #1









Salty Bill

mw # 1

4/28

Grace Salty Bill MW #3



Salty Bill

MW #3







April 2, 2003

Mr. Joel M. Carson
Losee, Carson, Haas, & Carroll, P.A.
311 West Quay Avenue
Artesia, NM 88211-1720

Re: Corinne B. Grace
Salty Bill Water Disposal Facility
NE/4 NW/4 of Section 36-Ts22s-R26e
Eddy County, New Mexico

Dear Mr. Carson:

The New Mexico Oil Conservation Division (NMOCD) is in receipt of Salty Bill Water Disposal Facility's (SBWDF) closure report dated March 17, 2003 submitted by Eddie W. Seay, Agent for Salty Bill Water Disposal Facility. OCD will issue closure when the two on-site monitor wells are plugged properly. Please provide this information within 30 days.

If you require any further information or assistance please do not hesitate to write or call me at (505-827-7155).

Sincerely Yours,

Wayne Price-Pet. Engr. Spec.
Environmental Bureau

cc: OCD Artesia Office

RECEIVED
MAR 25 2003
Environmental Bureau
Oil Conservation Division

**GRACE OIL CO.
SALTY BILL
CARLSBAD, NM**

**From:
EDDIE SEAY CONSULTING
601 W. ILLINOIS
HOBBS, NM 88242**

March 17, 2003

NMOCD Environmental
ATTN: Wayne Price
Box 6429
1220 S. Saint Francis Drive
Santa Fe, NM 87504

RE: Grace, Salty Bill SWD

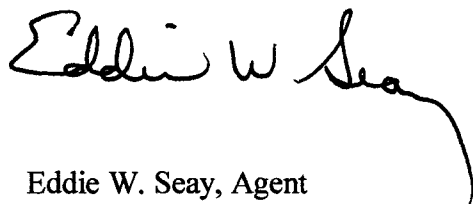
Mr. Price:

Within is additional information for closure of the Grace facility. As requested, the up-gradient MW was drilled and tested, and the excavated areas have been covered. The OCD from Artesia, Mike Stubblefield, witnessed much of the activities.

We are in hopes of closing this project so as to get the bond canceled.

If you have any questions or need additional information, please call.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie W. Seay". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

Eddie W. Seay, Agent
601 W. Illinois
Hobbs, NM 88242
(505)392-2236

Salty Bill Disposal

The up-gradient MW #2 was located 150' NW of the disposal site. Taylor Water Well Service rigged up and began drilling 1/7/2003 on MW #2 until circulation was lost and the well began to collapse. After talking with Mr. Stubblefield and to Mr. Price, it was agreed to abandon this well and move location. The well was secured and a new location was staked 100' NW of MW #2, still up-gradient of the site. The new MW #3 is located 250' NW of the Salty Bill facility. Drilling was conducted with a 6 in. bit. Water was encountered at approximately 169'. The well was drilled to a total depth of 197' and cased to 182'. The extra rat hole was to allow for caving. The well was cased with 2" pvc monitor well pipe and .10 screen. Within is schematic of completion and log of well.

After completion, well was developed and tested. The water level was at 122.2'. The well was pumped and developed for approximately three hours extracting approximately 150 to 180 gal. of water. The water was clear and the conductivity had leveled off. The pumping equipment was pulled and sampling was conducted by using a disposable baler.

After sampling, a locking box was installed and cemented on the well. During the cementing, the old abandoned MW #2 was filled with cement and bentonite from top to bottom.

Excavation Area

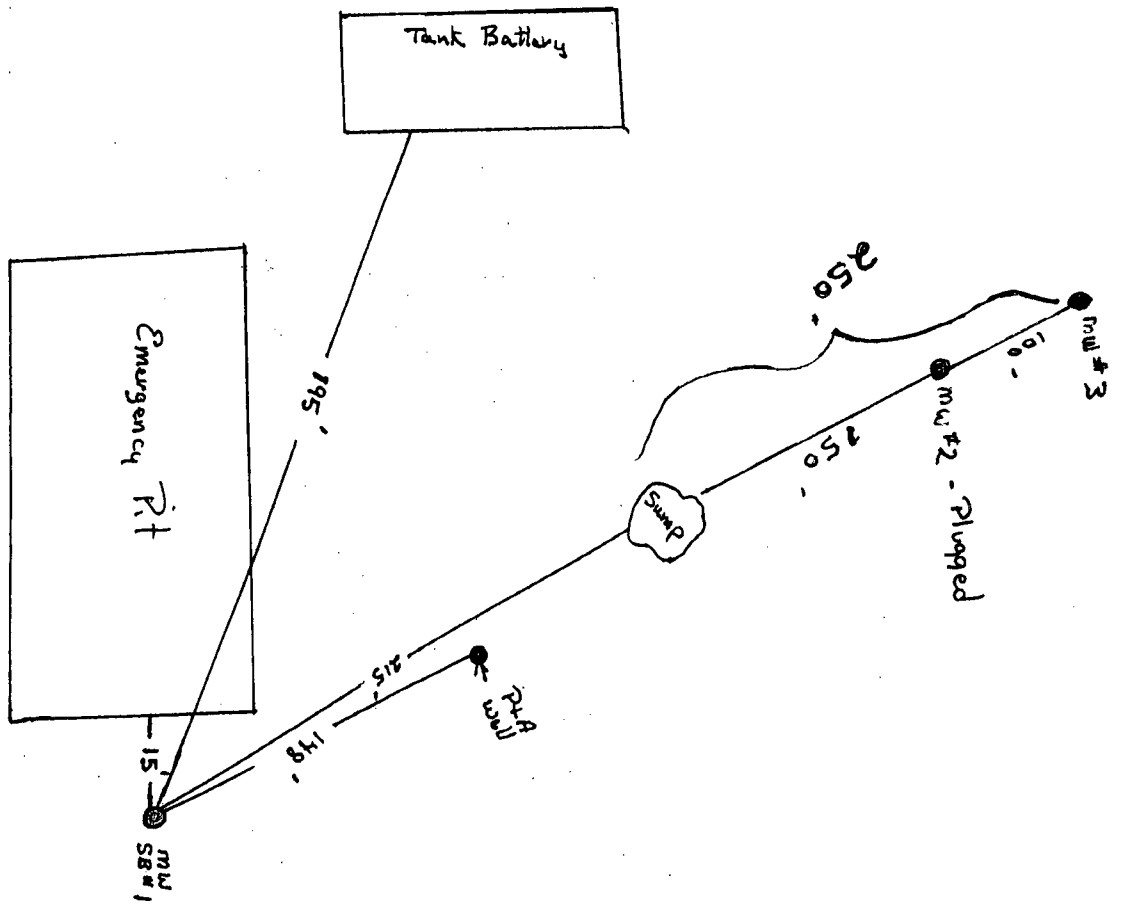
As you directed, the excavated area were backfilled. At each pit, a two foot clay barrier was put in the bottom and compacted. The pit was filled from the clay to within 18" and two feet of surface with rock and caliche. The top portion was filled to surface with good clean soil native to the area. The location around the facility and monitor wells were cleaned and leveled. The facility is ready for inspection.

Conclusion

From this analytical of the up-gradient MW, it appears that the elevated chloride is common for this area as expected.

We feel by removing most of the contaminant from the pit areas and properly closing them and plugging the SWD well, this should eliminate any future problems.

Grace
Salty Bill



Grace Petroleum #2

P
4
A

Drill Rate (Min/2ft)

0-21- 1/6/03
42 Soil
62-
86 ← Cobble + Gravel: Brn, Gry
106 ← off wht, Lmy
22 Clay: Yel, Slt+y
44 ← Cobble + Gravel: AA
67
84-
204-
24 ← Caliche + Yel Clay
42-
63
83
303
2- Clay: Pnk, Slt+y, Sndy
2-
63-
83-
403-
23 ← Clay: Rd, Sndy
42
62-
82
502-
22-
42-
65 ← Conglomerate: Yel brn, Gry
85- Dk gry, Calc, Very
605- Broken, Rough Drilling
25
45
65
86
7-6
25-
46
66-
86-
806

80-23- 1/7/03
43-
63-
83-
905
25
45-
53 ← Clay: Pnk, Slt+y
84 ← Congl: AA
1004-
24 ← Lost All Returns
45
68
82- Very Rough Drilling
1103 Bail Hole (Dry)
1/8/03
2
4
6
8
120
2
4
6
8
130
2
4
6
8
140
2
4
6
8
150
2
4
6
8
160
2
4
6
8
170

170-2
4
6
8
180
2
4
6
8
190
2
4
6
8
200

Plugged Hole w/ Portland Cement + Bentonite

Grace Oil #3

0-2 1- soil 1/10/03
 4 1
 6 1
 8 4 ← Cobble + Gravel: Brn, Yel Brn,
 10 3 ← Gry, OEE WHT, TN. LmY
 2 2 CHRTY IP
 4 1- Clay: DL Rd, Sndy
 6 1
 8 1
 10 1-
 2 2

4 3- ← Cobble + Gravel: Lt Brn, Yel Brn,
 6 4 DK GRy, Dnk. OEE WHT,
 8 4 LmY, CHRTY IP
 10 3-
 2 3-
 4 3- ← Clay: Dull Rd, SLty-Sndy
 6 2
 8 1
 10 1

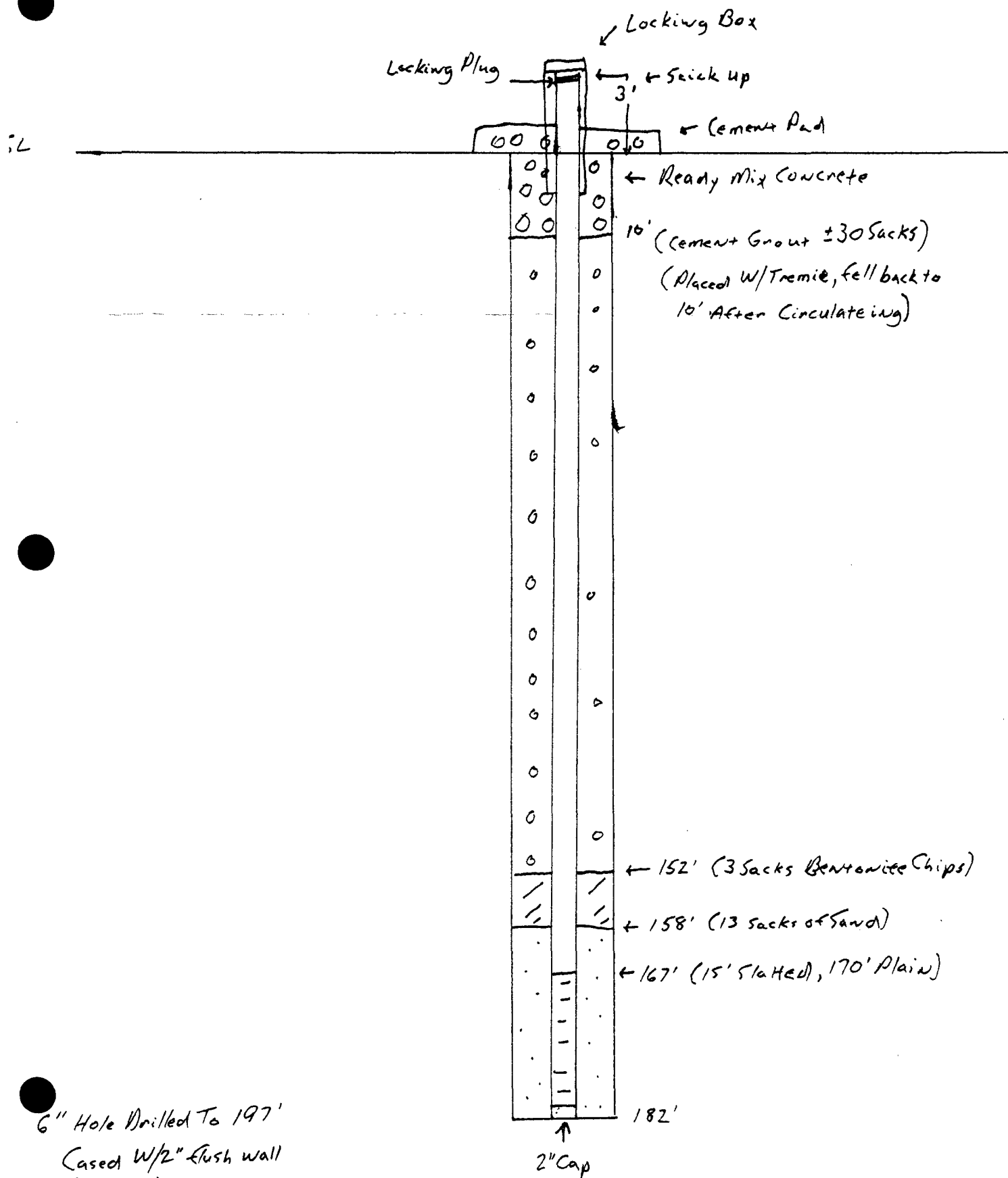
2 3 ← Cobble + Gravel: Dk gry
 4 3 Yel Brn, Gry, OEE WHT
 6 5 LmY, ChrtY
 8 3
 10 3
 2 3
 4 3-
 6 3
 8 4-
 10 6- 1/11/03

2 5
 4 5 ← Clay: DL Rd, Sndy, SLty,
 6 3
 8 4- Cobble + Gravel: AA
 10 4-
 2 4 ← Clay: Dull Rd, SLty
 4 4 ← Conglomerate: Yel Brn, Brn
 6 6- Gry, OEE WHT, LmY
 8 6-
 10 6-

90-2 7-
 4 8-
 6 9
 8 9
 90 10
 2 11 ← Clay: Yel; Smth-SLty
 4 4-
 6 4-
 8 3-
 100 3- 1/12/03
 2 4
 4 6- ← Clay: Lt GRy, Smth-
 6 4 SLty
 8 4 ← Clay: DK Rd, smth,
 110 12 VRY St+KY
 2 21
 4 3- ← Clay: Bot Rd, SLTY
 6 4
 8 8
 120 9
 2 4
 4 3-
 6 4
 8 9
 130 9 ← Clay: Lt Rd, Thin
 2 8 Layers of Clr Gyp
 4 8
 6 7
 8 6
 140 4-
 2 6
 4 6- ← Anhy: Clr, Frstd, Sme
 6 7 WHT, VFN-FN XLN
 8 8
 150 6- Sme GYP
 2 5-
 4 6 AA: Sme Lt Brn-Brn
 6 8 Anhy
 8 7
 160 7 1/13/03
 2 5-
 4 6-
 6 7
 8 5 ← 168-169' Rd Clay
 170 5 169' Water

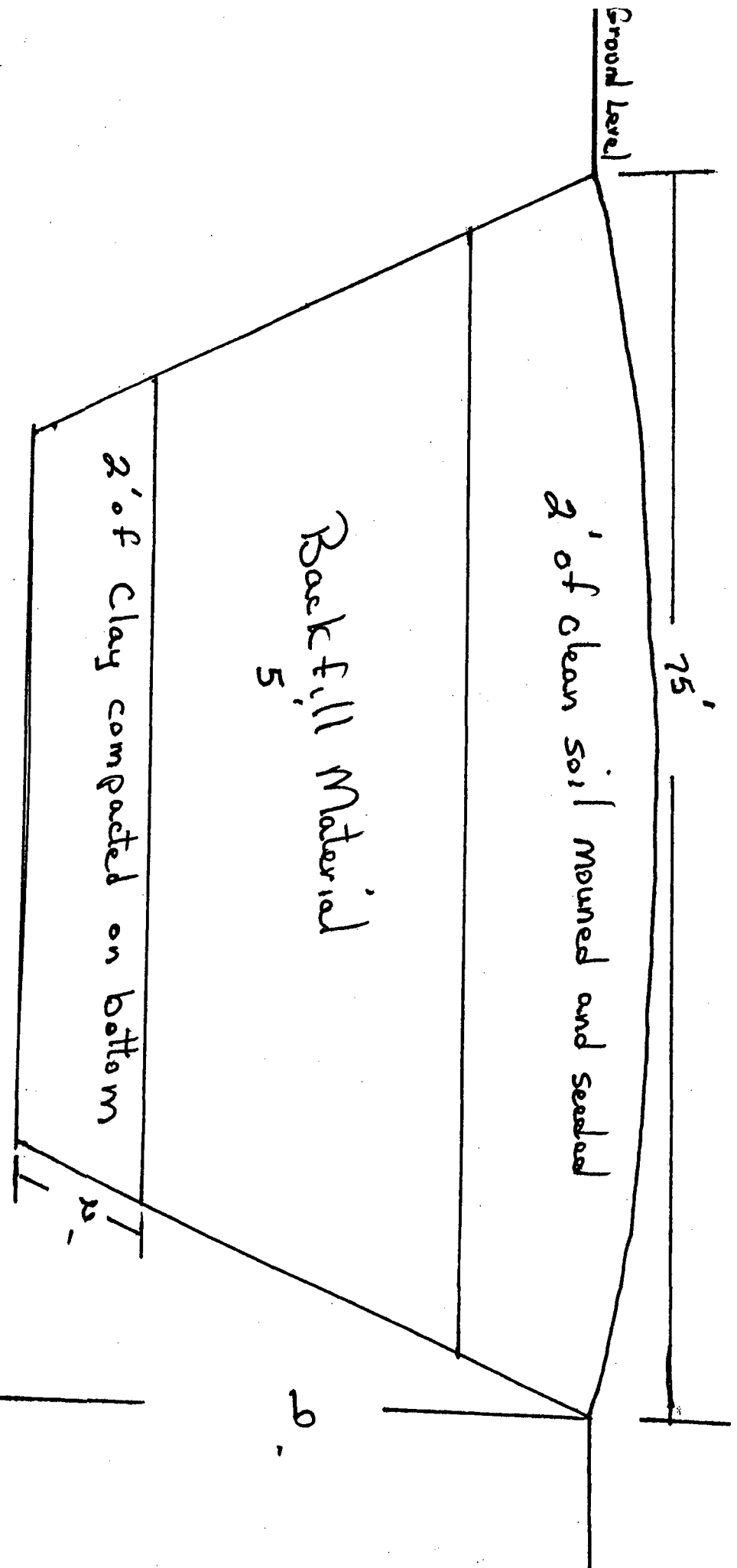
170-2 5 Anhy: Frstd, Lt
 4 5- Brn, Clr, Frstd
 6 5- VFN-FN XLN
 8 6- Abndnt Water
 180 6- ← 1/20/03
 2 5- Rd Clay + GYP
 4 4
 6 5
 8 5
 190 6 ← ANHY: WHT, Frstd
 2 7 Sme CLRGYP
 4 8 VFN XLN-MS
 6 8
 8 3- TD 197'
 200

Air Drilled to 180'
 Hole was too unstable.
 Mixed mud and drilled
 to 197'. Cased well
 to 182'.



6" Hole Drilled To 197'
Cased w/2" Flush wall
To 182'.

Cross Section
Pit,
Tank Battery and Sump will be similar





PHONE (915) 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: 01/22/03
Reporting Date: 01/24/03
Project Owner: C. GRACE
Project Name: SALTY BILL DISPOSAL
Project Location: CARLSBAD, NM

Sampling Date: 01/22/03
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER SAMPLE ID	P-Alkalinity (mg/L)	T-Alkalinity (mg/L)	Hardness (mg/L)	Chloride (mg/L)	Sulfates (mg/L)	pH (s.u.)
ANALYSIS DATE	01/23/03	01/23/03	01/23/03	01/23/03	01/23/03	01/23/03
H7422-1 MW #3	0	150	3280	1799	2390	7.72
Quality Control	NR	NR	41	1050	50.20	6.91
True Value QC	NR	NR	50	1000	50.00	7.00
% Recovery	NR	NR	82.0	105	100	98.7
Relative Percent Difference	NR	NR	1.4	0.1	0.7	0.4
METHODS: EPA 600/4-79-02	-	-	130.2	325.3	375.4	150.1
Standard Method	2320 B	2320 B	-	-	-	-

LAB NUMBER SAMPLE ID	Hydroxides (mg/L)	Carbonate (mg/L)	Bicarbonate (mg/L)	Conductivity (umhos/cm)	TDS (mg/L)
ANALYSIS DATE	01/23/03	01/23/03	01/23/03	01/23/03	01/24/03
H7422-1 MW #3	0	0	183	9113	8746
Quality Control	NR	NR	1068	1322	NR
True Value QC	NR	NR	1000	1413	NR
% Recovery	NR	NR	107	93.6	NR
Relative Percent Difference	NR	NR	7.7	0.7	0.8
METHODS: EPA 600/4-79-02	-	-	-	120.1	160.1
Standard Method	2320 B	2320 B	2320 B	-	-

Chemist

Date

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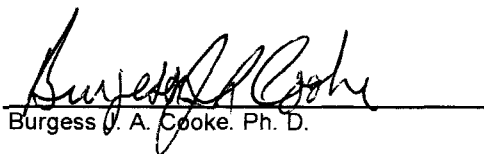
ANALYTICAL RESULTS FOR
EDDIE SEAY CONSULTING
ATTN: EDDIE SEAY
601 W. ILLINOIS
HOBBS, NM 88242
FAX TO:

Receiving Date: 01/22/03
Reporting Date: 01/23/03
Project Owner: C. GRACE
Project Name: SALTY BILL DISPOSAL
Project Location: CARLSBAD, NM

Sampling Date: 01/22/03
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

LAB NUMBER	SAMPLE ID	GRO (C ₆ -C ₁₀) (mg/L)	DRO (>C ₁₀ -C ₂₈) (mg/L)	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE:		01/22/03	01/22/03	01/23/03	01/23/03	01/23/03	01/23/03
H7422-1	MW #3	<5.0	<5.0	<0.002	<0.002	<0.002	<0.006
Quality Control		13.4	13.5	0.111	0.104	0.105	0.299
True Value QC		15.0	15.0	0.100	0.100	0.100	0.300
% Recovery		89.5	89.8	111	104	105	99.8
Relative Percent Difference		9.1	5.2	<0.1	5.1	6.1	4.1

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8260.


Burgess A. Cooke, Ph. D.

1/23/03
Date

H7422BT.XLS

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(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Page ____ of ____

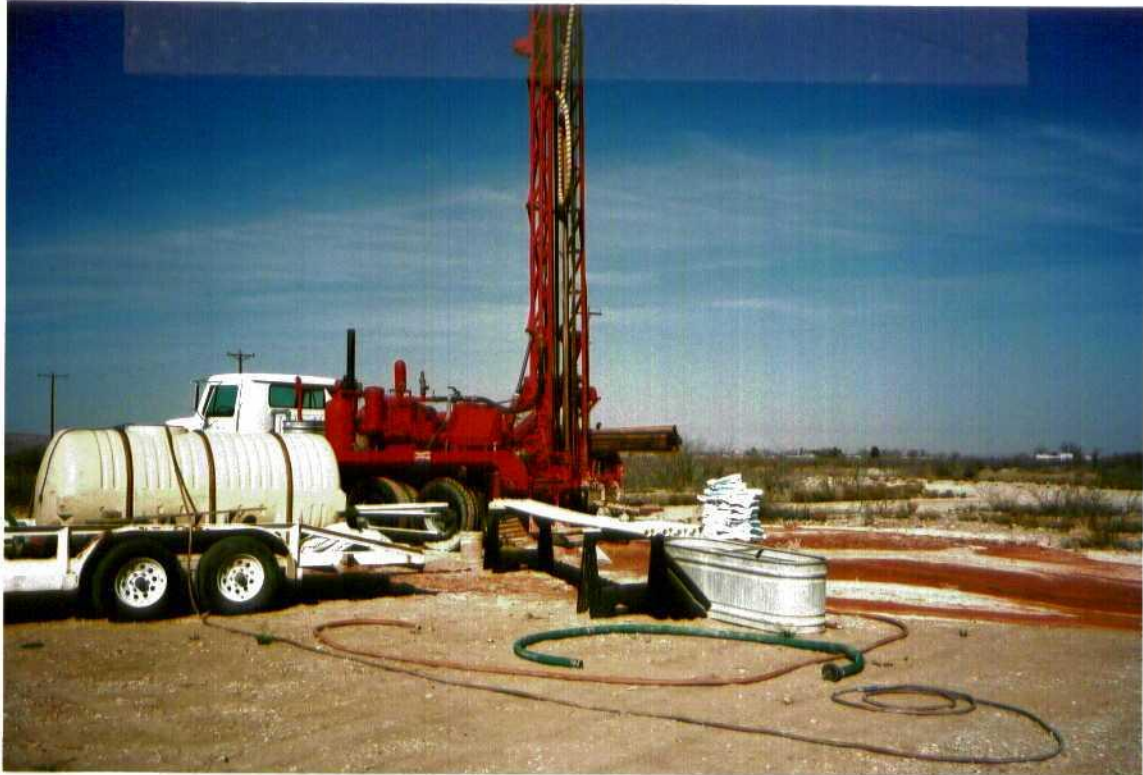
[illegible]

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476.



mw # 3







mw # 3







mw #2 P+A





Pit area covering





Pit Covering





Final



RECEIVED
SEP 18 2001
Environmental Bureau
Oil Conservation Division

**GRACE OIL CO.
SALTY BILL
CARLSBAD, NM**

**From:
EDDIE SEAY CONSULTING
601 W. ILLINOIS
HOBBS, NM 88242**

September 10, 2001

NMOCD Environmental Bureau
ATTN: Wayne Price
P.O. Box 6429
1200 S. Saint Francis Drive
Santa Fe, NM 87504

RE: Salty Bill - Closure
Grace Oil

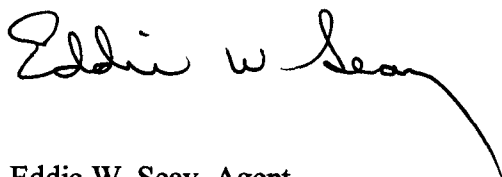
Mr. Price:

As requested, additional testing was conducted on July 27, 2001. I have been waiting on additional information about this site and aerial photos to send with this report. Find within photos, aerial photos, water well information, analytical and associated information.

The testing was done by using an air rotary drilling rig and collecting samples at various depths at the three sites. All activities were witnessed by OCD Field Representative, Mr. Phil Hawkins.

If additional information is needed or if you have any questions, please call. I thank you for your time and patience in this matter.

Sincerely,

A handwritten signature in cursive script that reads "Eddie W. Seay". The signature is written in dark ink and has a long, sweeping underline that extends to the right.

Eddie W. Seay, Agent
601 W. Illinois
Hobbs, NM 88242
(505)392-2236

SUMMARY AND OVERVIEW

The compliance and cleanup of the Salty Bill site started in 1998. Some excavation of soils and lining of tanks was done at this time, but compliance was never achieved.

I became involved in 2000, I was able to convince Grace Oil to stop operations and close facility. We have dismantled and moved all equipment, plugged the brine well and excavated all soils which were above OCD guidelines for TPH and BTEX. We are now trying to meet the OCD's request in reducing the chloride content for final closure.

We have conducted sampling at the battery, pit and sump areas on three different occasions, one in March, another in June, using a backhoe to sample as deep as possible. Fifteen feet was as deep as the machinery would dig. All data has been submitted to the OCD for review.

In July, we were able to acquire a rotary drilling rig to sample at deeper depths. Samples were taken at different depths. Listed are the logs for the sites:

Battery

B-1 20 ft. red sand and rock

B-2 30 ft. red sand and rock

at 28 ft., a hard rock layer was encountered and drilling was stopped at 30 ft. The driller said we would have to drill on foam and water to continue, sampling was done at 20 and 30 ft.

Pit Area

P-1 at 20 ft. red sand and rock, the hole kept caving in, a sample was taken.

Sump Area

S-1 sample at 16 ft. red sand, clay and rock

S-2 sample at 28 ft. hit hard rock, and gravel. Hole started caving, samples were taken.

The driller said the only way to obtain samples was to run steel conductor pipe as we drilled and drill with water.

GEOLOGY/HYDROLOGY

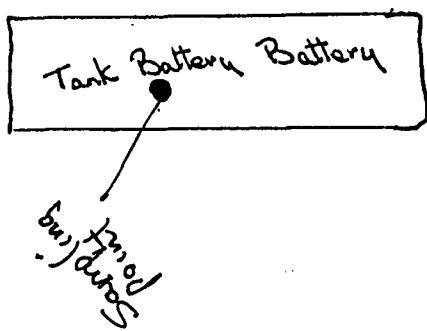
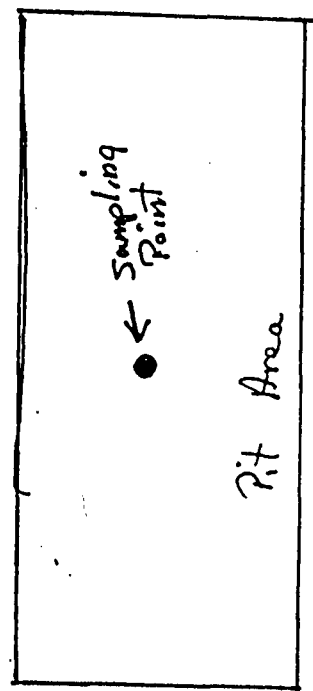
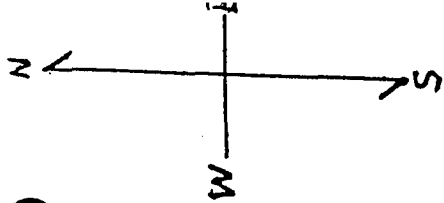
Within find the logs from the only water well in the general area, the logs show red-shale and limestone to 300 ft. and water at 180 to 192. The water level stands at approximately 115 to 120 ft. This well is no longer in use so a sample could not be obtained. All the water in the area is piped in by the City of Carlsbad. The offset oil well logs show redbed and sand from 0 to 500. (see logs)

Also, before Grace Oil was in operation, this site and surrounding area was a military facility (aerials within). We are not sure of the activities that had occurred on this site and are reluctant to do any additional digging and drilling.

CONCLUSION AND RECOMMENDATIONS

Although we still have elevated chloride in the soil, I feel by lining the bottoms with two feet of clay plus the fact we have some two hundred feet of red shale between surface and groundwater, this will prevent any migration of salt downward. We will backfill and mound the areas to prevent ponding and leaching.

Please consider our recommendation so final closure can be achieved.



Salty Bill Facility
Carlsbad N.M.

Analytical





PHONE (915) 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 W. SEAY
601 W. ILLINOIS
HOBBS, NM 88242
FAX TO:

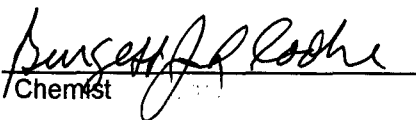
Receiving Date: 07/30/01
Reporting Date: 07/31/01
Project Owner: C. GRACE
Project Name: GRACE-SALTY BILL
Project Location: CARLSBAD, NM

Analysis Date: 07/30/01
Sampling Date: 07/27/01
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: HM

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/Kg)
H6023-1	B-1	2170
H6023-2	B-2	809
H6023-3	P-1	1360
H6023-4	S-1	4130
H6023-5	S-2	2850
Quality Control		936
True Value QC		1000
% Recovery		93.6
Relative Percent Difference		6.0

METHOD: Standard Methods	4500-Cl ⁻ B
--------------------------	------------------------

NOTE: Analyses performed on 1:4 w:v aqueous extracts.


Chemist

7/31/01
Date

H6023.XLS

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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 ____

BILL TO										ANALYSIS REQUEST									
Company Name: <u>Eddie Seay Consulting</u>										P.O. #:									
Project Manager: <u>Eddie W Seay</u>										Company:									
Address: <u>601 W Illinois</u>										Attn: <u>Seay</u>									
City: <u>Hobbs</u>										Address:									
Phone #: <u>392-2236</u>										City:									
State: <u>NM</u> Zip: <u>88242</u>										State:									
Fax #:										Phone #:									
Project #:										Fax #:									
Project Name: <u>Grace - Sally Bill</u>										Project Owner: <u>C. Grace</u>									
Project Location: <u>Carlsbad N.M.</u>										City:									
Sampler Name: <u>Eddie W Seay</u>										State:									
Zip:										Phone #:									
Fax #:										City:									
FOR LAB USE ONLY										Chloride									
Lab I.D.										DATE									
H6023-1										TIME									
H6023-2										7/27 1:30									
H6023-3										" 2:00									
H6023-4										" 3:45									
H6023-5										" 3:30									
H6023-6										" 4:15									
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H6023-100																			

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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:		Received By:		Phone Result:		Add'l Phone #:	
Eddie W Seay		Busey		Yes		No	
Relinquished By:		Received By: (Lab Staff)		Fax Result:		Add'l Fax #:	
Eddie W Seay		Busey		Yes		No	
Delivered By: (Circle One)		Checked By:		REMARKS:			
Sampler - UPS - Bus - Other:		Sample Condition					
		Cool Initial					
		Yes					
		No					

water wall



STATE ENGINEER OFFICE

WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well U.S. Army (Now City of Carlsbad) Owner's Well No. 1
 Street or Post Office Address _____
 City and State _____

Well was drilled under Permit No. C-853 and is located in the:

a. NE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 36 Township 22 S Range 26 E N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
 Subdivision, recorded in Eddy County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in
 the _____ Grant.

(B) Drilling Contractor Brininstool License No. _____

Address _____

Drilling Began _____ Completed July, 1942 Type tools _____ Size of hole _____ in.

Elevation of land surface or 3228.1 at well is _____ ft. Total depth of well 300 ft.

Completed well is ☐ shallow ☐ artesian. Depth to water upon completion of well _____ ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
From	To			

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To
12								

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by: _____

State Engineer Representative

No.	Depth in Feet		Cubic Feet of Cement
	Top	Bottom	
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received _____

Well No. 1 on Photo PRC-1-71

Quad _____ FWL _____ FSL _____

File No. C-853 Use _____ Location No. 22.26.36.111214

[illegible]

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All questions, except Section 5, shall be answered as completely and accurately as possible. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

Well Logs

NO. OF COPIES RECEIVED	6
DISTRIBUTION	
SANTA FE	1
FILE	1
S.G.S.	2
LAND OFFICE	1
OPERATOR	

Form C-105
Revised 1-1-65

NEW MEXICO CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

MAY 6 1971

5a. Indicate Type of Lease
State ☒ Fee ☐
5. State Oil & Gas Lease No.
K-675 & Fee

1a. TYPE OF WELL
OIL WELL ☐ GAS WELL ☒ DRY ☐ OTHER ☐
b. TYPE OF COMPLETION
NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER ☐

7. Unit Agreement Name
8. Farm or Lease Name
City of Carlsbad Com
9. Well No.
1
10. Field and Pool, or Wildcat
Wildcat R-1194 10-1-71

2. Name of Operator
Corinne Grace
3. Address of Operator
c/o Oil Reports & Gas Services, Inc., Box 763, Hobbs, New Mexico 88240
4. Location of Well

UNIT LETTER **Q** LOCATED **660** FEET FROM THE **South** LINE AND **1980** FEET FROM
THE **East** LINE OF SEC. **25** TWP. **22S** RGE. **26E** NMPM

12. County
Eddy

15. Date Spudded **9/15/70** 16. Date T.D. Reached **1/2/71** 17. Date Compl. (Ready to Prod.) **3/2/71** 18. Elevations (DF, RKB, RT, GR, etc.) **3226 DF 3206.1 gr.** 19. Elev. Casinghead
20. Total Depth **11,970** 21. Plug Back T.D. **11,934** 22. If Multiple Compl., How Many
23. Intervals Drilled By **1375-TD** Rotary Tools **0-1375** Cable Tools
24. Producing Interval(s), of this completion - Top, Bottom, Name
11,566-572 Morrow 25. Was Directional Survey Made
Yes

26. Type Electric and Other Logs Run
Gamma Ray, Neutron, Micro-Laterlog, Laterolog, Acoustilog 27. Was Well Cored
No

CASING RECORD (Report all strings set in well)					
CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8	54#	364	17 1/2	500	none
8 5/8	32#	5420	11 3/4	1650	none
5 1/2	17# & 20#	11,969	7 7/8	1025	none

LINER RECORD				TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SIZE	DEPTH SET	PACKER SET
				2 7/8	11,565	11,529

31. Perforation Record (Interval, size and number)
11,566 - 11,572
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.
DEPTH INTERVAL **11,566-572** AMOUNT AND KIND MATERIAL USED **None**

33. PRODUCTION
Date First Production **3/2/71** Production Method (Flowing, gas lift, pumping - Size and type pump) **Flowing** Well Status (Prod. or Shut-in) **Shut In**
Date of Test **3/2/71*** Hours Tested **24*** Choke Size **-** Prod'n. For Test Period **No** Oil - Bbl. **3107*** Gas - MCF **1032*** Water - Bbl. **TSTM** Gas - Oil Ratio
Flow Tubing Press. **2573** Casing Pressure **Pkr** Calculated 24-Hour Rate ***From last rate 4-point Test** Oil Gravity - API (Corr.) **-**

34. Disposition of Gas (Sold, used for fuel, vented, etc.) **be sold** CAOP 10,599 MCFPD Test Witnessed By

35. List of Attachments
1 copy electric logs

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED Wonna Holles TITLE Agent DATE 5/4/71

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

T. Anhy _____	T. Canyon _____	T. Ojo Alamo _____	T. Penn. "B" _____
T. Salt _____	T. Strawn <u>10,298</u>	T. Kirtland-Fruitland _____	T. Penn. "C" _____
B. Salt _____	T. Atoka <u>10,872</u>	T. Pictured Cliffs _____	T. Penn. "D" _____
T. Yates _____	T. ms Morrow <u>11,420</u>	T. Cliff House _____	T. Leadville _____
T. 7 Rivers _____	T. Devonian _____	T. Menefee _____	T. Madison _____
T. Queen _____	T. Silurian _____	T. Point Lookout _____	T. Elbert _____
T. Grayburg <u>5572</u>	T. Montoya _____	T. Mancos _____	T. McCracken _____
T. San Andres _____	T. Simpson _____	T. Gallup _____	T. Ignacio Qtzite _____
T. Glorieta _____	T. McKee _____	Base Greenhorn _____	T. Granite _____
T. Paddock _____	T. Ellenburger _____	T. Dakota _____	T. _____
T. Blinebry _____	T. Gr. Wash _____	T. Morrison _____	T. _____
T. Tubb _____	T. Granite _____	T. Todilto _____	T. _____
T. Drinkard _____	T. Delaware Sand <u>1968</u>	T. Entrada _____	T. _____
T. Abo _____	T. Bone Springs <u>Lime 5348</u>	T. Wingate _____	T. _____
T. Wolfcamp <u>8915</u>	T. <u>Bone Springs Sh 6318</u>	T. Chinle _____	T. _____
T. Penn. _____	T. _____	T. Permian _____	T. _____
T. Cisco (Bough C) _____	T. _____	T. Penn. "A" _____	T. _____

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	365	365	Surface Sand & Red Bed				
365	580	215	Anhydrite				
580	740	160	Salt & Anhydrite				
740	1900	1160	Anhydrite				
1900	2020	120	Lime & Anhydrite				
2020	5410	3390	Sand & Anhydrite				
5410	6330	920	Lime & Shale				
6330	6610	280	Sand, Shale & Lime				
6610	6900	290	Lime & Shale				
6900	7110	210	Lime, Sand & Shale				
7110	8430	1320	Lime & Shale				
8430	11470	3040	Shale & Lime				
11470	11760	290	Sand & Shale				
11760	11934	174	Lime, Shale & Sand				

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SANTA FE	1
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LAND OFFICE	1
OPERATOR	

Form C-105
Revised 1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

MAR 22 1973

5a. Indicate Type of Lease	
State <input checked="" type="checkbox"/>	Fee <input type="checkbox"/>
5. State Oil & Gas Lease No.	
K-6290	

1a. TYPE OF WELL		OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> DRY <input type="checkbox"/> OTHER <input type="checkbox"/> O. C. C.		7. Unit Agreement Name	
b. TYPE OF COMPLETION		NEW WELL <input checked="" type="checkbox"/> WORK OVER <input type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER <input type="checkbox"/>		8. Farm or Lease Name	
2. Name of Operator		Corinne Grace		9. Well No.	
3. Address of Operator		P O Box 1418, Carlsbad, New Mexico		10. Field and Pool, or Wildcat	
4. Location of Well		UNIT LETTER <u>I</u> LOCATED <u>1980</u> FEET FROM THE <u>South</u> LINE AND <u>660</u> FEET FROM THE <u>East</u> LINE OF SEC. <u>36</u> TWP. <u>22S</u> RGE. <u>26E</u> NMPM		12. County	
15. Date Spudded		2/11/72		Eddy	
16. Date T.D. Reached		4/2/72		18. Elevations (DF, RKB, RT, GR, etc.)	
17. Date Compl. (Ready to Prod.)		5/4/72		3207.8	
20. Total Depth		11.875		19. Elev. Casinghead	
21. Plug Back T.D.		11.764 KB		22. If Multiple Compl., How Many	
22. If Multiple Compl., How Many		2		23. Intervals Drilled By	
24. Producing Interval(s), of this completion - Top, Bottom, Name		Morrow 11-86-526		25. Was Directional Survey Made	
26. Type Electric and Other Logs Run		Micro-Laterolog, Laterolog, Gamma Ray Neutron, BHC Acoustilog		27. Was Well Cored	
28. CASING RECORD (Report all strings set in well)				No	

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8	48#	382	17	400 sks Class "H"	circled.
9 5/8	40# & 36#	5200	12 1/4	1050 sks & 150 sks Cl. "C"	
7	26# & 23#	10735	8 3/4	335 Class "H"	

29. LINER RECORD				30. TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET
1 1/2	10,634	11,875	200		2 3/8	10175
					2 3/8	11380

31. Perforation Record (Interval, size and number)		32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
11486-88 (8 shots)	11524-26 (8 shots)	DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
11490-96 (24 shots)	11511-14 (12 shots)	None	None
11498-05 (21 shots)			
11507-09 (8 shots)			
11516-22 (18 shots)			

33. PRODUCTION		Date First Production		Production Method (Flowing, gas lift, pumping - Size and type pump)		Well Status (Prod. or Shut-in)	
				Flowing		Shut-In	
Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
7/7/72	4			0	# 8527	0	TSTM
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API (Corr.)	
1595.0	Pkr.		* From last	rate 4-point	test		
34. Disposition of Gas (Sold, used for fuel, vented, etc.)						Test Witnessed By	
To be sold						CAOF 14,105	

35. List of Attachments		Logs listed above	
36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.			
SIGNED <u>Granita R. Punt</u>		Agent	
		March 22, 1973	
DATE			

INSTRUCTIONS

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INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

T. Anhy _____	T. Canyon _____	T. Ojo Alamo _____	T. Penn. "B" _____
T. Salt _____	T. Strawn _____	T. Kirtland-Fruitland _____	T. Penn. "C" _____
B. Salt _____	T. Atoka _____	T. Pictured Cliffs _____	T. Penn. "D" _____
T. Yates _____	T. Miss _____	T. Cliff House _____	T. Leadville _____
T. 7 Rivers _____	T. Devonian _____	T. Menefee _____	T. Madison _____
T. Queen _____	T. Silurian _____	T. Point Lookout _____	T. Elbert _____
T. Grayburg _____	T. Montoya _____	T. Mancos _____	T. McCracken _____
T. San Andres _____	T. Simpson _____	T. Gallup _____	T. Ignacio Qtzte _____
T. Glorieta _____	T. McKee _____	Base Greenhorn _____	T. Granite _____
T. Paddock _____	T. Ellenburger _____	T. Dakota _____	T. _____
T. Blinebry _____	T. Gr. Wash _____	T. Morrison _____	T. _____
T. Tubb _____	T. Granite _____	T. Todilto _____	T. _____
T. Drinkard _____	T. Delaware Sand _____	T. Entrada _____	T. _____
T. Abo _____	T. Bone Springs _____	T. Wingate _____	T. _____
T. Wolfcamp _____	T. _____	T. Chinle _____	T. _____
T. Penn. _____	T. _____	T. Permian _____	T. _____
T. Cisco (Bough C) _____	T. _____	T. Penn. "A" _____	T. _____

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation
0	500	500	Surface Sand & Shale
500	1680	1180	Salt-Anhy.
1680	2050	370	Lime & Sand
2050	4100	2050	Sand
4100	5200	1100	Lime, Sand, Shale
5200	6280	1080	Lime and shale
6280	6800	520	Sand & Shale
6800	7790	990	Lime and shale
7790	8120	330	Sand and shale
8120	9030	910	Lime and shale
9030	9550	520	Shale and Lime
9550	10257	707	Shale Sand & Lime
10257	10850	610	Lime and shale
10850	11050	200	Limestone and shale
11050	11100	50	Shale & Lime
11100	11350	250	Lime and shale
11350	11420	70	Lime and shale
11420	11875	455	Lime and shale

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RECEIVED
NEW MEXICO OIL CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND LOG
SEP 13 1976

Form C-105
Revised 1-1-65

5a. Indicate Type of Lease
State ☒ Fee ☐
5. State Oil & Gas Lease No.
Salt Mining #M19264

O. C. C.
ARTESIA, OFFICE

1a. TYPE OF WELL
OIL WELL ☐ GAS WELL ☐ DRY ☐ OTHER Brine Well
b. TYPE OF COMPLETION
NEW WELL ☐ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER

7. Unit Agreement Name
8. Farm or Lease Name
City of Carlsbad
9. Well No.
1
10. Field and Pool, or Wildcat
Wildcat

2. Name of Operator
Truckers Water Company
3. Address of Operator
P. O. Box 1499, Hobbs, New Mexico 88240
4. Location of Well

UNIT LETTER H LOCATED 2420 FEET FROM THE North LINE AND 330 FEET FROM
THE East LINE OF SECT 36 TWP. 22S RGE. 26E NMMPM

12. County
Eddy

15. Date Spudded 7-13-76	16. Date T.D. Reached 8-20-76	17. Date Compl. (Ready to Prod.) 3-31-76	18. Elevations (DF, RKB, RT, GK, etc.)	19. Elev. Casinghead
20. Total Depth 930	21. Plug Back T.D.	22. If Multiple Compl., How Many	23. Intervals Drilled By Rotary Tools Cable Tools X	
24. Producing Interval(s), of this completion - Top, Bottom, Name Salt - 710' Salt 930'				25. Was Directional Survey Made No
26. Type Electric and Other Logs Run ne				27. Was Well Cored No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8 5/8	32#	350'	13"	225 sx Class C	
5 1/2	14#	710'	7 7/8"	150 sx Class C	

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

30. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2 3/8	926'	No

31. Perforation Record (Interval, size and number)
Open hole 710 - 930

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.
DEPTH INTERVAL
AMOUNT AND KIND MATERIAL USED
POSTED 10-2-76

33. PRODUCTION
Date First Production **8-31**
Production Method (Flowing, gas lift, pumping - Size and type pump) **Circulating fresh water**
Well Status (Prod. or Shut-in) **Circulating**

Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API (Corr.)	

