NM1 - 4

GENERAL CORRESPONDENCE

YEAR(S):

1998

Inspection Report
Loco Hills Water Disposal Facility (Waypoint #19)
Eddy County, NM

Inspection Date: November 2, 1998

EPA ID Number: none

Facility Name: Loco Hills Water Disposal Facility

Physical Location: N 32° 49.868', W 103° 59.116'
1 mile North on Eddy County Road
Section 16, Township 17S, Range 30E

Mailing Address: P.O. Box 68
Loco Hills, NM 88255

Type of Ownership: private

Inspection Participants:

Lead EPA Inspector: Melissa Smith (214) 665-7357 **Initials:** MLS

Other Participants:

Roger Anderson	New Mexico Oil Conservation Division	(505) 827-7152
Doug McKenna	U.S. Fish and Wildlife Service	(505) 589-2823
Vince Balderaz	U.S. Bureau of Land Management	(505) 393-3612
Ed Moriarty	Science Applications International Corporation (SAIC)	(703) 645-6973
Tim Reeves	SAIC	(303) 382-6730

Facility Owner: Loco Hills Water Disposal Corporation

Facility Representative: James R. Maloney, Vice President, (505) 677-2118

Facility Description: Commercial facility for produced water disposal.

Generator Status: non-generator

Inspection Type: Compliance evaluation inspection with sampling

Reason for Evaluation: General inspection with sampling

Summary of Inspection: see narrative

Checklists Completed: Problem Oil Pit Inspection Checklist

Peer Reviewed by: Esteban Herrera **Date:** 05/04/99

Compliance Evaluation Inspection Narrative
Loco Hills Water Disposal Facility (Waypoint #19)
Eddy County, NM

On September 17, 1998, the Loco Hills Water Disposal Facility was identified during an aerial survey by the U.S. Fish and Wildlife Service (FWS) as being a potential problem oil pit facility. From the air, it appeared that the facility had some pits with oil on the surface that were not netted as well as an oily discharge running off to the south side of the property (see Photo Log "A", photo #'s 1-3). A site inspection was conducted on November 2, 1998, as a follow-up to the aerial survey. The inspection team arrived at the facility at approximately 11:30am. The team was met by Mr. James R. (Dick) Maloney, Vice President of the facility. The team explained the purpose of the visit which was to follow-up on the information obtained during the aerial survey, determine if any pits or structures pose a threat to wildlife (including any mortality observed on-site), and to determine if the facility handles any waste which may be subject to the Resource Conservation Recovery Act regulations regarding hazardous waste.