34. Disposition of Gas (Sold, used for fuel, vented, etc.)
Test Witnessed By

35. List of Attachments

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED R. Baker TITLE Vice-President DATE 9-9-76

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T. Paddock	T. Ellenburger	T. Dakota	T.
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T. Tubb	T. Granite	T. Todilto	T.
T. Drinkard	T. Delaware Sand	T. Entrada	T.
T. Abo	T. Bone Springs	T. Wingate	T.
T. Wolfcamp	T.	T. Chinle	T.
T. Penn.	T.	T. Permian	T.
T. Cisco (Bough C)	T.	T. Penn. "A"	T.

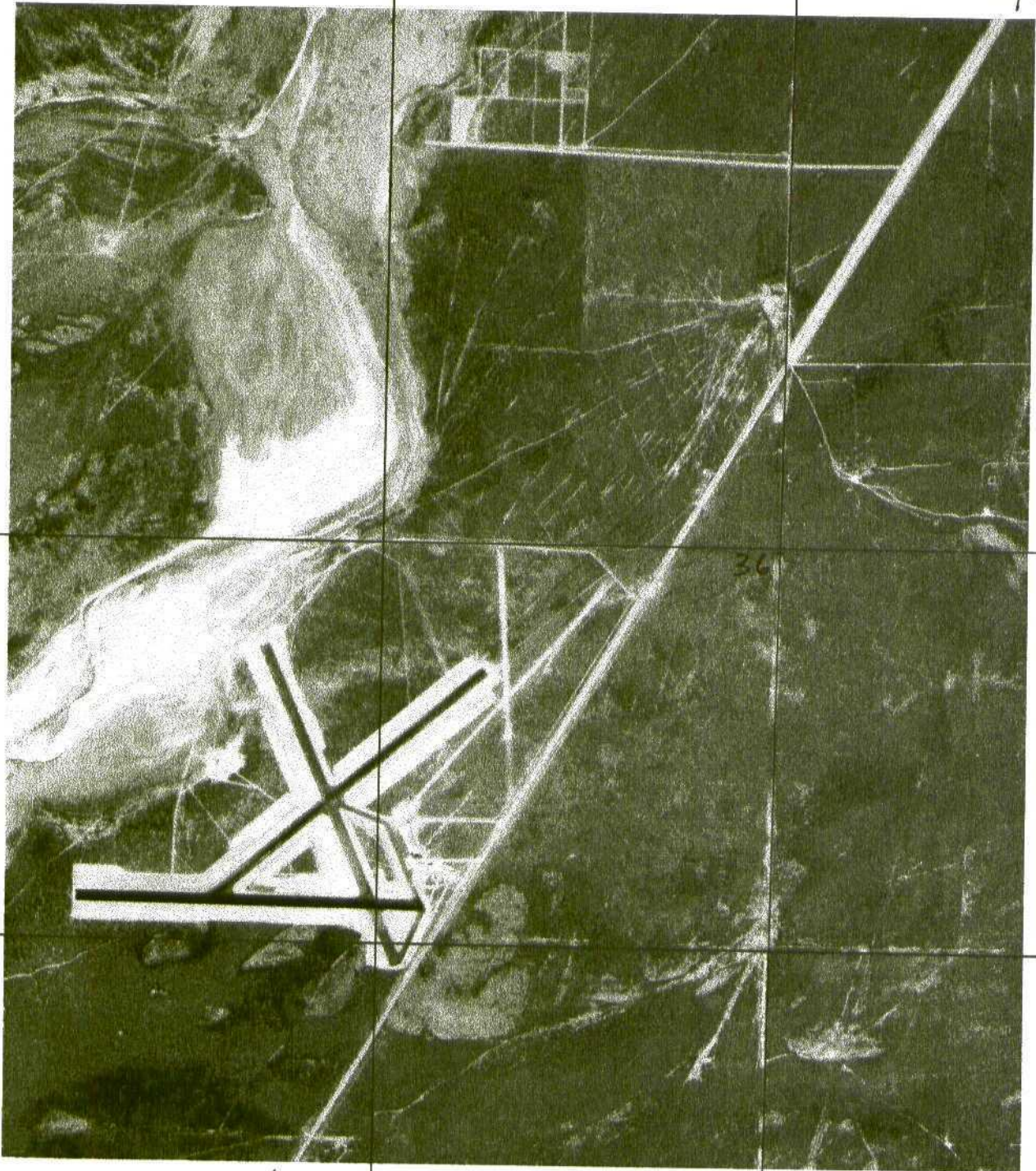
FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	210	210	Red bed and shale				
210	240	30	Anhydrite and shale				
240	715	475	Anhydrite				
715	TD	211	Salt				

Aerial Photos

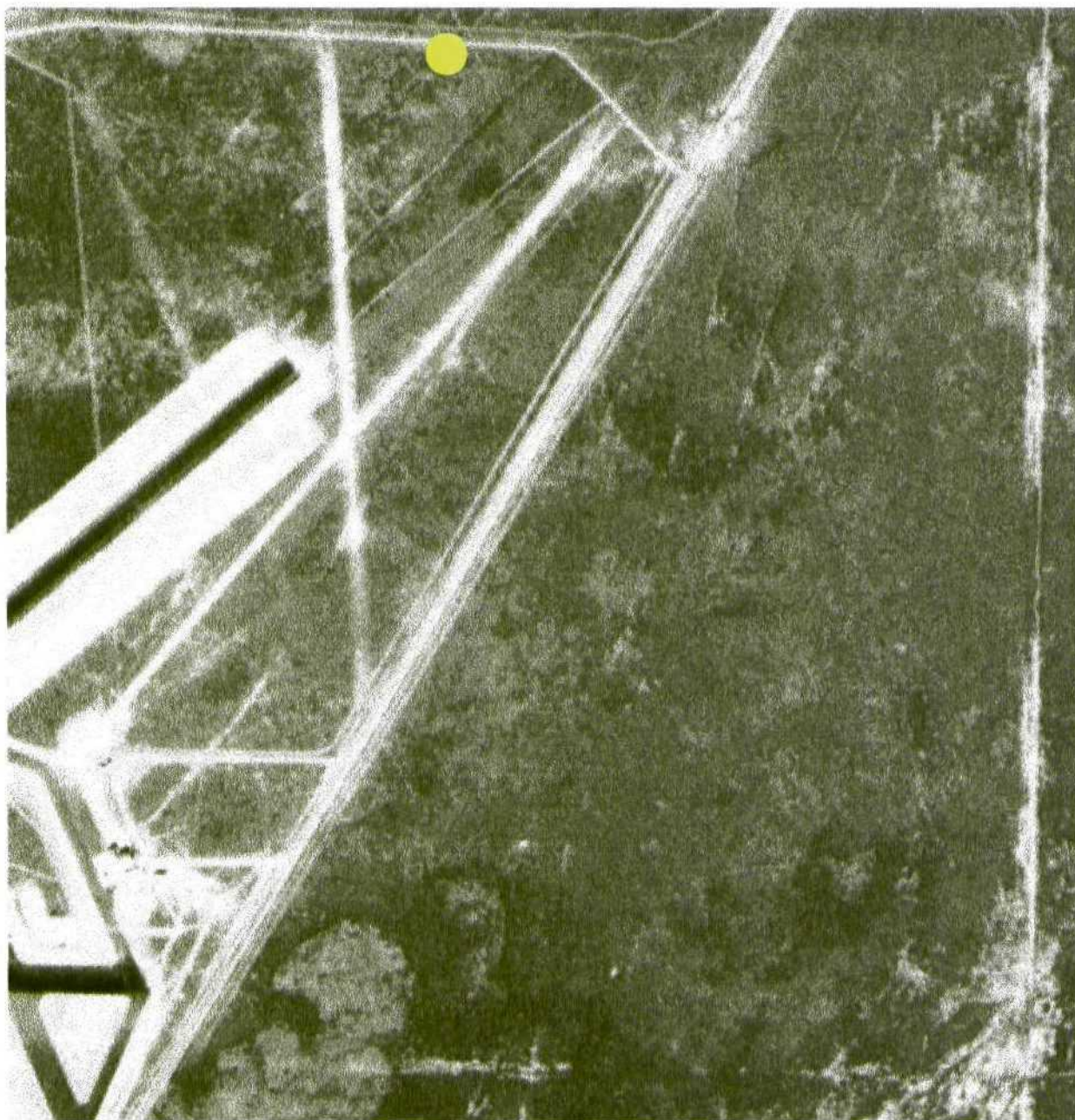
CARLSBAD

62/180



62/180

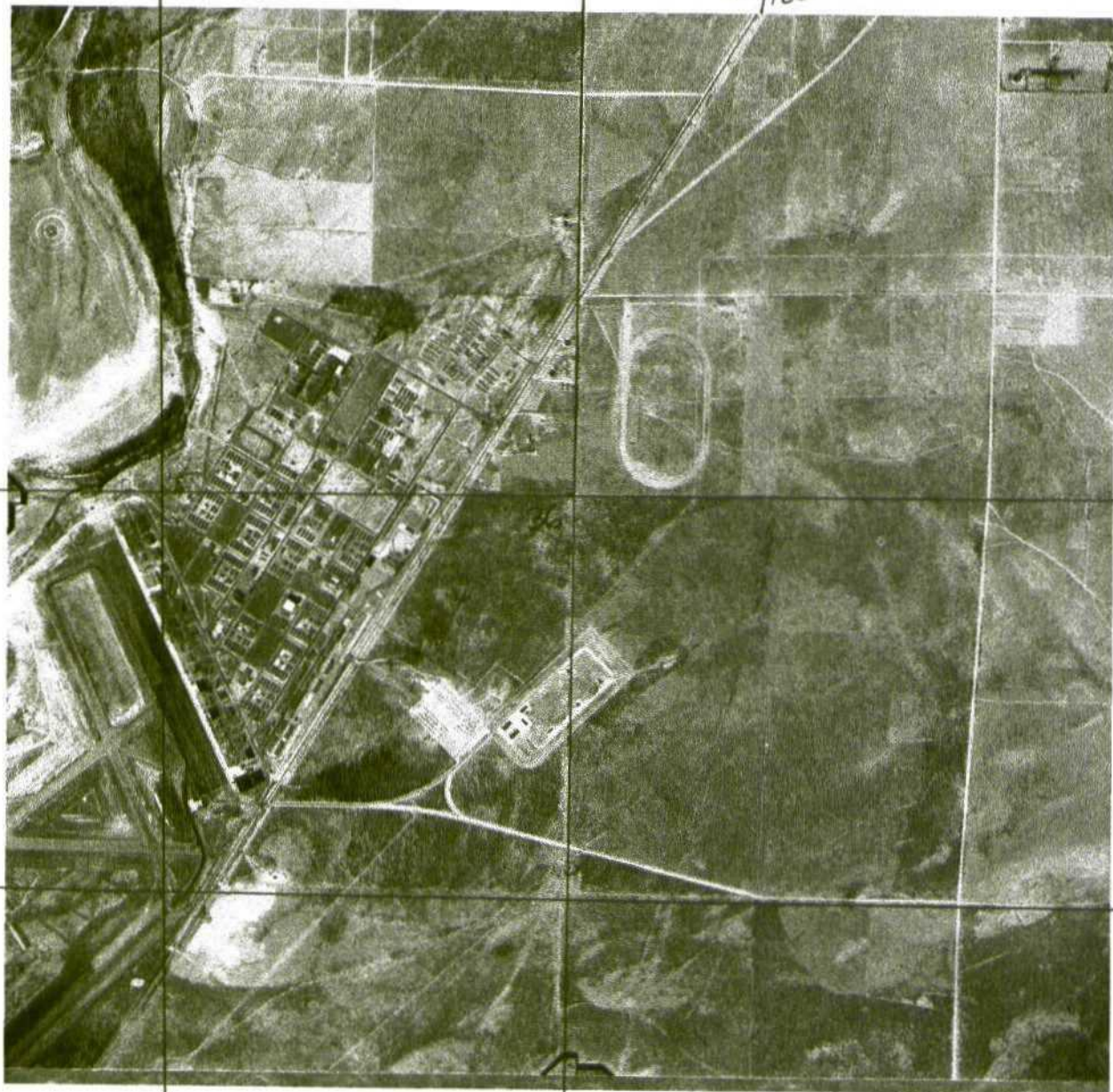
1942 AERIAL



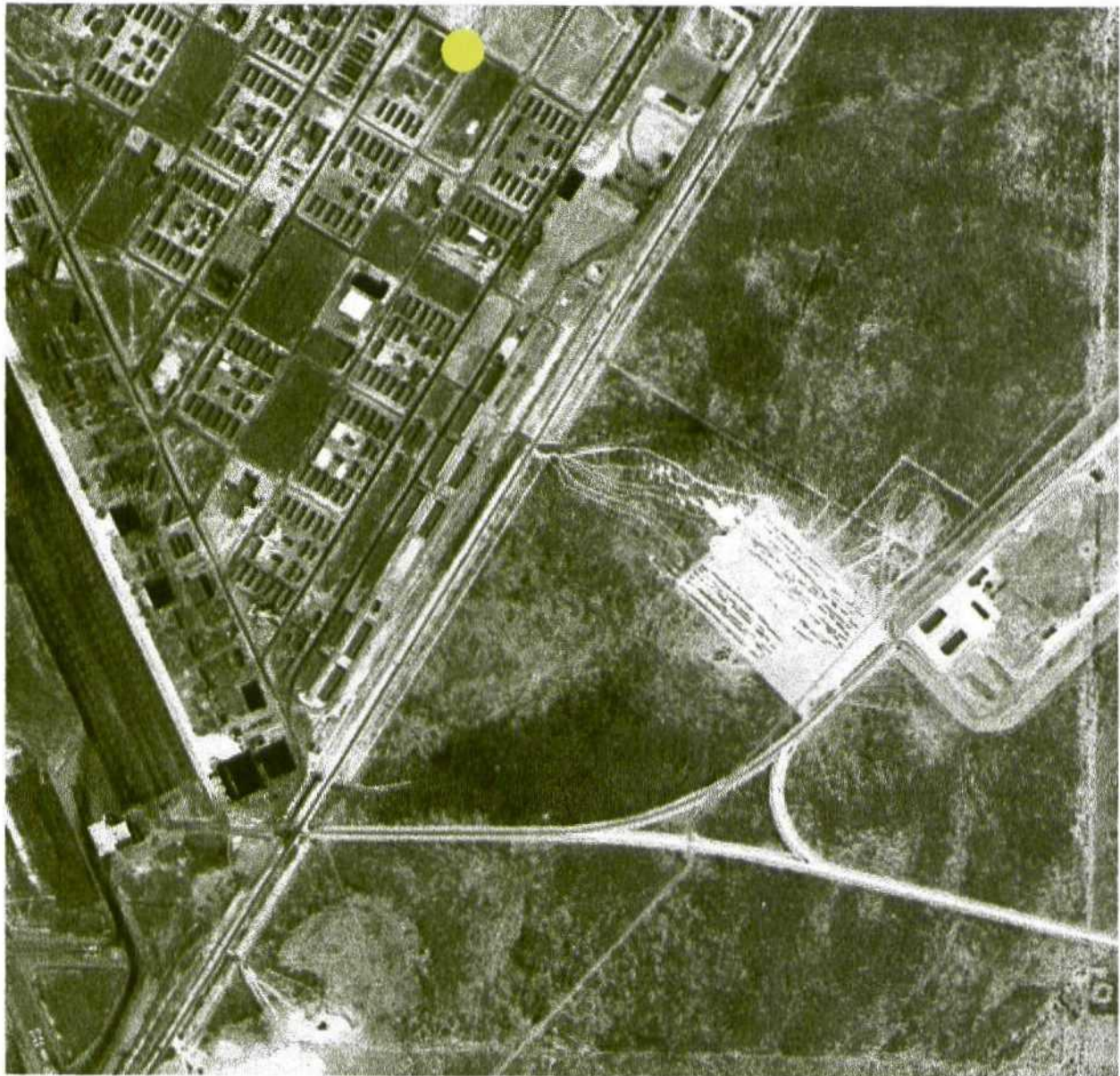
1942 aerals

Section 36, Range 26E, Township 22S

62/180



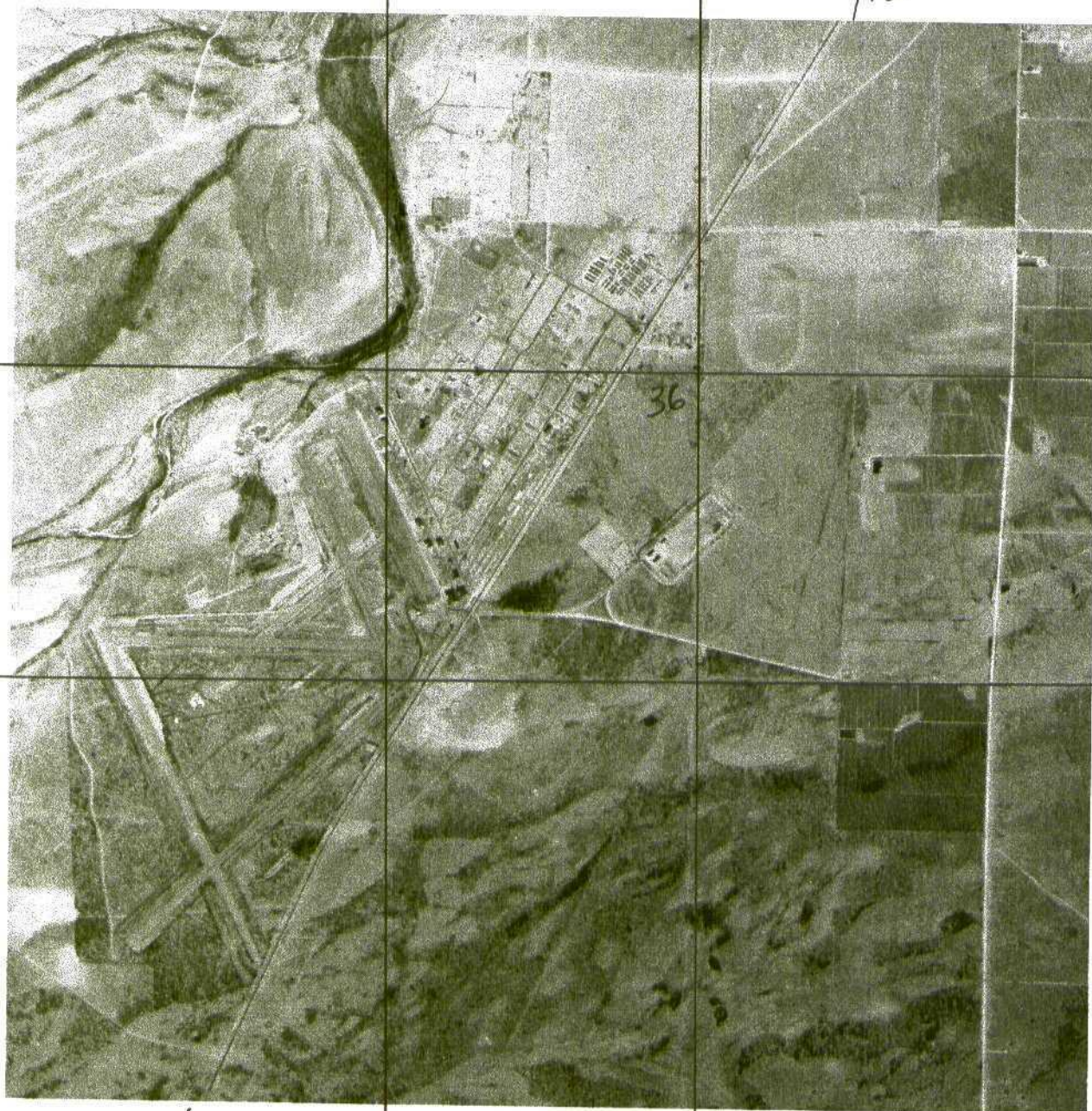
1946 aerial



1946 aerals

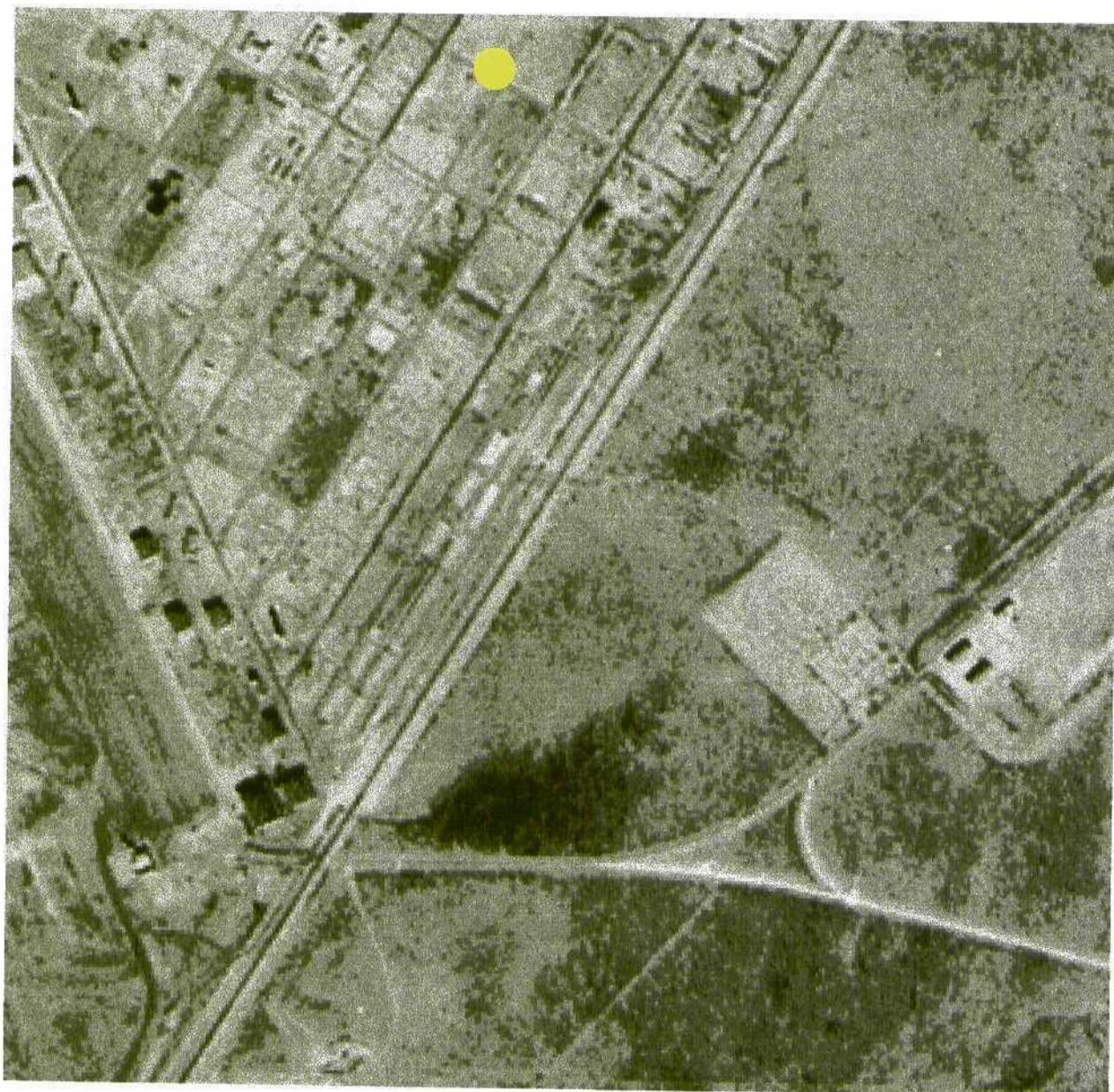
Section 36, Range 26E, Township 22S

62/180



62/180

1954 AERIAL



1954 aerals

Section 36, Range 26E, Township 22S

Photos



Battery Area

B







Pit Area P





Sump Area S





Price, Wayne

From: Price, Wayne
Sent: Tuesday, May 07, 2002 3:10
To: 'Rena Seay'
Subject: RE: Salty Bill Closure

Your 30 day extension requested is hereby approved.

-----Original Message-----

From: Rena Seay [mailto:seay04@leaco.net]
Sent: Tuesday, May 07, 2002 12:55 PM
To: Wayne Price
Subject: Salty Bill Closure

5/7/2002

May 7, 2002

Wayne Price
NMOCD Environmental Bureau
Box 6429
1220 S. Saint Francis Drive
Santa Fe, NM 87504

RE: Grace Oil Co., Salty Bill Closure

Mr. Price:

As we discussed, I am being delayed on the drilling and completion of the Salty Bill project. The driller said it will be another ten (10) days before he can start our project. I would like to ask for an extension of thirty (30) days for this project. Our original deadline was May 15, 2002.

Your consideration will be appreciated.

Thanks,

Eddie W. Seay, Agent
601 W. Illinois
Hobbs, NM 88242
(505)392-2236



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor
Betty Rivera
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

March 06, 2002

CERTIFIED MAIL

RETURN RECEIPT NO. 5357 7157

Ms. Corinne B. Grace
P.O. Box 1418
3722 National Parks Hwy.
Carlsbad, New Mexico 88220

Re: Salty Bills Disposal Facility 711-076
NE/4, NW/4 of Section 36, Township 22 South, Range 26 East, NMPM
Eddy County, New Mexico

Dear Ms. Grace:

The New Mexico Oil Conservation Division (OCD) is in receipt of the closure report dated September 10, 2001 submitted by Eddie W. Seay, Agent for Salty Bill Disposal. In order for the OCD to continue the evaluation of the closure, the following information is required:

1. The vertical extent of the salts (i.e. chlorides) were not totally delineated in the vadose zone below the sump, tank battery and pit areas. Please provide this information or propose a method to determine if groundwater has been impacted beneath the site.
2. The closure report proposed leaving salt contaminated soil in the vadose zone below the sump, tank battery and pit areas by installing a hydrologic barrier over these areas and back-filling with clean soil to surface grade.

Please provide a scaled plot plan map and cross-section views showing the location and depth of all liner(s). Provide information concerning the design, construction, and hydro-geologic properties, etc. of the liner system including the estimated life. Also, provide a plan describing how the liner(s) will be protected in the foreseeable future, e.g. signs, fencing, deed recording etc.


Ms. Grace:
March 06, 2002
Page 2

3. Provide a technical demonstration showing how the liner(s) will protect fresh water in the foreseeable future.

Please submit the above requested information for OCD approval by May 15, 2002.

If you have any questions please do not hesitate to contact me at 505-476-3487 or E-mail WPRICE@state.nm.us.

Sincerely;



Wayne Price-Pet. Engr. Spec.

cc: OCD Artesia Office
Eddie Seay-Agent for Salty Bills Disposal Facility
Jon R. Tully-City of Carlsbad

Price, Wayne

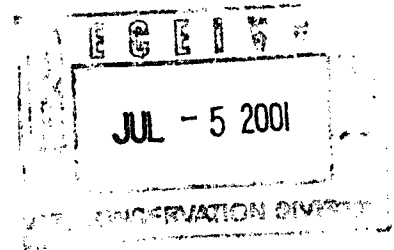
From: Price, Wayne
Sent: Saturday, August 25, 2001 2:42 PM
To: 'seay04@leaco.net'
Subject: Salty Bill

Eddie could you give me an up-date on this project:

Thanks!

June 26, 2001

NMOCD Environmental Bureau
ATTN: Wayne Price
P.O. Box 6429
1200 S. Saint Francis Drive
Santa Fe, NM 87504



RE: Grace Oil, Salty Bill Closure

Mr. Price:

I tried to obtain the service of a rig to drill and sample the Grace site. I was put on a list and don't know when one will be available. In the meantime, I used a backhoe to obtain samples at a depth of 15 ft. at the battery and the sump area, the pit was previously sampled. Find within photos and analytical of this event.

Sample S-1 taken at 5 ft.
Sample S-2 taken at 10 ft.
Sample S-3 taken at 15 ft.

The S samples are from the sump.

Sample B-1 taken at 5 ft.
Sample B-2 taken at 10 ft.
Sample B-3 taken at 15 ft.

The B samples are from the battery area.

Although the chlorides are a little high in the vadose zone of the sites, I feel that if we could line the bottoms with clay, cover the areas and mound them over, this would prevent further leaching of the chloride and prevent water from ponding on the site. Since the native soil is a sandy clay material and the groundwater is relatively deep, 115 ft., this should prevent any contamination.

Also, find within identification of previous photos and sampling of 03-26-2001.

Please let me know your thoughts on this matter, your help is appreciated.

Sincerely,

Eddie W. Seay, Agent
601 W. Illinois
Hobbs, NM 88242
(505)392-2236

ECD Environmental, Inc.

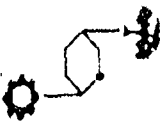
Client: Eddie Seay Consulting
Project: Salty Bill
Project Manager: Eddie Seay
Project Number:

Date Collected: 6/7/01
Date Received: 6/19/01
Sample Matrix: Soil
Extraction Date: 6/20/01

Chloride Analysis

Heal ID	Client ID	Dilution	Cl (mg/l)	Analysis Date
0061901-01	S-1	20	1,704	6/20/01
0061901-02	S-2	20	3,621	6/20/01
0061901-03	S-3	20	4,899	6/20/01
0061901-04	B-1	20	1,917	6/20/01
0061901-05	B-2	20	639	6/20/01
0061901-06	B-3	20	2,556	6/20/01
Extraction Blank			ND	6/20/01

CHAIN-OF-CUSTODY RECORD



ECD Environmental, Inc.

Client: Eddie Seay Consulting

Project Name: Salty Bill

Address: 601 W Illinois

Project #: SWD Closure

Holds: N.M. 88242

Project Manager: Eddie Seay

Phone #: 505-392-2236

Sample: Eddie Seay

Fax #: 505-392-2236

Samples Col'd: Q Yes Q No

Date	Time	Matrix	Sample ID No.	Number/Volume	Preservative		HEAL No.
					HgCl ₂	HCl	
6/7	11:30		S-1	1-603			DO61901-8
"	10:45		S-2	"			02
"	11:00		S-3	"			03
6/7	11:15		B-1	"			04
"	11:35		B-2	"			05
"	11:00		B-3	"			06

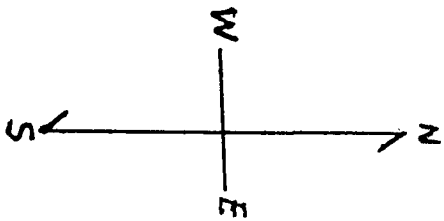
ANALYSIS REQUEST

BTEX + MTBE + TMB's (8021)	
BTEX + MTBE + TPH (Gasoline Only)	
TPH Method 8015B MOD (Gas/Diesel)	
TPH (Method 418.1)	
Chloride	
8310 (PNA or PAH)	
RCRA 8 Metals	
Cations (Na, K, Ca, Mg)	
Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	
8081 Pesticides / PCB's (8082)	
Air Bubbles or Headspace (Y or N)	

Remarks:

S - Sump
B - Battery

Date: 6/18 Time: 7 PM Requested By: (Signature) [Signature] Received By: (Signature) [Signature]
 Date: _____ Time: _____ Requested By: (Signature) _____ Received By: (Signature) _____



Background

Sampling point

Tank Battery Battery

Sampling point
Sump

Plugged well

Pit Area

Sampling point

Salty Bill Facility
Carlshood N.M.

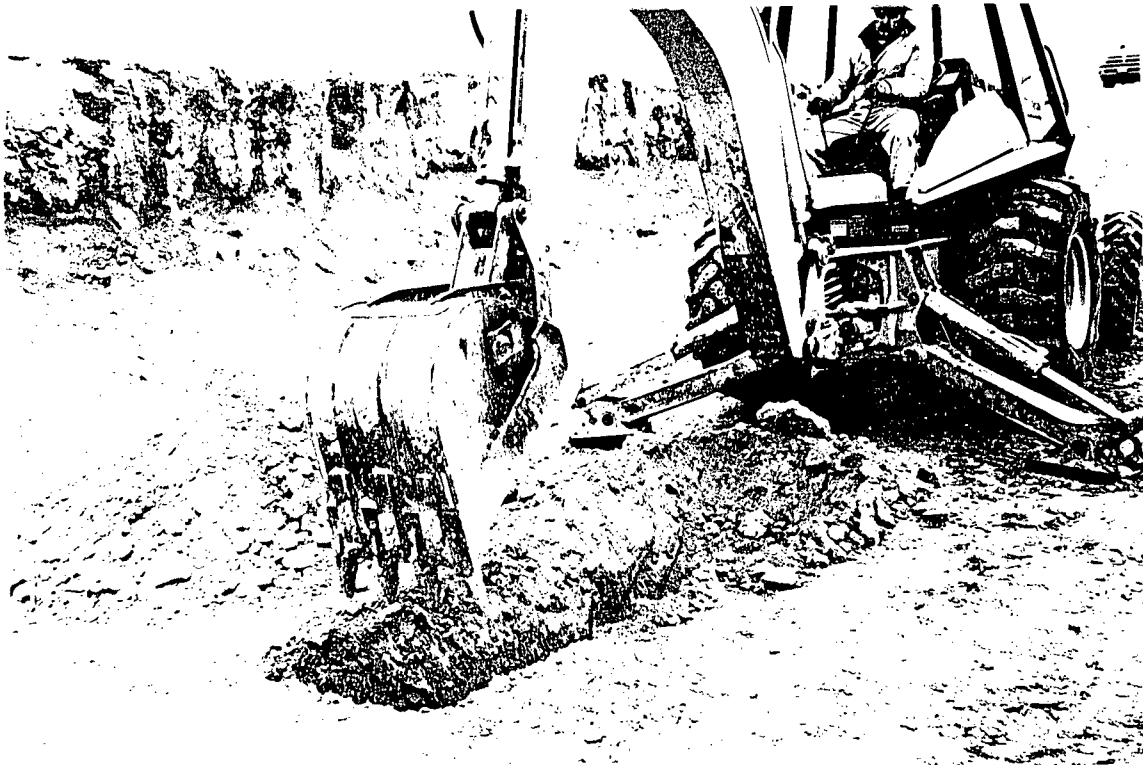


Photo #2
3/26/2001
Sampling
Pit area
at 5 ft.



Photo #1
3/26/2001
Facility
sign

CORINNE GRACE
SALTY BILL SWD
NE/4 NW/4, SEC. 36-T22S-R26E
EDDY COUNTY, NEW MEXICO
(505) 887-5581
(505) 885-4485 • (505) 887-0980



Photo #4
3/26/2001
pit sampling
at 14 ft.



Photo #3
3/26/2001
Pit sampling
at 10 ft

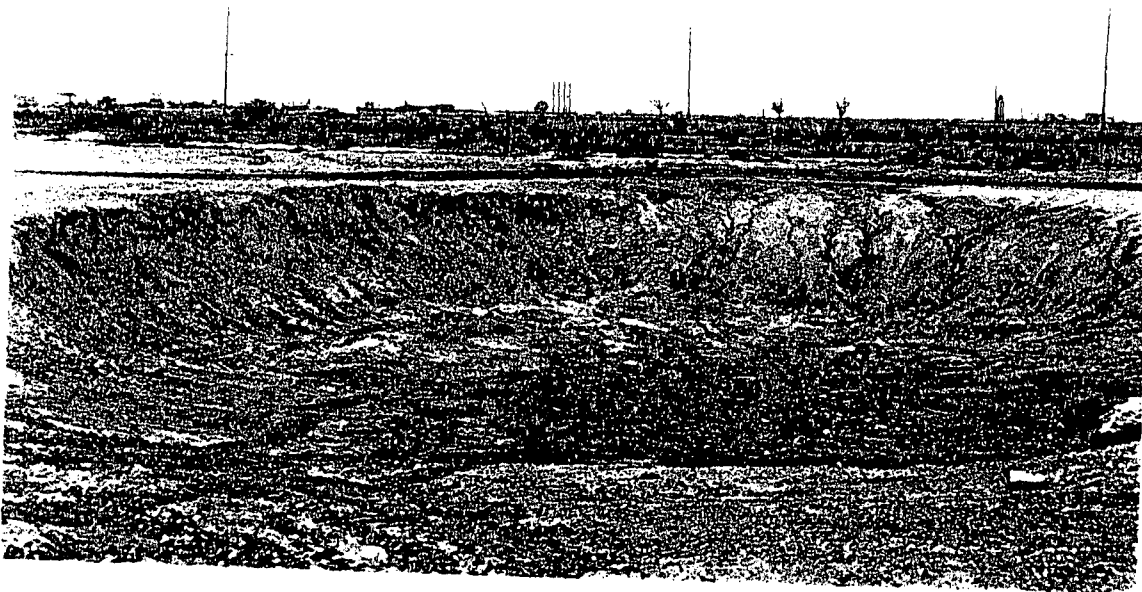


Photo #6
pit area
after covering.
3/26/2001



Photo #5
pit area
covering
sampling area
3/26/2001



3/26/2001

BG #1

Background sample
150 ft west of facility

Photo #7

Price, Wayne

From: Stubblefield, Mike
Sent: Monday, March 26, 2001 5:07 PM
To: Anderson, Roger
Cc: Price, Wayne
Subject: SOIL SAMPLES TAKEN AT CORINNE GRACE SALTY BILL SWD

3/26/2001

ROGER,

TODAY I WITNESSED EDDIE SEAY TAKE SOIL SAMPLES
AT THE PIT CLOSURE SITE AT THE PLUGGED SALTY BILL
SWD.

SOIL SAMPLES WERE TAKEN USING A BACKHOE AND WERE
TAKEN AT 5', 10', & 14'.

A BACKGROUND SOIL SAMPLE WAS TAKEN AT A DEEP OF 5'
ABOUT 100 YDS DUE WEST OF LOCATION IN PASTURE.

SAMPLES WILL BE TESTED FOR CHLORIDES.

SPLIT SAMPLES WERE TAKEN AND WILL BE IN STORAGE.

MIKE S.



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

May 22, 2001

Lori Wrotenbery
Director
Oil Conservation Division

CERTIFIED MAIL
RETURN RECEIPT NO. 3771 7286

Ms. Corinne B. Grace
P.O. Box 1418
3722 National Parks Hwy.
Carlsbad, New Mexico 88220

Re: Salty Bills Disposal Facility
NE/4, NW/4 of Section 36, Township 22 South, Range 26 East, NMPM
Eddy County, New Mexico

Dear Ms. Grace:

The New Mexico Oil Conservation Division (OCD) is in receipt of the closure report dated March 30, 2001 submitted by Eddie W. Seay, Agent for Salty Bill Disposal. In order for the OCD to continue the evaluation of the closure, the following information is required:

1. The photographs supplied were not numbered, dated and no documentation was supplied describing each picture. Please provide.
2. The vertical extent of the chlorides were not totally delineated in the sump and pit area. Please provide.
3. The vertical profile and extent of the chlorides were not determined in the tank battery area. Please provide.
4. The closure report did not address the remaining contamination in the vadose below the bottom of the pit area. Please address this issue.

Please submit the above requested information by June 29, 2001.

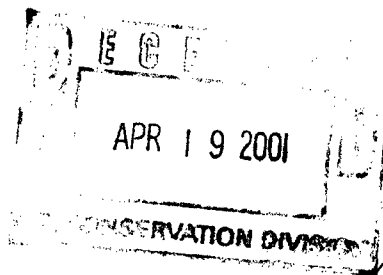
If you have any questions please do not hesitate to contact me at 505-476-3487.

Sincerely;

Wayne Price-Pet. Engr. Spec.

cc: OCD Artesia Office
Eddie Seay-Agent for Salty Bills Disposal Facility

March 30, 2001



NMOCD Environmental Bureau
ATTN: Wayne Price
P.O. Box 6429
1220 S. Saint Francis Drive
Santa Fe, NM 87504

RE: Grace Oil, Salty Bill Closure

Mr. Price:

Find within the analytical, as you requested, for the closure of the Salty Bill facility. Samples were taken in the pit area and witnessed by Mr. Mike Stubblefield of the Artesia office. Samples were taken as listed:

Grace #1	1 ft. below the bottom of the pit
Grace #2	5 ft. below the bottom of the pit
Grace #3	10 ft. below the bottom of the pit
Grace #4	14 ft. below the bottom of the pit, this was as deep as the backhoe could reach.
BG #1	This was a background sample taken at a 5 ft. depth. The location of the sampling was 150 ft. west of the facility.

It appears that the chloride has not migrated much below the 14 ft. level. We have already hauled off the major part of the contamination and what is left, if covered and mounded over, should not become a problem to the groundwater, which is at approximately 115 ft.

At your earliest convenience, please let me know as to your desire so we can finalize the closure of this facility.

Thank you,

A handwritten signature in cursive script, appearing to read 'Eddie W. Seay'. The signature is written in dark ink and is positioned above the typed name.

Eddie W. Seay, Agent
601 W. Illinois
Hobbs, NM 88242
(505)392-2236



ARDINAL LABORATORIES

PHONE (915) 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:

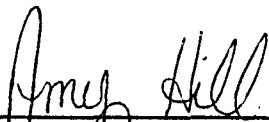
Receiving Date: 03/27/01
Reporting Date: 03/28/01
Project Number: NOT GIVEN
Project Name: SALTY BILL CLOSURE
Project Location: CARLSBAD, NM

Analysis Date: 03/28/01
Sampling Date: 03/26/01
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/Kg)
H5740-1	GRACE #1	2271
H5740-2	GRACE #2	1631
H5740-3	GRACE #3	992
H5740-4	GRACE #4	416
H5740-5	BG #1	144
Quality Control		980
True Value QC		1000
% Recovery		98.0
Relative Percent Difference		1.0

METHOD: Standard Methods 4500-Cl⁻B

NOTE: Analyses performed on 1:4 w:v aqueous extracts.



Chemist

3-28-01

Date

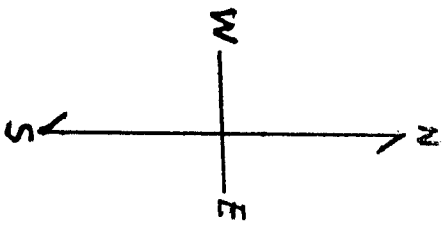
H5740.XLS
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed 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.

22111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

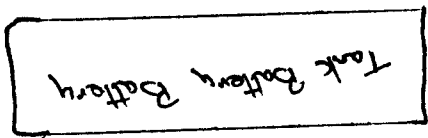
Page ____ of ____

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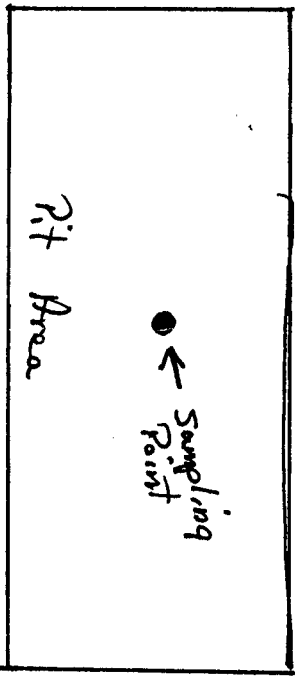
* Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476.



• Plugged well



• Background
↓



Saltg. B. 11 Facility
Carlsbad N.M.

CORINNE GRACE
SALTY BILL SWD
NE/4 NW/4, SEC. 36-T22S-R26E
EDDY COUNTY, NEW MEXICO
(505) 887-5581
(505) 885-4485 (505) 887-0980











01-3-78



Background -----

March 30, 2001

NMOCD Environmental Bureau
ATTN: Wayne Price
P.O. Box 6429
1220 S. Saint Francis Drive
Santa Fe, NM 87504

RE: Grace Oil, Salty Bill Closure

Mr. Price:

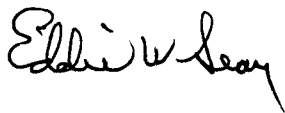
Find within the analytical, as you requested, for the closure of the Salty Bill facility. Samples were taken in the pit area and witnessed by Mr. Mike Stubblefield of the Artesia office. Samples were taken as listed:

Grace #1	1 ft. below the bottom of the pit
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At your earliest convenience, please let me know as to your desire so we can finalize the closure of this facility.

Thank you,



Eddie W. Seay, Agent
601 W. Illinois
Hobbs, NM 88242
(505)392-2236

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Page ____ of ____

[illegible]

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476.



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PHONE (915) 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:

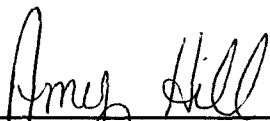
Receiving Date: 03/27/01
Reporting Date: 03/28/01
Project Number: NOT GIVEN
Project Name: SALTY BILL CLOSURE
Project Location: CARLSBAD, NM

Analysis Date: 03/28/01
Sampling Date: 03/26/01
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/Kg)
H5740-1	GRACE #1	2271
H5740-2	GRACE #2	1631
H5740-3	GRACE #3	992
H5740-4	GRACE #4	416
H5740-5	BG #1	144
Quality Control		980
True Value QC		1000
% Recovery		98.0
Relative Percent Difference		1.0

METHOD: Standard Methods 4500-Cl⁻B

NOTE: Analyses performed on 1:4 w:v aqueous extracts.

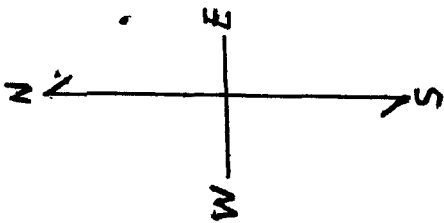


Chemist

3-28-01

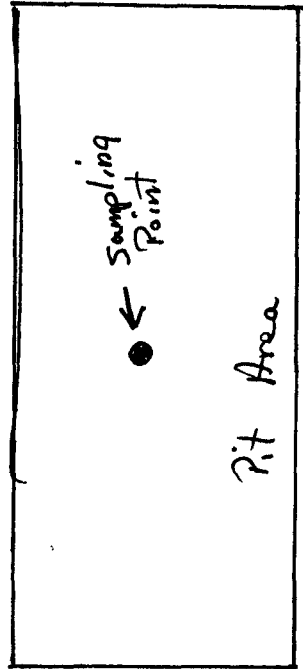
Date

H5740.XLS
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.



Sump

Placed well



Tank Battery Battery

Background

Salty Bill Facility
Carlsbad N.M.

Price, Wayne

From: Price, Wayne
Sent: Thursday, March 01, 2001 8:33 AM
To: 'seay04@leaco.net'
Cc: Stubblefield, Mike
Subject: FW: Grace Oil Salty Bill Facility

Dear Mr. Seay:

Please notify the Artesia District before sampling.

From: Price, Wayne
Sent: Wednesday, February 28, 2001 4:56 PM
To:
Subject: Grace Oil Salty Bill Facility

Dear Mr. Seay:

Please advise your client that in order for OCD to issue closure we will need to know the vertical extent of the chlorides on site.

Price, Wayne

From: Price, Wayne
Sent: Wednesday, February 28, 2001 4:56 PM
To: 'seay04@leaco.net'
Subject: Grace Oil Salty Bill Facility

Dear Mr. Seay:

Please advise your client that in order for OCD to issue closure we will need to know the vertical extent of the chlorides on site.