The facility leases 40 acres of property off of Eddy County Road approximately one mile north of Highway 82. Twenty acres are fenced off and contain the facility's operations. Produced waters are taken in from trucking companies that have designated contracts with the Loco Hills facility ("Facility"). The Facility only accepts exempt oil field waste (waste that is exempt from the RCRA hazardous waste regulations). The off loading area is equipped with a computer lock-out system which prevents unauthorized transporters from disposing of waste at the Facility (see Photo Log "C", photo #'s 2 & 4). The computer system tracks the transporter, the time that they off loaded the waste, and the quantity of waste off loaded. The produced water is pumped from the transporter's vehicle into a 750-barrel tank (see Photo Log "C", photo #3). There are also two 500-barrel tanks and a 250-barrel tank for excess receiving storage. The off loading area is equipped with a containment trench (see Photo Log "C", photo #4). The material in the trench is processed with the rest of the produced water. The oil and water separate in the tank. The oil is skimmed off and stored in holding tanks and sold as product. The water is discharged from the tank into separation ponds (or "skim pits") where additional separation occurs. There are two skim pits located on the west side of the Facility (see Photo Log "B", photo #'s 4 & 5). The pits are approximately 50 ft x 150 ft and were originally 20 feet deep. At the time of the inspection, both of the skim pits were covered with a thick layer of oil; however, the pits were covered with netting to reduce threats to wildlife (see Photo Log "C", photo #'s 1 & 6). The northern-most skim pit was not being used at the time of the inspection. The solids from the pit were going to be moved to another pit to dry and then landfarmed before the pit is reused. Mr. Maloney was in the process of removing the oil from the southern-most skim pit during the inspection (see Photo Log "B", photo #6). Oil recovered from the pits is stored in several tanks with capacities ranging from 300 to 1000 barrels located south of the receiving tanks (see Photo Log "C", photo #5). The water from the skim pits drains into a series of evaporation pits. There are seven evaporation pits located on site. No water is discharged from the Facility, it is all disposed of by evaporation. There are 13 groundwater monitoring wells surrounding the Facility. The first evaporation pit located adjacent to the two skim pits had oil and iron sulfide (FeS) staining around the banks of the pit (see Photo Log "C", photo #7). No oil or staining was observed on the other evaporation pits. South of the skim pits and first evaporation pit is a pit for solids (see Photo Log "B", photo #7). Solids from the clean out of the skim pits are placed here to dry and then landfarmed. The Facility has a 6-acre pit on the south side of the Facility that is used for landfarming (see Photo Log "B", photo #9). Both the solids pit and landfarming pit appeared to contain soil saturated with oil and some pools of oily liquid. The Facility also has a small pit on the southwest side of the Facility that is used as a "catch-all" pit for overflows and spills. The pit contained oil and was covered with netting (see Photo Log "B", photo #8).

Mr. Maloney explained that the "oily discharge" FWS viewed from the air on September 17 was actually a tank clean-out process. He explained that they cleaned out the buildup of iron sulfide from the tanks and were

landfarming it in the pit on the south side of the Facility. Mr. Maloney provided copies of the receipts from the tank clean out which were dated September 17, 1998 (see Attachment A). There did not appear to be a discharge of oil from the Facility at the time of the inspection, although the solids in both the drying pit and the landfarm pit were heavily oiled and stained.

Representative samples were taken of the produced water in the receiving tanks and skim pits:

- The tank sample was collected from the pipe that leads from the tanks into the skim pit (sample #WP-19Tank). Mr. Malloney opened the valve at the tank to allow the liquid in the tank to flow into the pit. When the liquid flowing into the pit became oil rather than produced water, Mr. Maloney closed the valve and opened the valve to another tank.

- The pit sample was taken from the pipe leading from the skim pit to the evaporation pit (sample #WP-19PIT). There was not a valve to regulate the flow from this pipe.

Appropriate quality assurance and quality control (QA/QC) samples were collected. Adequate volume was collected to provide split samples to the Facility (duplicate QA/QC samples were not collected). A copy of the chain of custody form signed by Mr. Maloney is attached (Attachment B). The EPA samples were sent via Federal Express to Core Lab-Gulf States Analytical in Houston, Texas, for analysis (see Attachment C for the chain of custody). The samples were analyzed for volatile organic compounds, semi-volatile organic compounds, organochlorine pesticides, organophosphorus pesticides, chlorophenoxy herbicides, polychlorinated biphenols (PCBs), and HSL metals (Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, and Zinc). A summary table of the analytical results is included in Attachment D.

The FWS did not find evidence of wildlife mortality at the Facility during the inspection.

A Problem Oil Pit inspection checklist was completed during the inspection and is included as Attachment E. The inspection team left the Facility at 5:00pm at the request of Mr. Maloney. He explained that the Facility was closed and that the team was welcome to return during business hours the following day. The lead inspector determined that it would not be necessary to return to the site.

Areas of Concern

- Some oil staining around bank of first evaporation pit.

- Solids pit and landfarming area contained soil saturated with oil and some small pools of oily liquid.