January 12, 2001

RECEIVED
JAN 18 2001
Environmental Bureau
Oil Conservation Division

Wayne Price
NMOCD Environmental Bureau
P.O. Box 6429
1220 S. Saint Francis Drive
Santa Fe, NM 87504

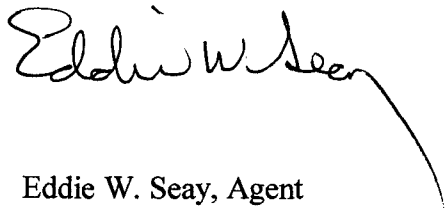
RE: Grace Oil, Salty Bill Facility

Mr. Price:

Find within pit closure report, analytical and photos for the cleanup of the Grace Oil facility. The tanks have all been removed, all the tank bottoms were hauled to CRI, all equipment and storage have been removed, and the battery area, pit and sump have been excavated. We have hauled over 1300 yds. of contaminated soil to CRI. Whenever we get approval to finish covering the excavated areas, we will file the final report.

If you have any questions, please call.

Sincerely,



Eddie W. Seay, Agent
601 W. Illinois
Hobbs, NM 88242
(505)392-2236

CORINNE GRACE
SALTY BILL SWD
NE/4 NW/4, SEC. 36-T22S-R26E
EDDY COUNTY, NEW MEXICO
(505) 887-5581
(505) 885-4485 (505) 887-0980



CHG. 25) 002 23 -02 000000-- 0019

Lined Pit
Before excavation



Lined Pit
after excavation



well before PTH

<MEX>004 23 -02 HHHH-- 0018



well during PLA



<No. 24> 604 23 601 604 604 6019

before

Batter area



Battles over
after removal of tanks



Batter area
after excavation



Sump before
excavation + removal
of tanks



Sump after
removal of tanker, pump &
Excavation

District I

P.O. Box 1980, Hobbs, NM

District II

P.O. Drawer DD, Artesia, NM 88211

District III

1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

SUBMIT 1 COPY TO
APPROPRIATE
DISTRICT OFFICE
AND 1 COPY TO
SANTA FE OFFICE

(Revised 3/9/94)

PIT REMEDIATION AND CLOSURE REPORT

Operator: Grace Oil Telephone: 505-887-5581

Address: P.O. Box 1418 Carlsbad N.M. 88221

Facility or: Salty Bill
Well Name

Location: Unit or Qtr/Qtr sec C Sec 36 T 22 R 26 County Eddy

Pit Type: Separator Dehydrator Other

Land Type: BLM , State , Fee X, Other city of Carlsbad

Pit Location: Pit dimensions: length 100, width 30, depth 3
(Attach diagram)

Reference: wellhead , other

Footage from reference:

Direction from reference: Degrees East North
of
 West South

Battery area.

Depth To Ground Water:

(Vertical distance from
contaminants to seasonal
high water elevation of
ground water)

Less than 50 feet (20 points)
50 feet to 99 feet (10 points)
Greater than 100 feet (0 points) 0

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Wellhead Protection Area:

(Less than 200 feet from a private
domestic water source, or; less than
1000 feet from all other water sources)

JAN 18 2001

Environmental Bureau
Oil Conservation Division

Yes (20 points)
No (0 points) 0

Distance To Surface Water:

(Horizontal distance to perennial
lakes, ponds, rivers, streams, creeks,
irrigation canals and ditches)

Less than 200 feet (20 points)
200 feet to 1000 feet (10 points)
Greater than 1000 feet (0 points) 0

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: 8/2000

Date Completed: 1/2001

Remediation Method: Excavation X

Approx. cubic yards _____

(Check all appropriate sections)

Landfarmed X

Insitu Bioremediation _____

Other _____

Remediation Location: Onsite _____ Offsite _____

(ie. landfarmed onsite, name and location of offsite facility)

RECEIVED
JAN 18 2001
Environmental Bureau
Oil Conservation Division

General Description Of Remedial Action: _____

Hauled over 1300 yds from the combined areas
battery, sump and pit & CRT

Ground Water Encountered:

No X

Yes _____

Depth _____

Final Pit:

Closure Sampling:

(if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location battery bottom

Sample depth _____

Sample date 1/03/2001

Sample time _____

Sample Results Attached

Benzene(ppm) .002

Total BTEX(ppm) .012

Field headspace(ppm) _____

TPH 60.5

Ground Water Sample: Yes _____

No X

(If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 01/12/2001

SIGNATURE

Eddie W. Seay

PRINTED NAME
AND TITLE

Eddie W. Seay
Agent

District I

P.O. Box 1980, Hobbs, NM

District II

P.O. Drawer DD, Artesia, NM 88211

District III

1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088SUBMIT 1 COPY TO
APPROPRIATE
DISTRICT OFFICE
AND 1 COPY TO
SANTA FE OFFICERECEIVED
JAN 18 2001
Revised 3/9/94
Environmental Bureau
Oil Conservation DivisionPIT REMEDIATION AND CLOSURE REPORTOperator: Grace Oil Telephone: 505-887-5581Address: P.O. Box 1418 Carlsbad N.M. 88221Facility Or: Salty Bill
Well NameLocation: Unit or Qtr/Qtr Sec C Sec 36 T 22 R 26 County EddyPit Type: Separator Dehydrator Other Land Type: BLM , State , Fee X, Other city of CarlsbadPit Location: Pit dimensions: length 80, width 40, depth 8 to 10
(Attach diagram)Reference: wellhead , other Footage from reference: at battery areaDirection from reference: Degrees East North
of
 West South

Pit on location with well and battery

Depth To Ground Water:

(Vertical distance from
contaminants to seasonal
high water elevation of
ground water)Less than 50 feet (20 points)
50 feet to 99 feet (10 points)
Greater than 100 feet (0 Points) 0

Wellhead Protection Area:

(Less than 200 feet from a private
domestic water source, or; less than
1000 feet from all other water sources)Yes (20 points)
No (0 points) 0

Distance To Surface Water:

(Horizontal distance to perennial
lakes, ponds, rivers, streams, creeks,
irrigation canals and ditches)Less than 200 feet (20 points)
200 feet to 1000 feet (10 points)
Greater than 1000 feet (0 points) 0RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: 8/2000 Date Completed: 1/2001

Remediation Method: Excavation X Approx. cubic yards _____
(Check all appropriate sections) Landfarmed X Insitu Bioremediation _____
Other _____

Remediation Location: Onsite _____ Offsite _____
(ie. landfarmed onsite, name and location of offsite facility)

RECEIVED
JAN 18 2001
Environmental Bureau
Oil Conservation Division

General Description Of Remedial Action: _____

Handled over 1300 yds from the combined areas
battery, sump and pit to CRT

Ground Water Encountered: No X Yes _____ Depth _____

Final Pit: Sample location Pit bottom

Closure Sampling:
(if multiple samples, attach sample results and diagram of sample locations and depths)

Sample depth _____

Sample date 1/03/2001 Sample time _____

Sample Results - Attached

Benzene(ppm) .002

Total BTEX(ppm) .012

Field headspace(ppm) _____

TPH 91

Ground Water Sample: Yes _____ No X (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 1/12/2001

SIGNATURE Eddie W. Searcy PRINTED NAME Eddie W Searcy
AND TITLE Agent

Date Remediation Started: 8/2000

Date Completed: 1/2001

Remediation Method: Excavation ☒

Approx. cubic yards _____

(Check all appropriate sections)

Landfarmed ☒

Insitu Bioremediation _____

Other _____

Remediation Location: Onsite _____ Offsite _____

(ie. landfarmed onsite, name and location of offsite facility)

General Description Of Remedial Action: _____

Hauled over 1300 yds from the combined area battery, pit and sump to CRT

Ground Water Encountered:

No ☒

Yes _____

Depth _____

Final Pit:

Closure Sampling:

(if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location Pit side walls

Sample depth _____

Sample date 1/3/2001

Sample time _____

Sample Results Attached

Benzene(ppm) .002

Total BTEX(ppm) .012

Field headspace(ppm) _____

TPH 110

Ground Water Sample: Yes _____ No ☒ (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 1/12/2001

SIGNATURE Eddie W Seay

PRINTED NAME
AND TITLE

Eddie W Seay
Agent

District I

P.O. Box 1980, Hobbs, NM

District II

P.O. Drawer DD, Artesia, NM 88211

District III

1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088SUBMIT 1 COPY TO
APPROPRIATE
DISTRICT OFFICE
AND 1 COPY TO
SANTA FE OFFICE

(Revised 3/9/94)

PIT REMEDIATION AND CLOSURE REPORTOperator: Grace Oil Telephone: 505-887-5581Address: P.O. Box 1418 Carlsbad N.M. 88221Facility or: Salty Bill
Well NameLocation: Unit or Qtr/Qtr Sec C Sec 36 T 22 R 26 County EddyPit Type: Separator Dehydrator Other Land Type: BLM , State , Fee X, Other city of CarlsbadPit Location: Pit dimensions: length 12, width 15, depth 4
(Attach diagram)Reference: wellhead , other Footage from reference: Direction from reference: Degrees East North

of

 West South Sump - on location

Depth To Ground Water:

(Vertical distance from
contaminants to seasonal
high water elevation of
ground water)

Less than 50 feet (20 points)

50 feet to 99 feet (10 points)

Greater than 100 feet (0 Points) 0

Wellhead Protection Area:

(Less than 200 feet from a private
domestic water source, or; less than
1000 feet from all other water sources)

Yes (20 points)

No (0 points) 0

Distance To Surface Water:

(Horizontal distance to perennial
lakes, ponds, rivers, streams, creeks,
irrigation canals and ditches)

Less than 200 feet (20 points)

200 feet to 1000 feet (10 points)

Greater than 1000 feet (0 points) 0

RANKING SCORE (TOTAL POINTS):

0

Date Remediation Started: 8/2000 Date Completed: 1/2001

Remediation Method: Excavation ☒ Approx. cubic yards _____
(Check all appropriate sections) Landfarmed ☒ Insitu Bioremediation _____
Other _____

Remediation Location: Onsite _____ Offsite _____
(ie. landfarmed onsite, name and location of offsite facility) _____

General Description Of Remedial Action: _____

Hauled over 1300 yds from the combined areas
patting, sump and pit to CRI

Ground Water Encountered: No ☒ Yes _____ Depth _____

Final Pit:
Closure Sampling:
(if multiple samples,
attach sample results
and diagram of sample
locations and depths)

Sample location Sump bottom composite

Sample depth _____

Sample date 1/03/2001 Sample time _____

Sample Results Attached

Benzene(ppm) .002

Total BTEX(ppm) .012

Field headspace(ppm) _____

TPH 59.3

Ground Water Sample: Yes _____ No ☒ (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 1/12/2001

SIGNATURE Eddie W. Seay

PRINTED NAME Eddie W Seay
AND TITLE Asst



2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Page _____ of _____

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Eddie's Day Consulting Project Manager: Eddie's Day Address: 601 W. Illinois City: Hales Phone #: 212-234 State: NY Zip: 88242 Project #: Grace Facility Project Name: Solid B.I.I. facility Project Location: Goldsboro N.M. Sampler Name: Eddie's Day				P.O. #: Company: Attn: Address: City: State: Zip: Phone #: Fax #:							
Lab I.D. Sample I.D.				(G)RAB OR (OMP)		MATRIX		PRESERV		SAMPLING	
				# CONTAINERS		GROUNDWATER WASTEWATER SOIL CRUDE OIL SLUDGE OTHER: ACID/BASE: ICE / COOL OTHER:		DATE TIME			
HS491-1 #1 - Sidewalk - Pit -2 #2 - Bottom - Pit -3 #3 - Tank Bottom -4 #4 - Sump				1 1 1 1		1/3 1/3 1/3 1/3		7:45 8:15 8:45 9:15		TPH (8015) BTEx	
Relinquished By:				Date: 1/3/2011		Received By:		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Delivered By: (Circle One) UPS - Bus - Other:				Time: 12:10		Received By: (Lab Staff)		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Remarks: #1 Sidewalk - Pit #2 Bottom - Pit #3 Tank Bottom #4 - Sump bottom				Terms and Conditions: Material will be charged on all accounts more than 30 days past due at the rate of 20% per annum from the original date of invoice, and all costs of collection, including attorney's fees.							



PHONE (915) 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: 01/03/01
Reporting Date: 01/05/01
Project Number: GRACE FACILITY
Project Name: SALTY BILL FACILITY
Project Location: CARLSBAD, NM

Sampling Date: 01/03/01
Sample Type: SOIL
Sample Condition: COOL, INTACT
Sample Received By: AH
Analyzed By: JA

LAB NUMBER	SAMPLE ID	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE		01/05/01	01/05/01	01/05/01	01/05/01
H5491-1	#1 SIDEWALK PIT	<0.002	<0.002	<0.002	<0.006
H5491-2	#2 BOTTOM PIT	<0.002	<0.002	<0.002	<0.006
H5491-3	#3 TANK BATTERY	<0.002	<0.002	<0.002	<0.006
H5491-4	#4 SUMP	<0.002	<0.002	<0.002	<0.006
Quality Control		0.094	0.104	0.090	0.283
True Value QC		0.100	0.100	0.100	0.300
% Accuracy		94	104	90	94
Relative Percent Difference		7.1	1.4	0.8	1.3

METHOD: EPA SW 846-8020, 5030, Gas Chromatography

Chemist

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.

H5491SHOBBSBTEXONLY



ARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

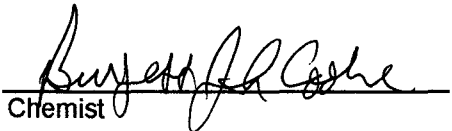
ANALYTICAL RESULTS FOR
EDDIE SEAY CONSULTING
ATTN: EDDIE W. SEAY
601 W. ILLINOIS
HOBBS, NM 88242
FAX TO:

Receiving Date: 01/03/01
Reporting Date: 01/04/01
Project Owner: C. GRACE-GRACE FACILITY
Project Name: SALTY BILL FACILITY
Project Location: CARLSBAD, NM

Sampling Date: 01/03/01
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

LAB NUMBER	SAMPLE ID	GRO	DRO
		(C ₆ -C ₁₀) (mg/Kg)	(>C ₁₀ -C ₂₈) (mg/Kg)
ANALYSIS DATE:		01/03/01	01/03/01
H5491-1	#1-SIDEWALLS-PIT	<50	110
H5491-2	#2-BOTTOM-PIT	<50	91.0
H5491-3	#3-TANK BATTERY	<50	60.5
H5491-4	#4-SUMP	<50	59.3
Quality Control		891	957
True Value QC		1000	1000
% Recovery		89.1	95.7
Relative Percent Difference		3.5	5.3

METHOD: SW-846 8015 M


Chemist

1/4/01
Date

H5491A.XLS

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.

New Mexico Office of the State Engineer
Well Reports and Downloads

Township: Range: Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name (First) (Last) ☐ Non-Domestic
☐ Domestic ☒ All

Well Data Report

Avg Depth to Water Report

Water Column Report

Clear Form

WATERS Menu

Help

AVERAGE DEPTH OF WATER REPORT 01/12/2001

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet)		
								Min	Max	Avg
C	22S	26E	36				1	115	115	115

Record Count: 1

Price, Wayne

From: Price, Wayne
Sent: Thursday, October 12, 2000 10:30 AM
To: 'Eddie Seay'
Cc: Gum, Tim
Subject: RE: Salty Bill SWD, Grace Oil

Approved with following Condition:

All OCD forms must be submitted to the Artesia District for approval and Plugging must be approved & witnessed by OCD District office.

From: Eddie Seay[SMTP:seay04@leaco.net]
Sent: Thursday, October 12, 2000 7:18 AM
To: Price, Wayne
Subject: Salty Bill SWD, Grace Oil

October 12, 2000

ATTN: Wayne Price
NMOCD Environmental Bureau
2040 South Pacheco
Santa Fe, NM 87505

RE: Salty Bill SWD, Grace Oil

Dear Mr. Price:

As per our conversation concerning an extension to complete phase I of the SWD closure, we have removed all tanks and pumps and are awaiting the plugging of the well. The plugging contractor, who is doing state plugging for the OCD, has been delayed and we need an additional 30 day extension to finalize this phase before starting any soil remediation. If you could extend our deadline to November 15 it would be appreciated. Looking forward to hearing from you.

Thank you,

Eddie W. Seay, Agent
601 W. Illinois
Hobbs, NM 88242
(505)392-2236

Price, Wayne

From: Price, Wayne
Sent: Wednesday, August 30, 2000 8:17 AM
To: 'Rena Seay'
Subject: RE: Salty Bill SWD

Approved!

From: Rena Seay[SMTP:seay04@leaco.net]
Reply To: Rena Seay
Sent: Tuesday, August 29, 2000 9:24 AM
To: Price, Wayne
Subject: Salty Bill SWD

August 28, 2000

NMOCD Environmental Bureau
ATTN: Wayne Price
2040 South Pacheco
Santa Fe, NM 87505

RE: Salty Bill SWD, Grace Oil

Dear Mr. Price:

As per our conversation, an extension of October 15, 2000, was asked for to finalize the first phase of the tank removals and the plugging of the disposal well. The tanks have been removed and we are waiting on the plugging company to move into the Carlsbad area and begin. The extension will be appreciated.

Thanks,

Eddie W. Seay, Agent

Price, Wayne

From: null@leaco.net[SMTP:null@leaco.net]
Sent: Wednesday, August 30, 2000 8:12 AM
To: Price, Wayne
Subject: Ack: "RE: Salty Bill SWD"

Your message headed:

RE: Salty Bill SWD.

has been delivered to seay04@leaco.net.

This receipt does not guarantee that the mail has been read.



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

June 1, 2000

Lori Wrotenbery
Director
Oil Conservation Division

CERTIFIED MAIL
RETURN RECEIPT NO. 5051 5697

Mr. Joel M. Carson
Losee, Carson, Haas, & Carroll, P.A.
311 West Quay Avenue
Artesia, NM 88211-1720

Re: Corinne B. Grace
Salty Bill Water Disposal Facility
NE/4 NW/4 of Section 36-Ts22s-R26e
Eddy County, New Mexico

Dear Mr. Carson:

The New Mexico Oil Conservation Division (NMOCD) is in receipt of Salty Bill Water Disposal Facility's (SBWDF) closure plan dated March 02, 2000 submitted by Eddie W. Seay, Agent for Salty Bill Water Disposal Facility.

The plan is hereby approved with the following additional conditions:

1. Items 1. through 5. "waste disposal, equipment removal and well plugging" of the closure plan shall be completed by September 01, 2000.
2. Item 6. "excavation and clean-up" activities shall start no later than September 30, 2000 and be completed by November 30, 2000.
 - A. SBWDF will notify the OCD Santa Fe office and the OCD District office at least 72 hours in advance of all scheduled activities such that the OCD has the opportunity to witness the events and/or split samples during OCD's normal business hours.
 - B. SBWDF shall also receive written approval before covering any excavated area.

Please be advised that NMOCD approval of this plan does not relieve SBWDF of liability should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve SBWDF of responsibility for compliance with any other federal, state, or local laws and/or regulations.

If you require any further information or assistance please do not hesitate to write or call me at (505-827-7155).

Sincerely Yours,

A handwritten signature in black ink, appearing to read 'Wayne Price', written in a cursive style.

Wayne Price-Pet. Engr. Spec.
Environmental Bureau

cc: OCD Artesia Office

RECEIVED

MAR 08 2000

Environmental Bureau
Oil Conservation Division

March 2, 2000

MAR - 8 2000

CONSERVATION DIVISION

NMOCD Environmental Bureau
ATTN: Martyne J. Kieling
2040 South Pacheco
Santa Fe, NM 87505

RE: Grace, Salty Bill Disposal

Dear Mrs. Kieling:

As per my letter dated 2-15-00, enclosed is the closure plan for the Salty Bill SWD facility. After receiving approval for closure, Grace will submit bids for the various closure activities. I am in hopes that the OCD will work with Grace and allow some time to perform closure. The expense for closing this facility will be quite large and may take some time to appropriate funds. Your consideration and time in this matter is greatly appreciated.

If you have any questions or need additional information, please call.

Sincerely,

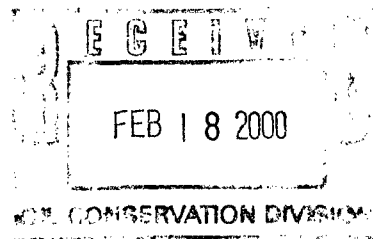


Eddie W. Seay, Agent
601 W. Illinois
Hobbs, NM 88242
(505)392-2236

CLOSURE PLAN FOR SALTY BILL SWD

- 1) Shut down operations
 Notify truckers and operators of the closure.
- 2) Submit plug and abandon report for approval to OCD, C-103.
- 3) Clean out water and BS from storage tank and haul to an OCD approved facility.
- 4) Remove and sell tanks, pumps and associated equipment.
- 5) Plug and abandon well after OCD approval.
- 6) Excavate contaminated soils as per NOV and after equipment is removed, as per OCD rules.
 - a) pit area
 - b) below grade sump
 - c) tank area
 - d) off-loading area
- 7) File final closure report.

February 15, 2000



Oil Conservation Division, Environmental Bureau
ATTN: Mrs. Martyne J. Kieling
2040 S. Pacheco St.
Santa Fe, NM 87505

RE: Grace, Salty Bill Disposal

Dear Mrs. Kieling:

As per our discussion, Mrs. Grace has decided to close the facility. I need some time to prepare a closure plan for the facility. I have been in contact with David Catanach about the disposal well and he did not know of any violations with it. I do understand, and so do the Grace people, that the cleanup will encompass the NOV that are pending. I will have a plan in a few days, please allow me some time to get costs and figures together for abandonment.

If you have any questions or need additional information, please call. Thank you for your consideration.

Sincerely,

Eddie W. Seay, Agent
601 W. Illinois
Hobbs, NM 88242
(505)392-2236



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

January 24, 2000

CERTIFIED MAIL
RETURN RECEIPT NO. Z-559-572-262

Mr. Joel M. Carson
Losee, Carson, Haas, & Carroll, P.A.
311 West Quay Avenue
Artesia, NM 88211-1720

Re: Corinne B. Grace
Salty Bills Water Disposal Facility
NE/4, NW/4 of Section 36, Township 22 South, Range 26 East, NMPM
Eddy County, New Mexico

Mr. Carson:

The New Mexico Oil Conservation Division has received your letter dated December 27, 1999 requesting an extension of time from the January 5, 2000 deadline to February 19, 2000 for the submittal of a site assessment plan for the above referenced location. The extension request is hereby granted.

If you have any questions, please contact Martyne Kieling at (505) 827-7153.

Sincerely,

A handwritten signature in cursive script, appearing to read "Roger C. Anderson".

Roger C. Anderson
Environmental Bureau Chief

xc: Artesia OCD Office
Hobbs OCD Office
Ms. Corinne B. Grace, P.O. Box 1418, 3722 National Parks Hwy., Carlsbad, N.M.
88220
Eddie Seay, Peak Consulting

LAW OFFICES

LOSEE, CARSON, HAAS & CARROLL, P. A.

ERNEST L. CARROLL
JOEL M. CARSON
JAMES E. HAAS
R. TRACY SPROULS, LL.M. (TAX)
OF COUNSEL
A. J. LOSEE

311 WEST QUAY AVENUE
P. O. BOX 1720
ARTESIA, NEW MEXICO 88211-1720
PHONE (505) 746-3505
FAX (505) 746-6316

ROSWELL OFFICE
400 N. PENN., SUITE 870
ROSWELL, NM 88201
PHONE (505) 623-5154

PLEASE DIRECT ALL CORRESPONDENCE
TO OUR ARTESIA OFFICE

December 27, 1999

DEC 29 1999

Mr. Roger C. Anderson
Environmental Bureau Chief
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87506

Re: NOV, Corinne B. Grace

Dear Mr. Anderson:

Corinne Grace has employed Eddie Seay as a consultant in connection with the above described NOV. Mr. Seay, Ms. Grace's superintendent, and I have gone to the site, reviewed the NOV, and had a preliminary discussion regarding alternatives. Mr. Seay has been instructed to prepare a plan, as well as cost estimates, discussing the feasibility of making the necessary changes and the costs of remediation to meet the requirements of the OCD. In the alternative, Mr. Seay has been instructed to determine the feasibility of closing the site and remediating any contamination caused by Grace.

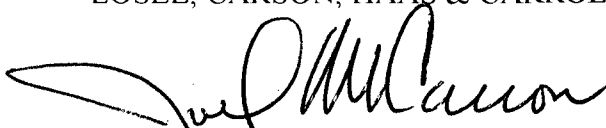
Tests have shown the presence of contaminants not associated with the disposal of produced water. Mr. Seay has been asked to quantify any contamination which could have been caused by third parties.

Last, I have asked Mr. Seay to contact Martyne Kieling to let him know that he is now on board and will be working on this project.

We would request an extension of 45 days to accomplish the above tasks and present an acceptable site assessment.

Yours truly,

LOSEE, CARSON, HAAS & CARROLL, P.A.


Joel M. Carson

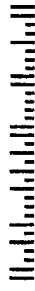
JMC:bjk

xc: Ms. Corinne Grace
Mr. Gary Davis
Mr. Eddie Seay

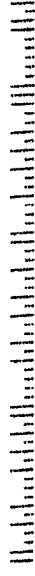
LAW OFFICES
LOSEE, CARSON, HAAS & CARROLL, P. A.
311 WEST QUAY AVENUE
P. O. BOX 1720
ARTESIA, NEW MEXICO 88211-1720



Mr. Roger C. Anderson
Environmental Bureau Chief
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87506



87503-3472 37



Salty Bill Water Disposal Cleanup 1998 Analytical Reports

page 1

NMOCD Required Cleanup Levels: Benzene 10 ppm, BTEX 50 ppm, TPH 100 ppm.
NMOCD Soil Investigation Guidance Levels: Metals and Chloride at WQCC levels.

Date Sampled	Sample Number	Sample Location	Sample Depth	Benzene 10 ppm	BTEX 50 ppm	Diesel range org.	Gasoline range org.
05/14/98	pump sump # 1	pump sump	4' bgs	<RDL	21	4,500	<RDL
05/14/98	pump sump # 2	pump sump	4' bgs	<RDL	<RDL	300	<RDL
05/14/98	pump sump # 3	pump sump	4' bgs	<RDL	<RDL	110	<RDL
05/14/98	pump sump # 4	pump sump	4' bgs	<RDL	<RDL	85	<RDL
05/14/98	T-1	valve sump	18" bgs	<RDL	18	960	<RDL
05/14/98	T-2	valve sump	18" bgs	<RDL	191	2,800	13
05/14/98	T-3	valve sump	18" bgs	<RDL	<RDL	320	<RDL
05/14/98	T-4	oil tanks	18" bgs	<RDL	34	320	<RDL
05/14/98	T-5	oil tanks	18" bgs	<RDL	<RDL	270	<RDL
05/14/98	T-6	oil tanks	18" bgs	<RDL	<RDL	690	<RDL
05/14/98	T-7	oil tanks	18" bgs	<RDL		1,500	<RDL
05/14/98	Method blank			<RDL	<RDL	<RDL	<RDL
05/07/98	1-CG	overflow pit	6' bgs	<RDL	<RDL	2,100	<RDL
05/07/98	2-CG	overflow pit	6' bgs	<RDL	<RDL	150	<RDL
05/07/98	3-CG	overflow pit	6' bgs	<RDL	<RDL	120	<RDL
05/07/98	4-CG	overflow pit		<RDL	<RDL	200	<RDL
05/07/98	5-CG	overflow pit	6' bgs	<RDL	<RDL	<RDL	<RDL
05/07/98	6-CG	overflow pit	6' bgs	<RDL	<RDL	<RDL	<RDL
05/07/98	7-CG	overflow pit	6' bgs	<RDL	<RDL	37	<RDL
05/07/98	8-CG	overflow pit		<RDL	<RDL	1,400	<RDL
05/07/98	9-CG	overflow pit		<RDL	<RDL	940	<RDL
05/07/98	10-CG	overflow pit		<RDL	<RDL	720	<RDL
05/07/98	11-CG	overflow pit		<RDL	<RDL	34	<RDL
05/07/98	12-CG	overflow pit		<RDL	<RDL	360	<RDL
05/07/98	13-CG	p. water tanks	12" bgs	<RDL	5.9	350	<RDL
05/07/98	14-CG	p. water tanks	12" bgs	<RDL	<RDL	<RDL	<RDL
05/07/98	15-CG	p. water tanks	12" bgs	<RDL	60	1,200	<RDL
05/07/98	16-CG	p. water tanks	12" bgs	<RDL	<RDL	780	<RDL
05/07/98	17-CG	p. water tanks	12" bgs	<RDL	<RDL	130	<RDL
05/07/98	18-CG	p. water tanks	12" bgs	<RDL	43	860	<RDL
05/07/98	19-CG	p. water tanks	12" bgs	<RDL	<RDL	310	<RDL
05/07/98	20-CG	p. water tanks	12" bgs	<RDL	<RDL	150	<RDL
05/07/98	21-CG	p. water tanks	12" bgs	<RDL	<RDL	1000	<RDL
05/07/98	22-CG	p. water tanks	12" bgs	<RDL	<RDL	560	<RDL
05/07/98	Method blank			<RDL	<RDL	<RDL	<RDL

 NOTE: Soil sample concentrations in **Bold** are above site standards or above WQCC standards.

Salty Bill Water Disposal Cleanup 1998 Analytical Reports

page 2

NMOCD Required Cleanup Levels: Benzene 10 ppm, BTEX 50 ppm, TPH 100 ppm.

NMOCD Soil Investigation Guidance Levels: Metals and Chloride at WQCC levels.

Mercury 0.002 ppm	Arsenic 0.1 ppm	Barium 1.0 ppm	Cadmium 0.01 ppm	Chromium 0.05 ppm	Lead 0.05 ppm	Selenium 0.05 ppm	Silver 0.05 ppm	Chloride 250 ppm
<RDL	1.1	3.0	<RDL	<RDL	1.1	<RDL	<RDL	10,000
<RDL	1.8	1.3	<RDL	<RDL	<RDL	<RDL	<RDL	8,800
<RDL	2.1	1.5	<RDL	<RDL	<RDL	<RDL	<RDL	8,500
<RDL	2.1	1.3	<RDL	<RDL	<RDL	<RDL	<RDL	9,100
<RDL	2.0	1.6	<RDL	<RDL	<RDL	<RDL	<RDL	9,100
<RDL	1.1	1.6	<RDL	<RDL	1.2	<RDL	<RDL	5,100
<RDL	2.0	1.8	<RDL	<RDL	<RDL	<RDL	<RDL	16,000
<RDL	<RDL	1.7	<RDL	<RDL	<RDL	<RDL	<RDL	16,000
<RDL	2.2	2.0	<RDL	<RDL	<RDL	<RDL	<RDL	15,000
<RDL	1.2	1.6	<RDL	<RDL	<RDL	<RDL	<RDL	12,000
<RDL	1.9	1.5	<RDL	<RDL	<RDL	<RDL	<RDL	12,000
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	60,000
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	10,000
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	20,000
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	20,000
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	1.7	<RDL	<RDL	<RDL	<RDL	<RDL	60,000
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	40,000
<RDL	<RDL	1.1	<RDL	<RDL	<RDL	<RDL	<RDL	40,000
<RDL	<RDL	1.3	<RDL	<RDL	<RDL	<RDL	<RDL	60,000
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	80,000
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	20,000
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	40,000
<RDL	<RDL	1.0	<RDL	<RDL	<RDL	<RDL	<RDL	40,000
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	1.3	<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	20,000
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	40,000
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL

NOTE: Soil sample concentrations in **Bold** are above site standards or above WQCC standards.

Salty Bill Salt Water Disposal Cleanup 1998 Analytical Reports

page 1

NMOCD Required Cleanup Levels: Benzene 10 ppm, BTEX 50 ppm,
TPH 100 ppm, Metals at WQCC levels

Date Sampled	Sample Location	Benzene 10 ppm	BTEX 50 ppm	Diesel range org. 120 ppm	Gasoline range org.	Mercury 0.002 ppm	Arsenic 0.1 ppm	Barium 1.0 ppm
5/14/98	pump sump # 1 4'	<RDL	21	4,500	<RDL	<RDL	1.1	3.0
5/14/98	pump sump # 2 4'	<RDL	<RDL	300	<RDL	<RDL	1.8	1.3
5/14/98	pump sump # 3 4'	<RDL	<RDL	110	<RDL	<RDL	2.1	1.5
5/14/98	pump sump # 4 4'	<RDL	<RDL	85	<RDL	<RDL	2.1	1.3
5/14/98	T-1 18" Sump	<RDL	18	960	<RDL	<RDL	2.0	1.6
5/14/98	T-2 18" Sump	<RDL	191	2,800	13	<RDL	1.1	1.6
5/14/98	T-3 18" Sump	<RDL	<RDL	320	<RDL	<RDL	2.0	1.8
5/14/98	T-4 18" Oil Tanks	<RDL	34	320	<RDL	<RDL	<RDL	1.7
5/14/98	T-5 18" Oil Tanks	<RDL	<RDL	270	<RDL	<RDL	2.2	2.0
5/14/98	T-6 18" Oil Tanks	<RDL	<RDL	690	<RDL	<RDL	1.2	1.6
5/14/98	T-7 18" Oil Tanks	<RDL	<RDL	1,500	<RDL	<RDL	1.9	1.5
5/14/98	Method blank	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL
5/7/98	1-CG 6' Pit	<RDL	<RDL	2,100	<RDL	<RDL	<RDL	<RDL
5/7/98	2-CG 6' Pit	<RDL	<RDL	150	<RDL	<RDL	<RDL	<RDL
5/7/98	3-CG 6' Pit	<RDL	<RDL	120	<RDL	<RDL	<RDL	<RDL
5/7/98	4-CG 6' Pit	<RDL	<RDL	200	<RDL	<RDL	<RDL	<RDL
5/7/98	5-CG 6' Pit	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL
5/7/98	6-CG 6' Pit	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	1.7
5/7/98	7-CG 6' Pit	<RDL	<RDL	37	<RDL	<RDL	<RDL	<RDL
5/7/98	8-CG	<RDL	<RDL	1,400	<RDL	<RDL	<RDL	1.1
5/7/98	9-CG	<RDL	<RDL	940	<RDL	<RDL	<RDL	1.3
5/7/98	10-CG	<RDL	<RDL	720	<RDL	<RDL	<RDL	<RDL
5/7/98	11-CG	<RDL	<RDL	34	<RDL	<RDL	<RDL	<RDL
5/7/98	12-CG	<RDL	<RDL	360	<RDL	<RDL	<RDL	<RDL
5/7/98	13-CG 12 in T	<RDL	5.9	350	<RDL	<RDL	<RDL	<RDL
5/7/98	14-CG 12 in T	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	1.0
5/7/98	15-CG 12 in T	<RDL	60	1,200	<RDL	<RDL	<RDL	<RDL
5/7/98	16-CG 12 in T	<RDL	<RDL	780	<RDL	<RDL	<RDL	<RDL
5/7/98	17-CG 12 in T	<RDL	<RDL	130	<RDL	<RDL	<RDL	1.3
5/7/98	18-CG 12 in T	<RDL	43	860	<RDL	<RDL	<RDL	<RDL
5/7/98	19-CG 12 in T	<RDL	<RDL	310	<RDL	<RDL	<RDL	<RDL
5/7/98	20-CG 12 in T	<RDL	<RDL	150	<RDL	<RDL	<RDL	<RDL
5/7/98	21-CG 12 in T	<RDL	<RDL	1000	<RDL	<RDL	<RDL	<RDL
5/7/98	22-CG 12 in T	<RDL	<RDL	560	<RDL	<RDL	<RDL	<RDL
5/7/98	Method blank	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL	<RDL

in GW.

Sumpump 4'

18' Sump

18" oil Tanks

6' Pit

6' Pit

Pit

12" Around Tanks

Salty Bill Salt Water Disposal Cleanup 1998 Analytical Reports
 NMOCD Required Cleanup Levels: Benzene 10 ppm, BTEX 50 ppm,

page 2

Cadmium	Chromium	Lead	Selenium	Silver	Chloride
0.01 ppm	0.05 ppm	0.05 ppm	0.05 ppm	0.05 ppm	250
<RDL	<RDL	1.1	<RDL	<RDL	10,000
<RDL	<RDL	<RDL	<RDL	<RDL	8,800
<RDL	<RDL	<RDL	<RDL	<RDL	8,500
<RDL	<RDL	<RDL	<RDL	<RDL	9,100
<RDL	<RDL	<RDL	<RDL	<RDL	9,100
<RDL	<RDL	1.2	<RDL	<RDL	5,100
<RDL	<RDL	<RDL	<RDL	<RDL	16,000
<RDL	<RDL	<RDL	<RDL	<RDL	16,000
<RDL	<RDL	<RDL	<RDL	<RDL	15,000
<RDL	<RDL	<RDL	<RDL	<RDL	12,000
<RDL	<RDL	<RDL	<RDL	<RDL	12,000
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL
<RDL	<RDL	<RDL	<RDL	<RDL	60,000
<RDL	<RDL	<RDL	<RDL	<RDL	10,000
<RDL	<RDL	<RDL	<RDL	<RDL	20,000
<RDL	<RDL	<RDL	<RDL	<RDL	20,000
<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	60,000
<RDL	<RDL	<RDL	<RDL	<RDL	40,000
<RDL	<RDL	<RDL	<RDL	<RDL	40,000
<RDL	<RDL	<RDL	<RDL	<RDL	60,000
<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	80,000
<RDL	<RDL	<RDL	<RDL	<RDL	20,000
<RDL	<RDL	<RDL	<RDL	<RDL	40,000
<RDL	<RDL	<RDL	<RDL	<RDL	40,000
<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	20,000
<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	40,000
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL

in 6w

4' Pump Sump

18" Sump

18" oil tank

Pit
Pit
Pit } 6' sidewall Pit

Pit
Pit
Pit } 6' sidewall Pit

Pit

T
T
T
T
T
T
T
T
T
T } 12 inches Tanks



Corinne B. Grace

POST OFFICE BOX 1418
3722 NATIONAL PARKS HWY.
CARLSBAD, NEW MEXICO 88220

(505) 887-5581

RECEIVED

AUG 17 1999

CONSERVATION DIVISION

August 13, 1999

CERTIFIED MAIL

Return Receipt No. P 437020071

Roger C. Anderson
Environmental Bureau Chief
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, NM 87505

Re: Salty Bill Water Disposal Facility
NE/4, NW/4 of Section 36, Township 22 South, Range
26 East, N.M.P.M.
Eddy County, New Mexico

Dear Mr. Anderson:

As requested in your letter of August 9, 1999, the following are enclosed:

1. A location map of the facility showing the sample locations CG-1 to CG-22, Pump Station 1 to 4, and T-1 to T-7;
2. The sample depth below ground surface of each sample location;
3. A copy of the chain of custody for all laboratory samples:

If you have any questions, please contact us.

Very truly yours,

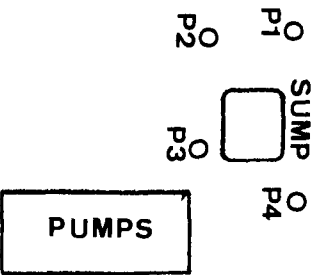
Mitchell Morris

Mitchell Morris

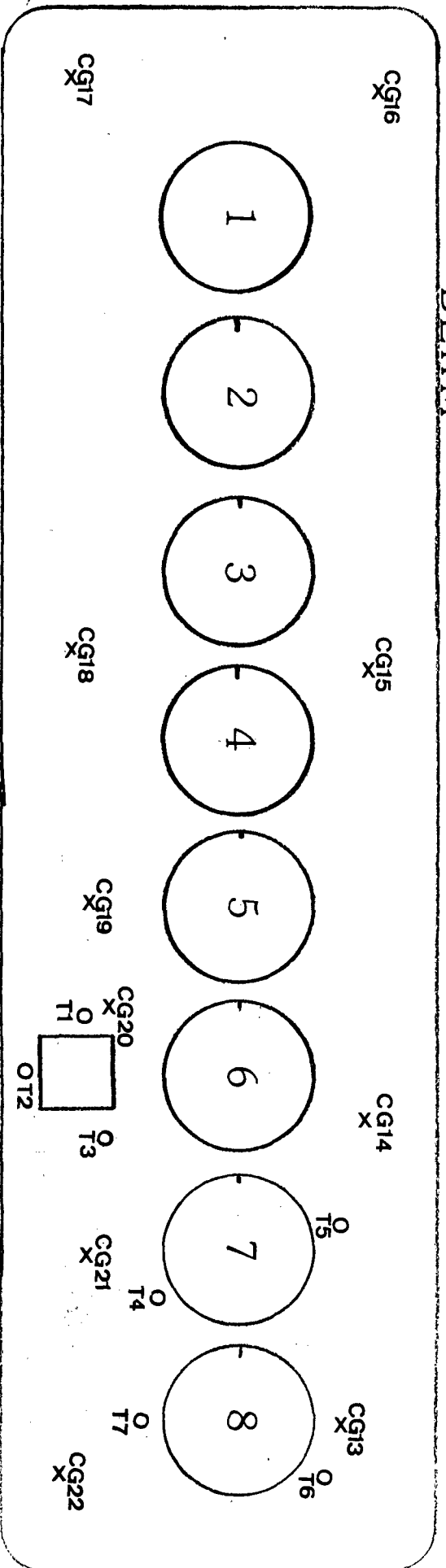
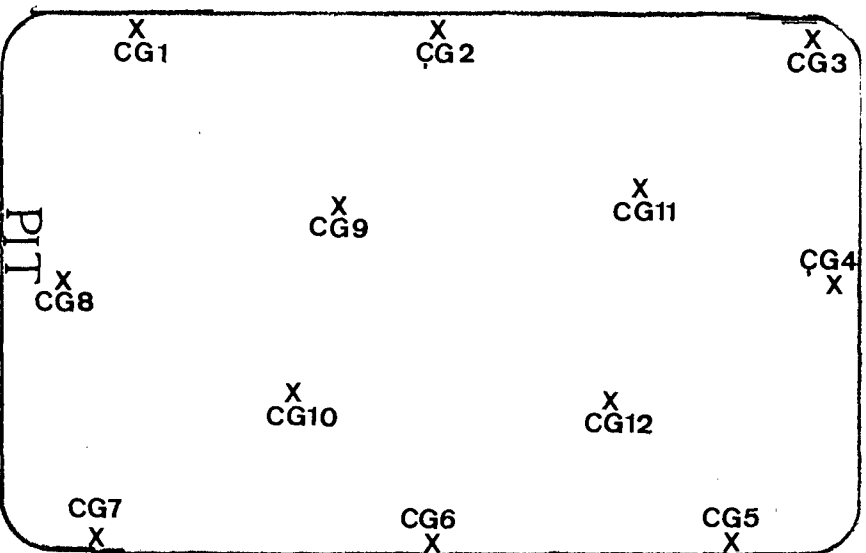
MM/
Enclosures

Cc: Joel M. Carson, Esquire Losee, Carson, Haas, & Carroll
Artesia Office OCD

SALTY BILL SWD
SEC. 36, T22S, R26E, NMPM
EDDY COUNTY, NEW MEXICO
SAMPLE LOCATION MAP



BERM



Salty Bill Water Disposal Facility
Sample Depths

Samples CG-1 to CG-12 were taken out of the pit that had be dug up.
CG-1 to CG-3 and CG-5 to CG-7 were taken 6 feet below ground surface.

Samples CG-13 to CG-22 were taken 12 inches below ground surface.

Samples T-1 to T-7 were taken 18 inches below ground surface.

Samples Pump Station 1 to 4 were taken 4 feet below ground surface.



ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

CHAIN OF CUSTODY

6017 Financial Drive, Norcross, GA 30071
Phone # (770) 449-8800 Fax # (770) 449-5477Company Name: CORINNE B. GRACEBilling address: S ANNEAddress: P.O. Box 1418 Cartersburg N.W. 30201-1418SATBY BillReport Sent to: (Client Contact): MITCH MORRISContact Phone # (505) 887-5581 Fax # (505) 887-5583Project Name: SATBY Bill Pit Closure

Project Number:

Sample ID #				Sample Location:				No. of Containers				ANALYSIS				Remarks		Accura Sample ID No. AB	
Sample ID #	Sample Date / Time	Comp	Grab	Matrix	Preserved	Sample Location:	No. of Containers	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	Remarks	Accura Sample ID No. AB				
Pump Sump #1	5-14-98 10:35	X	S	N		Pump Sump #1	2	✓	✓	✓	✓	✓	✓	RB43770					
Pump Sump #2	5-14-98 10:35	X	S	N		Pump Sump #2	2	✓	✓	✓	✓	✓	✓	RB43777					
Pump Sump #3	5-14-98 10:40	X	S	N		Pump Sump #3	2	✓	✓	✓	✓	✓	✓	RB43778					
Pump Sump #4	5-14-98 10:45	X	S	N		Pump Sump #4	2	✓	✓	✓	✓	✓	✓	RB43779					
T-1	5-14-98 9:55	X	S	N		T-1	2	✓	✓	✓	✓	✓	✓	RB43780					
T-2	5-14-98 10:05	X	S	N		T-2	2	✓	✓	✓	✓	✓	✓	RB43781					
T-3	5-14-98 10:10	X	S	N		T-3	2	✓	✓	✓	✓	✓	✓	RB43782					
T-4	5-14-98 10:15	X	S	N		T-4	2	✓	✓	✓	✓	✓	✓	RB43783					
T-5	5-14-98 10:20	X	S	N		T-5	2	✓	✓	✓	✓	✓	✓	RB43784					
T-6	5-14-98 10:25	X	S	N		T-6	2	✓	✓	✓	✓	✓	✓	RB43785					

Relinquished By: Vela Tundalo Date / Time: 5/14/98 Received By: Fed-X Date / Time: 5/14

Relinquished By: Michael G. G. G. Date / Time: 5-15-98/9:30 Special Requirements Or Remarks: Turnaround Time Requested:



Environmental Analytical Services

6017 Financial Drive, Norcross, GA 30071
Phone # (770) 449-8800 Fax # (770) 449-5477

2cf

CHAIN OF CUSTODY

Company Name: Corinne B. Grace

Billing address: Spine

Address: P.O. Box 1418 Carlsbad N.M. 88221-1418 Client P.O. # SATV Bill

Report Sent to: (Client Contact): Mitch Morris

Contact Phone # 505 (887-5581) Fax # 505 (887-5583)

Project Name: Safety Bill Pkt Closure

Project Number:

[illegible]



ACCURA ANALYTICAL LABORATORY, INC.

13171

Environmental Analytical Services

CHAIN OF CUSTODY

6017 Financial Drive, Norcross, GA 30071
Phone # (770) 449-8800 Fax # (770) 449-5477

Company Name:	<u>Cornne B. Grace</u>	Billing address:	<u>Same</u>
Address:	<u>PO Box 1418 Cankbad, NM 88221-1418</u>	Client P.O. #	<u>Salty Bill</u>
Report Sent to: (Client Contact):	<u>Mitch Morris</u>	For Laboratory Use Only	
Contact Phone #	<u>(505) 887-5581</u>	Custody Seal:	Y N
Fax #	<u>(505) 887-5583</u>	QC Level:	N 1 2 3 4
Project Name:	<u>Salty Bill Pit Closure</u>	Sample Condition:	<u>Good</u>
Project Number:		Sample Condition:	<u>Good</u>
		Page	1 OF 3
		Init/Temp:	<u>200/15.0c</u>
		AAL Lab Project #	

Samplers: (signature)		Samplers: (printed)		ANALYSIS		Remarks		Accura Sample ID No. AB
Sample ID #	Sample Date / Time	Comp	Grab	Matrix	Preserved	Sample Location:	No. of Containers	
1-CG	5/1/98 1:30	X	S	N		1	2	
2-CG	5/1/98 1:37	X	S	N		2	2	
3-CG	5/1/98 1:40	X	S	N		3	2	
4-CG	5/1/98 1:45	X	S	N		4	2	
5-CG	5/1/98 1:50	X	S	N		5	2	
6-CG	5/1/98 1:55	X	S	N		6	2	
7-CG	5/1/98 2:00	X	S	N		7	2	
8-CG	5/1/98 2:05	X	S	N		8	2	
9-CG	5/1/98 2:10	X	S	N		9	2	
10-CG	5/1/98 2:15	X	S	N		10	2	
Relinquished By: <u>Mitch Morris</u>		Date / Time		Received By: <u>Fed-X</u>		Date / Time		Special Requirements Or Remarks:
Relinquished By: <u>Fed-X</u>		Date / Time		Received By: <u>David Felle</u>		Date / Time		Turnaround Time Requested:

Matrix Guide: (S = Soil) (W = Water) (L = Liquid) (C = Cartridge) (SL = Sludge) (A = Air Sample) (F = Fossil) (M = Miscellaneous)

CHAIN OF CUSTODY

6017 Financial Drive, Norcross, GA 30071
Phone # (770) 449-8800 Fax # (770) 449-5477

Company Name: Corinne B Grace

Billing address: Same

Address: PO Box 1418 Carlsbad, NM 88221-1418

Client P.O. # Satty Bill

Report Sent to: (Client Contact): Mitch Morris

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

For Laboratory Use Only

Contact Phone # (505) 887-5581 Fax # (505) 887-5583

Custody Seal: **Y** **N**

Page 2 OF 3

Project Name: Salty Bill Pit Closure

QC Level: N 1 2 3 4

InitTemp:

Project Number:

Sample Condition:

AAI Lab Project #

[illegible]

Relinquished By:

Date / Time

Received By:

Date / Time

Special Requirements Or Remarks:

Relinquished By:

Date / Time

Received By:

Date / Time

Turnaround Time Requested:



ACCURA ANALYTICAL LABORATORY, INC.

13173

Environmental Analytical Services

CHAIN OF CUSTODY

6017 Financial Drive, Norcross, GA 30071
Phone # (770) 449-8800 Fax # (770) 449-5477

Company Name:	Corinne B. Grace	Billing address:	Jane
Address:	PO Box 1418 Carlsbad, NM 88221-1418	Client P.O. #	Larry Bill
Report Sent to: (Client Contact):	Mitch Morris	For Laboratory Use Only	
Contact Phone #	(505) 887-5581	Fax #	(505) 887-5583
Project Name:	Salty Bill Pit Closure	Custody Seal:	Y N
Project Number:		QC Level:	N 1 2 3 4
		Sample Condition:	Good
		Init Temp:	22/5°C
		AAL Lab Project #	

Samplers: (signature)				Samplers: (printed)				ANALYSIS				Remarks	Accura Sample ID No. AB
Sample ID #	Sample Date / Time	Comp	Grab	Matrix	Preserved	Sample Location:	No. of Containers	BTEX 8260	TPH	Hg	Cd		
Mitch Morris						Mitch Morris							
13-CG	5/7/98 2:30	X	S	N		13	2	✓	✓	✓	✓		
14-CG	5/7/98 2:35	X	S	N		14	2	✓	✓	✓	✓		
15-CG	5/7/98 2:40	X	S	N		15	2	✓	✓	✓	✓		
16-CG	5/7/98 2:45	X	S	N		16	2	✓	✓	✓	✓		
17-CG	5/7/98 2:50	X	S	N		17	2	✓	✓	✓	✓		
18-CG	5/7/98 2:55	X	S	N		18	2	✓	✓	✓	✓		
19-CG	5/7/98 3:00	X	S	N		19	2	✓	✓	✓	✓		
20-CG	5/7/98 3:05	X	S	N		20	2	✓	✓	✓	✓		
21-CG	5/7/98 3:10	X	S	N		21	2	✓	✓	✓	✓		
22-CG	5/7/98 3:15	X	S	N		22	2	✓	✓	✓	✓		
Relinquished By: Mitch Morris				Date / Time	5/8/98	Received By: Fed-X				Date / Time	5/9/98 09:45	Special Requirements Or Remarks:	
Relinquished By: Fed-X				Date / Time	5/9/98 09:45	Received By: David Smith				Date / Time	5/9/98 09:45	Turnaround Time Requested:	

page 1

[illegible]

Salty Bill Salt Water Disposal Cleanup 1998 Analytical Reports
NMOCD Required Cleanup Levels: Benzene 10 ppm, BTEX 50 ppm,

page 2

Cadmium	Chromium	Lead	Selenium	Silver	Chloride
<RDL	<RDL	1.1	<RDL	<RDL	10,000
<RDL	<RDL	<RDL	<RDL	<RDL	8,800
<RDL	<RDL	<RDL	<RDL	<RDL	8,500
<RDL	<RDL	<RDL	<RDL	<RDL	9,100
<RDL	<RDL	<RDL	<RDL	<RDL	9,100
<RDL	<RDL	1.2	<RDL	<RDL	5,100
<RDL	<RDL	<RDL	<RDL	<RDL	16,000
<RDL	<RDL	<RDL	<RDL	<RDL	16,000
<RDL	<RDL	<RDL	<RDL	<RDL	15,000
<RDL	<RDL	<RDL	<RDL	<RDL	12,000
<RDL	<RDL	<RDL	<RDL	<RDL	12,000
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL
<RDL	<RDL	<RDL	<RDL	<RDL	60,000
<RDL	<RDL	<RDL	<RDL	<RDL	10,000
<RDL	<RDL	<RDL	<RDL	<RDL	20,000
<RDL	<RDL	<RDL	<RDL	<RDL	20,000
<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	60,000
<RDL	<RDL	<RDL	<RDL	<RDL	40,000
<RDL	<RDL	<RDL	<RDL	<RDL	40,000
<RDL	<RDL	<RDL	<RDL	<RDL	60,000
<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	80,000
<RDL	<RDL	<RDL	<RDL	<RDL	20,000
<RDL	<RDL	<RDL	<RDL	<RDL	40,000
<RDL	<RDL	<RDL	<RDL	<RDL	40,000
<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	20,000
<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	30,000
<RDL	<RDL	<RDL	<RDL	<RDL	40,000
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL
<RDL	<RDL	<RDL	<RDL	<RDL	<RDL



**NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT**

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

June 1, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. P.326-936-541

Ms. Corinne B. Grace
P.O. Box 1418
3722 National Parks Hwy.
Carlsbad, N.M. 88220

Re: Salty Bills Water Disposal Facility
NE/4, NW/4 of Section 36, Township 22 South, Range 26 East, NMPM
Eddy County, New Mexico

Dear Ms. Grace:

The New Mexico Oil Conservation Division (OCD) received the Salty Bill Salt Water Disposal Facility's (Salty Bill) letter and analytical results dated June 16, 1998 concerning the above-referenced water disposal facility remediation. On June 18, 1998 the OCD requested the additional information regarding the facility investigation and remediation. As required in the OCD letter dated December 12, 1997, the OCD requires the following additional information in order to evaluate the ongoing remediation at Salty Bill.

1. A location map of the facility showing the sample locations CG-1 to CG-22, Pump Station 1 to 4, and T-1 to T-7;
2. The sample depth below ground surface of each sample location;
3. A copy of the chain of custody for all laboratory samples;
4. TCLP metal analytical results for As, Ba, Cd, Cr, Pb, Ag (OCD has the Hg and Se results); and
5. Volatile organic compound analytical results by EPA method 8240.

To date the OCD has not received a response from Salty Bill Water Disposal Facility concerning the additional requested information. Salty Bill Water Disposal Facility shall provide the additional requested information to the OCD Santa Fe office and a copy to the Artesia District office by July 1, 1999.

If you have any additional questions, please contact me at (505) 827-7153.

Sincerely,

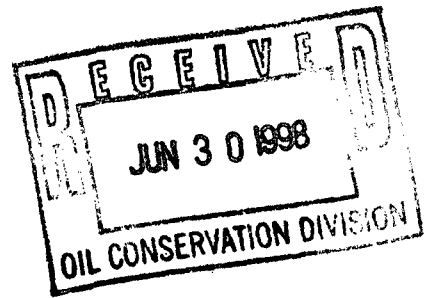
Martyne J. Kieling
Environmental Geologist
xc: Artesia OCD Office

John Tymkowych, NMED, HRMB
Marcy Leavitt, Chief, NMED, GWQB
Mike Matush, SLO
Jim Carr, SLO Carlsbad
John Waters, Carlsbad Environmental Services

MEMORANDUM OF MEETING OR CONVERSATION

<input checked="" type="checkbox"/> Telephone	<input type="checkbox"/> Personal	Time 11:09	Date June 1, 1999
<u>Originating Party</u> Martyne Kicling		<u>Other Parties</u> Mitch Morris	
<u>Subject</u> Sally Bill SWD			
<u>Discussion</u> Regarding June 18, 1998 letter Additional Requests			
<u>Conclusions or Agreements</u> Write A letter to follow up Phone Call			
<u>Distribution</u>		Signed Martyne J. Kicling	

Corinne B. Grace
POST OFFICE BOX 1418
CARLSBAD, NEW MEXICO 88220
(505) 887-5581



June 29, 1998

Sent via Federal Express

Martyne J. Kieling
New Mexico Oil Conservation Division
Enviromental Bureau
2040 S. Pacheco St.
Santa Fe, NM 87505

Re: Salty Bill

Dear Martyne:

Enclosed find the TCLP lab reports for the above captioned soil samples. Should you have any questions please give me a call at (505) 887-5581.

Very truly yours,

A handwritten signature in cursive script that reads "Mitchell Morris / scm".

Mitchell Morris / scm

MM/scm
Enclosures

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FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB43776

Accura Project #: 16614-A

Client: Grace Oil

Date Sampled: 5/14/98

Client Contact: MITCH MORRIS

Date Received: 5/15/98

Client Project Number: NA

Date Reported: 6/26/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: PUMP SUMP #1

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 6/23/98

Date Ext/Dig/Prep: 6/23/98

Result Units:

Analyte Name

Analytical Results

Reported Detection Limits

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name

Analytical Results

Reported Detection Limits

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name

Analytical Results

Reported Detection Limits

Arsenic (Reg Limit = 5.0)

1.1

1

Barium (Reg Limit = 100.0)

3.0

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

1.1

1

Selenium (Reg Limit = 1.0)

<RDL

10

Silver (Reg Limit = 5.0)

<RDL

1


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<RDL = Less than Reported Detection Limit

Pg 1 of 12

Client Sample ID: PUMP SUMP #1

AALSample ID #: AB43776 Accura Project #: 16614-A

770 449 5477 P.03

ACCURA LABS

JUN-29-1998 13:36

770 449 5477 => GRACE OIL; #3

RECEIVED: 6-29-98 11:14AM

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USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB43777

Accura Project #: 16614-A

Client: Grace Oil

Date Sampled: 5/14/98

Client Contact: MITCH MORRIS

Date Received: 5/15/98

Client Project Number: NA

Date Reported: 6/26/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: PUMP SUMP #2

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 6/23/98

Date Ext/Dig/Prep: 6/23/98

Result Units:

Analyte Name

Analytical Results

Reported Detection Limits

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name

Analytical Results

Reported Detection Limits

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name

Analytical Results

Reported Detection Limits

Arsenic (Reg Limit = 5.0)

1.8

1

Barium (Reg Limit = 100.0)

1.3

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1


Accura Analytical Laboratory, Inc.

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<RDL = Less than Reported Detection Limit

Pg 2 of 12

Client Sample ID: PUMP SUMP #2

AAL Sample ID #: AB43777 Accura Project #: 16614-A

770 449 5477 P.04

ACCURA LABS
770 449 5477 => GRACE OIL #4

JUN-29-1998 13:36

RECEIVED: 6-29-98 11:14AM

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LABORATORY REPORT

Accura Sample ID #: AB43778

Accura Project #: 16614-A

Client: Grace Oil

Client Contact: MITCH MORRIS

Client Project Number: NA

Client Project Name: SALTY BILL PIT CLOSURE

Client Sample ID: PUMP SUMP #3

Date Sampled: 5/14/98

Date Received: 5/15/98

Date Reported: 6/26/98

Sample Matrix: SOIL

ANALYSIS: TCLP Extraction Procedure

Date Analyzed: 6/23/98 Date Ext/Dig/Prep: 6/23/98

Method Ref: 1311

Result Units:

Analyte Name

Analytical Results

Reported Detection Limits

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Date Analyzed: 6/24/98 Date Ext/Dig/Prep: 6/24/98

Method Ref: 7470A

Result Units: mg/L

Analyte Name

Analytical Results

Reported Detection Limits

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Date Analyzed: 6/25/98 Date Ext/Dig/Prep: 6/24/98

Method Ref: 3010A/6010B

Result Units: mg/L

Analyte Name

Analytical Results

Reported Detection Limits

Arsenic (Reg Limit = 5.0)

2.1

1

Barium (Reg Limit = 100.0)

1.5

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1

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<RDL = Less than Reported Detection Limit

Pg 3 of 12

Client Sample ID: PUMP SUMP #3

AAL Sample ID #: AB43778 Accura Project #: 16614-A

770 449 5477 P.05

ACCURA LABS

JUN-29-1998 13:37

770 449 5477 => GRACE OIL: #

6-29-98 11:14AM

RECEIVED:

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LABORATORY REPORT

Accura Sample ID #: AB43779

Accura Project #: 16614-A

Client: Grace Oil

Client Contact: MITCH MORRIS

Client Project Number: NA

Client Project Name: SALTY BILL PIT CLOSURE

Client Sample ID: PUMP SUMP #4

Date Sampled: 5/14/98

Date Received: 5/15/98

Date Reported: 6/26/98

Sample Matrix: SOIL

ANALYSIS: TCLP Extraction Procedure

Date Analyzed: 6/23/98 Date Ext/Dig/Prep: 6/23/98

Method Ref: 1311

Result Units:

Analyte Name

Analytical Results

Reported Detection Limits

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Date Analyzed: 6/24/98 Date Ext/Dig/Prep: 6/24/98

Method Ref: 7470A

Result Units: mg/L

Analyte Name

Analytical Results

Reported Detection Limits

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Date Analyzed: 6/25/98 Date Ext/Dig/Prep: 6/24/98

Method Ref: 3010A/6010B

Result Units: mg/L

Analyte Name

Analytical Results

Reported Detection Limits

Arsenic (Reg Limit = 5.0)

2.1

1

Barium (Reg Limit = 100.0)

1.3

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1

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<RDL = Less than Reported Detection Limit

Pg 4 of 12

Client Sample ID: PUMP SUMP #4

AAASample ID #: AB43779 Accura Project #: 16614-A

770 449 5477 P.06

ACCURA LABS

JUN-29-1998 13:37

770 449 5477 => GRACE OIL #6

6-29-98 11:15AM

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LABORATORY REPORT**Accura Sample ID #: AB43780****Accura Project #: 16614-A****Client: Grace Oil****Date Sampled: 5/14/98****Client Contact: MITCH MORRIS****Date Received: 5/15/98****Client Project Number: NA****Date Reported: 6/26/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: T-1****ANALYSIS: TCLP Extraction Procedure**

Method Ref: 1311

Date Analyzed: 6/23/98

Date Ext/Dig/Prep: 6/23/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

2.0

1

Barium (Reg Limit = 100.0)

1.6

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1


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LABORATORY REPORT**Accura Sample ID #: AB43781****Accura Project #: 16614-A****Client: Grace Oil****Date Sampled: 5/14/98****Client Contact: MITCH MORRIS****Date Received: 5/15/98****Client Project Number: NA****Date Reported: 6/26/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: T-2****ANALYSIS: TCLP Extraction Procedure****Method Ref: 1311****Date Analyzed: 6/23/98****Date Ext/Dig/Prep: 6/23/98****Result Units:****Analyte Name****Analytical Results****Reported Detection Limits****TCLP Extraction****NA****0****ANALYSIS: TCLP Mercury****Method Ref: 7470A****Date Analyzed: 6/24/98****Date Ext/Dig/Prep: 6/24/98****Result Units: mg/L****Analyte Name****Analytical Results****Reported Detection Limits****Mercury (Reg Limit = 0.2)****<RDL****0.01****ANALYSIS: TCLP Metals****Method Ref: 3010A/6010B****Date Analyzed: 6/25/98****Date Ext/Dig/Prep: 6/24/98****Result Units: mg/L****Analyte Name****Analytical Results****Reported Detection Limits****Arsenic (Reg Limit = 5.0)****1.1****1****Barium (Reg Limit = 100.0)****1.6****1****Cadmium (Reg Limit = 1.0)****<RDL****1****Chromium (Reg Limit = 5.0)****<RDL****1****Lead (Reg Limit = 5.0)****1.2****1****Selenium (Reg Limit = 1.0)****<RDL****10****Silver (Reg Limit = 5.0)****<RDL****1**

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LABORATORY REPORT**Accura Sample ID #: AB43782****Accura Project #: 16614-A**

Client: Grace Oil

Date Sampled: 5/14/98

Client Contact: MITCH MORRIS

Date Received: 5/15/98

Client Project Number: NA

Date Reported: 6/26/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: T-3

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 6/23/98

Date Ext/Dig/Prep: 6/23/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

2.0

1

Barium (Reg Limit = 100.0)

1.8

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1


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LABORATORY REPORT**Accura Sample ID #: AB43783****Accura Project #: 16614-A****Client: Grace Oil****Date Sampled: 5/14/98****Client Contact: MITCH MORRIS****Date Received: 5/15/98****Client Project Number: NA****Date Reported: 6/26/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: T-4****ANALYSIS: TCLP Extraction Procedure**

Method Ref: 1311

Date Analyzed: 6/23/98

Date Ext/Dig/Prep: 6/23/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

1.7

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)


<RDL

10

Silver (Reg Limit = 5.0)

<RDL

1


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LABORATORY REPORT**Accura Sample ID #: AB43784****Accura Project #: 16614-A****Client: Grace Oil****Date Sampled: 5/14/98****Client Contact: MITCH MORRIS****Date Received: 5/15/98****Client Project Number: NA****Date Reported: 6/26/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: T-5****ANALYSIS: TCLP Extraction Procedure**

Method Ref: 1311

Date Analyzed: 6/23/98**Date Ext/Dig/Prep: 6/23/98****Result Units:****Analyte Name****Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98**Date Ext/Dig/Prep: 6/24/98****Result Units: mg/L****Analyte Name****Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98**Date Ext/Dig/Prep: 6/24/98****Result Units: mg/L****Analyte Name****Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

2.2

1

Barium (Reg Limit = 100.0)

2.0

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1


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LABORATORY REPORT**Accura Sample ID #: AB43785****Accura Project #: 16614-A****Client: Grace Oil****Date Sampled: 5/14/98****Client Contact: MITCH MORRIS****Date Received: 5/15/98****Client Project Number: NA****Date Reported: 6/26/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: T-6****ANALYSIS: TCLP Extraction Procedure**

Method Ref: 1311

Date Analyzed: 6/23/98

Date Ext/Dig/Prep: 6/23/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

1.2 -

1

Barium (Reg Limit = 100.0)

1.6 -

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

<RDL

10

Silver (Reg Limit = 5.0)

<RDL

1


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LABORATORY REPORT**Accura Sample ID #: AB43786****Accura Project #: 16614-A**

Client: Grace Oil

Date Sampled: 5/14/98

Client Contact: MITCH MORRIS

Date Received: 5/15/98

Client Project Number: NA

Date Reported: 6/26/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: T-7

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 6/23/98

Date Ext/Dig/Prep: 6/23/98

Result Units:

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
TCLP Extraction	NA	0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Mercury (Reg Limit = 0.2)	<RDL	0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Arsenic (Reg Limit = 5.0)	1.9 ~	1
Barium (Reg Limit = 100.0)	1.5 ~	1
Cadmium (Reg Limit = 1.0)	<RDL	1
Chromium (Reg Limit = 5.0)	<RDL	1
Lead (Reg Limit = 5.0)	<RDL	1
Selenium (Reg Limit = 1.0)	<RDL	1
Silver (Reg Limit = 5.0)	<RDL	1



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<RDL = Less than Reported Detection Limit

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Client Sample ID: T-7

AALS Sample ID #: AB43786 Accura Project #: 16614-A

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LABORATORY REPORT**Accura Sample ID #: AB43787****Accura Project #: 16614-A**

Client: Grace Oil

Date Sampled: 5/14/98

Client Contact: MITCH MORRIS

Date Received: 5/15/98

Client Project Number: NA

Date Reported: 6/26/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: **METHOD BLANK****ANALYSIS: TCLP Extraction Procedure**

Method Ref: 1311

Date Analyzed: 6/23/98

Date Ext/Dig/Prep: 6/23/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

<RDL

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)


<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1


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LABORATORY REPORT**Accura Sample ID #: AB43361****Accura Project #: 16546-A**

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 6/26/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 1-CG

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 6/22/98

Date Ext/Dig/Prep: 6/22/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/23/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

<RDL

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

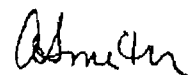
<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1



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LABORATORY REPORT**Accura Sample ID #: AB43362****Accura Project #: 16546-A****Client: Grace Oil****Date Sampled: 5/7/98****Client Contact: MITCH MORRIS****Date Received: 5/9/98****Client Project Number: NA****Date Reported: 6/26/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: 2-CG****ANALYSIS: TCLP Extraction Procedure**

Method Ref: 1311

Date Analyzed: 6/22/98

Date Ext/Dig/Prep: 6/22/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/23/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

<RDL

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

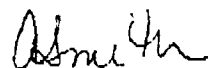
<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1



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LABORATORY REPORT**Accura Sample ID #: AB43363****Accura Project #: 16546-A**

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 6/26/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 3-CG

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 6/22/98

Date Ext/Dig/Prep: 6/22/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/23/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

<RDL

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

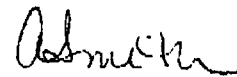
<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1



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LABORATORY REPORT**Accura Sample ID #: AB43364****Accura Project #: 16546-A****Client: Grace Oil****Date Sampled: 5/7/98****Client Contact: MITCH MORRIS****Date Received: 5/9/98****Client Project Number: NA****Date Reported: 6/26/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: 4-CG****ANALYSIS: TCLP Extraction Procedure**

Method Ref: 1311

Date Analyzed: 6/22/98

Date Ext/Dig/Prep: 6/22/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/23/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

<RDL

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1

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<RDL = Less than Reported Detection Limit

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Client Sample ID: 4-CG

AALS Sample ID #: AB43364 Accura Project #: 16546-A

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LABORATORY REPORT**Accura Sample ID #: AB43365****Accura Project #: 16546-A**

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 6/26/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 5-CG

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 6/22/98

Date Ext/Dig/Prep: 6/22/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/23/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

<RDL

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

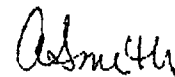
<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1



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<RDL = Less than Reported Detection Limit

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Client Sample ID: 5-CG

AAL Sample ID #: AB43365 Accura Project #: 16546-A

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LABORATORY REPORT**Accura Sample ID #: AB43366****Accura Project #: 16546-A**

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 6/26/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 6-CG

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 6/22/98

Date Ext/Dig/Prep: 6/22/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/23/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

1.7

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1



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LABORATORY REPORT**Accura Sample ID #: AB43367****Accura Project #: 16546-A****Client: Grace Oil****Date Sampled: 5/7/98****Client Contact: MITCH MORRIS****Date Received: 5/9/98****Client Project Number: NA****Date Reported: 6/26/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: 7-CG****ANALYSIS: TCLP Extraction Procedure**

Method Ref: 1311

Date Analyzed: 6/22/98

Date Ext/Dig/Prep: 6/22/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/23/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

<RDL

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1



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LABORATORY REPORT**Accura Sample ID #: AB43368****Accura Project #: 16546-A****Client: Grace Oil****Date Sampled: 5/7/98****Client Contact: MITCH MORRIS****Date Received: 5/9/98****Client Project Number: NA****Date Reported: 6/26/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: 8-CG****ANALYSIS: TCLP Extraction Procedure**

Method Ref: 1311

Date Analyzed: 6/22/98**Date Ext/Dig/Prep: 6/22/98****Result Units:****Analyte Name****Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98**Date Ext/Dig/Prep: 6/24/98****Result Units: mg/L****Analyte Name****Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98**Date Ext/Dig/Prep: 6/23/98****Result Units: mg/L****Analyte Name****Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

1.1

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1



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<RDL = Less than Reported Detection Limit

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Client Sample ID: 8-CG

AAL Sample ID #: AB43368 Accura Project #: 16546-A

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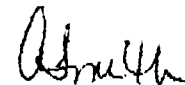
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LABORATORY REPORT**Accura Sample ID #: AB43369****Accura Project #: 16546-A****Client: Grace Oil****Date Sampled: 5/7/98****Client Contact: MITCH MORRIS****Date Received: 5/9/98****Client Project Number: NA****Date Reported: 6/26/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: 9-CG****ANALYSIS: TCLP Extraction Procedure****Method Ref: 1311****Date Analyzed: 6/22/98****Date Ext/Dig/Prep: 6/22/98****Result Units:****Analyte Name****Analytical Results****Reported Detection Limits****TCLP Extraction****NA****0****ANALYSIS: TCLP Mercury****Method Ref: 7470A****Date Analyzed: 6/24/98****Date Ext/Dig/Prep: 6/24/98****Result Units: mg/L****Analyte Name****Analytical Results****Reported Detection Limits****Mercury (Reg Limit = 0.2)****<RDL****0.01****ANALYSIS: TCLP Metals****Method Ref: 3010A/6010B****Date Analyzed: 6/25/98****Date Ext/Dig/Prep: 6/23/98****Result Units: mg/L****Analyte Name****Analytical Results****Reported Detection Limits****Arsenic (Reg Limit = 5.0)****<RDL****1****Barium (Reg Limit = 100.0)****1.3****1****Cadmium (Reg Limit = 1.0)****<RDL****1****Chromium (Reg Limit = 5.0)****<RDL****1****Lead (Reg Limit = 5.0)****<RDL****1****Selenium (Reg Limit = 1.0)****<RDL****1****Silver (Reg Limit = 5.0)****<RDL****1****Accura Analytical Laboratory, Inc.****ACCURA ANALYTICAL LABORATORY, INC.****<RDL = Less than Reported Detection Limit****Pg 9 of 23****Client Sample ID: 9-CG****AAL Sample ID #: AB43369 Accura Project #: 16546-A**

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LABORATORY REPORT**Accura Sample ID #: AB43370****Accura Project #: 16546-A**

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 6/26/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 10-CG

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 6/22/98

Date Ext/Dig/Prep: 6/22/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/23/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

<RDL

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

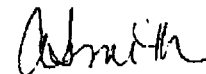
<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1



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LABORATORY REPORT**Accura Sample ID #: AB43371****Accura Project #: 16546-A****Client: Grace Oil****Date Sampled: 5/7/98****Client Contact: MITCH MORRIS****Date Received: 5/9/98****Client Project Number: NA****Date Reported: 6/26/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: 11-CG****ANALYSIS: TCLP Extraction Procedure**

Method Ref: 1311

Date Analyzed: 6/22/98

Date Ext/Dig/Prep: 6/22/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/23/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

<RDL

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

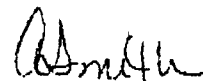
<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1



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LABORATORY REPORT**Accura Sample ID #: AB43372****Accura Project #: 16546-A**

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 6/26/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 12-CG

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 6/22/98

Date Ext/Dig/Prep: 6/22/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/23/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

<RDL

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

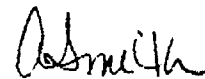
<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1



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LABORATORY REPORT**Accura Sample ID #: AB43373****Accura Project #: 16546-A**

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 6/26/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 13-CG

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 6/22/98

Date Ext/Dig/Prep: 6/22/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/23/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

<RDL

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1



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<RDL - Less than Reported Detection Limit

Pg 13 of 23

Client Sample ID: 13-CG

AAL Sample ID #: AB43373 Accura Project #: 16546-A

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LABORATORY REPORT**Accura Sample ID #: AB43374****Accura Project #: 16546-A**

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 6/26/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 14-CG

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 6/22/98

Date Ext/Dig/Prep: 6/22/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/23/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

1.0

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

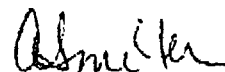
<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1



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<RDL = Less than Reported Detection Limit

Pg 14 of 23

Client Sample ID: 14-CG

AAL Sample ID #: AB43374 Accura Project #: 16546-A

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USACE-MRID Approved

LABORATORY REPORT**Accura Sample ID #: AB43375****Accura Project #: 16546-A**

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 6/26/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 15-CG

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 6/22/98

Date Ext/Dig/Prep: 6/22/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/23/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

<RDL

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1



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LABORATORY REPORT**Accura Sample ID #: AB43376****Accura Project #: 16546-A****Client: Grace Oil****Date Sampled: 5/7/98****Client Contact: MITCH MORRIS****Date Received: 5/9/98****Client Project Number: NA****Date Reported: 6/26/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: 16-CG****ANALYSIS: TCLP Extraction Procedure**

Method Ref: 1311

Date Analyzed: 6/22/98

Date Ext/Dig/Prep: 6/22/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/23/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

<RDL

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

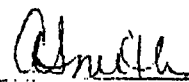
<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1



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LABORATORY REPORT**Accura Sample ID #: AB43377****Accura Project #: 16546-A****Client: Grace Oil****Date Sampled: 5/7/98****Client Contact: MITCH MORRIS****Date Received: 5/9/98****Client Project Number: NA****Date Reported: 6/26/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: 17-CG****ANALYSIS: TCLP Extraction Procedure**

Method Ref: 1311

Date Analyzed: 6/22/98**Date Ext/Dig/Prep: 6/22/98****Result Units:****Analyte Name****Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98**Date Ext/Dig/Prep: 6/24/98****Result Units: mg/L****Analyte Name****Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98**Date Ext/Dig/Prep: 6/23/98****Result Units: mg/L****Analyte Name****Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

1.3

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1

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LABORATORY REPORT**Accura Sample ID #: AB43378****Accura Project #: 16546-A**

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 6/26/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 18-CG

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 6/22/98

Date Ext/Dig/Prep: 6/22/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/23/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

<RDL

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1

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LABORATORY REPORT**Accura Sample ID #: AB43379****Accura Project #: 16546-A****Client: Grace Oil****Date Sampled: 5/7/98****Client Contact: MITCH MORRIS****Date Received: 5/9/98****Client Project Number: NA****Date Reported: 6/26/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: 19-CG****ANALYSIS: TCLP Extraction Procedure**

Method Ref: 1311

Date Analyzed: 6/22/98

Date Ext/Dig/Prep: 6/22/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

<RDL

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

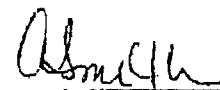
<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1



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LABORATORY REPORT**Accura Sample ID #: AB43380****Accura Project #: 16546-A**

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 6/26/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 20-CG

ANALYSIS: TCLP Extraction Procedure

Method Ref: 1311

Date Analyzed: 6/22/98

Date Ext/Dig/Prep: 6/22/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name:**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

<RDL

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1



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LABORATORY REPORT**Accura Sample ID #: AB43381****Accura Project #: 16546-A****Client: Grace Oil****Date Sampled: 5/7/98****Client Contact: MITCH MORRIS****Date Received: 5/9/98****Client Project Number: NA****Date Reported: 6/26/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: 21-CG****ANALYSIS: TCLP Extraction Procedure**

Method Ref: 1311

Date Analyzed: 6/22/98**Date Ext/Dig/Prep: 6/22/98****Result Units:****Analyte Name****Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98**Date Ext/Dig/Prep: 6/24/98****Result Units: mg/L****Analyte Name****Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98**Date Ext/Dig/Prep: 6/24/98****Result Units: mg/L****Analyte Name****Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

<RDL

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1



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<RDL = Less than Reported Detection Limit

Pg 21 of 23

Client Sample ID: 21-CG

AAL Sample ID #: AB43381 Accura Project #: 16546-A

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LABORATORY REPORT**Accura Sample ID #: AB43382****Accura Project #: 16546-A****Client: Grace Oil****Date Sampled: 5/7/98****Client Contact: MITCH MORRIS****Date Received: 5/9/98****Client Project Number: NA****Date Reported: 6/26/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: 22-CG****ANALYSIS: TCLP Extraction Procedure**

Method Ref: 1311

Date Analyzed: 6/22/98

Date Ext/Dig/Prep: 6/22/98

Result Units:

Analyte Name**Analytical Results****Reported Detection Limits**

TCLP Extraction

NA

0

ANALYSIS: TCLP Mercury

Method Ref: 7470A

Date Analyzed: 6/24/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury (Reg Limit = 0.2)

<RDL

0.01

ANALYSIS: TCLP Metals

Method Ref: 3010A/6010B

Date Analyzed: 6/25/98

Date Ext/Dig/Prep: 6/24/98

Result Units: mg/L

Analyte Name**Analytical Results****Reported Detection Limits**

Arsenic (Reg Limit = 5.0)

<RDL

1

Barium (Reg Limit = 100.0)

<RDL

1

Cadmium (Reg Limit = 1.0)

<RDL

1

Chromium (Reg Limit = 5.0)

<RDL

1

Lead (Reg Limit = 5.0)

<RDL

1

Selenium (Reg Limit = 1.0)

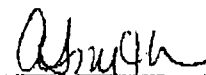
<RDL

1

Silver (Reg Limit = 5.0)

<RDL

1



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MEMORANDUM OF MEETING OR CONVERSATION



Telephone



Personal

Time

3:20

Date

6-29-98

Originating Party

Other Parties

Mich Morris Salty Bill

~~Mitch Morris~~ Martine Kiehl

Subject

Dead line To day For Having Final Report in
Has all of Analysis And will be fixing Them In.

Discussion

This Conversation Acts as a Request to extend the
Dead line. I have granted the extension because
They are so close and Because of the Confusion on
What to Sample For.

Conclusions or Agreements

Distribution

Signed

Martine Kiehl



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

June 18, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. P.326-936-457

Ms. Corinne B. Grace
P.O. Box 1418
3722 National Parks Hwy.
Carlsbad, N.M. 88220

Re: Salty Bills Water Disposal Facility
NE/4, NW/4 of Section 36, Township 22 South, Range 26 East, NMPM
Eddy County, New Mexico

Dear Ms. Grace:

The New Mexico Oil Conservation Division (OCD) received the Salty Bill Salt Water Disposal Facility's (Salty Bill) letter and analytical results dated June 16, 1998 concerning the above-referenced water disposal facility remediation. As required in the OCD letter dated December 12, 1997, the OCD requires the following additional information in order to evaluate the ongoing remediation at Salty Bill.

1. A location map of the facility showing the sample locations CG-1 to CG-22, Pump Station 1 to 4, and T-1 to T-7;
2. The sample depth below ground surface of each sample location;
3. A copy of the chain of custody for all laboratory samples;
4. TCLP metal analytical results for As, Ba, Cd, Cr, Pb, Ag (OCD has the Hg and Se results);and
5. Volatile organic compound analytical results by EPA method 8240.

If you have any additional questions, please contact me at (505) 827-7153.

Sincerely,

Martyn J. Kieling
Environmental Geologist
xc: Artesia OCD Office

MEMORANDUM OF MEETING OR CONVERSATION



Telephone



Personal

Time

3:53

Date

6-18-98

Originating Party

Martyn Kieling

Other Parties

Mitch Morris

Subject

Salty Bill Analysis

Discussion

Need Additional Analytical As Per December 12, 1997
Letter.

Mitch Asked me to write letter Detailing what was needed

Conclusions or Agreements

Letter 6-18-98 went out - - -

Distribution

Signed

Martyn Kieling

13 CG ^{toluene} Benzene 5.9 ug/kg

15 CG Toluene 15 ug/kg

Xylene 45 ug/kg

18 CG Toluene 14 ug/kg

Xylene 29 ug/kg

Chloride Range 80,000 - 10,000 mg/kg

No Hg in any Sample

No Gasoline Range Organics method SD 30 A / 80 15 B

Diesel Range Organics

		DL
CG-1	2100	200
2	150	10
3	120	10
4	200	50
7	37	10
8	1400	200
9	940	200
10	720	200
11	34	10
12	360	100
13	350	50
15	1200	200
16	780	200
17	130	10
18	860	200
19	310	50
20	150	10
21	1000	200
22	560	200

Pump Station -1	4500	1000
2	300	50
3	110	10
4	85	10

T-1	960	200
T-2	2800	200
3	320	50
4	320	50
5	220	50
6	690	100
7	1500	200

Ref Marsh

Called Emergency

1000

on Hot Oil Services

Car washes

Phillips

Stark Leach E&P waste

Water took Hot Oil

10

Debbie Brinkerhoff

Car wash

Quine Oil Comp

~~EW - Enrice~~

~~Bobby~~

{N MED - Said use CRI - - - - -}

Recommend - - - - -

Five

In voice - Phillips E

168
12
12
39

\$4.37 = 561.12
\$5.70 = \$750.12
1300
10
130 Pays -
1122
1500
1000
2500

Corinne B. Grace

POST OFFICE BOX 1418
CARLSBAD, NEW MEXICO 88220
—
(505) 887-5581

RECEIVED

JUN 17 1998

Environmental Bureau
Oil Conservation Division

June 16, 1998

Sent via Federal Express

Martyne J. Kieling
Environmental Geologist
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, NM 87505

Re: Soil Sample Lab Reports
Salty Bill Water Disposal Facility
Section 36, Township 22 South, Range 26 East.

Dear Martyne:

Enclosed find the above captioned reports. If you have any further questions, please feel free to give me a call.

Very truly yours,



Mitchell Morris

MM
Enclosures

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FL Certification # E87429

NC Certification # 483

SC Certification # 98015

USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AB43776

Accura Project #: 16614

Client: Grace Oil

Date Sampled: 5/14/98

Client Contact: MITCH MORRIS

Date Received: 5/15/98

Client Project Number: NA

Date Reported: 5/20/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: PUMP SUMP #1

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/17/98

Result Units: ug/Kg

Analyte Name

Analytical Results

Reported Detection Limits

Benzene

<RDL

5

Ethyl benzene

<RDL

5

Toluene

<RDL

5

Xylenes

21

5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/19/98

Date Ext/Dig/Prep: 5/19/98

Result Units: mg/Kg

Analyte Name

Analytical Results

Reported Detection Limits

Chloride

10,000

1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/Kg

Analyte Name

Analytical Results

Reported Detection Limits

Diesel Range Organics (DRO)

4,500

1000

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/17/98

Result Units: mg/kg

Analyte Name

Analytical Results

Reported Detection Limits

Gasoline Range Organics

<RDL

10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

Analyte Name

Analytical Results

Reported Detection Limits

ANALYSIS: Metals - Mercury

Method Ref: 7471A

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/17/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

95

0

4-Bromofluorobenzene

119

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

See narrative

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/17/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

73

0

4-Bromofluorobenzene

69

0



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LABORATORY REPORT

Accura Sample ID #: AB43777

Accura Project #: 16614

Client: Grace Oil

Date Sampled: 5/14/98

Client Contact: MITCH MORRIS

Date Received: 5/15/98

Client Project Number: NA

Date Reported: 5/20/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: PUMP SUMP #2

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: ug/Kg

Analyte Name

Analytical Results

Reported Detection Limits

Benzene

<RDL

5

Ethyl benzene

<RDL

5

Toluene

<RDL

5

Xylenes

<RDL

5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/19/98

Date Ext/Dig/Prep: 5/19/98

Result Units: mg/Kg

Analyte Name

Analytical Results

Reported Detection Limits

Chloride

8,800

1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/Kg

Analyte Name

Analytical Results

Reported Detection Limits

Diesel Range Organics (DRO)

300

50

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/kg

Analyte Name

Analytical Results

Reported Detection Limits

Gasoline Range Organics

<RDL

10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

Analyte Name

Analytical Results

Reported Detection Limits

ANALYSIS: Metals - Mercury

Method Ref: 7471A

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

99

0

4-Bromofluorobenzene

119

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

89

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

76

0

4-Bromofluorobenzene

63

0



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LABORATORY REPORT**Accura Sample ID #: AB43778****Accura Project #: 16614****Client: Grace Oil****Date Sampled: 5/14/98****Client Contact: MITCH MORRIS****Date Received: 5/15/98****Client Project Number: NA****Date Reported: 5/20/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: PUMP SUMP #3****ANALYSIS: BTEX**

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: ug/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Benzene

<RDL

5

Ethyl benzene

<RDL

5

Toluene

<RDL

5

Xylenes

<RDL

5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/19/98

Date Ext/Dig/Prep: 5/19/98

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Chloride

8,500

1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Diesel Range Organics (DRO)

110

10

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/kg

Analyte Name**Analytical Results****Reported Detection Limits**

Gasoline Range Organics

<RDL

10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

ANALYSIS: Metals - Mercury

Method Ref: 7471A

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

99

0

4-Bromofluorobenzene

109

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

78

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

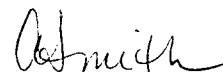
76

0

4-Bromofluorobenzene

64

0



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LABORATORY REPORT

Accura Sample ID #: AB43779

Accura Project #: 16614

Client: Grace Oil

Date Sampled: 5/14/98

Client Contact: MITCH MORRIS

Date Received: 5/15/98

Client Project Number: NA

Date Reported: 5/20/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: PUMP SUMP #4

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/19/98

Date Ext/Dig/Prep: 5/19/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	9,100	1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	85	10

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
---------------------	---------------------------	----------------------------------

ANALYSIS: Metals - Mercury

Method Ref: 7471A

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

100

0

4-Bromofluorobenzene

104

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

83

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

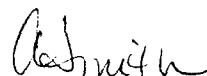
74

0

4-Bromofluorobenzene

63

0



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LABORATORY REPORT**Accura Sample ID #: AB43780****Accura Project #: 16614****Client: Grace Oil****Date Sampled: 5/14/98****Client Contact: MITCH MORRIS****Date Received: 5/15/98****Client Project Number: NA****Date Reported: 5/20/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: T-1****ANALYSIS: BTEX**

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	18	5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/19/98

Date Ext/Dig/Prep: 5/19/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	9,100	1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	960	200

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
---------------------	---------------------------	----------------------------------

ANALYSIS: Metals - Mercury

Method Ref: 7471A

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

115

0

4-Bromofluorobenzene

101

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

See narrative

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

66

0

4-Bromofluorobenzene

44

0



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LABORATORY REPORT

Accura Sample ID #: AB43781

Accura Project #: 16614

Client: Grace Oil

Date Sampled: 5/14/98

Client Contact: MITCH MORRIS

Date Received: 5/15/98

Client Project Number: NA

Date Reported: 5/20/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: T-2

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: ug/Kg

Analyte Name

Analytical Results

Reported Detection Limits

Benzene

<RDL

5

Ethyl benzene

21

5

Toluene

<RDL

5

Xylenes

170

5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/19/98

Date Ext/Dig/Prep: 5/19/98

Result Units: mg/Kg

Analyte Name

Analytical Results

Reported Detection Limits

Chloride

5,100

1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/Kg

Analyte Name

Analytical Results

Reported Detection Limits

Diesel Range Organics (DRO)

2,800

200

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/kg

Analyte Name

Analytical Results

Reported Detection Limits

Gasoline Range Organics

13

10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

Analyte Name

Analytical Results

Reported Detection Limits

ANALYSIS: Metals - Mercury

Method Ref: 7471A

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

105

0

4-Bromofluorobenzene

107

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

See narrative

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene


61

0

4-Bromofluorobenzene

674

0



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LABORATORY REPORT

Accura Sample ID #: AB43782

Accura Project #: 16614

Client: Grace Oil

Date Sampled: 5/14/98

Client Contact: MITCH MORRIS

Date Received: 5/15/98

Client Project Number: NA

Date Reported: 5/20/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: T-3

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/19/98

Date Ext/Dig/Prep: 5/19/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	16,000	1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	320	50

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
---------------------	---------------------------	----------------------------------

ANALYSIS: Metals - Mercury

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Method Ref: 7471A

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Method Ref: 5030A/8021B

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

98

0

4-Bromofluorobenzene

111

0

ANALYSIS: X DRO QC Surrogates (Soil)

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/15/98

Method Ref: 3550B/8015B

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

99

0

ANALYSIS: X GRO QC Surrogates (Soils)

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Method Ref: 5030A/8015B

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

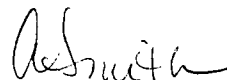
70

0

4-Bromofluorobenzene

60

0



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SC Certification # 98015

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LABORATORY REPORT**Accura Sample ID #: AB43783****Accura Project #: 16614****Client: Grace Oil****Date Sampled: 5/14/98****Client Contact: MITCH MORRIS****Date Received: 5/15/98****Client Project Number: NA****Date Reported: 5/20/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: T-4****ANALYSIS: BTEX**

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: ug/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Benzene

<RDL

5

Ethyl benzene

<RDL

5

Toluene

<RDL

5

Xylenes

34

5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/19/98

Date Ext/Dig/Prep: 5/19/98

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Chloride

16,000

1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Diesel Range Organics (DRO)

320

50

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/kg

Analyte Name**Analytical Results****Reported Detection Limits**

Gasoline Range Organics

<RDL

10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

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<RDL = Less than Reported Detection Limit

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Client Sample ID: T-4

AALSample ID #: AB43783 Accura Project #: 16614

ANALYSIS: Metals - Mercury

Method Ref: 7471A

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

96

0

4-Bromofluorobenzene

113

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

95

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

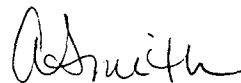
72

0

4-Bromofluorobenzene

61

0



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LABORATORY REPORT**Accura Sample ID #: AB43784****Accura Project #: 16614**

Client: Grace Oil

Date Sampled: 5/14/98

Client Contact: MITCH MORRIS

Date Received: 5/15/98

Client Project Number: NA

Date Reported: 5/20/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: T-5

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: ug/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Benzene

<RDL

5

Ethyl benzene

<RDL

5

Toluene

<RDL

5

Xylenes

<RDL

5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/19/98

Date Ext/Dig/Prep: 5/19/98

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Chloride

15,000

1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Diesel Range Organics (DRO)

270

50

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/kg

Analyte Name**Analytical Results****Reported Detection Limits**

Gasoline Range Organics

<RDL

10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

ANALYSIS: Metals - Mercury

Method Ref: 7471A

Date Analyzed: 5/18/98 Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98 Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