Attachments

Photo Log "A"

Photo Log "B"

Photo Log "C"

A Receipt for tank clean out

B Chain of Custody for split samples

C Chain of Custody for EPA samples

D Analytical Data Summary

E Problem Oil Pit Inspection Checklist

PHOTO LOG "A"

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Official Photograph Log

Photo Number: 1 Photographer: Greg Stover, FWS
Location: Loco Hills Water Disposal
Subject: Aerial view of facility
City/County: Loco Hills/Eddy County State: NM
Date: 09/17/98 Time: unknown Weather: partly cloudy

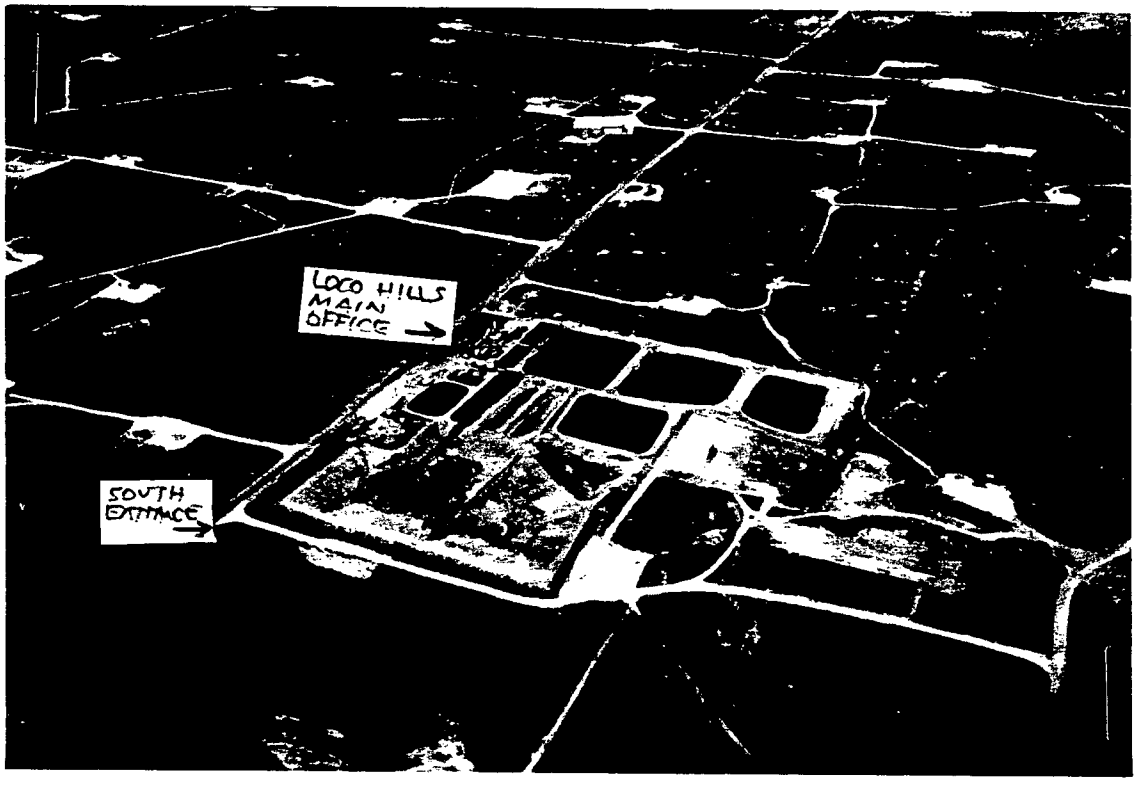


Photo Number: 2 Photographer: Greg Stover, FWS
Location: Loco Hills Water Disposal
Subject: Aerial view of facility
City/County: Loco Hills/Eddy County State: NM
Date: 09/17/98 Time: unknown Weather: partly cloudy

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Official Photograph Log

Photo Number: 3 Photographer: Greg Stover, FWS
Location: Loco Hills Water Disposal
Subject: Aerial view of run-off on south side of facility.
City/County: Loco Hills/Eddy County State: NM
Date: 09/17/98 Time: unknown Weather: partly cloudy

PHOTO LOG "B"