105

0

4-Bromofluorobenzene

110

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/18/98 Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

99

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98 Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

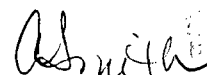
67

0

4-Bromofluorobenzene

61

0



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LABORATORY REPORT

Accura Sample ID #: AB43785

Accura Project #: 16614

Client: Grace Oil

Date Sampled: 5/14/98

Client Contact: MITCH MORRIS

Date Received: 5/15/98

Client Project Number: NA

Date Reported: 5/20/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: T-6

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/19/98

Date Ext/Dig/Prep: 5/19/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	12,000	1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	690	100

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
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ANALYSIS: Metals - Mercury

Method Ref: 7471A

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

99

0

4-Bromofluorobenzene

113

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

96

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

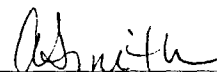
68

0

4-Bromofluorobenzene

65

0



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LABORATORY REPORT

Accura Sample ID #: AB43786

Accura Project #: 16614

Client: Grace Oil

Date Sampled: 5/14/98

Client Contact: MITCH MORRIS

Date Received: 5/15/98

Client Project Number: NA

Date Reported: 5/20/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: T-7

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/19/98

Date Ext/Dig/Prep: 5/19/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	12,000	1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	1,500	200

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
---------------------	---------------------------	----------------------------------

ANALYSIS: Metals - Mercury

Method Ref: 7471A

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

108

0

4-Bromofluorobenzene

112

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

See narrative

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

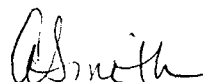
64

0

4-Bromofluorobenzene

49

0



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LABORATORY REPORT

Accura Sample ID #: AB43787

Accura Project #: 16614

Client: Grace Oil

Date Sampled: 5/14/98

Client Contact: MITCH MORRIS

Date Received: 5/15/98

Client Project Number: NA

Date Reported: 5/20/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: METHOD BLANK

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/19/98

Date Ext/Dig/Prep: 5/19/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	<RDL	10

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	<RDL	10

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
---------------------	---------------------------	----------------------------------

ANALYSIS: Metals - Mercury

Method Ref: 7471A

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

1,4-Difluorobenzene

101

0

4-Bromofluorobenzene

99

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

o-Terphenyl

94

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

1,4-Difluorobenzene

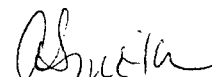
87

0

4-Bromofluorobenzene

62

0



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LABORATORY REPORT**Accura Sample ID #: AB43361****Accura Project #: 16546**

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 5/19/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 1-CG

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: ug/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Benzene

<RDL

5

Ethyl benzene

<RDL

5

Toluene

<RDL

5

Xylenes

<RDL

5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Chloride

60,000

2000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Diesel Range Organics (DRO)

2,100

200

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/kg

Analyte Name**Analytical Results****Reported Detection Limits**

Gasoline Range Organics

<RDL

10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/12/98

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

119

0

4-Bromofluorobenzene

91

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

See narrative

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

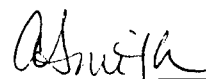
68

0

4-Bromofluorobenzene

38

0



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LABORATORY REPORT

Accura Sample ID #: AB43362

Accura Project #: 16546

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 5/19/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 2-CG

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	10,000	1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	150	10

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/12/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
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ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

97

0

4-Bromofluorobenzene

111

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/14/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

100

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

80

0

4-Bromofluorobenzene

68

0



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LABORATORY REPORT

Accura Sample ID #: AB43363

Accura Project #: 16546

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 5/19/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 3-CG

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: ug/Kg

Analyte Name

Analytical Results

Reported Detection Limits

Benzene

<RDL

5

Ethyl benzene

<RDL

5

Toluene

<RDL

5

Xylenes

<RDL

5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte Name

Analytical Results

Reported Detection Limits

Chloride

20,000

1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte Name

Analytical Results

Reported Detection Limits

Diesel Range Organics (DRO)

120

10

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/kg

Analyte Name

Analytical Results

Reported Detection Limits

Gasoline Range Organics

<RDL

10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/12/98

Result Units: mg/Kg

Analyte Name

Analytical Results

Reported Detection Limits

ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

114

0

4-Bromofluorobenzene

99

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/14/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

91

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

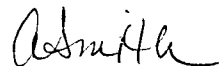
75

0

4-Bromofluorobenzene

49

0



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LABORATORY REPORT**Accura Sample ID #: AB43364****Accura Project #: 16546****Client: Grace Oil****Date Sampled: 5/7/98****Client Contact: MITCH MORRIS****Date Received: 5/9/98****Client Project Number: NA****Date Reported: 5/19/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: 4-CG****ANALYSIS: BTEX**

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	20,000	1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	200	50

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/12/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
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ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

97

0

4-Bromofluorobenzene

113

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

60

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

77

0

4-Bromofluorobenzene

66

0



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LABORATORY REPORT

Accura Sample ID #: AB43365

Accura Project #: 16546

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 5/19/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 5-CG

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	30,000	1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	<RDL	10

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/12/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
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ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

101

0

4-Bromofluorobenzene

110

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

69

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

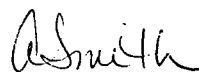
72

0

4-Bromofluorobenzene

57

0



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LABORATORY REPORT

Accura Sample ID #: AB43366

Accura Project #: 16546

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 5/19/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 6-CG

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	60,000	1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	<RDL	10

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/12/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
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ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

100

0

4-Bromofluorobenzene

100

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

85

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

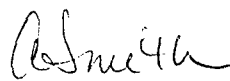
78

0

4-Bromofluorobenzene

58

0



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LABORATORY REPORT

Accura Sample ID #: AB43367

Accura Project #: 16546

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 5/19/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 7-CG

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	40,000	1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	37	10

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/12/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
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ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

107

0

4-Bromofluorobenzene

106

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

70

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

69

0

4-Bromofluorobenzene

51

0



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LABORATORY REPORT

Accura Sample ID #: AB43368

Accura Project #: 16546

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 5/19/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 8-CG

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	40,000	1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	1,400	200

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/12/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
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ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

102

0

4-Bromofluorobenzene

101

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

See narrative

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

74

0

4-Bromofluorobenzene

52

0



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LABORATORY REPORT

Accura Sample ID #: AB43369

Accura Project #: 16546

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 5/19/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 9-CG

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: ug/Kg

Analyte Name

Analytical Results

Reported Detection Limits

Benzene

<RDL

5

Ethyl benzene

<RDL

5

Toluene

<RDL

5

Xylenes

<RDL

5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte Name

Analytical Results

Reported Detection Limits

Chloride

60,000

1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte Name

Analytical Results

Reported Detection Limits

Diesel Range Organics (DRO)

940

200

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/kg

Analyte Name

Analytical Results

Reported Detection Limits

Gasoline Range Organics

<RDL

10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/12/98

Result Units: mg/Kg

Analyte Name

Analytical Results

Reported Detection Limits

ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

104

0

4-Bromofluorobenzene

105

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

See narrative

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

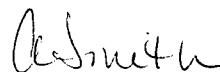
73

0

4-Bromofluorobenzene

54

0



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LABORATORY REPORT

Accura Sample ID #: AB43370

Accura Project #: 16546

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 5/19/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 10-CG

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	30,000	1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	720	200

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/12/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
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ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

100

0

4-Bromofluorobenzene

108

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

See narrative

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene


76

0

4-Bromofluorobenzene

61

0



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LABORATORY REPORT

Accura Sample ID #: AB43371

Accura Project #: 16546

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 5/19/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 11-CG

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	80,000	1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	34	10

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/12/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
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ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

1,4-Difluorobenzene

99

0

4-Bromofluorobenzene

110

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

o-Terphenyl

72

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

1,4-Difluorobenzene

75

0

4-Bromofluorobenzene

60

0



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LABORATORY REPORT

Accura Sample ID #: AB43372

Accura Project #: 16546

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 5/19/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 12-CG

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	20,000	1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	360	100

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/12/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
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ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

1,4-Difluorobenzene

104

0

4-Bromofluorobenzene

110

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

o-Terphenyl

98

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

1,4-Difluorobenzene

71

0

4-Bromofluorobenzene

58

0



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LABORATORY REPORT**Accura Sample ID #: AB43373****Accura Project #: 16546****Client: Grace Oil****Date Sampled: 5/7/98****Client Contact: MITCH MORRIS****Date Received: 5/9/98****Client Project Number: NA****Date Reported: 5/19/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: 13-CG****ANALYSIS: BTEX**

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: ug/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Benzene

<RDL

5

Ethyl benzene

<RDL

5

Toluene

5.9

5

Xylenes

<RDL

5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Chloride

40,000

1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Diesel Range Organics (DRO)

350

50

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/kg

Analyte Name**Analytical Results****Reported Detection Limits**

Gasoline Range Organics

<RDL

10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/12/98

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

109

0

4-Bromofluorobenzene

114

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

106

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

71

0

4-Bromofluorobenzene

54

0



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LABORATORY REPORT

Accura Sample ID #: AB43374

Accura Project #: 16546

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 5/19/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 14-CG

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: ug/Kg

Analyte Name

Analytical Results

Reported Detection Limits

Benzene

<RDL

5

Ethyl benzene

<RDL

5

Toluene

<RDL

5

Xylenes

<RDL

5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte Name

Analytical Results

Reported Detection Limits

Chloride

40,000

1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte Name

Analytical Results

Reported Detection Limits

Diesel Range Organics (DRO)

<RDL

50

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/kg

Analyte Name

Analytical Results

Reported Detection Limits

Gasoline Range Organics

<RDL

10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/12/98

Result Units: mg/Kg

Analyte Name

Analytical Results

Reported Detection Limits

ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

104

0

4-Bromofluorobenzene

108

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/14/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

90

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

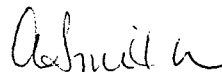
72

0

4-Bromofluorobenzene

59

0



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LABORATORY REPORT

Accura Sample ID #: AB43375

Accura Project #: 16546

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 5/19/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 15-CG

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/16/98

Result Units: ug/Kg

Analyte Name

Analytical Results

Reported Detection Limits

Benzene

<RDL

5

Ethyl benzene

<RDL

5

Toluene

15

5

Xylenes

45

5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte Name

Analytical Results

Reported Detection Limits

Chloride

30,000

1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte Name

Analytical Results

Reported Detection Limits

Diesel Range Organics (DRO)

1,200

200

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/16/98

Result Units: mg/kg

Analyte Name

Analytical Results

Reported Detection Limits

Gasoline Range Organics

<RDL

10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/12/98

Result Units: mg/Kg

Analyte Name

Analytical Results

Reported Detection Limits

ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/16/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

111

0

4-Bromofluorobenzene

105

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/14/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

See narrative

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/16/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

68

0

4-Bromofluorobenzene

57

0



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LABORATORY REPORT

Accura Sample ID #: AB43376

Accura Project #: 16546

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 5/19/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 16-CG

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/16/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	30,000	1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	780	200

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/16/98

Result Units: mg/kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/12/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
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ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/16/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

110

0

4-Bromofluorobenzene

101

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/14/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

See narrative

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/16/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

66

0

4-Bromofluorobenzene

47

0



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NC Certification # 483

SC Certification # 98015

USACE-MRD Approved

LABORATORY REPORT**Accura Sample ID #: AB43377****Accura Project #: 16546****Client: Grace Oil****Date Sampled: 5/7/98****Client Contact: MITCH MORRIS****Date Received: 5/9/98****Client Project Number: NA****Date Reported: 5/19/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: 17-CG****ANALYSIS: BTEX**

Method Ref: 5030A/8021B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/16/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	30,000	1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	130	10

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/16/98

Result Units: mg/kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/12/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
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ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/16/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

108

0

4-Bromofluorobenzene

106

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/14/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

104

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/16/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

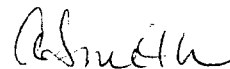
72

0

4-Bromofluorobenzene

50

0



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LABORATORY REPORT**Accura Sample ID #: AB43378****Accura Project #: 16546****Client: Grace Oil****Date Sampled: 5/7/98****Client Contact: MITCH MORRIS****Date Received: 5/9/98****Client Project Number: NA****Date Reported: 5/19/98****Client Project Name: SALTY BILL PIT CLOSURE****Sample Matrix: SOIL****Client Sample ID: 18-CG****ANALYSIS: BTEX****Method Ref: 5030A/8021B****Date Analyzed: 5/16/98****Date Ext/Dig/Prep: 5/16/98****Result Units: ug/Kg**

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	14	5
Xylenes	29	5

ANALYSIS: Chloride in Soil**Method Ref: 325.3M****Date Analyzed: 5/14/98****Date Ext/Dig/Prep: 5/14/98****Result Units: mg/Kg**

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	30,000	1000

ANALYSIS: Diesel Range Organics (DRO)**Method Ref: 3550B/8015B****Date Analyzed: 5/17/98****Date Ext/Dig/Prep: 5/14/98****Result Units: mg/Kg**

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	860	200

ANALYSIS: Gasoline Range Organics (GRO)**Method Ref: 5030A/8015B****Date Analyzed: 5/16/98****Date Ext/Dig/Prep: 5/16/98****Result Units: mg/kg**

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals**Method Ref: 3050B/6010B****Date Analyzed: 5/15/98****Date Ext/Dig/Prep: 5/12/98****Result Units: mg/Kg**

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
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ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/16/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

103

0

4-Bromofluorobenzene

114

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/14/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

See narrative

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/16/98

Date Ext/Dig/Prep: 5/16/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

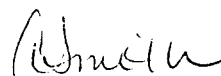
71

0

4-Bromofluorobenzene

63

0



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LABORATORY REPORT

Accura Sample ID #: AB43379

Accura Project #: 16546

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 5/19/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 19-CG

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	20,000	1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	310	50

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: mg/kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/12/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
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ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

1,4-Difluorobenzene

101

0

4-Bromofluorobenzene

111

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

o-Terphenyl

84

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/18/98

Date Ext/Dig/Prep: 5/18/98

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

1,4-Difluorobenzene

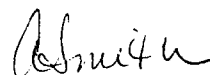
70

0

4-Bromofluorobenzene

61

0



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LABORATORY REPORT

Accura Sample ID #: AB43380

Accura Project #: 16546

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 5/19/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 20-CG

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/17/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	30,000	1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	150	10

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/17/98

Result Units: mg/kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/12/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
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ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/17/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

100

0

4-Bromofluorobenzene

110

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

85

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/17/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

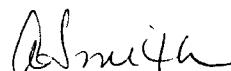
80

0

4-Bromofluorobenzene

79

0



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LABORATORY REPORT

Accura Sample ID #: AB43381

Accura Project #: 16546

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 5/19/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 21-CG

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/17/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	30,000	1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	1,000	200

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/17/98

Result Units: mg/kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/12/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
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ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte Name**Analytical Results****Reported Detection Limits**

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/17/98

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

1,4-Difluorobenzene

102

0

4-Bromofluorobenzene

110

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

o-Terphenyl

See narrative

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/17/98

Result Units: %

Analyte Name**Analytical Results****Reported Detection Limits**

1,4-Difluorobenzene

75

0

4-Bromofluorobenzene

63

0



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LABORATORY REPORT

Accura Sample ID #: AB43382

Accura Project #: 16546

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 5/19/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: 22-CG

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/17/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	40,000	1000

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	560	200

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/17/98

Result Units: mg/kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/12/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
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ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/17/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

99

0

4-Bromofluorobenzene

113

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

See narrative

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/17/98

Date Ext/Dig/Prep: 5/17/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

79

0

4-Bromofluorobenzene

64

0



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LABORATORY REPORT

Accura Sample ID #: AB43383

Accura Project #: 16546

Client: Grace Oil

Date Sampled: 5/7/98

Client Contact: MITCH MORRIS

Date Received: 5/9/98

Client Project Number: NA

Date Reported: 5/19/98

Client Project Name: SALTY BILL PIT CLOSURE

Sample Matrix: SOIL

Client Sample ID: METHOD BLANK

ANALYSIS: BTEX

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: ug/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Benzene	<RDL	5
Ethyl benzene	<RDL	5
Toluene	<RDL	5
Xylenes	<RDL	5

ANALYSIS: Chloride in Soil

Method Ref: 325.3M

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Chloride	<RDL	10

ANALYSIS: Diesel Range Organics (DRO)

Method Ref: 3550B/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Diesel Range Organics (DRO)	<RDL	10

ANALYSIS: Gasoline Range Organics (GRO)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: mg/kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
Gasoline Range Organics	<RDL	10

ANALYSIS: Metals

Method Ref: 3050B/6010B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/12/98

Result Units: mg/Kg

<u>Analyte Name</u>	<u>Analytical Results</u>	<u>Reported Detection Limits</u>
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ANALYSIS: Metals - Mercury - RCRA

Method Ref: 7471A

Date Analyzed: 5/14/98

Date Ext/Dig/Prep: 5/14/98

Result Units: mg/Kg

Analyte NameAnalytical ResultsReported Detection Limits

Mercury

<RDL

0.5

ANALYSIS: X BTEX QC Surrogates (Soils)

Method Ref: 5030A/8021B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

102

0

4-Bromofluorobenzene

102

0

ANALYSIS: X DRO QC Surrogates (Soil)

Method Ref: 3550B/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

o-Terphenyl

94

0

ANALYSIS: X GRO QC Surrogates (Soils)

Method Ref: 5030A/8015B

Date Analyzed: 5/15/98

Date Ext/Dig/Prep: 5/15/98

Result Units: %

Analyte NameAnalytical ResultsReported Detection Limits

1,4-Difluorobenzene

87

0

4-Bromofluorobenzene

62

0



Accura Analytical Laboratory, Inc.



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

June 16, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. P.326-936-455

Ms. Corinne B. Grace
P.O. Box 1418
3722 National Parks Hwy.
Carlsbad, N.M. 88220

Re: Salty Bills Water Disposal Facility
NE/4, NW/4 of Section 36, Township 22 South, Range 26 East, NMPM
Eddy County, New Mexico

Dear Ms. Grace:

The New Mexico Oil Conservation Division (OCD) received the Salty Bill Salt Water Disposal Facility's (Salty Bill) letter dated May 22, 1998 concerning the above-referenced water disposal facility remediation. The OCD hereby approves the deadline extension request from May 29, 1998 to June 29, 1998. In order for Salty Bill to complete the investigation and remediation at the Salt Water Disposal Facility.

Salty Bill shall submit a final closure report to the OCD Santa Fe and Artesia District offices no later than June 29, 1998.

If you have any additional questions, please contact me at (505) 827-7153.

Sincerely,

Martyne J. Kielling
Environmental Geologist

xc: Artesia OCD Office
Mark Weidler, NMED, Secretary
John Tymkowych, NMED, HRMB
Marcy Leavitt, Chief, NMED, GWQB
Robert Young, SLO
Jim Carr, SLO Carlsbad
John Waters, Carlsbad Environmental Services
Jim Trustly, USEPA, Region 6

Corinne B. Grace

POST OFFICE BOX 1418
CARLSBAD, NEW MEXICO 88220

(505) 887-5581

May 22, 1998

Sent Via Fax to (505) 827-8177

Ms. Martyne J. Kieling
Environmental Geologist
New Mexico Energy, Minerals & Natural
Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Re: Salty Bill Water Disposal Facility
NE/4, NW/4 Sec. 36, T22S, R26E, NMPM
Eddy County, New Mexico

Dear Ms. Kieling:

We would like to request an extension of the May 29, 1998 deadline for the Final Pit Closure Report on the above captioned facility. In order to allow plenty of time for the remaining work we request a 30 day extension until June 29, 1998.

If you should have any questions, please give us a call at (505) 887-5581.

Thanks for your cooperation.

Very truly yours,

Mitchell Morris

Mitchell Morris

MM

cc: Gene Lee

CORINNE B. GRACE3722 National Parks Hwy. P.O. Box 1418
Carlsbad, N.M. 88221-1418

(505) 887-5581

FAX: (505) 885-8497

* * * * *

DATE: 5/26/98

PLEASE DELIVER THE FOLLOWING PAGE(S) TO:

NAME: Martynne KielingFIRM: OCDFAX NO: (505) 827-8177FROM: Mitch MorrisTOTAL NUMBER OF PAGES INCLUDING COVER PAGE: 2

BRIEF DESCRIPTION OF TRANSMITTAL:

Extension letter

If you DO NOT receive all the pages indicated above,
please call us back as soon as possible.

MEMORANDUM OF MEETING OR CONVERSATION

<input checked="" type="checkbox"/> Telephone	<input type="checkbox"/> Personal	Time 8:45	Date 4/15/98
<u>Originating Party</u>		<u>Other Parties</u>	
Martyn Kicling		Gene Lee Consulting For Corinne Graa/Sally B. V.	
<u>Subject</u>			
Status of Cleanup			
<u>Discussion</u>			
will be sending a 72 hour Notice to SF & Arbores office. Pit Remediation to start Followed by Sumps & Tank Area			
<u>Conclusions or Agreements</u>			
<u>Distribution</u>		Signed Martyn J. Kicling	

This is to certify that the City of Carlsbad is the surface owner involved in the attached application by Corinne Grace to dispose of salt water by injection into a porous formation, and hereby certifies that it has no objections to the granting of the permit sought and waives all rights of protest.

The gas well involved is the City of Carlsbad #1 located in Section 25, Township 22 South, Range 26 East, Eddy County, New Mexico.

SEAL

Walter Terreck
Mayor

ATTEST:

Charles H. G. G. G.
City Clerk

MINERALS	DATE
<i>RM</i>	2/6/91
FILMED	
OPERATOR	



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

March 24, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. P.326-936-408

Ms. Corinne B. Grace
P.O. Box 1418
3722 National Parks Hwy.
Carlsbad, N.M. 88220

Re: Salty Bills Water Disposal Facility
NE/4, NW/4 of Section 36, Township 22 South, Range 26 East, NMPM
Eddy County, New Mexico

Dear Ms. Grace:

The New Mexico Oil Conservation Division (OCD) received Salty Bill Salt Water Disposal Facility's (Salty Bill) letter dated February 12, 1998 concerning the above-referenced water disposal facility remediation. The OCD has found that the pit closure plan submitted by Lee Consulting, Inc. for Salty Bill is complete with the conditions outlined in the OCD December 12, 1997 letter. The OCD Santa Fe and Artesia District offices shall be notified three (3) days prior to each phase of the investigation and remediation. As written in the pit closure and soil remediation plan, the final confirmatory samples will be analyzed at a third party laboratory for WQCC metals including mercury and selenium; chloride, volatile organic compounds (VOC) by EPA method 8240, benzene, toluene, ethylbenzene, xylene (BTEX) and total petroleum hydrocarbons (TPH) in accordance with the OCD's "Surface Impoundment Closure Guidelines" prior to backfilling the pit, sumps or other excavations.

Salty Bill shall submit a final closure report to the OCD Santa Fe and Artesia District offices no later than May 29, 1998.

If you have any additional questions, please contact me at (505) 827-7153.

Sincerely,

Martyne J. Kielling
Environmental Geologist

xc: Artesia OCD Office
Mark Weidler, NMED, Secretary
John Tymkowych, HRMB
Marcy Leavitt, Chief, GWQB
Gene Lee, Lee Consulting, Inc.

Ms. Corinne B. Grace
March 24, 1998
Page 2

John Waters, Carlsbad Environmental Services
Jim Trustly, USEPA, Region 6

1) Chain of custody - to lab -

2) Map with Sample locations cross ref # on
Analysis CG, T, Pump Station 1-4
CG-1 to 22 T-1 to 7

3) Depth of Sample BGS

{ See March 24, 1998 letter
& Dec 12, 1997 letter
Gene Lee letter Feb 12, 1998

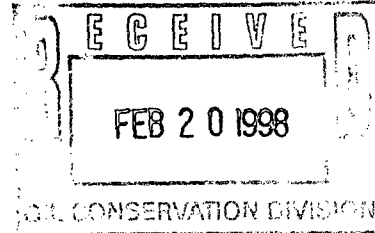
Got
BTEX ✓
CI ✓
IPH ≈ DRO? GRO? ///
~~Mercury~~
~~Metals~~
As Bn Cd Cr Pb (Hg)
(Se) Ag / VOL 8240/PPH

LEE CONSULTING, INC.

**P.O. Box 8280
Roswell, NM 88202
505-622-7355
505-624-2911 Fax
505-626-4292 Cellular**

February 12, 1998

**Martyne J. Kieling
New Mexico Oil Conservation Division
Environmental Bureau
2040 S. Pacheco St.
Santa Fe, NM 87505**



**RE: Mrs. Corinne B. Grace
Salty Bill SWD Facility**

Dear Ms. Kieling,

Salty Bill SWD is in receipt of your letter dated February 3, 1998. After discussion on the telephone with your office Feb. 3, 1998, I have contacted my client and feel that the closure plan previously submitted will be followed.

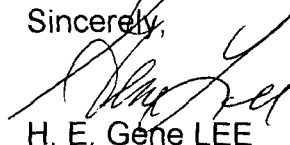
At this time, Salty Bill SWD is prepared to commence closure of the pits and will follow the pit closure plan submitted pursuant to your conditions spelled out in the OCD letter dated December 12, 1997.

Please find enclosed a copy of the permit issued by the OCD office in Artesia giving permission to haul free water off of the pits at the site to CRI, Inc. In the future, anything hauled from the SWD site will obtain permission from your Santa Fe office.

Your office and the Artesia, NM office of the OCD will be notified three (3) days in advance of any proposed work to allow scheduling of personnel to witness sampling, etc. Salty Bill SWD plans to commence pit closure and remediation activities within the next 30 days. This time frame is proposed in order to arrange hauling of materials removed by an authorized transporter to an authorized disposal site.

If you have any further questions, please contact me at the above address or telephone numbers.

Sincerely,



H. E. Gene LEE

cc: Grace Oil Co.
OCD Artesia

DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II

P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III

1000 Rio Brazos Rd, Aztec, NM 87410

Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

Form C-117 A

Revised 4-1-91

PERMIT NO. A-10627

TANK CLEANING, SEDIMENT OIL REMOVAL, TRANSPORTATION OF MISCELLANEOUS HYDROCARBONS AND DISPOSAL PERMIT

Operator or Owner Corrine Grace Address 3722 N. 1st St. S. Hwy. CorralLease or Facility Name Salty Bill, Sudd Location Sec 36, T23N R26E
U.L. - Sec. - Twp. - Rge.

OPERATION TO BE PERFORMED:

☒ Tank Cleaning ☐ Sediment Oil Removal ☐ Transportation of Miscellaneous HydrocarbonsOperator or Owner Representative authorizing work Corrine GraceDate Work to be Performed November 19, 1997

TANK CLEANING DATA Tank Number _____

Volume _____

Tank Type _____

Volume Below Load Line _____

SEDIMENT OIL OR MISCELLANEOUS HYDROCARBON DATA

Sediment Oil from: ☐ Pit ☐ Cellar ☐ Other

MISCELLANEOUS OIL

Tank Bottoms From: ☐ Pipeline Station ☐ Crude Terminal ☐ Refinery ☐ Other*Catchings From: ☐ Gasoline Plant ☐ Gathering Lines ☒ Salt Water Disposal System ☐ Other*Pipeline Break Oil or Spill ☐

*Other (Explain) _____

VOLUME AND DESTINATION:

Estimated Volume 100 Bbls. Field test volume of good oil _____ Bbls.

(Not required prior to Division approval)

Destination (Name and Location of treating plant or other facility) Central Recovery, Inc.

DESTRUCTION OF SEDIMENT OIL BY:

☐ Burning ☐ Pit Disposal ☐ Use on Roads or firewalls ☐ Other

(Explain) _____

Location of Destruction _____

Justification of Destruction _____

CERTIFICATION: (APPLICATION MAY BE MADE BY EITHER OF THE FOLLOWING)

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

Owner _____

Transporter Leitel, Inc.

By _____

Address Box 11085, Corral, NM 88220

Title _____

Signature Lisa Bice

Date _____

Title Office Mng. Date 11-19-97

OIL CONSERVATION DIVISION

ORIGINAL SIGNED BY

Approved By BETTY ROLLINS Title _____Date NOV 24 1997

A COPY OF THIS FORM MUST BE ON LOCATION DURING TANK CLEANING, REMOVAL OF SEDIMENT OIL OR MISCELLANEOUS HYDROCARBONS, AND MUST BE PRESENTED WITH TANK BOTTOMS, SEDIMENT OIL OR MISCELLANEOUS HYDROCARBONS AT THE TREATING PLANT TO WHICH IT IS DELIVERED.

DISTRIBUTION BY OCD
<input type="checkbox"/> Santa Fe
<input type="checkbox"/> El Paso
<input checked="" type="checkbox"/> Operator
<input type="checkbox"/> Transporter (2)

CORINNE B. GRACE

3722 National Parks Hwy. P.O. Box 1418
Carlsbad, N.M. 88221-1418

(505) 887-5581

FAX: (505) 885-8497

* * * * *

DATE: 2/16/98

PLEASE DELIVER THE FOLLOWING PAGE(S) TO:

NAME: Martayne KielingFIRM: OCDFAX NO: (505) 827-8177FROM: Mitchell MorrisTOTAL NUMBER OF PAGES INCLUDING COVER PAGE: 3

BRIEF DESCRIPTION OF TRANSMITTAL:

Gene Lee Response

If you DO NOT receive all the pages indicated above,
please call us back as soon as possible.

LEE CONSULTING, INC.

**P.O. Box 8280
Roswell, NM 88202
505-622-7355
505-624-2911 Fax
505-626-4292 Cellular**

RECEIVED**FEB 16 1998**

Environmental Bureau
Oil Conservation Division

February 12, 1998

**Martyne J. Kieling
New Mexico Oil Conservation Division
Environmental Bureau
2040 S. Pacheco St.
Santa Fe, NM 87505**

**RE: Mrs. Corinne B. Grace
Salty Bill SWD Facility**

Dear Ms. Kieling,

Salty Bill SWD is in receipt of your letter dated February 3, 1998. After discussion on the telephone with your office Feb. 3, 1998, I have contacted my client and feel that the closure plan previously submitted will be followed.

At this time, Salty Bill SWD is prepared to commence closure of the pits and will follow the pit closure plan submitted pursuant to your conditions spelled out in the OCD letter dated December 12, 1997.

Please find enclosed a copy of the permit issued by the OCD office in Artesia giving permission to haul free water off of the pits at the site to CRI, Inc. In the future, anything hauled from the SWD site will obtain permission from your Santa Fe office.

Your office and the Artesia, NM office of the OCD will be notified three (3) days in advance of any proposed work to allow scheduling of personnel to witness sampling, etc. Salty Bill SWD plans to commence pit closure and remediation activities within the next 30 days. This time frame is proposed in order to arrange hauling of materials removed by an authorized transporter to an authorized disposal site.

If you have any further questions, please contact me at the above address or telephone numbers.

Sincerely,


H. E. Gene LEE

cc: Grace Oil Co.
OCD Artesia

DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II

P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III

1000 Rio Bravo Rd, Aztec, NM 87410

Geology, Minerals and Natural Resources Department

Form C-117 A

Revised 4-1-91

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

PERMIT NO. A-10627

TANK CLEANING, SEDIMENT OIL REMOVAL, TRANSPORTATION OF MISCELLANEOUS HYDROCARBONS AND DISPOSAL PERMIT

Operator or Owner Corrine Grace Address 37227 Mill Pk. Spring, CarlsbadLease or Facility Name Salty Bell, Sudd Location Sec. 36, T23N, R21E
U.L. - Sec. - Twp. - Rge.

OPERATION TO BE PERFORMED:

☒ Tank Cleaning ☐ Sediment Oil Removal ☐ Transportation of Miscellaneous HydrocarbonsOperator or Owner Representative authorizing work Corrine GraceDate Work to be Performed November 19, 1997

TANK CLEANING DATA Tank Number _____

Volume _____

Tank Type _____

Volume Below Load Line _____

SEDIMENT OIL OR MISCELLANEOUS HYDROCARBON DATA

Sediment Oil from: ☐ Pit ☐ Cellar ☐ Other

MISCELLANEOUS OIL

Tank Bottoms From: ☐ Pipeline Station ☐ Crude Terminal ☐ Refinery ☐ Other*Catchings From: ☐ Gasoline Plant ☐ Gathering Lines ☒ Salt Water Disposal System ☐ Other*Pipeline Break Oil or Spill ☐

*Other (Explain) _____

VOLUME AND DESTINATION:

Estimated Volume 100 Bbls.Field test volume of good oil _____ Bbls.
(Not required prior to Division approval)Destination (Name and Location of treating plant or other facility) Central Processing, Inc.

DESTRUCTION OF SEDIMENT OIL BY:

(Explain) _____

☐ Burning ☐ Pit Disposal ☐ Use on Roads or firewalls ☐ Other

Location of Destruction _____

Justification of Destruction _____

CERTIFICATION: (APPLICATION MAY BE MADE BY EITHER OF THE FOLLOWING)

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

Owner _____

Transporter Elite, Inc.

By _____

Address Box 11685, Carlsbad, NM 88220

Title _____

Signature Lisa Bice

Date _____

Title Office Mgr. Date 11-17-97

OIL CONSERVATION DIVISION

ORIGINAL SIGNED BY

Approved By BETTY ROLLINS

Title _____

Date

NOV 24 1997

A COPY OF THIS FORM MUST BE ON LOCATION DURING TANK CLEANING, REMOVAL OF SEDIMENT OIL OR MISCELLANEOUS HYDROCARBONS, AND MUST BE PRESENTED WITH TANK BOTTOMS, SEDIMENT OIL OR MISCELLANEOUS HYDROCARBONS AT THE TREATING PLANT TO WHICH IT IS DELIVERED.

DISTRIBUTION BY OCD	
1 Santa Fe	
1 Pitts	
1 Operator	
1 Transporter (2)	

MEMORANDUM OF CONVERSATION

✓ TELEPHONE _____ PERSONAL _____ TIME 8:41 DATE 2/3/98

ORIGINATING PARTY Martynne Kicling

OTHER PARTIES Gene Lee Consulting
For Salty Bill

DISCUSSION To Return Call at 2:00 From Grace Headquarters

At 2:00 Roger Anderson & Martyne Kieling Talked with Gene Lee. OCD notified Gene Lee Salty Bills Contractor That Salty Bill Ms Corinne Grace: Must Agree to the Conditions in the letter ^{December 12th} Aproving Cleanup of the Facility with Conditions. Gene Lee Said He would talk with his Customer and would Reply to the letter Concerning this Issue that would be written on 2/3/98. IF ~~AN~~ An agreement to OCD terms was Not Met by Salty Bill, Corinne Grace This Matter would go to Hearing.

{ A reply will be needed by Feb 16th or Hearing ^{may} ~~not~~ be
Required. . . . }

CONCLUSIONS

~~CHRIS EUSTICE~~ Christy J. Eustice



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

February 3, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. P.326-936-380

Ms. Corinne B. Grace
P.O. Box 1418
3722 National Parks Hwy.
Carlsbad, N.M. 88220

Re: Salty Bills Water Disposal Facility
NE/4, NW/4 of Section 36, Township 22 South, Range 26 East, NMPM
Eddy County, New Mexico

Dear Ms. Grace:

The New Mexico Oil Conservation Division (OCD) has reviewed Salty Bill Salt Water Disposal Facility's (Salty Bill) December 15, 1997 letter. This document was submitted on behalf of Salty Bill by their consultant Lee Consulting, Inc.

The response by Salty Bill failed to commit to the pit closure plan conditions listed in the OCD letter dated December 12, 1997. Pit and facility cleanup levels stipulated in condition 5 (five) of the OCD referenced letter shall be followed. Pursuant to NMSA Chapter 70, Article 2-12.B.22 the OCC has the power to regulate the disposition of nondomestic wastes resulting from the oil and gas industry in order to **protect public health and the environment**, including administering the Water Quality Act. Therefor, more stringent cleanup levels than those outlined in OCD surface impoundment closure guidelines may be required of an operator.

Failure to commit to the conditions listed in the above referenced OCD letter by **February 16, 1998** may result in a show cause hearing against Salty Bill, requiring Salty Bill to appear and show cause why it should not be ordered to close these pits and why it should not also be assessed civil penalties.

In regards to the OCD telephone conversation on February 3, 1998, 2:00 PM with Mr. Gene Lee of Lee Consulting, Inc., Salty Bill shall supply the OCD with copies of all paperwork involved in the transport and disposal of waters from the pits. In addition, all future waste, ie. water, oil,

Ms. Corinne B. Grace
February 3, 1998
Page 2

sludge, soil, removal must be approved by the Santa Fe office prior to removal and transport.
Please note condition 2 (two) of the OCD December 12, 1998 letter.

If you require any further information, please contact me at (505) 827-7153.

Sincerely,



Martyne J. Kieling
Environmental Geologist

xc: Artesia OCD Office
 Mark Weidler, NMED, Secretary
 John Tymkowych, HRMB
 Marcy Leavitt, Chief, GWQB
 Gene Lee, Lee Consulting, Inc.
 John Waters, Carlsbad Environmental Services
 Jim Trustly, USEPA, Region 6



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

February 3, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. P.326-936-391

Ms. Corinne B. Grace
P.O. Box 1418
3722 National Parks Hwy.
Carlsbad, N.M. 88220

Re: Salty Bills Water Disposal Facility
NE/4, NW/4 of Section 36, Township 22 South, Range 26 East, NMPM
Eddy County, New Mexico

Dear Ms. Grace:

Enclosed please find copies of the analytical results for the samples taken by the OCD on October 28, 1997. The samples numbered 9710280910 and 9710281105 were taken from primary off-loading tank at the Salty Bill SWD facility.

If you require any further information, please contact me at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist

xc: Artesia OCD Office
John Tymkowych, HRMB
John Waters, Carlsbad Environmental Services

AMERICAN ENVIRONMENTAL NETWORK (AEN) INC.

AMERICAN ENVIRONMENTAL NETWORK (AEN) INC.
2709-D Pan American Freeway, NE
Albuquerque, NM 87107
(505) 344-3777

Remit To: American Environmental Network (AEN) Inc.
P.O. Box 5676
Boston, MA 02205

American Environmental Network, Inc.

Bill N.M. Oil Conservation Division
To: 2040 South Pacheco
Santa Fe, NM 87505

Client #: 810-134

Original
BALANCE DUE: 200.00

Date	Invoice
1/ 8/98	77187

Project Name: Salty Bill
Project #: Salty Bill

PO Number	Terms	Project
	Net 30	AEN ALB-810

Quantity	Description	Rate	Amount
1	6010 Metals Scan	200.00	200.00
<div data-bbox="277 970 652 1215" data-label="Image"> </div>			
Accession #: 801310 Authorized by: Bill Olson		TOTAL:	200.00

A finance charge of 1½% will be charged on balances 30 days past due
DISTRIBUTION: White-Customer, Yellow-File, Pink-Accounting

2709-D Pan American Freeway, NE • Albuquerque, NM 87107 • (505) 344-3777 • Fax (602) 344-4413

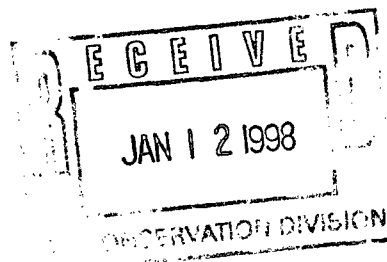
American Environmental Network, Inc.

AEN I.D.

801310

January 8, 1998

NMOCD
2040 S. PACHECO
SANTA FE, NM 87505



Project Name SALTY BILL
Project Number SALTY BILL

Attention: BILL OLSON

On 10/29/97 American Environmental Network (NM), Inc. (ADHS License No. AZ0015), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

AEN Accession number 710420 was released on December 17, 1997. Due to a misinterpretation of the COC, the ICP scan requested was not performed. The data was available from AEN (OR) and is submitted as AEN Accession number 801310.

We apologize in the delay of submitting the metal data to you and appreciate your patience and understanding.

All analyses were performed at American Environmental Network (OR) Inc., Portland, OR.

If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.

A handwritten signature in black ink, appearing to read "Kim McNeill".

Kimberly D. McNeill
Project Manager

A handwritten signature in black ink, appearing to read "H. Mitchell Rubenstein".

H. Mitchell Rubenstein, Ph. D.
General Manager

MR: mt

Enclosure

American Environmental Network, Inc.

CLIENT	: NMOCD	AEN I.D.	: 801310
PROJECT #	: SALTY BILL	DATE RECEIVED	: 10/29/97
PROJECT NAME	: SALTY BILL	REPORT DATE	: 1/8/98

AEN ID. #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	9710280910	AQ	10/28/97
02	9710281105	AQ	10/28/97

11/8/98

American Environmental Network, Inc.

17400 SW Upper Boones Ferry Road • Suite 270 • Portland, OR 97224 • (503) 684-0447

Marcia Smith
AEN - Phoenix
9830 S 51st Street
Suite B-113
Phoenix, AZ 85044

Date: 01/07/1998
AEN Account No.: 80
AEN Job Number: 97.03081


Project: 710505
Location:

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
88188	710505-01	Water	10/28/1997	12/04/1997

Approved by:


Andi Hoevet
Project Manager
AEN, INC.


Technical Review
AEN, INC.

The results from these samples relate only to the items tested. This report shall not be reproduced, except in full, without the written approval of the laboratory.

ANALYTICAL SERVICES FOR THE ENVIRONMENT

ANALYTICAL REPORT

Marcia Smith
AEN - Phoenix
9830 S 51st Street
Suite B-113
Phoenix, AZ 85044

01/07/1998
Job No.: 97.03081

Page: 2

Project Name: 710505
Date Received: 12/04/1997

Sample Number Sample Description
88188 710505-01

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			12/05/1997	
Aluminum, ICP	6010	ND	5.00	mg/L	12/09/1997	DIL,Q
Antimony, ICP	6010	ND	0.5	mg/L	12/09/1997	DIL,Q
Arsenic, ICP	6010	ND	0.5	mg/L	12/09/1997	DIL,Q
Barium, ICP	6010	1.1	0.5	mg/L	12/09/1997	DIL,Q
Beryllium, ICP	6010	ND	0.2	mg/L	12/09/1997	DIL,Q
Boron, ICP	6010	15	1.00	mg/L	12/09/1997	DIL,Q
Cadmium, ICP	6010	ND	0.2	mg/L	12/09/1997	DIL,Q
Calcium, ICP 200.7	200.7	2200	5.00	mg/L	12/09/1997	DIL,Q
Chromium, ICP	6010	ND	0.5	mg/L	12/09/1997	DIL,Q
Cobalt, ICP	6010	ND	0.5	mg/L	12/09/1997	DIL,Q
Copper, ICP	6010	ND	0.5	mg/L	12/09/1997	DIL,Q
Iron, ICP	6010	3.0	1.00	mg/L	12/09/1997	DIL,Q
Lead, ICP	6010	ND	0.5	mg/L	12/09/1997	DIL,Q
Magnesium, ICP 200.7	200.7	500	5.00	mg/L	12/09/1997	DIL,Q
Manganese, ICP	6010	ND	0.5	mg/L	12/09/1997	DIL,Q
Molybdenum, ICP	6010	ND	0.5	mg/L	12/09/1997	DIL,Q
Nickel, ICP	6010	ND	0.5	mg/L	12/09/1997	DIL,Q
Potassium, ICP 200.7	200.7	980	20.0	mg/L	12/09/1997	DIL,Q
Selenium, ICP	6010	ND	0.5	mg/L	12/09/1997	DIL,Q
Silver, ICP	6010	ND	0.5	mg/L	12/09/1997	DIL,Q
Sodium, ICP 200.7	200.7	110000	2000	mg/L	12/09/1997	DIL,Q
Thallium, ICP	6010	ND	1.00	mg/L	12/09/1997	DIL,Q
Vanadium, ICP	6010	ND	0.5	mg/L	12/09/1997	DIL,Q
Zinc, ICP	6010	ND	0.5	mg/L	12/09/1997	DIL,Q

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

American Environmental Network, Inc. (503) 684-0447 (503) 620-0393 FAX
17400 SW Upper Boones Ferry Rd., Suite 270, Portland, OR 97224

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

AEN - Phoenix
9830 S 51st Street
Suite B-113
Phoenix, AZ 85044

Date: 01/07/1998

Job Number: 97.03081

Contact: Marcia Smith
Project: 710505

Analyte	CCV			
	True Concentration	Concentration Found	Percent Recovery	Date Analyzed
Aluminum, ICP	25.0	25.0	100.0	12/09/1997
Antimony, ICP	0.500	0.490	98.0	12/09/1997
Antimony, ICP	0.500	0.490	98.0	12/09/1997
Arsenic, ICP	0.500	0.496	99.2	12/09/1997
Barium, ICP	0.500	0.502	100.4	12/09/1997
Beryllium, ICP	0.500	0.508	101.6	12/09/1997
Beryllium, ICP	0.500	0.508	101.6	12/09/1997
Boron, ICP	0.500	0.527	105.4	12/09/1997
Cadmium, ICP	0.500	0.488	97.6	12/09/1997
Cadmium, ICP	0.500	0.488	97.6	12/09/1997
Calcium, ICP 200.7	25.0	24.0	96.0	12/09/1997
Chromium, ICP	0.500	0.506	101.2	12/09/1997
Cobalt, ICP	0.500	0.487	97.4	12/09/1997
Copper, ICP	0.500	0.498	99.6	12/09/1997
Iron, ICP	0.500	0.532	106.4	12/09/1997
Lead, ICP	0.500	0.502	100.4	12/09/1997
Magnesium, ICP 200.7	25.0	25.1	100.4	12/09/1997
Molybdenum, ICP	0.500	0.493	98.6	12/09/1997
Nickel, ICP	0.500	0.502	100.4	12/09/1997
Potassium, ICP 200.7	5.00	4.83	96.6	12/09/1997
Selenium, ICP	0.500	0.497	99.4	12/09/1997
Selenium, ICP	0.500	0.497	99.4	12/09/1997
Silver, ICP	0.500	0.496	99.2	12/09/1997
Silver, ICP	0.500	0.496	99.2	12/09/1997
Sodium, ICP 200.7	5.00	4.91	98.2	12/09/1997
Thallium, ICP	0.500	0.498	99.6	12/09/1997
Thallium, ICP	0.500	0.498	99.6	12/09/1997
Vanadium, ICP	0.500	0.496	99.2	12/09/1997
Zinc, ICP	0.500	0.495	99.0	12/09/1997

CCV - Continuing Calibration Verification

American Environmental Network, Inc. (503)684-0447 (503)620-0393 FAX
17400 SW Upper Boones Ferry Rd., Suite 270, Portland, OR 97224

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

AEN - Phoenix
9830 S 51st Street
Suite B-113
Phoenix, AZ 85044

Date: 01/07/1998

Job Number: 97.03081

Contact: Marcia Smith
Project: 710505

Analyte	LCS	Concentration Found	LCS % Recovery	Flags	Date Analyzed
	True Concentration				
Aluminum, ICP	5.00	4.76	95.2		12/09/1997
Antimony, ICP	0.500	0.479	95.8		12/09/1997
Arsenic, ICP	0.500	0.489	97.8		12/09/1997
Barium, ICP	0.500	0.484	96.8		12/09/1997
Beryllium, ICP	0.500	0.492	98.4		12/09/1997
Boron, ICP	0.500	0.524	104.8		12/09/1997
Cadmium, ICP	0.500	0.461	92.2		12/09/1997
Calcium, ICP 200.7	5.00	4.64	92.8		12/09/1997
Chromium, ICP	0.500	0.476	95.2		12/09/1997
Cobalt, ICP	0.500	0.472	94.4		12/09/1997
Copper, ICP	0.500	0.487	97.4		12/09/1997
Iron, ICP	2.00	2.04	102.0		12/09/1997
Lead, ICP	0.500	0.459	91.8		12/09/1997
Magnesium, ICP 200.7	5.00	4.86	97.2		12/09/1997
Molybdenum, ICP	0.500	0.482	96.4		12/09/1997
Nickel, ICP	0.500	0.461	92.2		12/09/1997
Potassium, ICP 200.7	5.00	6.77	135.4		12/09/1997
Selenium, ICP	0.500	0.476	95.2		12/09/1997
Silver, ICP	0.500	0.455	91.0		12/09/1997
Sodium, ICP 200.7	5.00	5.25	105.0		12/09/1997
Thallium, ICP	0.500	0.449	89.8		12/09/1997
Vanadium, ICP	0.500	0.497	99.4		12/09/1997
Zinc, ICP	0.500	0.474	94.8		12/09/1997

LCS - Laboratory Control Standard

American Environmental Network, Inc. (503) 684-0447 (503) 620-0393 FAX
17400 SW Upper Boones Ferry Rd., Suite 270, Portland OR 97224

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

AEN - Phoenix
9830 S 51st Street
Suite B-113
Phoenix, AZ 85044

Date: 01/07/1998

Job Number: 97.03081

Contact: Marcia Smith
Project: 710505

Analyte	Matrix	Sample	Spike	Units	Percent	MSD	MSD	Units	Percent	MS/MSD	Flags
	Spike						Spike				
	Result	Result	Amount		Recovery	Result	Amount		Recovery	RPD	
Aluminum, ICP	4.73	ND	5.00	mg/L	94.6	4.73	5.00	mg/L	94.6	0.0	
Antimony, ICP	0.497	ND	0.500	mg/L	99.4	0.499	0.500	mg/L	99.8	0.4	
Arsenic, ICP	0.521	0.012	0.500	mg/L	101.8	0.521	0.500	mg/L	101.8	0.0	
Barium, ICP	0.497	0.021	0.500	mg/L	95.2	0.508	0.500	mg/L	97.4	2.3	
Beryllium, ICP	0.497	ND	0.500	mg/L	99.4	0.499	0.500	mg/L	99.8	0.4	
Boron, ICP	1.40	0.88	0.500	mg/L	104.0	1.41	0.500	mg/L	106.0	1.9	
Cadmium, ICP	0.449	ND	0.500	mg/L	89.8	0.448	0.500	mg/L	89.6	0.2	
Calcium, ICP 200.7		ND	5.00	mg/L			5.00	mg/L			
Chromium, ICP	1.02	0.56	0.500	mg/L	92.0	1.02	0.500	mg/L	92.0	0.0	
Cobalt, ICP	0.463	ND	0.500	mg/L	92.6	0.462	0.500	mg/L	92.4	0.2	
Copper, ICP	0.496	ND	0.500	mg/L	99.2	0.502	0.500	mg/L	100.4	1.1	
Iron, ICP	2.07	0.11	2.00	mg/L	98.0	2.06	2.00	mg/L	97.5	0.5	
Lead, ICP	0.439	ND	0.500	mg/L	87.8	0.437	0.500	mg/L	87.4	0.5	MI
Lead, ICP	0.439	ND	0.500	mg/L	87.8	0.437	0.500	mg/L	87.4	0.5	
Magnesium, ICP 200.7		ND	5.00	mg/L			5.00	mg/L			
Manganese, ICP	0.483	ND	0.500	mg/L	96.6	0.483	0.500	mg/L	96.6	0.0	
Molybdenum, ICP		ND	0.500	mg/L			0.500	mg/L			
Nickel, ICP	0.450	0.005	0.500	mg/L	89.0	0.449	0.500	mg/L	88.8	0.2	
Nickel, ICP	0.450	0.005	0.500	mg/L	89.0	0.449	0.500	mg/L	88.8	0.2	
Potassium, ICP 200.7	20.4	12	5.00	mg/L	168.0	20.4	5.00	mg/L	168.0	0.0	DILQ, M
Selenium, ICP	0.523	0.043	0.500	mg/L	96.0	0.527	0.500	mg/L	96.8	0.8	
Silver, ICP	0.471	ND	0.500	mg/L	94.2	0.472	0.500	mg/L	94.4	0.2	
Sodium, ICP 200.7		350	5.00	mg/L			5.00	mg/L			DIL, Q,
Thallium, ICP	0.430	ND	0.500	mg/L	86.0	0.433	0.500	mg/L	86.6	0.7	
Vanadium, ICP	0.575	0.066	0.500	mg/L	101.8	0.576	0.500	mg/L	102.0	0.2	
Zinc, ICP	0.487	ND	0.500	mg/L	97.4	0.481	0.500	mg/L	96.2	1.2	

QC Sample:

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
dil. = Diluted Out

American Environmental Network, Inc. (503) 684-0447 (503) 620-0393 FAX
17400 SW Upper Boones Ferry Rd., Portland, OR 97224

QUALITY CONTROL REPORT BLANKS

AEN - Phoenix
9830 S 51st Street
Suite B-113
Phoenix, AZ 85044

Date: 01/07/1998

Job Number: 97.03081

Contact: Marcia Smith
Project: 710505
Location:

Analyte	Blank Analysis	Report Limit	Units	Date Analyzed
Aluminum, ICP	ND	0.05	mg/L	12/09/1997
Antimony, ICP	ND	0.005	mg/L	12/09/1997
Arsenic, ICP	ND	0.005	mg/L	12/09/1997
Barium, ICP	ND	0.005	mg/L	12/09/1997
Beryllium, ICP	ND	0.002	mg/L	12/09/1997
Boron, ICP	ND	0.01	mg/L	12/09/1997
Cadmium, ICP	ND	0.002	mg/L	12/09/1997
Calcium, ICP 200.7	ND	0.05	mg/L	12/09/1997
Chromium, ICP	ND	0.005	mg/L	12/09/1997
Cobalt, ICP	ND	0.005	mg/L	12/09/1997
Copper, ICP	ND	0.005	mg/L	12/09/1997
Iron, ICP	ND	0.01	mg/L	12/09/1997
Lead, ICP	ND	0.005	mg/L	12/09/1997
Magnesium, ICP 200.7	ND	0.05	mg/L	12/09/1997
Molybdenum, ICP	ND	0.005	mg/L	12/09/1997
Nickel, ICP	ND	0.005	mg/L	12/09/1997
Potassium, ICP 200.7	ND	0.2	mg/L	12/09/1997
Selenium, ICP	ND	0.005	mg/L	12/09/1997
Silver, ICP	ND	0.005	mg/L	12/09/1997
Sodium, ICP 200.7	ND	0.2	mg/L	12/09/1997
Thallium, ICP	ND	0.01	mg/L	12/09/1997
Vanadium, ICP	ND	0.005	mg/L	12/09/1997
Zinc, ICP	ND	0.005	mg/L	12/09/1997

American Environmental Network, Inc. (503) 684-0447 (503) 620-0393 FAX
17400 SW Upper Boones Ferry Rd., Portland, OR 97224

FLAG GLOSSARY

A	This sample does not have a typical gasoline pattern.
B1	This sample does not have a typical diesel pattern.
B	Analyte found in the associated blank as well as the sample.
C	The sample contains a lighter hydrocarbon than gasoline.
CN	See case narrative
CS	Outside control limits or unusual matrix; see case narrative.
D	The sample extends to a heavier hydrocarbon range than gasoline.
d	Results on a dry weight basis
DIL	Result was calculated from dilution.
E	The sample extends to a lighter hydrocarbon range than diesel.
F	The sample extends to a heavier hydrocarbon range than diesel.
G	The positive result for gasoline is due to single component contamination.
I	The oil pattern for this sample is not typical.
J	The result for this compound is an estimated concentration.
L	The LCS recovery exceeded control limits. See the LCS page of this report.
LM	The LCS recovery exceeded control limits; the MS/MSD were in control validating the batch.
M	MS and/or MSD percent recovery exceeds control limits.
MD	Unable to calculate MS/MSD recovery due to high amount of analyte; greater than 4 times spike level.
MR	The MS/MSD RPD is greater than method criteria. The sample was re-extracted and re-analyzed with similar results indicating a non-homogeneous sample.
MM	The Matrix Spike exceeded control limits; LCS/LCS-D were in control validating the batch.
MI	Outside control limits due to matrix interference.
N	Manual integration performed on sample for quantification.
N/A	Not Applicable.
NC	Not calculable.
NO	Not Analyzed.
P	A post digestion spike was analyzed, and recoveries were within control limits.
Q	Detection limits elevated due to sample matrix.
Q1	Detection limits elevated due to high levels of non-target compounds. Sample(s) run at a dilution.
R	The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.
RD	RPD not applicable for results less than five times the reporting limit.
RP	MS/MSD RPD is greater than 20%
SR	Surrogate recovery outside control limits. See the surrogate page of the report.
SD	Unable to quantitate surrogate due to sample dilution.
SC	Sample not provided to laboratory in proper sampling container.
V	Volatile analysis was requested, sample container received with headspace.
X1	The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.
X	Sample was analyzed outside recommended holding times.
Y	The result for this parameter was greater than the TCLP regulatory limit.
Z	The pattern seen for the parameter being analyzed is not typical.

American Environmental Network (N.M.), Inc.

Albuquerque Office: 2709-D Pan American Fwy. NE • Albuquerque, NM 87107 • (505) 344-3777
Remit To: American Environmental Network (N.M.), Inc.
P.O. Box 5676
Boston, MA 02206

American Environmental Network, Inc.

DEC 19 1997

Bill N.M. Oil Conservation Division
To: 2040 South Pacheco
Santa Fe, NM 87505

Client #: 810-134

Original
BALANCE DUE: 624.00

PROJECT #: SALTY BILL
PROJ. NAME: SALTY BILL

Date	Invoice
12/17/97	77142

PO Number	Terms	Project
	Net 30	AEN ALB-810

Quantity	Description	Rate	Amount
1	Cation/Anion Balance -ITEM 125	160.00	160.00
1	Nitrate/Nitrite	16.00	16.00
1	EPA Method 8010/8020	100.00	100.00
1	EPA Method 8270	300.00	300.00
1	Mercury CVAA	20.00	20.00
1	Selenium, GFAA	12.00	12.00
1	Digestion	16.00	16.00
Accession #:710420 Authorized by:BILL OLSON		TOTAL:	624.00

A finance charge of 1½% will be charged on balances 30 days past due
DISTRIBUTION: White-Customer, Yellow-File, Pink-Accounting

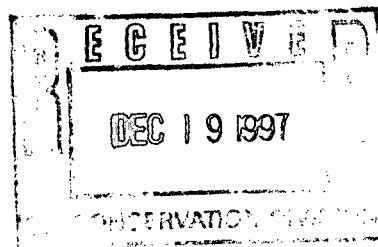
2709-D Pan American Freeway, NE • Albuquerque, NM 87107 • (505) 344-3777 • Fax (505) 344-4413

American Environmental Network, Inc.

AEN I.D. 710420

December 17, 1997

NMOCD
2040 S. PACHECO
SANTA FE, NM 87505



Project Name SALTY BILL
Project Number SALTY BILL

Attention: BILL OLSON

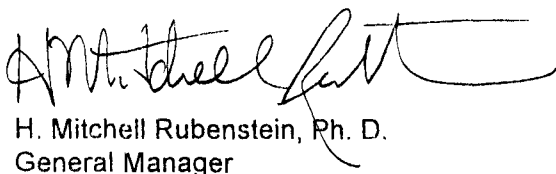
On 10/29/97 American Environmental Network (NM), Inc. (ADHS License No. AZ0015), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

EPA Method 8010/8020 analyses were performed at AEN(NM), Inc. Albuquerque, NM.

Sodium, potassium, magnesium and potassium analyses were performed at AEN(OR), Inc., Portland, OR.

All other analyses were performed at AEN(AZ), Phoenix, AZ.

If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.


H. Mitchell Rubenstein, Ph. D.
General Manager

MR: mt

Enclosure

American Environmental Network, Inc.

CLIENT	: NMOC	AEN I.D.	: 710420
PROJECT #	: SALTY BILL	DATE RECEIVED	: 10/29/97
PROJECT NAME	: SALTY BILL	REPORT DATE	: 12/17/97

AEN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	9710280910	AQ	10/28/97
02	9710281105	AQ	10/28/97

GAS CHROMATOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS / AROMATICS (EPA 8010/8020)
 CLIENT : NMOC
 PROJECT # : SALTY BILL
 PROJECT NAME : SALTY BILL

AEN I.D.: 710420

SAMPLE		DATE		DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	9710280910	AQUEOUS	10/28/97	NA	11/5/97	50
PARAMETER	DET. LIMIT	UNITS	01			
BENZENE	0.5	UG/L	2600			
BROMODICHLORMETHANE	0.2	UG/L	< 10			
BROMOFORM	0.5	UG/L	< 25			
BROMOMETHANE	1.0	UG/L	< 50			
CARBON TETRACHLORIDE	0.2	UG/L	< 10			
CHLOROBENZENE	0.5	UG/L	< 25			
CHLOROETHANE	0.5	UG/L	< 25			
CHLOROFORM	0.5	UG/L	< 25			
CHLOROMETHANE	1.0	UG/L	< 50			
DIBROMOCHLOROMETHANE	0.2	UG/L	< 10			
1,2-DIBROMOETHANE (EDB)	0.2	UG/L	< 10			
1,2-DICHLOROETHANE	0.5	UG/L	< 25			
1,3-DICHLOROETHANE	0.5	UG/L	< 25			
1,4-DICHLOROETHANE	0.5	UG/L	< 25			
1,1-DICHLOROETHANE	0.3	UG/L	< 15			
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 25			
1,1-DICHLOROETHENE	0.2	UG/L	< 10			
cis-1,2-DICHLOROETHENE	0.2	UG/L	< 10			
trans-1,2-DICHLOROETHENE	1.0	UG/L	< 50			
1,2-DICHLOROPROPANE	0.2	UG/L	< 10			
cis-1,3-DICHLOROPROPENE	0.2	UG/L	< 10			
trans-1,3-DICHLOROPROPENE	0.2	UG/L	< 10			
ETHYLBENZENE	0.5	UG/L	440			
METHYL-t-BUTYL ETHER	2.5	UG/L	< 125			
METHYLENE CHLORIDE	2.0	UG/L	< 100			
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 25			
TETRACHLOROETHENE	0.5	UG/L	< 25			
TOLUENE	0.5	UG/L	2400			
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 50			
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 10			
TRICHLOROETHENE	0.3	UG/L	< 15			
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 10			
VINYL CHLORIDE	0.5	UG/L	< 25			
TOTAL XYLENES	0.5	UG/L	950			

SURROGATE:

BROMOCHLOROMETHANE (%) 111
 SURROGATE LIMITS (73 - 117)
 TRIFLUOROTOLUENE (%) 89
 SURROGATE LIMITS (69 - 117)

CHEMIST NOTES:

N/A

GAS CHROMATOGRAPHY RESULTS

REAGENT BLANK

TEST	: PURGEABLE HALOCARBONS / AROMATICS (EPA 8010/8020)		
BLANK I.D.	: 110597	AEN I.D.	: 710420
CLIENT	: NMOCD	DATE EXTRACTED	: N/A
PROJECT #	: SALTY BILL	DATE ANALYZED	: 11/5/97
PROJECT NAME	: SALTY BILL	SAMPLE MATRIX	: AQUEOUS

PARAMETER	UNITS	
BENZENE	UG/L	<0.5
BROMODICHLORMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.3
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
cis-1,2-DICHLOROETHENE	UG/L	<0.2
trans-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
cis-1,3-DICHLOROPROPENE	UG/L	<0.2
trans-1,3-DICHLOROPROPENE	UG/L	<0.2
ETHYLBENZENE	UG/L	<0.5
METHYL -t-BUTYL ETHER	UG/L	<2.5
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.5
TETRACHLOROETHENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.3
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5
TOTAL XYLENES	UG/L	<0.5

SURROGATE:

BROMOCHLOROMETHANE (%)		109
SURROGATE LIMITS	(73 - 117)	
TRIFLUOROTOLUENE (%)		105
SURROGATE LIMITS	(69 - 117)	

CHEMIST NOTES:

N/A

GAS CHROMATOGRAPHY QUALITY CONTROL

MSMSD

TEST : PURGEABLE HALOCARBONS / AROMATICS (EPA 8010/8020)
MSMSD # : 710410-02 AEN I.D. : 710420
CLIENT : NMOCD DATE EXTRACTED : N/A
PROJECT # : SALTY BILL DATE ANALYZED : 11/5/97
PROJECT NAME : SALTY BILL SAMPLE MATRIX : AQUEOUS
UNITS : UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	10.0	8.8	88	9.1	91	3	(82 - 128)	20
TOLUENE	<0.5	10.0	9.2	92	9.5	95	3	(87 - 128)	20
1,1-DICHLOROETHENE	<0.2	10.0	6.0	60	6.2	62	3	(44 - 99)	20
TRICHLOROETHENE	<0.3	10.0	11.1	111	12.1	121	9	(89 - 127)	20
CHLOROBENZENE	<0.5	10.0	9.4	94	10.1	101	7	(87 - 124)	20

CHEMIST NOTES:

N/A


(Spike Sample Result - Sample Result)
% Recovery = ----- X 100
Spike Concentration

(Sample Result - Duplicate Result)
RPD (Relative Percent Difference) = ----- X 100
Average Result

PROJECT MANAGER: B. Olson
COMPANY: NM Oil Conservation Division
ADDRESS: 2040 S. Pacheco
Santa Fe, NM 87540
PHONE: (505) 827-7154
FAX: (505) 827-8177
BILL TO: (same)
COMPANY: _____
ADDRESS: _____

[illegible]

ANALYSIS REQUEST					
Petroleum Hydrocarbons (418.1) TPH					
(MOD.8015) Diesel/Direct/Inject					
(M8015) Gas/Purge & Trap					
Gasoline/BTEX & MTBE (M8015/8020)					
BTEX/MTBE (8020)					
BTEX & Chlorinated Aromatics (602/8020)					
BTEX/MTBE/EDC & EDB (8020/8010/Short)					
Chlorinated Hydrocarbons (601/8010)	X				
504 EDB <input type="checkbox"/> / DBCP <input type="checkbox"/>					
Polynuclear Aromatics (610/8310)					
Volatile Organics (624/8240) GC/MS					
Volatile Organics (8260) GC/MS					
Pesticides/PCB (608/8080)					
Herbicides (615/8150)					
Base/Neutral/Acid Compounds GC/MS (625/8270)	X				
General Chemistry:	X				
<i>Cation/Anion</i>					
Metalte/ <i>As</i>					
Priority Pollutant Metals (13)					
Target Analyte List Metals (23)					
RCRA Metals (8)					
RCRA Metals by TCLP (Method 13.1)					
Metals:	-				
NUM OF CONTAINERS	N	F			

PROJECT INFORMATION		PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS				RELINQUISHED BY:	
PROJ. NO.:	Safety Bill	(RUSH) <input type="checkbox"/> 24hr <input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input type="checkbox"/> 1 WEEK	(NORMAL) <input checked="" type="checkbox"/>		Signature:	Time:	
PROJ. NAME:	Safety Bill	CERTIFICATION REQUIRED: <input type="checkbox"/> NM <input type="checkbox"/> SDWA <input type="checkbox"/> OTHER			Printed Name:	Date:	
P.O. NO.:		METHANOL PRESERVATION <input type="checkbox"/>			Company:		
SHIPPED VIA:		COMMENTS: <input type="checkbox"/> FIXED FEE <input type="checkbox"/>					
SAMPLE RECEIPT		No. 1/NO. 3 by client request					
NO. CONTAINERS	4					RECEIVED BY: (LAB)	
CUSTOMER/SEALS	Y/N/N/A					Signature:	
RECEIVED INTACT	yes					Time:	
						Printed Name:	
						Date:	
						Company:	
						RECEIVED BY: (LAB)	
						Signature:	
						Time:	
						Printed Name:	
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						RECEIVED BY: (LAB)	
						Signature:	
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						Company:	
						RECEIVED BY: (LAB)	
						Signature:	
						Time:	
						Printed Name:	
						Date:	
						Company:	
						RECEIVED BY: (LAB)	
						Signature:	

4/1/96 AEN Inc.: American Environmental Network (NM), Inc. • 2709-D Pan American Freeway, NE • Albuquerque, New Mexico 87107

DISTRIBUTION: White, Canary - AEN. Pink - ORIGINATOR

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

AEN I.D. 710505

December 16, 1997

American Environmental Network-NM
2709-D Pan American Frwy, NE
Albuquerque, NM 87107

Project Name/Number: NMOCD/710420

Attention: Kimberly D. McNeill

On 10/31/97, American Environmental Network (Arizona), Inc., received a request to analyze aqueous sample(s). The sample(s) were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

Calcium, potassium, magnesium and sodium analyses were performed by AEN (Oregon), 17400 SW Upper Boones Ferry Rd., Ste. 270, Durham, OR 97224 (See Attachment 1).

Due to matrix interferences, EPA method 8270 analysis of sample 710420-01 was performed at a dilution. The reporting limits have been raised accordingly.

Low surrogate recovery for 2,4,6-tribromophenol by EPA method 8270 for sample 710420-01 was confirmed by re-analysis.

EPA method 8270 QC data which exceed AEN control limits are flagged "*". All results have been verified and the compound is not detected in the sample.

AEN I.D. 710505

If you have any questions or comments, please do not hesitate to contact us at (602) 496-4400.

A handwritten signature in cursive script, reading "Marcia A. Smith". The signature is written in dark ink and is positioned above the typed name.

Marcia A. Smith
Project Manager
MS/acc

Enclosure

ADHS License No. AZ0061
Alan Kleinschmidt, Regional General Manager

CLIENT : AMERICAN ENV. NETWORK OF NM, INC.
PROJECT # : 710420
PROJECT NAME : NM OCD

DATE RECEIVED : 10/31/97

REPORT DATE : 12/16/97

ATI I.D. : 710505

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	710420-01	AQUEOUS	10/28/97
02	710420-02	AQUEOUS	10/28/97

----- TOTALS -----

MATRIX	# SAMPLES
AQUEOUS	2

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

GENERAL CHEMISTRY RESULTS

ATI I.D. : 710505

CLIENT : AMERICAN ENV. NETWORK OF NM, INC.
PROJECT # : 710420
PROJECT NAME : NM OCD

DATE RECEIVED : 10/31/97

REPORT DATE : 12/16/97

PARAMETER	UNITS	01	02
CARBONATE (CACO3)	MG/L	<1	-
BICARBONATE (CACO3)	MG/L	372	-
HYDROXIDE (CACO3)	MG/L	<1	-
TOTAL ALKALINITY (AS CACO3)	MG/L	372	-
BROMIDE (EPA 300.0)	MG/L	200	-
CHLORIDE (EPA 325.2)	MG/L	98000	-
CONDUCTIVITY, (UMHOS/CM)		286000	-
FLUORIDE (EPA 340.2)	MG/L	0.57	-
NO2/NO3-N, TOTAL (353.2)	MG/L	-	<0.06
PH (EPA 150.1)	UNITS	7.3	-
SULFATE (EPA 375.2)	MG/L	2900	-
T. DISSOLVED SOLIDS (160.1)	MG/L	160000	-

GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : AMERICAN ENV. NETWORK OF NM, INC.
PROJECT # : 710420
PROJECT NAME : NM OCD

ATI I.D. : 710505

PARAMETER	UNITS	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC	% REC
CARBONATE	MG/L	71102001	<1	<1	NA	NA	NA	NA
BICARBONATE	MG/L		361	361	0	NA	NA	NA
HYDROXIDE	MG/L		<1	<1	NA	NA	NA	NA
TOTAL ALKALINITY	MG/L		361	361	0	NA	NA	NA
BROMIDE	MG/L	71199908	<1.5	<1.5	NA	2.0	1.5	133
CHLORIDE	MG/L	71114401	330	340	3	850	500	104
CONDUCTIVITY (UMHOS/CM)		71104301	640	641	0.2	NA	NA	NA
FLUORIDE	MG/L	71199902	0.39	0.39	0	1.00	0.50	122
NITRITE/NITRATE-N	MG/L	71050502	<0.06	<0.06	NA	1.89	2.00	94
PH	UNITS	71041101	8.1	8.1	0	NA	NA	NA
SULFATE	MG/L	71038801	200	210	5	410	200	105
TOTAL DISSOLVED SOLIDS	MG/L	71199918	180	180	0	NA	NA	NA

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

METALS RESULTS

ATI I.D. : 710505

CLIENT : AMERICAN ENV. NETWORK OF NM, INC.
PROJECT # : 710420
PROJECT NAME : NM OCD

DATE RECEIVED : 10/31/97

REPORT DATE : 12/16/97

PARAMETER	UNITS	01
MERCURY (EPA 245.2/7470)	MG/L	<0.0002
SELENIUM (EPA 270.2/7740)	MG/L	0.025

METALS - QUALITY CONTROL

CLIENT : AMERICAN ENV. NETWORK OF NM, INC.
 PROJECT # : 710420
 PROJECT NAME : NM OCD

ATI I.D. : 710505

PARAMETER	UNITS	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC	% REC
MERCURY	MG/L	71043901	<0.0002	<0.0002	NA	0.0052	0.0050	104
SELENIUM	MG/L	71102601	<0.005	<0.005	NA	0.036	0.050	72

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

GCMS - RESULTS

ATI I.D. : 71050501

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

CLIENT	: AMERICAN ENV. NETWORK OF NM, INC.	DATE SAMPLED	: 10/28/97
PROJECT #	: 710420	DATE RECEIVED	: 10/31/97
PROJECT NAME	: NM OCD	DATE EXTRACTED	: 11/04/97
CLIENT I.D.	: 710420-01	DATE ANALYZED	: 11/18/97
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 5

COMPOUNDS	RESULTS
N-NITROSODIMETHYLAMINE	<50
PHENOL	200
ANILINE	<50
BIS (2-CHLOROETHYL) ETHER	<50
2-CHLOROPHENOL	<50
1,3-DICHLOROBENZENE	<50
1,4-DICHLOROBENZENE	<50
BENZYL ALCOHOL	<50
1,2-DICHLOROBENZENE	<50
2-METHYLPHENOL	110
BIS (2-CHLOROISOPROPYL) ETHER	<50
4-METHYLPHENOL	93
N-NITROSO-DI-N-PROPYLAMINE	<50
HEXACHLOROETHANE	<50
NITROBENZENE	<50
ISOPHORONE	<50
2-NITROPHENOL	<50
2,4-DIMETHYLPHENOL	<100
BENZOIC ACID	<250
BIS (2-CHLOROETHOXY) METHANE	<50
2,4-DICHLOROPHENOL	<50
1,2,4-TRICHLOROBENZENE	<50
NAPHTHALENE	<50
4-CHLOROANILINE	<50
HEXACHLOROBUTADIENE	<50
4-CHLORO-3-METHYLPHENOL	<50
2-METHYLNAPHTHALENE	<50
HEXACHLOROCYCLOPENTADIENE	<250
2,4,6-TRICHLOROPHENOL	<50
2,4,5-TRICHLOROPHENOL	<50
2-CHLORONAPHTHALENE	<50
2-NITROANILINE	<50
DIMETHYLPHTHALATE	<50
ACENAPHTHYLENE	<50
3-NITROANILINE	<50
ACENAPHTHENE	<50
2,4-DINITROPHENOL	<100
4-NITROPHENOL	<50
DIBENZOFURAN	<50
2,4-DINITROTOLUENE	<50
2,6-DINITROTOLUENE	<50

GCMS - RESULTS

ATI I.D. : 71050501

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

COMPOUNDS	RESULTS
DIETHYLPHTHALATE	<50
4-CHLOROPHENYL-PHENYLEETHER	<50
FLUORENE	<50
4-NITROANILINE	<50
4,6-DINITRO-2-METHYLPHENOL	<50
N-NITROSODIPHENYLAMINE	<50
4-BROMOPHENYL-PHENYLEETHER	<50
HEXACHLOROBENZENE	<50
PENTACHLOROPHENOL	<50
PHENANTHRENE	<50
ANTHRACENE	<50
DI-N-BUTYLPHTHALATE	<50
FLUORANTHENE	<50
BENZIDINE	<250
PYRENE	<50
BUTYLBENZYLPHTHALATE	<50
3,3'-DICHLOOROBENZIDINE	<50
BENZO (a) ANTHRACENE	<50
BIS (2-ETHYLHEXYL) PHTHALATE	<50
CHRYSENE	<50
DI-N-OCTYLPHTHALATE	<50
BENZO (b) FLUORANTHENE	<50
BENZO (k) FLUORANTHENE	<50
BENZO (a) PYRENE	<50
INDENO (1,2,3-cd) PYRENE	<50
DIBENZO (a,h) ANTHRACENE	<50
BENZO (g,h,i) PERYLENE	<50
1,2-DPH (AS AZOBENZENE)	<50

SURROGATE PERCENT RECOVERIES

NITROBENZENE-D5 (%)	66
2-FLUOROBIPHENYL (%)	68
TERPHENYL (%)	73
PHENOL-D6 (%)	59
2-FLUOROPHENOL (%)	51
2,4,6-TRIBROMOPHENOL (%)	39*

* Result out of limits due to sample matrix interference

GCMS - RESULTS

REAGENT BLANK

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

CLIENT	: AMERICAN ENV. NETWORK OF NM, INC.	ATI I.D.	: 710505
PROJECT #	: 710420	DATE EXTRACTED	: 11/04/97
PROJECT NAME	: NM OCD	DATE ANALYZED	: 11/14/97
CLIENT I.D.	: REAGENT BLANK	UNITS	: UG/L
		DILUTION FACTOR	: N/A

COMPOUNDS	RESULTS
-----------	---------

N-NITROSODIMETHYLAMINE	<10
PHENOL	<10
ANILINE	<10
BIS (2-CHLOROETHYL) ETHER	<10
2-CHLOROPHENOL	<10
1,3-DICHLOROBENZENE	<10
1,4-DICHLOROBENZENE	<10
BENZYL ALCOHOL	<10
1,2-DICHLOROBENZENE	<10
2-METHYLPHENOL	<10
BIS (2-CHLOROISOPROPYL) ETHER	<10
4-METHYLPHENOL	<10
N-NITROSO-DI-N-PROPYLAMINE	<10
HEXACHLOROETHANE	<10
NITROBENZENE	<10
ISOPHORONE	<10
2-NITROPHENOL	<10
2,4-DIMETHYLPHENOL	<20
BENZOIC ACID	<50
BIS (2-CHLOROETHOXY) METHANE	<10
2,4-DICHLOROPHENOL	<10
1,2,4-TRICHLOROBENZENE	<10
NAPHTHALENE	<10
4-CHLOROANILINE	<10
HEXACHLOROBUTADIENE	<10
4-CHLORO-3-METHYLPHENOL	<10
2-METHYLNAPHTHALENE	<10
HEXACHLOROCYCLOPENTADIENE	<50
2,4,6-TRICHLOROPHENOL	<10
2,4,5-TRICHLOROPHENOL	<10
2-CHLORONAPHTHALENE	<10
2-NITROANILINE	<10
DIMETHYLPHTHALATE	<10
ACENAPHTHYLENE	<10
3-NITROANILINE	<10
ACENAPHTHENE	<10
2,4-DINITROPHENOL	<20
4-NITROPHENOL	<10
DIBENZOFURAN	<10
2,4-DINITROTOLUENE	<10
2,6-DINITROTOLUENE	<10
DIETHYLPHTHALATE	<10
4-CHLOROPHENYL-PHENYLEETHER	<10

GCMS - RESULTS

REAGENT BLANK

ATI I.D. : 710505

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

COMPOUNDS	RESULTS
FLUORENE	<10
4-NITROANILINE	<10
4,6-DINITRO-2-METHYLPHENOL	<10
N-NITROSODIPHENYLAMINE	<10
4-BROMOPHENYL-PHENYLETHER	<10
HEXACHLOROBENZENE	<10
PENTACHLOROPHENOL	<10
PHENANTHRENE	<10
ANTHRACENE	<10
DI-N-BUTYLPHTHALATE	<10
FLUORANTHENE	<10
BENZIDINE	<50
PYRENE	<10
BUTYLBENZYLPHTHALATE	<10
3,3'-DICHLOROBENZIDINE	<10
BENZO (a) ANTHRACENE	<10
BIS (2-ETHYLHEXYL) PHTHALATE	<10
CHRYSENE	<10
DI-N-OCTYLPHTHALATE	<10
BENZO (b) FLUORANTHENE	<10
BENZO (k) FLUORANTHENE	<10
BENZO (a) PYRENE	<10
INDENO (1,2,3-cd) PYRENE	<10
DIBENZO (a,h) ANTHRACENE	<10
BENZO (g,h,i) PERYLENE	<10
1,2-DPH (AS AZOBENZENE)	<10

SURROGATE PERCENT RECOVERIES

NITROBENZENE-D5 (%)	68
2-FLUOROBIPHENYL (%)	64
TERPHENYL (%)	88
PHENOL-D6 (%)	58
2-FLUOROPHENOL (%)	55
2,4,6-TRIBROMOPHENOL (%)	65

QUALITY CONTROL DATA

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

ATI I.D. : 710505

CLIENT : AMERICAN ENV. NETWORK OF NM, INC.
 PROJECT # : 710420
 PROJECT NAME : NM OCD
 REF I.D. : 71199901

DATE ANALYZED : 11/07/97
 SAMPLE MATRIX : AQUEOUS
 UNITS : UG/L

COMPOUNDS	SAMPLE CONC.		SPIKED SAMPLE	% REC.	DUP.	DUP.	RPD
	RESULT	SPIKED			SPIKED SAMPLE	% REC.	
1,2,4-TRICHLOROBENZENE	<10	100	61	61	56	56	9
ACENAPHTHENE	<10	100	79	79	70	70	12
2,4-DINITROTOLUENE	<10	100	90	90	78	78	14
PYRENE	<10	100	77	77	63	63	20*
N-NITROSO-DI-N-PROPYL AMINE	<10	100	79	79	70	70	12
1,4-DICHLOROBENZENE	<10	100	67	67	61	61	9
PENTACHLOROPHENOL	<10	100	86	86	91	91	6
PHENOL	<10	100	68	68	70	70	3
2-CHLOROPHENOL	<10	100	70	70	73	73	4
4-CHLORO-3-METHYLPHENOL	<10	100	72	72	75	75	4
4-NITROPHENOL	<10	100	80	80	83	83	4

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

* Result out of limits due to sample matrix interference

DATE OF ANALYSIS REPORT**AEN ID: 710505**

16-Dec-97

METHOD	SAMPLE #	DATE	ANALYST
ALKALINITY (EPA 310.1)	01	11/08/97	DIPTI A. SHAH
BROMIDE (EPA 300.0)	01	11/18/97	MARLA WILSON
CHLORIDE (EPA 325.2)	01	11/26/97	CARLENE MCCUTCHEON
CONDUCTIVITY, (UMHOS/CM)	01	11/05/97	PAUL STRICKLER
FLUORIDE (EPA 340.2)	01	11/07/97	DIPTI A. SHAH
MERCURY (245.2/7470)	01	11/06/97	TRACY L. SPRANG
NO2/NO3-N, TOTAL (353.2)	02	11/04/97	MELISSA HUGHES
PH (EPA 150.1)	01	11/04/97	CARLENE MCCUTCHEON
SELENIUM (EPA 270.2/7740)	01	11/13/97	BAYARD A VANDEGRIFT IV
SEMI-VOLATILE ORGANICS (EPA 8270)	01	11/18/97	CORA L. LAURIE
SULFATE (EPA 375.2)	01	11/12/97	CARLENE MCCUTCHEON
T. DISSOLVED SOLIDS (160.1)	01	10/31/97	DIPTI A. SHAH

Methods for Chemical Analysis of Water and Wastes, EPA-600 4-79-020, March 1983

Methods for the Determination of Inorganic Substances in Environmental Samples, EPA-600-R-93/100

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW 846, 3rd Ed. (9/86), including Updates I (7/92), II (9/94), and III (12/96)

DATE: 12-11-97

ION BALANCE

AEN ACCESSION NUMBER: 71050501
SAMPLE IDENTIFICATION: 710420-01
CLIENT: AMERICAN ENVIRONMENTAL NETWORK OF NM, IN

ANIONS	RESULT MG/L	FACTOR ME/L	TOTAL
ALKALINITY (AS CaCO_3)	372.000	0.02000	7.44000
CHLORIDE	98000.000	0.02821	2764.58000
FLUORIDE	0.570	0.05264	0.03000
NITRATE AS N ($\text{NO}_3(\text{NO}_3\text{-N} \times 4.43)$)	<0.06	0.01613	0.00000
SiO_3 (SILICON $\times 2.71$)	NA	0.02629	0.00000
SULFATE	2900.000	0.02082	60.37800

TOTAL ANIONS 2832.428

CATIONS	RESULT	FACTOR	TOTAL
CALCIUM	2200.000	0.04990	109.78
POTASSIUM	980.000	0.02558	25.06840
MAGNESIUM	500.000	0.08229	41.14500
SODIUM	110000.000	0.04350	4785.00000

TOTAL CATIONS 4960.993

		%RPD (<10%)*	-54.62
TOTAL ANIONS/CATIONS	(CALCULATED)	214803.770	
TOTAL DISSOLVED SOLIDS	(ANALYZED)	160000	%RPD (<15%)* 29.24
ELECTRICAL COND.		286000	TDS/EC RATIO (0.65+/-0.10) 0.56

* If either Total Cations or Total Anions <10, then the %RPD Limit is not applicable.



American Environmental Network
Albuquerque, New Mexico

Interlab Chain of Custody

DATE: 10-30-97 PAGE: 1 OF 1

OCT 31 '97 10:20AM AEN NEW MEXICO

P. 4

NETWORK PROJECT MANAGER: KIMBERLY D. McNEILL				ANALYSIS REQUEST																				
COMPANY: American Environmental Network ADDRESS: 2709-D Pan American Freeway, NE Albuquerque, NM 87107																								
CLIENT PROJECT MANAGER: Kim McNeill																								
SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Metals - TAL	Metals - PP List	Metals - FCRA	FCRA Metals by TCLP (1311)	Cation/Anion: FL, Br, Ca, K, Mg, Na, Pb, Se, S, TDS, Conductivity, PH	Gen Chemistry	Oil and Grease	BOD	COD	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Polynuclear Aromatics (610/8310)	8240 (TCLP 1311) ZHE	8270 (TCLP 1311)	TO-14	Gross Alpha/Beta	NUMBER OF CONTAINERS	
710420-01	10-24	9:10	AA	1																				4
710420-02	1	11:05	AA	2																				2

PROJECT INFORMATION		SAMPLE RECEIPT		SAMPLES SENT TO:		RELINQUISHED BY:		RELINQUISHED BY:	
PROJECT NUMBER:	710420	TOTAL NUMBER OF CONTAINERS	6	SAN DIEGO	Signature:	Time:	Signature:	Time:	
PROJECT NAME:	NM OGD	CHAIN OF CUSTODY SEALS	NA	N.C.	Printed Name:	Date:	Printed Name:	Date:	
QC LEVEL:	STD. IV	INTACT?	Y	RENTON	Signature:	Date:	Signature:	Date:	
QC REQUIRED:	MS MSD BLANK	RECEIVED GOOD COND / COLD	YES	PENSACOLA	Signature:	Date:	Signature:	Date:	
IAI STANDARD:	RUSH	LAB NUMBER	710505	PORTLAND	Signature:	Date:	Signature:	Date:	
DUE DATE: 11-11-97				PHOENIX	Signature:	Date:	Signature:	Date:	
RUSH SURCHARGE: FL, Br, ALK, LAR, Ca, K, Mg, Na, Pb, Se, S, TDS, Conductivity, PH				ILL	Signature:	Date:	Signature:	Date:	
CLIENT DISCOUNT:					Signature:	Date:	Signature:	Date:	
VERIFICATION REQUIRED: YES NO					Signature:	Date:	Signature:	Date:	
11-11-97					Signature: [Signature]		Signature: [Signature]		
RUSH SURCHARGE: FL, Br, ALK, LAR, Ca, K, Mg, Na, Pb, Se, S, TDS, Conductivity, PH					Signature: [Signature]		Signature: [Signature]		
CLIENT DISCOUNT:					Signature: [Signature]		Signature: [Signature]		
VERIFICATION REQUIRED: YES NO					Signature: [Signature]		Signature: [Signature]		

San Diego (619) 459-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1091 • Portland (503) 684-0447 • Albuquerque (505) 344-3777

RECEIVED BY: [Signature]

PLEASE FILL THIS FORM IN COMPLETELY.

[illegible]

ATTACHMENT 1

American Environmental Network, Inc.

17400 SW Upper Boones Ferry Road • Suite 270 • Portland, OR 97224 • (503) 684-0447

Marcia Smith
AEN - Phoenix
9830 S 51st Street
Suite B-113
Phoenix, AZ 85044

Date: 12/10/1997
AEN Account No.: 80
AEN Job Number: 97.03081


Project: 710505
Location:

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
88188	710505-01	Water	10/28/1997	12/04/1997

Approved by:


Andi Hoevet
Project Manager
AEN, INC.


Technical Review
AEN, INC.

The results from these samples relate only to the items tested. This report shall not be reproduced, except in full, without the written approval of the laboratory.

ANALYTICAL SERVICES FOR THE ENVIRONMENT

ANALYTICAL REPORT

Marcia Smith
AEN - Phoenix
9830 S 51st Street
Suite B-113
Phoenix, AZ 85044

12/10/1997
Job No.: 97.03081

Page: 2

Project Name: 710505
Date Received: 12/04/1997

Sample Number Sample Description
88188 710505-01

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			12/05/1997	
Calcium, ICP 200.7	200.7	2200	5.00	mg/L	12/09/1997	DIL,Q
Magnesium, ICP 200.7	200.7	500	5.00	mg/L	12/09/1997	DIL,Q
Potassium, ICP 200.7	200.7	980	20.0	mg/L	12/09/1997	DIL,Q
Sodium, ICP 200.7	200.7	110000	2000	mg/L	12/09/1997	DIL,Q

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

American Environmental Network, Inc. (503) 684-0447 (503) 620-0393 FAX
17400 SW Upper Boones Ferry Rd., Suite 270, Portland, OR 97224

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

AEN - Phoenix
9830 S 51st Street
Suite B-113
Phoenix, AZ 85044

Date: 12/10/1997

Job Number: 97.03081

Contact: Marcia Smith
Project: 710505

Analyte	CCV		Percent Recovery	Date Analyzed
	True Concentration	Concentration Found		
Calcium, ICP 200.7	25.0	24.0	96.0	12/09/1997
Magnesium, ICP 200.7	25.0	25.1	100.4	12/09/1997
Potassium, ICP 200.7	5.00	4.83	96.6	12/09/1997
Sodium, ICP 200.7	5.00	4.91	98.2	12/09/1997

CCV - Continuing Calibration Verification

American Environmental Network, Inc. (503)684-0447 (503)620-0393 FAX
17400 SW Upper Boones Ferry Rd., Suite 270, Portland, OR 97224

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

AEN - Phoenix
9830 S 51st Street
Suite B-113
Phoenix, AZ 85044

Date: 12/10/1997

Job Number: 97.03081

Contact: Marcia Smith
Project: 710505

Analyte	LCS	Concentration Found	LCS	Flags	Date Analyzed
	True Concentration		% Recovery		
Calcium, ICP 200.7	5.00	4.64	92.8		12/09/1997
Magnesium, ICP 200.7	5.00	4.86	97.2		12/09/1997
Potassium, ICP 200.7	5.00	6.77	135.4		12/09/1997
Sodium, ICP 200.7	5.00	5.25	105.0		12/09/1997

LCS - Laboratory Control Standard

American Environmental Network , Inc. (503) 684-0447 (503) 620-0393 FAX
17400 SW Upper Boones Ferry Rd., Suite 270, Portland OR 97224

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

AEN - Phoenix
9830 S 51st Street
Suite B-113
Phoenix, AZ 85044

Date: 12/10/1997

Job Number: 97.03081

Contact: Marcia Smith
Project: 710505

Analyte	Matrix		Spike Amount	Units	Percent Recovery	MSD		Units	Percent Recovery	MS/MSD		Flags
	Spike Result	Sample Result				Result	Spike Amount			RPD		
Calcium, ICP 200.7		280	5.00	mg/L			5.00	mg/L				MD
Magnesium, ICP 200.7		94	5.00	mg/L			5.00	mg/L				MD
Potassium, ICP 200.7	20.4	12	5.00	mg/L	168.0	20.4	5.00	mg/L	168.0	0.0		DILQ,M
Sodium, ICP 200.7		350	5.00	mg/L			5.00	mg/L				DIL,Q,

QC Sample:

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil.= Diluted Out

American Environmental Network, Inc. (503)684-0447 (503)620-0393 FAX
17400 SW Upper Boones Ferry Rd., Portland, OR 97224

QUALITY CONTROL REPORT BLANKS

AEN - Phoenix
9830 S 51st Street
Suite B-113
Phoenix, AZ 85044

Date: 12/10/1997

Job Number: 97.03081

Contact: Marcia Smith
Project: 710505
Location:

Analyte	Blank Analysis	Report Limit	Units	Date Analyzed
Calcium, ICP 200.7	ND	0.05	mg/L	12/09/1997
Magnesium, ICP 200.7	ND	0.05	mg/L	12/09/1997
Potassium, ICP 200.7	ND	0.2	mg/L	12/09/1997
Sodium, ICP 200.7	ND	0.2	mg/L	12/09/1997

FLAG GLOSSARY

A	This sample does not have a typical gasoline pattern.
B1	This sample does not have a typical diesel pattern.
B	Analyte found in the associated blank as well as the sample.
C	The sample contains a lighter hydrocarbon than gasoline.
CN	See case narrative
CS	Outside control limits or unusual matrix; see case narrative.
D	The sample extends to a heavier hydrocarbon range than gasoline.
d	Results on a dry weight basis
DIL	Result was calculated from dilution.
E	The sample extends to a lighter hydrocarbon range than diesel.
F	The sample extends to a heavier hydrocarbon range than diesel.
G	The positive result for gasoline is due to single component contamination.
I	The oil pattern for this sample is not typical.
J	The result for this compound is an estimated concentration.
L	The LCS recovery exceeded control limits. See the LCS page of this report.
LM	The LCS recovery exceeded control limits; the MS/MSD were in control validating the batch.
M	MS and/or MSD percent recovery exceeds control limits.
MD	Unable to calculate MS/MSD recovery due to high amount of analyte; greater than 4 times spike level.
MR	The MS/MSD RPD is greater than method criteria. The sample was re-extracted and re-analyzed with similar results indicating a non-homogeneous sample.
MM	The Matrix Spike exceeded control limits; LCS/LCS-D were in control validating the batch.
MI	Outside control limits due to matrix interference.
N	Manual integration performed on sample for quantification.
N/A	Not Applicable.
NC	Not calculable.
NO	Not Analyzed.
P	A post digestion spike was analyzed, and recoveries were within control limits.
Q	Detection limits elevated due to sample matrix.
Q1	Detection limits elevated due to high levels of non-target compounds. Sample(s) run at a dilution.
R	The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.
RD	RPD not applicable for results less than five times the reporting limit.
RP	MS/MSD RPD is greater than 20%
SR	Surrogate recovery outside control limits. See the surrogate page of the report.
SD	Unable to quantitate surrogate due to sample dilution.
SC	Sample not provided to laboratory in proper sampling container.
V	Volatile analysis was requested, sample container received with headspace.
X1	The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.
X	Sample was analyzed outside recommended holding times.
Y	The result for this parameter was greater than the TCLP regulatory limit.
Z	The pattern seen for the parameter being analyzed is not typical.