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Official Photograph Log

Photo Number: 3 Photographer: Melissa Smith
Location: Loco Hills Water Disposal
Subject: Front of facility, unloading area, and receiving tanks
City/County: Loco Hills/Eddie County State: NM
Date: 11/02/98 Time: am Weather: cool, sunny

Photo Number: 4 Photographer: Melissa Smith
Location: Loco Hills Water Disposal
Subject: Skim pit - not currently in use
City/County: Loco Hills/Eddie County State: NM
Date: 11/02/98 Time: am Weather: cool, sunny

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Official Photograph Log

Photo Number: 1 Photographer: Melissa Smith
Location: Loco Hills Water Disposal
Subject: Front of facility, unloading area, and receiving tanks
City/County: Loco Hills/Eddie County State: NM
Date: 11/02/98 Time: am Weather: cool, sunny

Photo Number: 2 Photographer: Melissa Smith
Location: Loco Hills Water Disposal
Subject: Front of facility, unloading area, and receiving tanks
City/County: Loco Hills/Eddie County State: NM
Date: 11/02/98 Time: am Weather: cool, sunny

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Official Photograph Log

Photo Number: 5 Photographer: Melissa Smith
Location: Loco Hills Water Disposal
Subject: Skim pit - in use
City/County: Loco Hills/Eddie County State: NM
Date: 11/02/98 Time: am Weather: cool, sunny

Photo Number: 6 Photographer: Melissa Smith
Location: Loco Hills Water Disposal
Subject: Oil being removed from skim pit
City/County: Loco Hills/Eddie County State: NM
Date: 11/02/98 Time: am Weather: cool, sunny

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Official Photograph Log

Photo Number: 7 Photographer: Melissa Smith
Location: Loco Hills Water Disposal
Subject: Solids from skim pits
City/County: Loco Hills/Eddie County State: NM
Date: 11/02/98 Time: am Weather: cool, sunny

Photo Number: 8 Photographer: Melissa Smith
Location: Loco Hills Water Disposal
Subject: Overflow/spill pit with netting
City/County: Loco Hills/Eddie County State: NM
Date: 11/02/98 Time: am Weather: cool, sunny

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Official Photograph Log

Photo Number: 9 Photographer: Melissa Smith
Location: Loco Hills Water Disposal
Subject: Landfarming of solids
City/County: Loco Hills/Eddie County State: NM
Date: 11/02/98 Time: am Weather: cool, sunny

PHOTO LOG "C"

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Official Photograph Log

Photo Number: 1 Photographer: T. Reeves
Location: Loco Hills Water Disposal Facility (WP19)
Subject: First separation pond (skim pit), looking north.
City/County: Loco Hills/Eddy County State: NM
Date: 11/02/98 Time: am Weather: sunny, cool