Interlab Chain of Custody

American
Environmental
Network (Arizona), Inc.

PROJECT MANAGER
Maecia Smith

COMPANY: American Environmental Network (Arizona), Inc.
ADDRESS: 9830 S. 51st Street, Suite B-113
Phoenix, Arizona 85044
(602) 496-4400

12/3/97 DATE: 1 OF 1 PAGE

ANALYSIS REQUEST

	AIR - O ₂ , CO ₂ , METHANE, CO, N ₂	
	GROSS ALPHA / BETA	
	RADIUM 226 / 228	
	ISOTOPIC URANIUM	
	RADON 222	
	SURFACTANTS (MBAS)	
	FECAL COLIFORM	
	TOTAL COLIFORM	
	BOD	
	COD	
	VOLATILE ORGANICS ()	
	EPA 610 / 8310	
	EPA 547	
	EPA 548	
	EPA 549	
	EPA 1613	
	EPA 525	
	ASBESTOS	
	KARL FISHER % MOISTURE	
	SULFIDE	
	TOC	
	TOX	

Ca, K, Mg, Na X
200.7

NUMBER OF CONTAINERS *1*

SAMPLE ID

DATE

TIME

MATRIX

LAB ID

710505-01

12/3/97

0910

HQ

710505-02

PROJECT INFORMATION		SAMPLE RECEIPT		SAMPLES SENT TO:		RELINQUISHED BY:		RELINQUISHED BY:	
PROJECT NUMBER: <i>710505</i>		TOTAL NUMBER OF CONTAINERS		PENSACOLA		Signature: <i>[Signature]</i>		Signature: <i>[Signature]</i>	
PROJECT NAME:		CHAIN OF CUSTODY SEALS		PORTLAND		Printed Name: <i>[Name]</i>		Printed Name: <i>[Name]</i>	
QC LEVEL: <i>STD</i> IV		INTACT?		AQUATIC		Date: <i>12/3/97</i>		Date: <i>12/3/97</i>	
TAT: <i>1</i> STANDARD <i>1</i> RUSH!		RECEIVED GOOD COND. / COLD		CORE		Company: <i>American Environmental Network</i>		Company: <i>[Company]</i>	
AEN WORKORDER #		LAB NUMBER <i>97.03081</i>		ALBUQUERQUE		RECEIVED BY: <i>[Signature]</i>		RECEIVED BY: (LAB) <i>[Signature]</i>	
				ATEL		Signature: <i>[Signature]</i>		Signature: <i>[Signature]</i>	
				WEST COAST		Printed Name: <i>[Name]</i>		Printed Name: <i>[Name]</i>	
				FORT COLLINS		Date: <i>12/3/97</i>		Date: <i>12/3/97</i>	
						Company: <i>AEN</i>		Company: <i>[Company]</i>	

*ASAP please (prelims +
hardcopy)*

DUE DATE: _____
TIME: _____

American Environmental Network

RECEIVED

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DEC 31 1997

Environmental Bureau
Oil Conservation Division

DELIVER TO: Bill Olson

PHONE NUMBER: _____

FAX NUMBER: 505-827-8177

COMPANY: NM3D

NUMBER OF PAGES BEING SENT: 11 (INCLUDING THIS PAGE)

FROM:

DATE: 12/11

X H. Mitchell Rubenstein, Ph.D., General Manager
Kimberly D. McNeill, Project Manager
Miles Tihansky, Senior Chemist
John Caldwell, Sample Control
Francine Torivio, Administrative Assistant

TIME: _____

FAX NUMBER: (505) 344-4413

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American Environmental Network, Inc.

17400 SW Upper Boones Ferry Road • Suite 270 • Portland, OR 97224 • (503) 684-0447

Marcia Smith
AEN - Phoenix
9830 S 51st Street
Suite B-113
Phoenix, AZ 85044

Date: 12/10/1997
AEN Account No.: 80
AEN Job Number: 97.03081

Project: 710505
Location:

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
88188	710805-01	Water	10/28/1997	12/04/1997

710420

Approved by:

Andi Hoevet
Project Manager
AEN, INC.

Technical Review
AEN, INC.

The results from these samples relate only to the items tested. This report shall not be reproduced, except in full, without the written approval of the laboratory.

ANALYTICAL SERVICES FOR THE ENVIRONMENT

ANALYTICAL REPORT

Marcia Smith
AEN - Phoenix
9830 S 51st Street
Suite B-113
Phoenix, AZ 85044

12/10/1997
Job No.: 97.03081

Page: 2

Project Name: 710505
Date Received: 12/04/1997

Sample Number 88188 Sample Description 710505-01

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
ICP/AA Digestion - Water	ICP	-			12/08/1997	
Calcium, ICP 200.7	200.7	2200	5.00	mg/L	12/09/1997	DIL, Q
Magnesium, ICP 200.7	200.7	500	5.00	mg/L	12/09/1997	DIL, Q
Potassium, ICP 200.7	200.7	980	30.0	mg/L	12/09/1997	DIL, Q
Sodium, ICP 200.7	200.7	110000	3000	mg/L	12/09/1997	DIL, Q

Ca = 2200 mg/L
Mg = 500
K = 980
Na = 110000

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

American Environmental Network, Inc. (503) 664-0667 (503) 620-0393 FAX
17400 SW Upper Boones Ferry Rd., Suite 270, Portland, OR 97224

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

AEN - Phoenix
9830 S 51st Street
Suite B-113
Phoenix, AZ 85044

Date: 12/10/1997

Job Number: 97.03081

Contact: Marcia Smith
Project: 710505

Analyte	CCV True Concentration	Concentration Found	Percent Recovery	Date Analyzed
Calcium, ICP 200.7	25.0	24.0	96.0	12/09/1997
Magnesium, ICP 200.7	25.0	25.1	100.4	12/09/1997
Potassium, ICP 200.7	5.00	4.83	96.6	12/09/1997
Sodium, ICP 200.7	5.00	4.91	98.2	12/09/1997

CCV - Continuing Calibration Verification

American Environmental Network, Inc. (503) 684-0447 (503) 620-0193 FAX
17400 SW Upper Boone's Ferry Rd., Suite 270, Portland, OR 97224

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

AEN - Phoenix
9830 S 51st Street
Suite B-113
Phoenix, AZ 85044

Date: 12/10/1997

Job Number: 97.03081

Contact: Marcia Smith
Project: 710505

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Flags	Date Analysed
Calcium, ICP 200.7	5.00	4.64	92.8		12/09/1997
Magnesium, ICP 200.7	5.00	4.86	97.2		12/09/1997
Potassium, ICP 200.7	5.00	6.77	135.4		12/09/1997
Sodium, ICP 200.7	5.00	5.25	105.0		12/09/1997

LCS - Laboratory Control Standard

American Environmental Network, Inc. (503) 684-0447 (503) 620-0393 FAX
17400 SW Upper Moones Ferry Rd., Suite 270, Portland OR 97224

QUALITY CONTROL REPORT **MATRIX SPIKE/MATRIX SPIKE DUPLICATE**

AEN - Phoenix
 9830 S 51st Street
 Suite B-113
 Phoenix, AZ 85044

Date: 12/10/1997

Job Number: 97.03081

Contact: Marcia Smith
 Project: 710505

Analyte	Matrix Spike Result	Sample Result	Spike Amount	Units	Percent Recovery	MSD Result	MSD Spike Amount	Units	Percent Recovery	MS/MSD RPD	Flags
Calcium, ICP 200.7		280	5.00	mg/L			5.00	mg/L			MD
Magnesium, ICP 200.7		94	5.00	mg/L			5.00	mg/L			MD
Potassium, ICP 200.7	20.4	12	5.00	mg/L	168.0	20.4	5.00	mg/L	168.0	0.0	DILQ.M
Sodium, ICP 200.7		350	5.00	mg/L			5.00	mg/L			DIL.Q,

QC Sample:

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

American Environmental Network, Inc. (503) 684-0447 (503) 620-0293 FAX
 17400 SW Upper Boones Ferry Rd., Portland, OR 97224

**QUALITY CONTROL REPORT
BLANKS**

AEN - Phoenix
9830 S 51st Street
Suite B-113
Phoenix, AZ 85044

Date: 12/10/1997

Job Number: 97.03081

Contact: Marcia Smith
Project: 710505
Location:

Analyte	Blank Analysis	Report Limit	Units	Date Analysed
Calcium, ICP 200.7	ND	0.05	mg/L	12/09/1997
Magnesium, ICP 200.7	ND	0.05	mg/L	12/09/1997
Potassium, ICP 200.7	ND	0.2	mg/L	12/09/1997
Sodium, ICP 200.7	ND	0.2	mg/L	12/09/1997

American Environmental Network, Inc. (503) 684-0447 (503) 620-0393 FAX
17400 SW Upper Boonea Ferry Rd., Portland, OR 97224

FLAG GLOSSARY

A	This sample does not have a typical gasoline pattern.
B1	This sample does not have a typical diesel pattern.
B	Analyte found in the associated blank as well as the sample.
C	The sample contains a lighter hydrocarbon than gasoline.
CM	See case narrative
CS	Outside control limits or unusual matrix; see case narrative.
D	The sample extends to a heavier hydrocarbon range than gasoline.
d	Results on a dry weight basis
DIL	Result was calculated from dilution.
E	The sample extends to a lighter hydrocarbon range than diesel.
F	The sample extends to a heavier hydrocarbon range than diesel.
G	The positive result for gasoline is due to single component contamination.
I	The oil pattern for this sample is not typical.
J	The result for this compound is an estimated concentration.
L	The LCS recovery exceeded control limits. See the LCS page of this report.
LM	The LCS recovery exceeded control limits; the MS/MSD were in control validating the batch.
M	MS and/or MSD percent recovery exceeds control limits.
MD	Unable to calculate MS/MSD recovery due to high amount of analyte; greater than 4 times spike level.
MR	The MS/MSD RPD is greater than method criteria. The sample was re-extracted and re-analyzed with similar results indicating a non-homogeneous sample.
MM	The Matrix Spike exceeded control limits; LCS/LCS-D were in control validating the batch.
MI	Outside control limits due to matrix interference.
N	Manual integration performed on sample for quantification.
N/A	Not Applicable.
NC	Not calculable.
NO	Not Analyzed.
P	A post digestion spike was analyzed, and recoveries were within control limits.
Q	Detection limits elevated due to sample matrix.
Q1	Detection limits elevated due to high levels of non-target compounds. Sample(s) run at a dilution.
R	The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.
RD	RPD not applicable for results less than five times the reporting limit.
RP	MS/MSD RPD is greater than 20%
SR	Surrogate recovery outside control limits. See the surrogate page of the report.
SD	Unable to quantitate surrogate due to sample dilution.
SC	Sample not provided to laboratory in proper sampling container.
V	Volatile analysis was requested, sample container received with headspace.
X1	The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.
X	Sample was analyzed outside recommended holding times.
Y	The result for this parameter was greater than the TCLP regulatory limit.
Z	The pattern seen for the parameter being analyzed is not typical.

METALS RESULTS

ATI I.D. : 710505

CLIENT : AMERICAN ENV. NETWORK OF NM, INC.
PROJECT # : 710420
PROJECT NAME : NM OCD

DATE RECEIVED : 10/31/97

REPORT DATE : 12/11/97

PARAMETER	UNITS	01
MERCURY (EPA 245.2/7470)	MG/L	<0.0002
ION BALANCE		(INC)
SELENIUM (EPA 270.2/7740)	MG/L	0.025

GCMS - RESULTS

ATI I.D. : 71050501

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

CLIENT	: AMERICAN ENV. NETWORK OF NM, INC.	DATE SAMPLED	: 10/28/97
PROJECT #	: 710420	DATE RECEIVED	: 10/31/97
PROJECT NAME	: NM OCD	DATE EXTRACTED	: N/A
CLIENT I.D.	: 710420-01	DATE ANALYZED	: 11/18/97
SAMPLE MATRIX	: AQUEOUS	UNITS	: UG/L
		DILUTION FACTOR	: 5

COMPOUNDS	RESULTS
N-NITROSODIMETHYLAMINE	<50
PHENOL	200
ANILINE	<50
BIS(2-CHLOROETHYL) ETHER	<50
2-CHLOROPHENOL	<50
1,3-DICHLOROBENZENE	<50
1,4-DICHLOROBENZENE	<50
BENZYL ALCOHOL	<50
1,2-DICHLOROBENZENE	<50
2-METHYLPHENOL	110
BIS(2-CHLOROISOPROPYL) ETHER	<50
4-METHYLPHENOL	93
N-NITROSO-DI-N-PROPYLAMINE	<50
HEXACHLOROETHANE	<50
NITROBENZENE	<50
ISOPHORONE	<50
2-NITROPHENOL	<50
2,4-DIMETHYLPHENOL	<100
BENZOIC ACID	<250
BIS(2-CHLOROETHOXY) METHANE	<50
2,4-DICHLOROPHENOL	<50
1,2,4-TRICHLOROBENZENE	<50
NAPHTHALENE	<50
4-CHLOROANILINE	<50
HEXACHLOROBUTADIENE	<50
4-CHLORO-3-METHYLPHENOL	<50
2-METHYLNAPHTHALENE	<50
HEXACHLOROCYCLOPENTADIENE	<250
2,4,6-TRICHLOROPHENOL	<50
2,4,5-TRICHLOROPHENOL	<50
2-CHLORONAPHTHALENE	<50
2-NITROANILINE	<50
DIMETHYLPHTHALATE	<50
ACENAPHTHYLENE	<50
3-NITROANILINE	<50
ACENAPHTHENE	<50
2,4-DINITROPHENOL	<100
4-NITROPHENOL	<50
DIBENZOFURAN	<50
2,4-DINITROTOLUENE	<50
2,6-DINITROTOLUENE	<50

GCMS - RESULTS

ATI I.D. : 71050501

TEST : SEMI-VOLATILE ORGANICS (EPA 8270)

COMPOUNDS	RESULTS
DIETHYLPHTHALATE	<50
4-CHLOROPHENYL-PHENYLETHER	<50
FLUORENE	<50
4-NITROANILINE	<50
4,6-DINITRO-2-METHYLPHENOL	<50
N-NITROSODIPHENYLAMINE	<50
4-BROMOPHENYL-PHENYLETHER	<50
HEXACHLOROBENZENE	<50
PENTACHLOROPHENOL	<50
PHENANTHRENE	<50
ANTHRACENE	<50
DI-N-BUTYLPHTHALATE	<50
FLUORANTHENE	<50
BENZIDINE	<250
PYRENE	<50
BUTYLBENZYLPHTHALATE	<50
3,3'-DICHLOROBENZIDINE	<50
BENZO(a)ANTHRACENE	<50
BIS(2-ETHYLHEXYL) PHTHALATE	<50
CHRYSENE	<50
DI-N-OCTYLPHTHALATE	<50
BENZO(b)FLUORANTHENE	<50
BENZO(k)FLUORANTHENE	<50
BENZO(a)PYRENE	<50
INDENO(1,2,3-cd)PYRENE	<50
DIBENZO(a,h)ANTHRACENE	<50
BENZO(g,h,i)PERYLENE	<50
1,2-DPH (AS AZOBENZENE)	<50

SURROGATE PERCENT RECOVERIES

NITROBENZENE-D5 (%)	66
2-FLUOROBIPHENYL (%)	68
TERPHENYL (%)	73
PHENOL-D6 (%)	59
2-FLUOROPHENOL (%)	51
2,4,6-TRIBROMOPHENOL (%)	39*

* Result out of limits due to sample matrix interference

CHAIN OF CUSTODY

DATE: 12/1/91 PAGE: 1 OF 2

AEN LAB I.D.

BLUEICE		American Environmental Network (NM), Inc.
		Company:
4/1/96 AEN Inc.: American Environmental Network (NM), Inc. • 2709-D Pan American Freeway, NE • Albuquerque, New Mexico 87107 DISTRIBUTION: White, Canary - AEN Pink - ORIGINATOR		

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

[illegible]

COMMONLY REQUESTED GENERAL CHEMISTRY

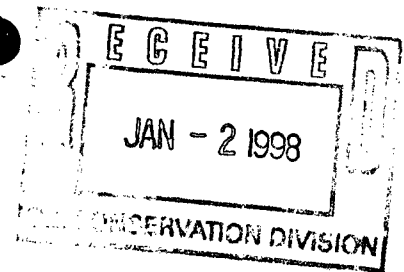
<u>ABV.</u>	<u>ANALYSES</u>
ALK	Alkalinity (Bicarbonate+Carbonate)
NH4	Ammonia
BOD	Biochemical Oxygen Demand
BR	Bromide
Cl	Chloride
COD	Chemical Oxygen Demand
E.C.	Conductivity
CN	Cyanide, Total
F	Fluoride
N03	Nitrate
N02/N03	Nitrite/Nitrate
N02	Nitrite
TKN	Total Kjaidahl Nitrogen
O-G	Oil-Grease
PH	PH
TDS	Total Dissolved Solids
TSS	Total Suspended Solids
S04	Sulfate
S-2	Sulfide
TOC	Total Organic Carbon
TOX	Total Organic Halide

METALS COMMONLY ANALYZED PRIORITY POLLUTANT LIST (PP) • RCRA • TARGET ANALYTE LIST (TAL)

<u>NAME</u>	<u>SYMBOL</u>	<u>LIST</u>
Aluminum	Al	TAL
Antimony	Sb	PP, TAL
Arsenic	As	RCRA, PP, TAL
Barium	Ba	RCRA, TAL
Beryllium	Be	PP, TAL
Bismuth	Bi	
Boron	B	
Cadmium	Cd	RCRA, PP, TAL
Calcium	Ca	TAL
Chromium	Cr	RCRA, PP, TAL
Cobalt	Co	TAL
Copper	Cu	PP, TAL
Gold	Au	
Iron	Fe	TAL
Lead	Pb	RCRA, PP, TAL
Lithium	Li	
Magnesium	Mg	TAL
Manganese	Mn	TAL
Mercury	Hg	RCRA, PP, TAL
Molybdenum	Mo	
Nickel	Ni	PP, TAL
Potassium	K	TAL
Selenium	Se	RCRA, PP, TAL
Silicon	Si	
Silver	Ag	RCRA, PP, TAL
Sodium	Na	TAL
Strontium	Sr	
Sulfur	S	
Thallium	Tl	PP, TAL
Tin	Sn	
Titanium	Ti	
Uranium	U	
Vanadium	V	
Zinc	Zn	TAL
		PP, TAL

LEE CONSULTING, INC.

**P.O. Box 8280
Roswell, NM 88202
505-622-7355
505-624-2911 Fax
505-626-4292 Cellular**



December 15, 1997

**Martyne J. Kieling
New Mexico Oil Conservation Division
Environmental Bureau
2040 S. Pacheco St.
Santa Fe, NM 87505**

**RE: Mrs. Corinne B. Grace
Salty Bill SWD Facility**

Dear Ms. Kieling,

I am in receipt of your letter dated Dec. 12, 1997 giving approval of the pit closure and soil remediation plan. You approved the plan I submitted with some conditions, of which I have some concern.

In item #1, you reference close proximity of populations and a school training center. The school training center is operated for the training of personnel to dangers more contaminating than the Salty Bill SWD facility, ie, radioactive materials. We cannot agree to conditions which are more restrictive than is allowed by the OCD and ED in other areas. The City of Carlsbad had zoned the area around Salty Bill SWD as industrial when the surface area and permit was issued to Mrs. Grace. The requirements placed on Mrs. Grace should not be allowed to be more restrictive, especially retroactive, as the industrial park area is developed.

Item #5 also causes problems again due to the apparent more stringent levels being applied to Salty Bill SWD because of proximity of populations, and possible future use of the surface. Salty Bill SWD was approved by the City of Carlsbad prior to the lands being annexed into the city limits and prior to becoming an industrial park. Mrs. Grace is prepared to stay within the normal required compliance levels of VOC, BTEX & TPH published to all persons operating an authorized commercial oil field produced water disposal facility in the State of New Mexico but does not agree to any more stringent regulations than the published standards applicable to disposal facilities. Salty Bill SWD does plan to fully stay within compliance levels published by the OCD and ED.

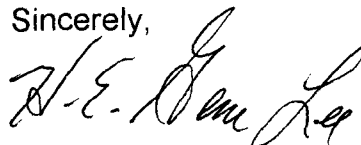
Item #8 refers to samples taken and analyzed by Cardinal Laboratories. These samples were taken using standard QA/QC methods with uncontaminated, glass containers, clean gloves and gathering utensils. The samples were then placed in the sealed containers and hand delivered to Cardinal Laboratories. Salty Bill plans to split samples and their results with the OCD but would also like to be present on any samples the OCD or Environmental Dept takes and have them split as well. As of this date, representatives of Salty Bill SWD were present when samples were taken referred to in Item #8 which show BTEX. These samples were taken from the tanks in which the trucks unload. As any geologist and lab technician dealing with the oil industry knows, BTEX would be present as it is in any oil operation; however, if the OCD and Environmental Dept had taken samples further down the line of tanks and at the tank the water injection pumps pull from, it would have noticed that no unacceptable levels of BTEX, TPH, or VOC were present.

At the present time, several steps have been taken toward cleaning up the SWD facility and improving the general housekeeping around the area. Steps which have been taken or changes made are as follows:

1. The facility has been under supervision 24 hrs per day as requested. This will prevent over filling tanks, leaks, etc.
2. The fiberglass tanks have been dismantled and removed along with all associated piping.
3. The heater treater separator which was never used was totally removed from the facility.
4. The roads have been improved and cleaned up to prevent puddling of fluids from heavy rains.
5. The sump by the pumps has been emptied and is no longer in use.
6. The pit was emptied and will not be used.
7. New valves installed and/or repaired to prevent leakage at load lines.

Salty Bill SWD is prepared to start remediation and pit closure of the sump and pit as soon as the concerns addressed above have come to an amicable solution for both parties concerned.

Sincerely,



H. E. Gene LEE

cc: NMOCD-Artesia

CORINNE B. GRACE

3722 National Parks Hwy. P.O. Box 1418
Carlsbad, N.M. 88221-1418

(505) 887-5581

FAX: (505) 885-8497

* * * * *

DATE:

12/31/97

PLEASE DELIVER THE FOLLOWING PAGE(S) TO:

NAME:

Martynne J. Kieling

FIRM:

New Mexico OCD, Environmental Bureau

FAX NO:

505-827-8177

FROM:

Corinne Grace

TOTAL NUMBER OF PAGES INCLUDING COVER PAGE:

3

BRIEF DESCRIPTION OF TRANSMITTAL:

Response of Gene Lee

If you DO NOT receive all the pages indicated above,
please call us back as soon as possible.

LEE CONSULTING, INC.**P.O. Box 8280****Roswell, NM 88202****505-622-7355****505-624-2911 Fax****505-626-4292 Cellular****December 15, 1997**

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New Mexico Oil Conservation Division
Environmental Bureau
2040 S. Pacheco St.
Santa Fe, NM 87505**

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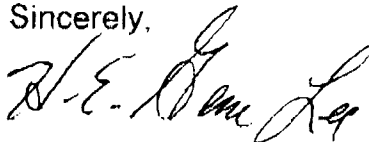
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Sincerely,



H. E. Gene LEE

cc: NMOCD-Artesia

B BTEX TPH point 5 Dec. 12 let
10, 50, 100 ppm

March 19th

March 5th

Where was waste
taken? #2 Dec 12



**NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT**

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

December 12, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P.326-936-373

Ms. Corinne B. Grace
P.O. Box 1418
3722 National Parks Hwy.
Carlsbad, N.M. 88220

Re: Salty Bills Water Disposal Facility
NE/4, NW/4 of Section 36, Township 22 South, Range 26 East, NMPM
Eddy County, New Mexico

Dear Ms. Grace:

The New Mexico Oil Conservation Division (OCD) has reviewed Salty Bill Salt Water Disposal Facility's (Salty Bill) November 25, 1997 Inspection Report Response and Pit Closure Plan. This document was submitted on behalf of Salty Bill by their consultant Lee Consulting, Inc. This document contains Salty Bill's plan for facility soil remediation in and around the tanks and closure of pits and sumps.

The above referenced soil remediation and pit closure plan is approved with the following conditions:

1. Due to the proximity of populations including a school training center, on site landfarming of contaminated soils will not be approved for Salty Bill. All waste removed from the site will be recycled if possible and contaminated soils and other non-recyclable wastes will be disposed of at an OCD approved facility.
2. Prior to transporting the waste for recycling and disposal Salty Bill must obtain written approval from the OCD Santa Fe Office.
3. The OCD Santa Fe and Artesia District offices shall be notified 72 hours prior to each phase of the remediation including excavation and sampling of soils located at the pits, tanks and sumps to allow an OCD representative the opportunity witness excavations and to split samples.

Ms. Corinne B. Grace

December 12, 1997

Page 2

4. All soil samples for verification of completion of remedial activities including the vertical extent of contamination and completion of soil remedial actions will be sampled and analyzed for WQCC metals including mercury and selenium; chloride, volatile organic compounds (VOC) by EPA method 8240, benzene, toluene, ethylbenzene, xylene (BTEX) and total petroleum hydrocarbons (TPH) in accordance with the OCD's "Surface Impoundment Closure Guidelines". This is to include sampling at the pit areas, around the tank systems, and beneath all sumps, barrels or tanks buried below grade.
5. Due to the proximity of populations including a school training center and possible future use by the surface owner (City of Carlsbad), the required soil cleanup levels shall be benzene at 10 ppm, BTEX at 50 ppm and TPH at 100 ppm. In addition, remediation cleanup levels for metals and other site contaminants will be the New Mexico State ground-water standards and/or site background levels. These remediation levels are for the protection of ground water. Additional remediation requirements may be imposed if remaining contaminants have the potential to pose a threat to public health.
6. The OCD Santa Fe Office's Environmental Bureau Chief and the OCD Artesia District office will be notified within 24 hours of the discovery of ground water contamination related to the soil remediation and pit closure.
7. Upon completion of all closure activities, Salty Bill will submit to the OCD for approval a completed OCD "Pit Remediation and Closure Report" form which will contain the final results of all pit closure and soil remediation activities including all laboratory or field analytical data sheets for all soil and water quality analysis and copies of all associated quality assurance/quality control (QA/QC) data.
8. Salty Bill shall submit the Cardinal Laboratories test results referenced on page 3, paragraph 4 of the response including how the samples were taken and all QA/QC that was followed. The OCD and New Mexico Environment Department have preliminary results that show BTEX in the tanks and pit.
9. All documents submitted for approval will be submitted to the OCD Santa Fe Offices with copies provided to the OCD Artesia Office.
10. Salty Bill must submit an itemized list of work that has been started, is in progress, or has been completed at the facility prior to receiving this remediation and pit closure approval. This itemized list should be submitted to the OCD Santa Fe and Artesia District offices no later than December 31, 1997.

To simplify the approval process for both Salty Bill and OCD, the OCD requests that a final pit

Ms. Corinne B. Grace

December 12, 1997

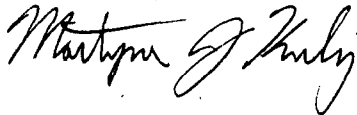
Page 3

closure report be submitted only upon completion of all closure activities.

Please be advised that OCD approval does not relieve Salty Bill of liability should closure activities determine that contamination exists which is beyond the scope of the work plan or if the closure activities fail to adequately investigate or remediate contamination related to the site activities. In addition, OCD approval does not relieve Salty Bill of responsibility for compliance with any other federal, state, or local laws or regulations.

If you require any further information, please contact me at (505) 827-7153.

Sincerely,



Martyne J. Kielling
Environmental Geologist

xc: Artesia OCD Office
Mark Weidler, NMED, Secretary
John Tymkowych, HRMB
Marcy Leavitt, Chief, GWQB
Gene Lee, Lee Consulting, Inc.
John Waters, Carlsbad Environmental Services
Jim Trustly, USEPA, Region 6

LEE CONSULTING, INC.

**P.O. Box 8280
Roswell, NM 88202
505-622-7355
505-624-2911 Fax
505-626-4292 Cellular**

**Martyne J. Kieling
New Mexico Oil Conservation Division
Environmental Bureau
2040 S. Pacheco St.
Santa Fe, NM 87505**

NOV 26 1997

**RE: Mrs. Corinne B. Grace
Salty Bill SWD Facility**

Dear Ms. Kieling,

I have been retained by Mrs. Corinne B. Grace and Grace Oil Company to review their SWD facility and your inspection report of the same, dated October 28, 1997. Upon review of your deficiency report, I went to the above location and personally examined the facility and its equipment, tanks, etc. My review and consultation with Mrs. Grace has led to the following proposal to remedy the deficiencies pointed out in your report. Along with the plan to correct the deficiencies, the appropriate form to close the two lined pits at the facility will be submitted for OCD approval.

Pertaining to the deficiencies listed in Attachment 1, Salty Bill proposes the following plan to correct them as outlined:

1. **Drum Storage:**
There are no drums at this facility.
2. **Process Area:**
The process area and storage areas will be cleaned up, contaminated soils excavated and removed, and impermeable plastic lining applied to the ground inside the bermed area around the tanks. Any and all valves that are in need of repair will be replaced and/or repaired to prevent leaking of fluids. The facility will be manned on a routine basis 24 hrs per day to prevent trucks from overtopping tanks and spilling fluids in the loading and unloading areas.
3. **Above Ground Tanks:**
Fiberglass tanks not in use will be dismantled and properly disposed. The area around the tanks will have a berm to contain the entire

volume of all the storage tanks. The area within the berm will have plastic lining installed and include the berm wall. Approximate size of the berm area will be 180' X 60' X 2.5'. This will yield a capacity of 27,000 cu ft or 4821 barrels of fluid.

4. **Open Top Tanks and Pits:**

The netted pits will be closed and no longer utilized. Remediation of the pit areas will be addressed in the pit closure plan.

5. **Above Ground Saddle Tanks:**

Saddle tank will be dismantled and no longer used. Saddle tank will be properly removed and disposed.

6. **Tank Labeling:**

Labels will be prepared and placed on each tank at the facility stating the contents thereof, hazards, and emergency information.

7. **Below Grade Tanks/Sumps:**

All sumps, barrels or tanks buried below grade will be removed. No sumps or barrels below grade will be utilized at the facility.

8. **Ponds and Pits:**

All pits will be closed and will no longer be utilized.

9. **Housekeeping:**

Tank system shall have equalizing lines and a pump connected to an emergency tank in the event capacity of the storage tanks exceeds 85% of rated capacity. The facility will be manned on a routine basis 24 hrs per day to prevent overtopping by trucks unloading fluids. The pit will be closed and no longer utilized. The fiberglass lined pits will have wooden sides and soils removed. Concrete pad below pumps will have cement curbing integrated into the edges to form an impermeable containment with pump to remove any accumulations of fluid. This fluid will be pumped back into the storage system. Tanks will have all sides cleaned and soils removed around the base of the tanks. All valves will be repaired or replaced to prevent leaking. Berms will be placed around storage tanks and have sufficient capacity to hold tank volume. No locks will be installed since the facility will be manned 24 hrs/day.

10. **Spill Reporting:**

All spills/releases will be reported to the OCD.

11. **Trash & Potentially Hazardous Materials:**

All trash will be properly disposed of.

12. **Berming:**

A berm shall be constructed around the entire facility to prevent rain/flood water from outside sources to enter the perimeter of the facility. This will also prevent any storm water from leaving the facility. An elevated area at the entrance will allow trucks to enter the facility but will be constructed to sufficient height to maintain the integrity of the perimeter berm.

13. **Security:**

No fences or locks will be placed around the facility or on valves since the site will be manned at all times. This will not only prevent overtopping or disposal of fluids when the site is shut down, but prevent unloading of hazardous materials or materials of unknown nature from entering the site.

14. **Signs:**

New signs are being prepared and will be installed at the facility.

15. **General Facility Location Information:**

The Salty Bill Water Disposal Facility is located within the City Limits of Carlsbad, NM in the center of what was once the Carlsbad Army Air Field. There are no surface waters within one mile of the facility and has no potable water wells within the immediate area.

The above are responses for correcting the deficiencies contained in your report. These measures will be implemented as soon as you review them. I expect all measures to be able to be completed within 30 days from your approval.

I have also reviewed your guidelines for surface impoundment closure. Based on the current ranking system consisting of Depth to Ground Water, Wellhead Protection Area, and Distance to Nearest Surface Water Body, it seems to me that this site would be very low risk based on the assessment for severity of contamination and potential environmental & public health threats.

This ranking criteria used as a basis for soil and water remediation levels gives a ranking score of 0. Currently, tests have been run at Cardinal Laboratories and show no signs of Benzene, BTEX or TPH.

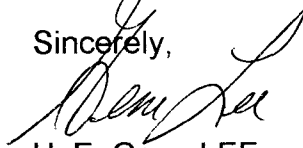
Closing the current pits at the Salty Bill facility will consist of removing all liquids from the lining. All nets and boards around the pits will be removed. The liners will be rolled up and removed to expose the soils below the pit. An examination will be done and soil samples sent to approved labs for further testing. All soils will be removed by excavation that contain any staining. The pit area at the South edge of the facility is approximately 125' X 45' X 3'. This area will be excavated to 135' X 55' X 8' to remove any possibly contaminated soils. At this time, further soil sampling will occur to verify no

contaminants exist. When no contaminants exist, new clean, uncontaminated soil will be used to fill the old pit areas. All work performed will be done under inspection and with the approval of the OCD. Lab tests on soils will be performed by an approved lab. Any contaminated soils will be hauled to an approved disposal site or farmed within the perimeter of the Salty Bill facility until tests prove the soils to be free of contaminants.

If these recommendations meet with your approval, they may be implemented immediately with completion of all necessary work to rectify the deficiencies to occur within 30 days from commencement. The pit closure will be done within the same time frame since the closure will help correct many of the deficiencies within your report.

Please contact me at the above address if I may be of any assistance or if you have any questions. I will be awaiting your approval to start correcting these deficiencies at Salty Bill Water Disposal. The facility has started being manned regularly 24 hrs/day as we speak to prevent anything from happening to worsen any of the deficiencies already outlined. Thank you for your assistance in this matter.

Sincerely,



H. E. Gene LEE

Send Confirmation

WorkCentre 450c report for
LEE CONSULTING INC
5056242911
Nov-25-97 09:45 AM

Successful

Pages scanned 4
Pages confirmed 4

Job	Sent	To Remote Station	Duration	Mode	Pages	Results
102	Nov-25 09:42am	5058278177	03:15		4/ 4	OK, 144

\$\$\$ Phone charge code	F Forward	P Poll	48 4800 bps chosen
A Auto-distribute	G Group dial	PC to/from PC	96 9600 bps chosen
C Cover page	M Mailbox	PW Password	144 14400 bps chosen
ECM Error Correction		RM Receive to memory	

LEE CONSULTING, INC.
P.O. Box 8280
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505-622-7355
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Fax Transmission

Date: Tuesday, November 25, 1997

Time: 9:28:00 AM

94 Pages

To: Martyne J. Kieling
NMOCD--Environmental Bureau

phone: 1-505-827-7153

fax: 1-505-827-8177

From: Gene Lee
Lee Consulting, Inc.

phone: 1-505-622-7355

fax: 1-505-624-2911

Re: Ms. Kieling,

Here is a fax copy of my report. A hard copy is being sent to you by Fed. Ex. today and should be in your office tomorrow AM. Thanks.

Gene Lee

LEE CONSULTING, INC.**P.O. Box 8280****Roswell, NM 88202****505-622-7355****505-624-2911 Fax****505-626-4292 Cellular**

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Labels will be prepared and placed on each tank at the facility stating the contents thereof, hazards, and emergency information.

7. **Below Grade Tanks/Sumps:**

All sumps, barrels or tanks buried below grade will be removed. No sumps or barrels below grade will be utilized at the facility.

8. **Ponds and Pits:**

All pits will be closed and will no longer be utilized.

9. **Housekeeping:**

Tank system shall have equalizing lines and a pump connected to an emergency tank in the event capacity of the storage tanks exceeds 85% of rated capacity. The facility will be manned on a routine basis 24 hrs per day to prevent overtopping by trucks unloading fluids. The pit will be closed and no longer utilized. The fiberglass lined pits will have wooden sides and soils removed. Concrete pad below pumps will have cement curbing integrated into the edges to form an impermeable containment with pump to remove any accumulations of fluid. This fluid will be pumped back into the storage system. Tanks will have all sides cleaned and soils removed around the base of the tanks. All valves will be repaired or replaced to prevent leaking. Berms will be placed around storage tanks and have sufficient capacity to hold tank volume. No locks will be installed since the facility will be manned 24 hrs/day.

10. **Spill Reporting:**

All spills/releases will be reported to the OCD.

11. **Trash & Potentially Hazardous Materials:**

All trash will be properly disposed of.

12. **Berming:**

A berm shall be constructed around the entire facility to prevent rain/flood water from outside sources to enter the perimeter of the facility. This will also prevent any storm water from leaving the facility. An elevated area at the entrance will allow trucks to enter the facility but will be constructed to sufficient height to maintain the integrity of the perimeter berm.

13. **Security:**

No fences or locks will be placed around the facility or on valves since the site will be manned at all times. This will not only prevent overtopping or disposal of fluids when the site is shut down, but prevent unloading of hazardous materials or materials of unknown nature from entering the site.

14. **Signs:**

New signs are being prepared and will be installed at the facility.

15. **General Facility Location Information:**

The Salty Bill Water Disposal Facility is located within the City Limits of Carlsbad, NM in the center of what was once the Carlsbad Army Air Field. There are no surface waters within one mile of the facility and has no potable water wells within the immediate area.

The above are responses for correcting the deficiencies contained in your report. These measures will be implemented as soon as you review them. I expect all measures to be able to be completed within 30 days from your approval.

I have also reviewed your guidelines for surface impoundment closure. Based on the current ranking system consisting of Depth to Ground Water, Wellhead Protection Area, and Distance to Nearest Surface Water Body, it seems to me that this site would be very low risk based on the assessment for severity of contamination and potential environmental & public health threats.

This ranking criteria used as a basis for soil and water remediation levels gives a ranking score of 0. Currently, tests have been run at Cardinal Laboratories and show no signs of Benzene, BTEX or TPH.

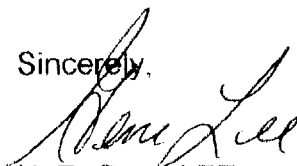
Closing the current pits at the Salty Bill facility will consist of removing all liquids from the lining. All nets and boards around the pits will be removed. The liners will be rolled up and removed to expose the soils below the pit. An examination will be done and soil samples sent to approved labs for further testing. All soils will be removed by excavation that contain any staining. The pit area at the South edge of the facility is approximately 125' X 45' X 3'. This area will be excavated to 135' X 55' X 8' to remove any possibly contaminated soils. At this time, further soil sampling will occur to verify no

contaminants exist. When no contaminants exist, new clean, uncontaminated soil will be used to fill the old pit areas. All work performed will be done under inspection and with the approval of the OCD. Lab tests on soils will be performed by an approved lab. Any contaminated soils will be hauled to an approved disposal site or farmed within the perimeter of the Salty Bill facility until tests prove the soils to be free of contaminants.

If these recommendations meet with your approval, they may be implemented immediately with completion of all necessary work to rectify the deficiencies to occur within 30 days from commencement. The pit closure will be done within the same time frame since the closure will help correct many of the deficiencies within your report.

Please contact me at the above address if I may be of any assistance or if you have any questions. I will be awaiting your approval to start correcting these deficiencies at Salty Bill Water Disposal. The facility has started being manned regularly 24 hrs/day as we speak to prevent anything from happening to worsen any of the deficiencies already outlined. Thank you for your assistance in this matter.

Sincerely,



H. E. Gene LEE

RECEIVED

DEC 03 1997

Environmental Bureau
Oil Conservation Division



Scientific Laboratory Division

700 Camino de Salud, NE

P.O. Box 4700

Albuquerque, NM 87196-4700

FAX #(505) 841-2543

FAX TRANSMISSION SHEET

Date: 12/1/97

To: Frank Sanchez (827-1544) Fax #

Company: NMED - HRMB

Subject: Results

Sender: Tim Chapman (841-2571)

You should receive 8 pages, including this cover sheet. If you do not receive all of these pages, please call (505) 841-2500 and ask for

Additional Comments:

SCIENTIFIC LABORATORY DIVISION

P.O. Box 4700
Albuquerque, NM 87196-4700

700 Camino de Salud, NE
[505] 841-2500

ORGANIC CHEMISTRY SECTION [505] 841-2570

REPORT TO CLIENT:

ED Field Office, Santa Fe
525 Camino de los Marquez, #5
Santa Fe, NM 87502

SLD No.: OR- 9702928

REQUEST ID No.: 197305

RECEIVED AT SLD: 11/10/97

SLD COPY

USER

55840

SAMPLE COLLECTION: DATE: 11/5/97

TIME: 1246

BY: San

SAMPLING LOCATION: 4A

SAMPLE MATRIX: water

REPORTING UNITS: µg/L

Remarks:

Sample marked as: being preserved with Hydrochloric Acid;

EPA METHOD 8260 MASS SPECTROMETER VOLATILES BY PURGE AND TRAP

DATE EXTRACTED: N/A

DATE ANALYZED: 11/18/97 13 Days: Within EPA Analysis Time

SAMPLE VOL (ml): 0.1

ANALYSIS No.: OR- 9702928

SLD BATCH No.: 433

DILUTION FACTOR: 50.00

REQUEST ID No.: 197305

SAMPLE PRESERVATION: Sample Temperature when received: n/a Degrees C.; pH = 5

CAS #	ANALYTE NAME	CONC. (µg/L)	QUAL	SDL
71-43-2	Benzene	166.0		50.0
108-86-1	Bromobenzene		U	50.0
74-97-5	Bromochloromethane		U	50.0
75-27-4	Bromodichloromethane*		U	50.0
75-25-2	Bromoform*		U	50.0
74-83-9	Bromomethane		U	50.0
78-93-3	2-Butanone (MEK)		U	500.0
104-51-8	n-Butylbenzene		U	50.0
135-98-8	sec-Butylbenzene		U	50.0
98-06-6	tert-Butylbenzene		U	50.0
1634-04-4	tert-Butyl methyl ether (MTBE)		U	500.0
56-23-5	Carbon tetrachloride		U	50.0
108-90-7	Chlorobenzene (monochlorobenzene)		U	50.0
75-00-3	Chloroethane		U	50.0
67-66-3	Chloroform*		U	50.0
74-87-3	Chloromethane		U	50.0
95-49-8	2-Chlorotoluene		U	50.0
106-43-4	4-Chlorotoluene		U	50.0
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)		U	50.0
124-48-1	Dibromochloromethane*		U	50.0
106-93-4	1,2-Dibromoethane (Ethylene dibromide (EDB))		U	50.0
74-95-3	Dibromomethane		U	50.0
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)		U	50.0
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)		U	50.0
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)		U	50.0
75-71-8	Dichlorodifluoromethane		U	50.0
75-34-3	1,1-Dichloroethane		U	50.0
107-06-2	1,2-Dichloroethane		U	50.0
75-35-4	1,1-Dichloroethene		U	50.0
156-59-2	cis-1,2-Dichloroethene		U	50.0
156-60-5	trans-1,2-Dichloroethene		U	50.0
78-87-5	1,2-Dichloropropane		U	50.0
142-28-9	1,3-Dichloropropane		U	50.0
594-20-7	2,2-Dichloropropane		U	50.0
563-58-6	1,1-Dichloropropene		U	50.0
1006-10-15	cis-1,3-Dichloropropene		U	50.0
1006-10-26	trans-1,3-Dichloropropene		U	50.0
100-41-4	Ethylbenzene	83.5		50.0
87-68-3	Hexachlorobutadiene		U	50.0

98-82-8	Isopropylbenzene		U	50.0
99-87-6	4-Isopropyltoluene	52.0		50.0
75-09-2	Methylene chloride (Dichloromethane)		U	100.0
91-20-3	Naphthalene	84.0		50.0
103-65-1	Propylbenzene		U	50.0
100-42-5	Styrene		U	50.0
630-20-6	1,1,1,2-Tetrachloroethane		U	50.0
79-34-5	1,1,2,2-Tetrachloroethane		U	50.0
127-18-4	Tetrachloroethene		U	50.0
109-99-9	Tetrahydrofuran (THF)		U	500.0
108-88-3	Toluene	745.0		50.0
87-61-6	1,2,3-Trichlorobenzene		U	50.0
120-82-1	1,2,4-Trichlorobenzene		U	50.0
71-55-6	1,1,1-Trichloroethane		U	50.0
79-00-5	1,1,2-Trichloroethane		U	50.0
79-01-6	Trichloroethene		U	50.0
75-69-4	Trichlorofluoromethane		U	50.0
96-18-4	1,2,3-Trichloropropane		U	50.0
95-63-6	1,2,4-Trimethylbenzene	198.0		50.0
108-67-8	1,3,5-Trimethylbenzene	146.0		50.0
75-01-4	Vinyl chloride		U	50.0
95-47-6	o-Xylene	211.0		50.0
N/A	p- & m-Xylene	329.0		50.0
N/A	*Total Xylenes	540.0		50.0
N/A	*Total Trihalomethanes	0.0	U	50.0

Laboratory Remarks: Numerous hydrocarbons were observed with an estimated concentration of 100 ppb each.

The Following Compound(s) Were Tentatively Identified by GC/MS (by Library Match of Mass Spectrum)				
CAS #	Tentatively Identified Compound Name	% Match	R.T.	Approx. Conc.
112-40-3	Dodecane	98.3%	42.70	500 µg/L
629-62-9	Pentadecane	97.4%	47.20	500 µg/L
1120-21-4	Undecane	96.3%	37.95	500 µg/L
2809-65-6	1-Chloro-4-(1-propynyl)-benzene	74.4%	37.50	500 µg/L
62108-23-0	2,5,6-Trimethyl-decane	84.9%	32.85	500 µg/L

LABORATORY BATCH QUALITY CONTROL SUMMARY			
SURROGATE RECOVERIES:	SURROGATE COMPOUNDS		% RECOVERY
	Toluene - D8		514.5
	4 - Bromofluorobenzene		498.5
	1,2 - Dichlorobenzene - D4		453.5
LABORATORY FORTIFIED BLANK RECOVERIES	The % recoveries for compounds in the batch spike were from 80% to 120% with the exception of the compounds listed below: <div style="display: flex; justify-content: space-around;"> <div>COMPOUND</div> <div>CONCENTRATION (µg/L)</div> <div>% RECOVERY</div> </div> No Exceptions		
LABORATORY BLANKS	No target compounds were detected above the sample detection limit in laboratory blank with the exception of the compound(s) listed below: <div style="display: flex; justify-content: space-around;"> <div>COMPOUND</div> <div>CONCENTRATION (µg/L)</div> </div> No Exceptions		

ANALYST: B. L. Keller QC APPROVED BY: Timothy Chapman

DEFINITIONS

~	Concentration Exceeds EPA's allowable Maximum Contamination Level
CAS#	Chemical Abstract Services Number - Unique number to help identify analytes listed by different names
CONC.	Concentration (µg/L) of analyte actually detected in the sample
QUAL	Qualifier of analytical results as follows: B Analyte was detected in laboratory blank E Analyte was detected at a level above the concentration of the calibration curve. J Analyte was detected at a level below which an accurate quantitation can be given (~5 * SDL) U No analyte was detected above the Sample Detection Limit.
SDL	Sample Detection Limit - The lowest concentration which can be differentiated from Zero with 99% confidence taking sample size (compositing) into account.
µg/L	Concentration Units - micrograms per liter which is approximately equivalent to Parts Per Billion (ppb)

² SLD's Accession No.

OR

Scientific Laboratory Division
700 Camino de Salud, NE (P.O. Box 4700)
Albuquerque, NM 87106 (87196-4700)
Phone: 505-841-2500/-2570/-2566

OR

0R9702928

DEC-01-97 MON 02:15 PM

Tank?

STATE OF NEW MEXICO		DEPARTMENT OF HEALTH	
SCIENTIFIC LABORATORY DIVISION			
P.O. Box 4700 Albuquerque, NM 87196-4700		700 Camino de Salud, NE [505] 841-2500	
ORGANIC CHEMISTRY SECTION [505] 841-2570			
REPORT TO CLIENT:			
<div style="border: 1px solid black; padding: 5px;"> ED Field Office, Santa Fe 525 Camino de los Marquez, #5 Santa Fe, NM 87502 </div>		<div style="border: 1px solid black; padding: 5px;"> SLD No.: OR- 9702929 REQUEST ID No.: 197304 RECEIVED AT SLD: 11/10/97 SLD COPY USER 55840 </div>	
SAMPLE COLLECTION: DATE: 11/5/97		TIME: 1318 BY: San	
SAMPLING LOCATION: 5A			
SAMPLE MATRIX: water		REPORTING UNITS: µg/L	
Remarks: Sample marked as: being preserved with Hydrochloric Acid;			

EPA METHOD 8260 MASS SPECTROMETER VOLATILES BY PURGE AND TRAP				
DATE EXTRACTED: N/A		ANALYSIS No.: OR- 9702929		
DATE ANALYZED: 11/18/97		SLD BATCH No.: 433		
SAMPLE VOL (ml): 0.25		DILUTION FACTOR: 20.00		
		REQUEST ID No.: 197304		
SAMPLE PRESERVATION: Sample Temperature when received: 8 Degrees C.; pH = 6				
CAS #	ANALYTE NAME	CONC. (µg/L)	QUAL	SDL
71-43-2	Benzene	610.0		20.0
108-86-1	Bromobenzene		U	20.0
74-97-5	Bromochloromethane		U	20.0
75-27-4	Bromodichloromethane*		U	20.0
75-25-2	Bromoform*		U	20.0
74-83-9	Bromomethane		U	20.0
78-93-3	2-Butanone (MEK)		U	200.0
104-51-8	n-Butylbenzene		U	20.0
135-98-8	sec-Butylbenzene		U	20.0
98-06-6	tert-Butylbenzene		U	20.0
1634-04-4	tert-Butyl methyl ether (MTBE)		U	200.0
56-23-5	Carbon tetrachloride		U	20.0
108-90-7	Chlorobenzene (monochlorobenzene)		U	20.0
75-00-3	Chloroethane		U	20.0
67-66-3	Chloroform*		U	20.0
74-87-3	Chloromethane		U	20.0
95-49-8	2-Chlorotoluene		U	20.0
106-43-4	4-Chlorotoluene		U	20.0
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)		U	20.0
124-48-1	Dibromochloromethane*		U	20.0
106-93-4	1,2-Dibromoethane (Ethylene dibromide (EDB))		U	20.0
74-95-3	Dibromomethane		U	20.0
95-50-1	1,2-Dichlorobenzene (o-Dichlorobenzene)		U	20.0
541-73-1	1,3-Dichlorobenzene (m-Dichlorobenzene)		U	20.0
106-46-7	1,4-Dichlorobenzene (p-Dichlorobenzene)		U	20.0
75-71-8	Dichlorodifluoromethane		U	20.0
75-34-3	1,1-Dichloroethane		U	20.0
107-06-2	1,2-Dichloroethane		U	20.0
75-35-4	1,1-Dichloroethene		U	20.0
156-59-2	cis-1,2-Dichloroethene		U	20.0
156-60-5	trans-1,2-Dichloroethene		U	20.0
78-87-5	1,2-Dichloropropane		U	20.0
142-28-9	1,3-Dichloropropane		U	20.0
594-20-7	2,2-Dichloropropane		U	20.0
563-58-6	1,1-Dichloropropene		U	20.0
1006-10-15	cis-1,3-Dichloropropene		U	20.0
1006-10-26	trans-1,3-Dichloropropene		U	20.0
100-41-4	Ethylbenzene	660.0		20.0

87-68-3	Hexachlorobutadiene		U	20.0
98-82-8	Isopropylbenzene	159.0		20.0
99-87-6	4-Isopropyltoluene	199.0		20.0
75-09-2	Methylene chloride (Dichloromethane)		U	40.0
91-20-3	Naphthalene	354.0		20.0
103-65-1	Propylbenzene	372.0		20.0
100-42-5	Styrene		U	20.0
630-20-6	1,1,1,2-Tetrachloroethane		U	20.0
79-34-5	1,1,2,2-Tetrachloroethane		U	20.0
127-18-4	Tetrachloroethene		U	20.0
109-99-9	Tetrahydrofuran (THF)		U	200.0
108-88-3	Toluene	2090.0	E	20.0
87-61-6	1,2,3-Trichlorobenzene		U	20.0
120-82-1	1,2,4-Trichlorobenzene		U	20.0
71-55-6	1,1,1-Trichloroethane		U	20.0
79-00-5	1,1,2-Trichloroethane		U	20.0
79-01-6	Trichloroethene		U	20.0
75-69-4	Trichlorofluoromethane		U	20.0
96-18-4	1,2,3-Trichloropropane		U	20.0
95-63-6	1,2,4-Trimethylbenzene	1786.0	E	20.0
108-67-8	1,3,5-Trimethylbenzene	471.0		20.0
75-01-4	Vinyl chloride		U	20.0
95-47-6	o-Xylene*	1259.0	E	20.0
N/A	p- & m-Xylene*		U	20.0
N/A	*Total Xylenes*	1259.0		20.0
N/A	*Total Trihalomethanes*	0.0	U	20.0

Laboratory Remarks: Numerous hydrocarbons were observed at an estimated concentration of 200 ppb each.

The Following Compound(s) Were Tentatively Identified by GC/MS (by Library Match of Mass Spectrum)				
CAS #	Tentatively Identified Compound Name	% Match	R.T.	Approx. Conc.
1120-21-4	Undecane	83.8%	32.80	1000 µg/L
10042-99-8	2-Propyl-1-heptanol	96.1%	37.90	1000 µg/L
112-40-3	Dodecane	97.9%	42.70	1000 µg/L
62108-25-2	2,4,6-Trimethyldecane	95.7%	43.40	400 µg/L
111-65-9	Octane	97.2%	21.80	400 µg/L

LABORATORY BATCH QUALITY CONTROL SUMMARY			
SURROGATE RECOVERIES:	SURROGATE COMPOUNDS		
	CONCENTRATION		% RECOVERY
	Toluene - D8		251.4
	4 - Bromofluorobenzene		181
	1,2 - Dichlorobenzene - D4		177
			88.5%
LABORATORY FORTIFIED BLANK RECOVERIES	The % recoveries for compounds in the batch spike were from 80% to 120% with the exception of the compounds listed below:		
	COMPOUND	CONCENTRATION (µg/L)	% RECOVERY
	No Exceptions		
LABORATORY BLANKS	No target compounds were detected above the sample detection limit in laboratory blank with the exception of the compound(s) listed below:		
	COMPOUND	CONCENTRATION (µg/L)	
	No Exceptions		

ANALYST: B. L. Keller QC APPROVED BY: Timothy Chapman

DEFINITIONS

**	Concentration Exceeds EPA's allowable Maximum Contamination Level
CAS#	Chemical Abstract Services Number - Unique number to help identify analytes listed by different names
CONC.	Concentration (µg/L) of analyte actually detected in the sample
QUAL	Qualifier of analytical results as follows:
	B Analyte was detected in laboratory blank
	E Analyte was detected at a level above the concentration of the calibration curve.
	J Analyte was detected at a level below which an accurate quantitation can be given (~5 * SDL)
	U No analyte was detected above the Sample Detection Limit.
SDL	Sample Detection Limit - The lowest concentration which can be differentiated from Zero with 99% confidence taking sample size (compositing) into account.
µg/L	Concentration Units - micrograms per liter which is approximately equivalent to Parts Per Billion (ppb)

² SLD's Accession No.

OR

OR

For SLD
OR-

OR9702929

DEC-01-97 MON 02:17 PM

p. 07

Roger Anderson

From: John Waters[SMTP:jwaters@carlsbadnm.com]
Sent: Monday, December 01, 1997 9:08 AM
To: RANDERSON
Subject: Salty Bill Results

The City is interested in the progress of the Salty Bill Investigation. We had assumed from our conversations, that we would be kept up to date on the situation.

Over the past two weeks, calls have been made from the City to David Catanach and Bill Olsen. Messages were left and have yet to be returned. I did finally contact Martyne Kieling. Ms. Kieling had stated that she had "received negative results on the nitrogen analysis, which was what we were interested in." I stated that the City was concerned about all of the results and that it was my understanding that the City would be provided with all of the information as it became available.

AEN cannot release these results to us, but they have indicated that at least some of the results (ten days ago) have been faxed to Bill Olsen.

A couple of weeks after your visit the NMED Haz Mat Bureau sampled from the tanks on site. The City has received results on the tanks on both sides of the gunbarrel tank (which you sampled) and BOTH showed substances which are NOT in produced water. These results are available for your review.

Please call me at (505) 887-1191 or email me at jwaters@carlsbadnm.com or get in touch with us next week. (week of Dec. 1)

Thank you for your attention to this.

Sincerely, John Waters
Environmental Services Manager
City of Carlsbad



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

November 21, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P.326-936-368

Ms. Corinne B. Grace
P.O. Box 1418
3722 National Parks Hwy.
Carlsbad, N.M. 88220

Re: Salty Bills Water Disposal Facility
NE/4, NW/4 of Section 36, Township 22 South, Range 26 East, NMPM
Eddy County, New Mexico

Ms. Grace:

The New Mexico Oil Conservation Division (OCD) received a phone call from Mr. Gene Lee, environmental contractor for Salty Bill Water Disposal, on November 21, 1997 requesting additional time to submit the required closure plan. The OCD hereby grants an extension for the closure plan submittal from the previous extension of November 21, 1997 to November 25, 1997.

If you have any questions please do not hesitate to contact me at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist

Attachments

xc: Artesia OCD Office
Hobbs OCD Office
Mr. Ernest L. Padilla, Padilla Law Firm, PA, 1512 St. Francis Drive, Santa Fe, NM 87501

MEMORANDUM OF CONVERSATION

___ TELEPHONE ___ PERSONAL TIME ___ DATE ___

ORIGINATING PARTY _____

OTHER PARTIES _____

DISCUSSION _____

_____ 5:00 Nov 25th. Write extension of time letter.
_____ Walk Around -
_____ Contractors - - -
_____ Cardinal. . . .
_____ Values Fixed
_____ Picked up Some Soil
_____ 24 Hrs Man

CONCLUSIONS _____

~~CHRIS EUSTICE~~ _____



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

November 19, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P.326-936-365

Mr. Ernest L. Padilla
Padilla Law Firm, PA
1512 St. Francis Drive
Santa Fe, NM 87501

Re: Salty Bills Water Disposal Facility
NE/4, NW/4 of Section 36, Township 22 South, Range 26 East, NMPM
Eddy County, New Mexico

Mr. Padilla:

I have received your letter dated November 12, 1997 requesting an extension from the November 17, 1997 deadline to November 21, 1997 for the above referenced location. The extension request is hereby granted.

If you have any questions please do not hesitate to contact me at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist

Attachments

xc: Artesia OCD Office
Hobbs OCD Office
Ms. Corinne-B. Grace, P.O. Box 1418, 3722 National Parks Hwy., Carlsbad, N.M. 88220

Martyne Kieling

To: Leegh
Subject: RE: Grace Oil Co.--Salty Bill Salt Water Disposal Facility
Importance: High

Mr. Gene Lee:

I have recieved your phone message and just attempted to return your call. I have received a letter form Ernest L. Padilla requesting an extension of the November 17, 1997 deadline to November 21, 1997. I am in the process of writing a letter approving the request for the extension. I will be in the office for the rest of the week please contact me if you have any questions concerning the Salty Bill Water Disposal Facility.

Sincerely,

Martyne J. Kieling

From: Leegh[SMTP:Leegh@aol.com]
Sent: Saturday, November 15, 1997 12:42 AM
To: mkieling
Subject: Grace Oil Co.--Salty Bill Salt Water Disposal Facility

Martyne J. Kieling
Environmental Geologist
OCD Environmental Bureau
Santa Fe, NM

Dear Sir,

I was contacted by Grace Oil Company of Carlsbad, NM in reference to the above Salt water disposal facility. I would like to talk to you about submitting a remediation plan. There are also a couple of questions I have about your report. I will attempt to contact you by telephone on Monday, 11-17-97. Thanks.

Gene Lee

E Mail--Leegh@AOL.com
505-622-7355
505-624-2911 Fax
505-626-4292 Cellular.

PADILLA LAW FIRM, P.A.
STREET ADDRESS
1512 S. ST. FRANCIS DRIVE
SANTA FE, NEW MEXICO 87501
MAILING ADDRESS
P.O. BOX 2523
SANTA FE, NEW MEXICO 87504-2523
Telephone (505) 988-7577 Facsimile (505) 988-7592

FAX TRANSMITTAL COVERSHEET

Date: November 12, 1997
To: Martyne J. Kicling
From: Ernest L. Padilla
Fax No. (505) 827-8177
Re: SALTY BILL WATER DISPOSAL FACILITY
2 Pages Transmitted Including Coversheet

**IF YOU DO NOT RECEIVE ALL THE PAGES INDICATED ABOVE,
PLEASE CALL US BACK AS SOON AS POSSIBLE AT:**

(505) 988-7577

ASK FOR: Angel

MESSAGE: See attached letter.

cc: Corinne Grace, via/facsimile (505) 885-8497
Joel Carson, Esq., via/facsimile (505) 746-6316

Note: The information contained in this facsimile message is attorney/client privileged and confidential information intended only for use by the individual or entity named above. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivery to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this facsimile in error, please immediately notify us by collect telephone call and return the original message to us at the above address via the U.S. Postal Service. Thank you.

Sent _____ Time _____

PADILLA LAW FIRM, P.A.**TELEPHONE**
505-988-7577**STREET ADDRESS**
1512 ST. FRANCIS DRIVE
SANTA FE, NM 87501
MAILING ADDRESS
P.O. BOX 2623
SANTA FE, NM 87504-2523**FACSIMILE**
505-988-7592**VIA FACSIMILE (505) 827-8177**

November 12, 1997

New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505Attention: Martyne J. Kieling
Environmental Geologist**RE: SALTY BILL WATER DISPOSAL FACILITY
NW/4 NW/4 OF SECTION 36, T22S, R26E,
NMPM, EDDY COUNTY, NEW MEXICO**

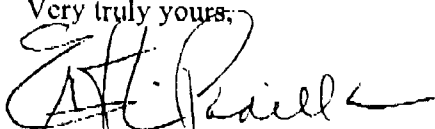
Dear Ms. Kieling:

Pursuant to Mr. Carson's discussion with you this afternoon, this letter request an extension of time from November 17, 1997 to and including November 21, 1997 within which to file a response to your letter to Corinne B. Grace dated November 5, 1997.

The extension is required so that we may submit a meaningful response. I, myself, tried to reach you this past Monday but was informed that you would be out until today. I did meet with Mr. Anderson and Mr. Olson this morning, not knowing that Mr. Carson was going to try to see you this afternoon. Nonetheless, we definitely need more time to assess the problems addressed in your letter.

Please let us know whether this request will be granted. Thank you.

Very truly yours,


ERNEST L. PADILLA

ELP/as

cc: Corinne Grace, via/facsimile (505) 885-8497
Joel Carson, Esq., via/facsimile (505) 746-6316

American Environmental Network (NM), Inc.
Analytical Services for the Environment
Phone: (505)344-3777 FAX: (505)344-4413

FAX

TO: BILL OLSON
COMPANY: NMED-OCD
PHONE: (505)827-7152
FAX: (505)827-8177

FROM: Kim McNeill
DATE: 11/12/97
PAGE TOTAL: 2

AEN ID NO: 710420
PROJECT NAME/NO.: SALTY BILL
SAMPLES RECEIVED: 10/29/97

COMMENTS: John Waters of City of Carlsbad was
wanting to know about this data.
His name was not in the chain of custody,
so I was unable to give any results to
him.

I will fax the rest of the data as soon
as it is available

This facsimile is intended only for the use of the individual or entity to which it is addressed. It may contain information that is privileged, confidential, or otherwise protected from disclosure under applicable law. If the reader of this transmission is not the intended recipient or the employee agent responsible for delivering the transmission to the intended recipient, you are hereby notified that any dissemination, distribution, copying or use of this transmission or its contents is strictly prohibited. If you have received this transmission in error, please notify us at the phone number listed above. If any of the FAX copies are illegible, or you do not receive the same number of pages as stated above, please contact us immediately.

GAS CHROMATOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS / AROMATICS (EPA 8010/8020)
 CLIENT : NMED-OCD AEN I.D.: 710420
 PROJECT # : SALTY BILL
 PROJECT NAME : SALTY BILL

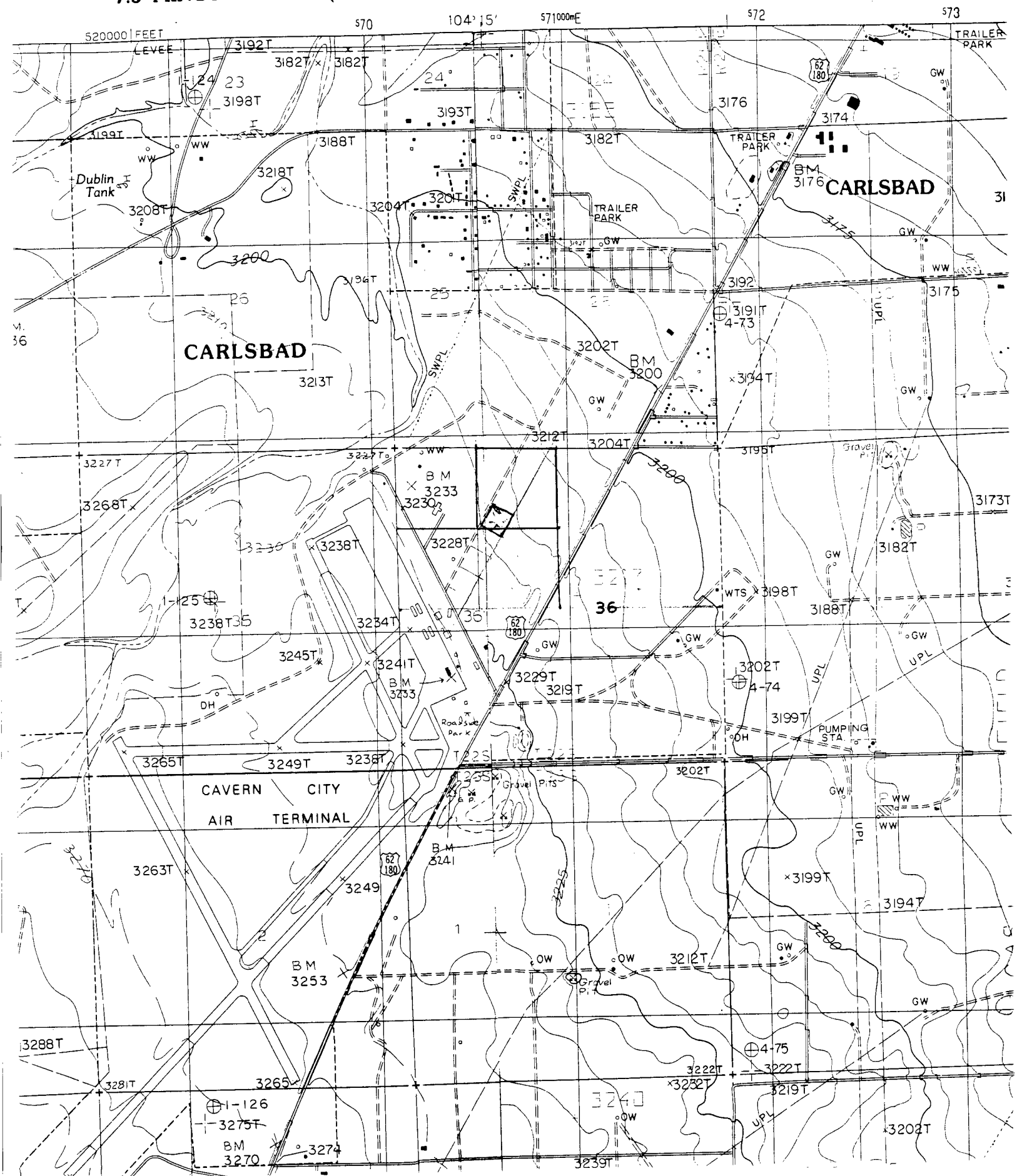
SAMPLE	DATE	DATE	DATE	DIL.
ID. #	MATRIX	SAMPLED	EXTRACTED	ANALYZED
01	9710280910	AQUEOUS	10/28/97	NA
PARAMETER	DET. LIMIT	UNITS	01	50
BENZENE	0.5	UG/L	2600	
BROMODICHLORMETHANE	0.2	UG/L	< 10	
BROMOFORM	0.5	UG/L	< 25	
BROMOMETHANE	1.0	UG/L	< 50	
CARBON TETRACHLORIDE	0.2	UG/L	< 10	
CHLOROBENZENE	0.5	UG/L	< 25	
CHLOROETHANE	0.5	UG/L	< 25	
CHLOROFORM	0.5	UG/L	< 25	
CHLOROMETHANE	1.0	UG/L	< 50	
DIBROMOCHLOROMETHANE	0.2	UG/L	< 10	
1,2-DIBROMOETHANE (EDB)	0.2	UG/L	< 10	
1,2-DICHLOROBENZENE	0.5	UG/L	< 25	
1,3-DICHLOROBENZENE	0.5	UG/L	< 25	
1,4-DICHLOROBENZENE	0.5	UG/L	< 25	
1,1-DICHLOROETHANE	0.3	UG/L	< 15	
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 25	
1,1-DICHLOROETHENE	0.2	UG/L	< 10	
cis-1,2-DICHLOROETHENE	0.2	UG/L	< 10	
trans-1,2-DICHLOROETHENE	1.0	UG/L	< 50	
1,2-DICHLOROPROPANE	0.2	UG/L	< 10	
cis-1,3-DICHLOROPROPENE	0.2	UG/L	< 10	
trans-1,3-DICHLOROPROPENE	0.2	UG/L	< 10	
ETHYLBENZENE	0.5	UG/L	440	
METHYL-t-BUTYL ETHER	2.5	UG/L	< 125	
METHYLENE CHLORIDE	2.0	UG/L	< 100	
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 25	
TETRACHLOROETHENE	0.5	UG/L	< 25	
TOLUENE	0.5	UG/L	2400	
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 50	
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 10	
TRICHLOROETHENE	0.3	UG/L	< 15	
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 10	
VINYL CHLORIDE	0.5	UG/L	< 25	
TOTAL XYLENES	0.5	UG/L	950	

SURROGATE:
 BROMOCHLOROMETHANE (%) 111
 SURROGATE LIMITS (73 - 117)
 TRIFLUOROTOLUENE (%) 89
 SURROGATE LIMITS (69 - 117)

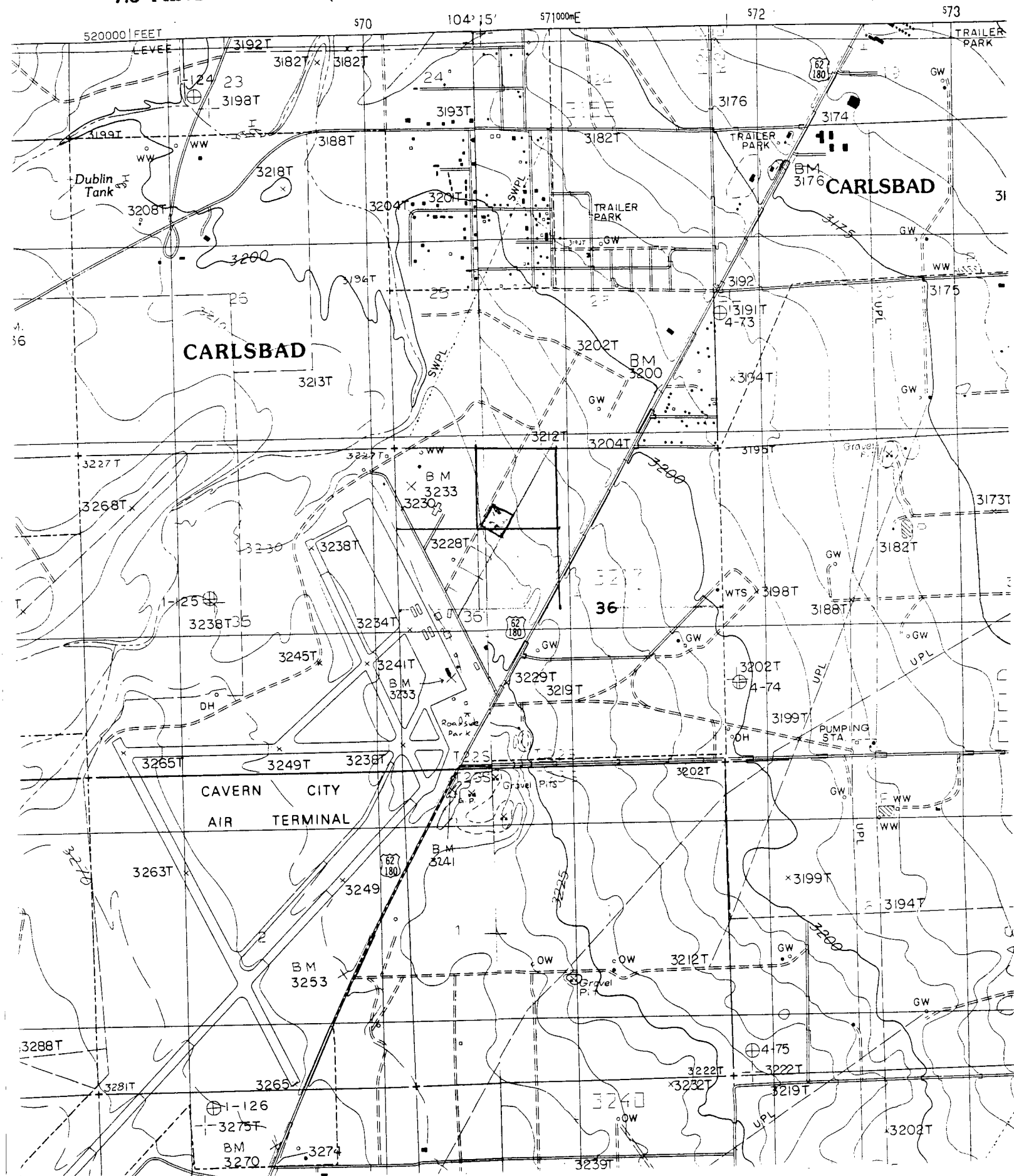
CHEMIST NOTES:
 N/A

KITCHEN COVE QUADRANGLE
NEW MEXICO-EDDY CO. 7.5 MINUTE SERIES (TOPOGRAPHIC)

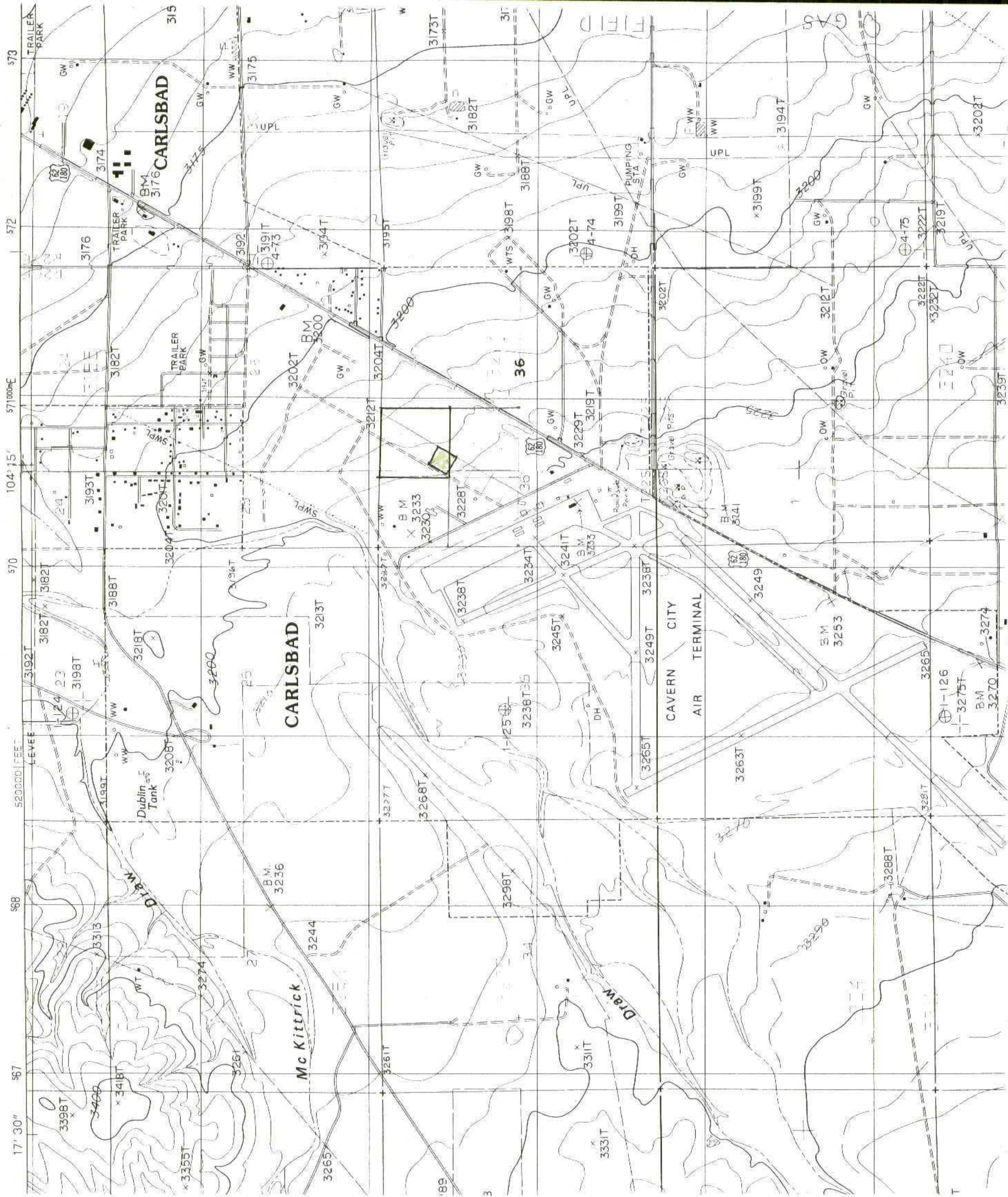
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



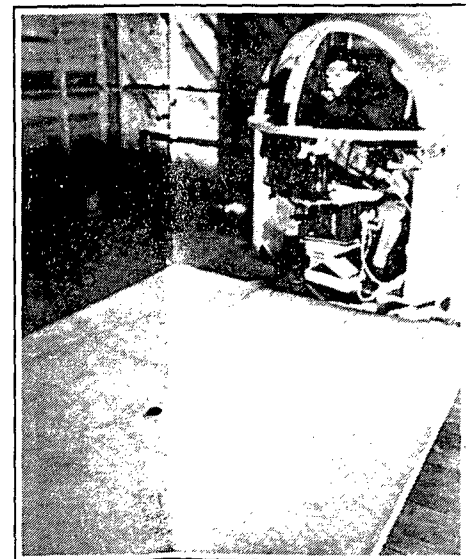
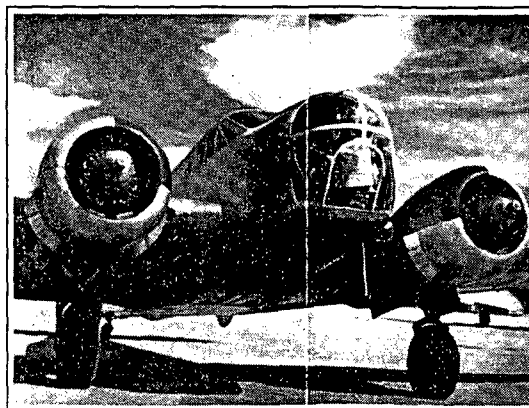
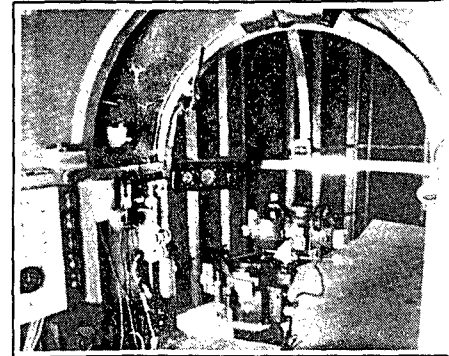
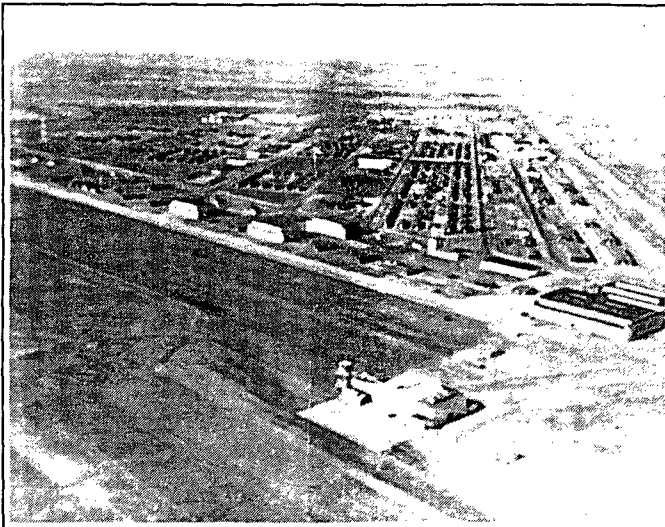
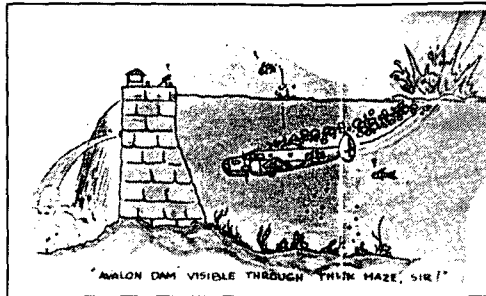
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



KITCHEN COVE QUADRANGLE
 NEW MEXICO-EDDY CO. DEPARTMENT OF THE INTERIOR
 7.5 MINUTE SERIES (TOPOGRAPHIC) GEOLOGICAL SURVEY



Carlsbad Army Air Field 1942-1945



City of Carlsbad
New Mexico
Fax Transmission Cover Sheet
Environmental Services Dept.

TO: David Catanach, Ben Stone; NM OCD

Fax Number: (505) 827-1389

FROM: John Waters, Environmental Services Manager

DATE: October 27, 1997

NUMBER OF PAGES (incl. cover): 5

RE: Salty Bill Problem

These are the results of our VOC & Metals analysis of surface water ponds and TPH of contaminated soil onsite from the first week of October. Local NMED officials were present while samples were collected. In addition, the NMED Secretary and District Manager also visited the polluted site.

We have a water well 3/4 of a mile from this mess. You can probably see our problem with this well. This well has shown contamination for nitrate and carbon tetrachloride in recent NMED Safe Drinking Water Act sampling. No agriculture, septic tanks, or industry is nearby to account for the pollution. This kind of mess is commonplace for Salty Bill. It is important to note that the ponds at the site were not created by rainfall (it had not rained for at least 10 days) and had yellow-green crystals growing across the surface of the grey water. I took several interesting photos of the site which illustrate this and the other deplorable conditions of Salty Bill.

The City would like the OCD to 1. Shut the facility down immediately and 2. To sample all onsite storage tanks at three zones (top, middle, and bottom) for the following contaminants: VOC's, Metals, Pesticides, Nitrates, and Nitrites. If the OCD cannot do the latter, please give the authority to the City to sample and analyze (at SLD, AFN, or a lab of your choice) the tank's contents. The City wants to know what is contaminating our well and what Ms. Grace has REALLY been flushing down the hole at Salty Bill. In addition, CERCLA language is rather all-encompassing when it come to who has the liability for superfund sites. As the City has been against this large-scale operation from the moment it was discovered, we want none of the liability. If you have any problems with this transmission or need additional information, please give me a call at (505) 887-1191, extension 115. Thank you for your assistance.

American Environmental Network, Inc.

GENERAL CHEMISTRY RESULTS

418.1

CLIENT : CITY OF CARLSBAD

AEN I.D. : 710346

PROJECT # : (none)

DATE RECEIVED : 10/10/97

PROJECT NAME : (none)

SAMPLE		DATE		DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	SOIL SAMPLE	NON-AQ	Unknown	10/16/97	10/16/97	100
PARAMETER		DET. LIMIT	UNITS	01		
PETROLEUM HYDROCARBONS, IR		20	MG/KG	29000		

CHEMIST NOTES:

N/A

American Environmental Network, Inc.

GC/MS RESULTS

TEST : VOLATILE ORGANICS EPA METHOD 8260 EXTENDED
 CLIENT : CITY OF CARLSBAD AEN I.D. : 710346
 PROJECT # : (none) DATE RECEIVED : 10/16/97
 PROJECT NAME : (none)

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
710346-02	AQ SAMPLE	AQUEOUS	Unknown	N/A	10/16/97	1
PARAMETER	DET. LIMIT		UNITS			
Styrene	1.0	< 1.0	ug/L			
Bromoforn	1.0	< 1.0	ug/L			
1,1,2,2-Tetrachloroethane	1.0	< 1.0	ug/L			
1,2,3-Trichloropropene	1.0	< 1.0	ug/L			
Isopropyl Benzene	1.0	< 1.0	ug/L			
Bromobenzene	1.0	< 1.0	ug/L			
trans-1,4-Dichloro-2-Butene	1.0	< 1.0	ug/L			
n-Propylbenzene	1.0	< 1.0	ug/L			
2-Chlorotoluene	1.0	< 1.0	ug/L			
4-Chlorotoluene	1.0	< 1.0	ug/L			
1,3,5-Trimethylbenzene	1.0	< 1.0	ug/L			
tert-Butylbenzene	1.0	< 1.0	ug/L			
1,2,4-Trimethylbenzene	1.0	< 1.0	ug/L			
sec-Butylbenzene	1.0	< 1.0	ug/L			
1,3-Dichlorobenzene	1.0	< 1.0	ug/L			
1,4-Dichlorobenzene	1.0	< 1.0	ug/L			
p-Isopropyltoluene	1.0	< 1.0	ug/L			
1,2-Dichlorobenzene	1.0	< 1.0	ug/L			
n-Butylbenzene	1.0	< 1.0	ug/L			
1,2-Dibromomono-3-chloropropene	1.0	< 1.0	ug/L			
1,2,4-Trichlorobenzene	1.0	< 1.0	ug/L			
Naphthalene	1.0	< 1.0	ug/L			
Hexachlorobutadiene	1.0	< 1.0	ug/L			
1,2,3-Trichlorobenzene	1.0	< 1.0	ug/L			

SAMPLE WAS COLLECTED IN AN UNPRESERVED PLASTIC CONTAINER WITH APPROX. 1/3 OF HEADSPACE
 (D50) = 50 X DILUTION. ANALYZED ON 10/17/97

SURROGATE % RECOVERY

1,2-Dichloroethane-d4 105
 (80 - 120)
 Toluene-d8 101
 (88 - 110)
 Bromofluorobenzene 102
 (88 - 115)

American Environmental Network, Inc.

GC/MS RESULTS

TEST : VOLATILE ORGANICS EPA METHOD 8260 EXTENDED
 CLIENT : CITY OF CARLSBAD AEN I.D. : 710346
 PROJECT # : (none) DATE RECEIVED : 10/10/97
 PROJECT NAME : (none)

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
710346-02	AQ SAMPLE	AQUEOUS	Unknown	N/A	10/15/97	1
PARAMETER	DET. LIMIT	UNITS				
Dichlorodifluoromethane	1.0	< 1.0	ug/L			
Chloromethane	1.0	< 1.0	ug/L			
Vinyl Chloride	1.0	< 1.0	ug/L			
Bromomethane	1.0	< 1.0	ug/L			
Chloroethane	1.0	< 1.0	ug/L			
Trichlorofluoromethane	1.0	< 1.0	ug/L			
Acetone	10	720 (D50)	ug/L			
Acrolein	5.0	< 5.0	ug/L			
1,1-Dichloroethene	1.0	< 1.0	ug/L			
Iodomethane	1.0	< 1.0	ug/L			
Methylene Chloride	1.0	< 1.0	ug/L			
Acrylonitrile	5.0	< 5.0	ug/L			
cis-1,2-Dichloroethane	1.0	< 1.0	ug/L			
Methyl-t-butyl Ether	1.0	< 1.0	ug/L			
1,1,2,1,2,2-Trichlorotrifluoroethane	1.0	< 1.0	ug/L			
1,1-Dichloroethane	1.0	< 1.0	ug/L			
trans-1,2-Dichloroethene	1.0	< 1.0	ug/L			
2-Butanone	10	60	ug/L			
Carbon Disulfide	1.0	< 1.0	ug/L			
Bromochloromethane	1.0	< 1.0	ug/L			
Chloroform	1.0	< 1.0	ug/L			
2,2-Dichloropropane	1.0	< 1.0	ug/L			
1,2-Dichloroethane	1.0	< 1.0	ug/L			
Vinyl Acetate	1.0	< 1.0	ug/L			
1,1,1-Trichloroethane	1.0	< 1.0	ug/L			
1,1-Dichloropropane	1.0	< 1.0	ug/L			
Carbon Tetrachloride	1.0	< 1.0	ug/L			
Benzene	1.0	2.4	ug/L			
1,2-Dichloropropane	1.0	< 1.0	ug/L			
Trichloroethene	1.0	< 1.0	ug/L			
Bromodichloromethane	1.0	< 1.0	ug/L			
2-Chloroethyl Vinyl Ether	10	< 10	ug/L			
cis-1,3-Dichloropropene	1.0	< 1.0	ug/L			
trans-1,3-Dichloropropene	1.0	< 1.0	ug/L			
1,1,2-Trichloroethane	1.0	< 1.0	ug/L			
1,3-Dichloropropane	1.0	< 1.0	ug/L			
Dibromomethane	1.0	< 1.0	ug/L			
Toluene	1.0	1.3	ug/L			
1,2-Dibromoethane	1.0	< 1.0	ug/L			
4-Methyl-2-Pentanone	10	< 10	ug/L			
2-Hexanone	10	< 10	ug/L			
Dibromochloromethane	1.0	< 1.0	ug/L			
Tetrachloroethane	1.0	< 1.0	ug/L			
Chlorobenzene	1.0	< 1.0	ug/L			
Ethylbenzene	1.0	< 1.0	ug/L			
1,1,1,2-Tetrachloroethane	1.0	< 1.0	ug/L			
m&p Xylenes	1.0	< 1.0	ug/L			
o-Xylene	1.0	< 1.0	ug/L			

ANALYTICAL REPORT

Kim McNeill
AEN - Albuquerque
2709-D Pan American Fwy NE
Albuquerque, NM 87107

10/23/1997
Job No.: 97.02750
Page: 2

Project Name: 710346-02 City Of Carlsbad
Date Received: 10/17/1997

Sample Number Sample Description
86513 AQ Sample (710346-02)

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
ICP/AA Digestion - Water	ICP	-			10/20/1997	
Antimony, ICP	6010	ND	0.05	mg/L	10/20/1997	DIL.Q
Arsenic, ICP	6010	0.071	0.05	mg/L	10/20/1997	DIL.Q
Beryllium, ICP	6010	ND	0.02	mg/L	10/20/1997	DIL.Q
Cadmium, ICP	6010	ND	0.02	mg/L	10/20/1997	DIL.Q
Chromium, ICP	6010	0.13	0.05	mg/L	10/20/1997	DIL.Q
Copper, ICP	6010	0.14	0.05	mg/L	10/20/1997	DIL.Q
Lead, ICP	6010	0.13	0.05	mg/L	10/20/1997	DIL.Q
Mercury Prep (W)	7470	-			10/20/1997	
Mercury, CV (W)	7470	0.026	0.002	mg/L	10/23/1997	DIL.Q
Nickel, ICP	6010	0.092	0.05	mg/L	10/20/1997	DIL.Q
Selenium, ICP	6010	ND	0.05	mg/L	10/20/1997	DIL.Q
Silver, ICP	6010	ND	0.05	mg/L	10/20/1997	DIL.Q
Thallium, ICP	6010	ND	0.1	mg/L	10/20/1997	DIL.Q
Zinc, ICP	6010	1.5	0.05	mg/L	10/20/1997	DIL.Q

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

American Environmental Network, Inc. (503) 684-0447 (503) 620-0293 FAX
17400 SW Upper Boones Ferry Rd., Suite 270, Portland, OR 97224

Sample
SALTY BILL

Lamay