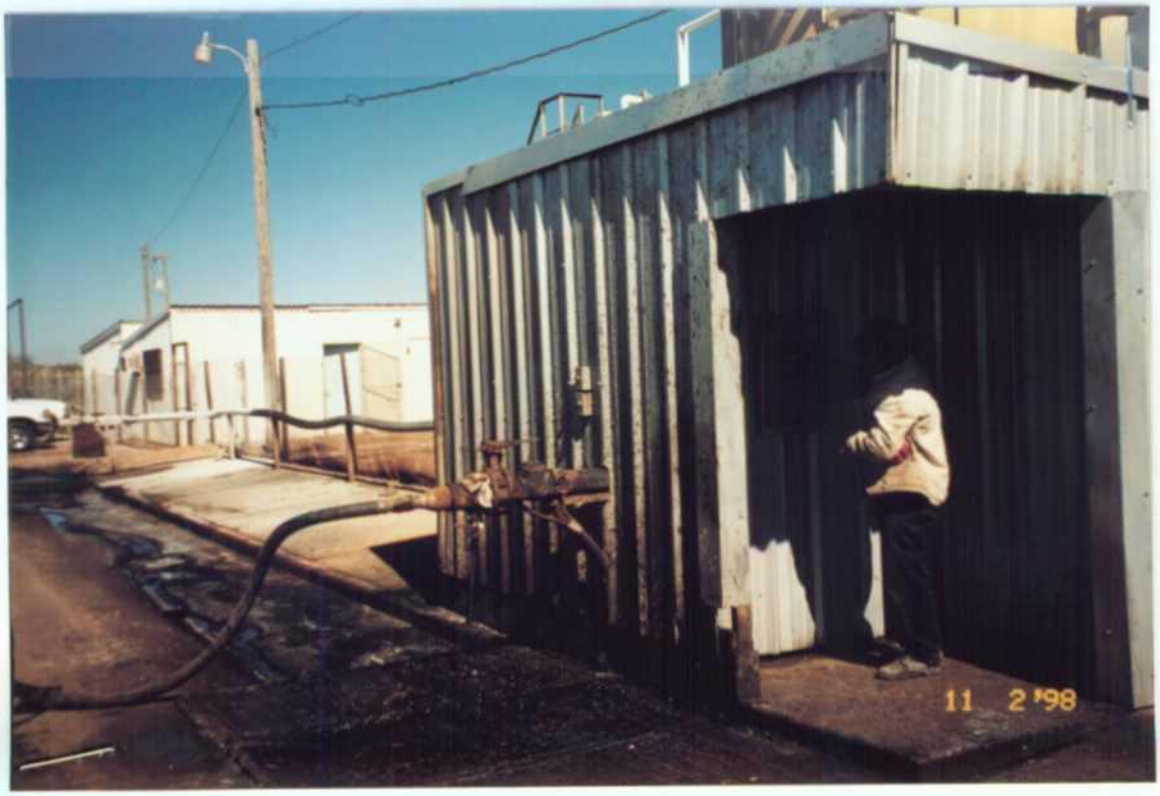


Photo Number: 2 Photographer: T. Reeves
Location: Loco Hills Water Disposal Facility (WP19)
Subject: Off loading of produced water, looking northeast.
City/County: Loco Hills/Eddy County State: NM
Date: 11/02/98 Time: am Weather: sunny, cool

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Official Photograph Log

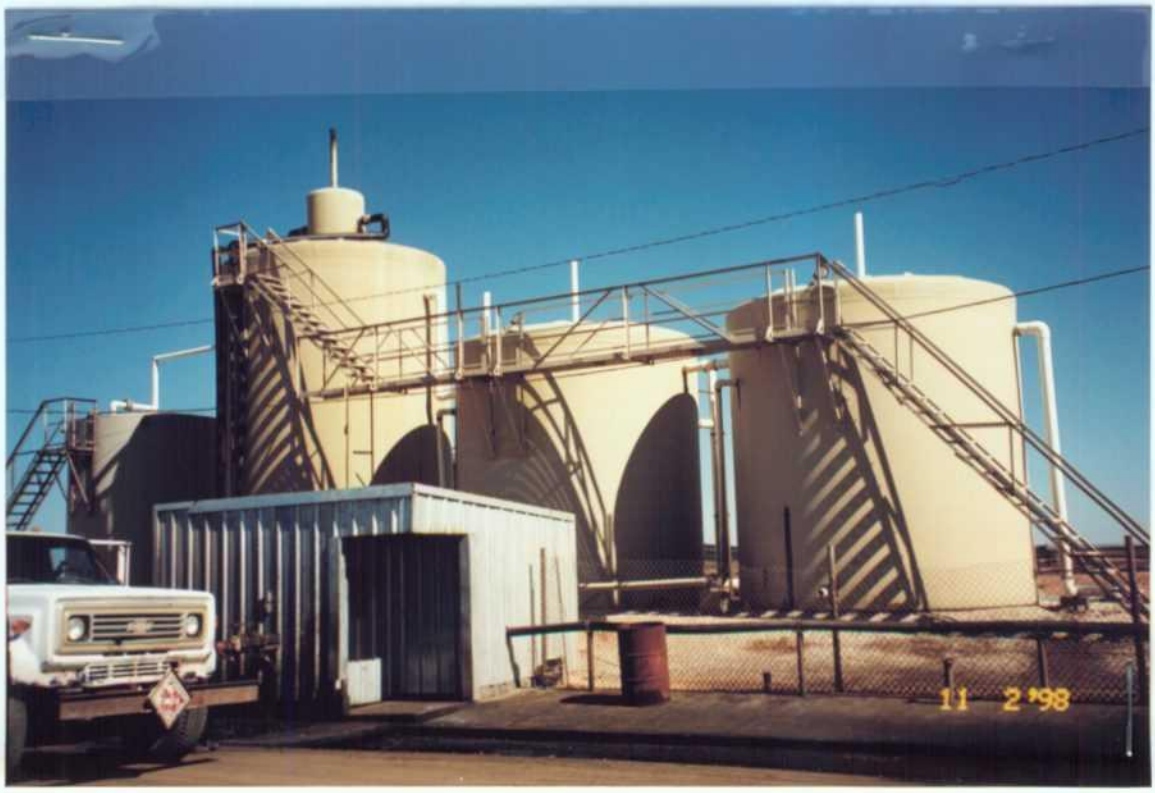


Photo Number: 3 Photographer: T. Reeves
Location: Loco Hills Water Disposal Facility (WP19)
Subject: Receiving tanks, looking east.
City/County: Loco Hills/Eddy County State: NM
Date: 11/02/98 Time: am Weather: sunny, cool

Photo Number: 4 Photographer: T. Reeves
Location: Loco Hills Water Disposal Facility (WP19)
Subject: Containment trench at off loading area, looking north.
City/County: Loco Hills/Eddy County State: NM
Date: 11/02/98 Time: am Weather: sunny, cool

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Official Photograph Log

Photo Number: 5 Photographer: T. Reeves
Location: Loco Hills Water Disposal Facility (WP19)
Subject: Recovered oil tank battery.
City/County: Loco Hills/Eddy County State: NM
Date: 11/02/98 Time: am Weather: sunny, cool

Photo Number: 6 Photographer: T. Reeves
Location: Loco Hills Water Disposal Facility (WP19)
Subject: Netting on settling/skim pond.
City/County: Loco Hills/Eddy County State: NM
Date: 11/02/98 Time: am Weather: sunny, cool

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Official Photograph Log

Photo Number: 7 Photographer: T. Reeves
Location: Loco Hills Water Disposal Facility (WP19)
Subject: Oil and FeS staining on bank of evaporation pond.
City/County: Loco Hills/Eddy County State: NM
Date: 11/02/98 Time: am Weather: sunny, cool

ATTACHMENT A

ACCOUNTING ADDRESS:
P. O. BOX 26
LOCO HILLS, N.M. 88255
PHONE:
(505) 677-2320
DAY OR NIGHT NUMBER:
(505) 677-3113

STEVE CARTER, INC.

HOT OIL UNITS — OIL FIELD TRANSPORTS — PUMP TRUCK

LOCO HILLS, NEW MEXICO

36614

DATE 9-12-92

DRIVER Mike Dean TRUCK NO. 59 CAPACITY 80 BBLS.

SHIPPED FROM S.W.D AT

SHIPPED TO S.W.D LEASE

DESCRIPTION	HRS. OR BBLS.	RATE	AMOUNT	TAX	TOTAL
Clean, Rinse 1,000bbl Tank	130	61.00	335 50		
	130				
	+120				
3 #2" Thick Total	380 bbls			18 89	354 39

TIME STARTED 9:30A

TIME FINISHED 3:00P

TOTAL HOURS 5½

L H W D

COMPANY NAME S.W.D

BY:

Bryan Printers & Stationers, Inc. Form No.1963-D1

ACCOUNTING ADDRESS:
P. O. BOX 35
LOCO HILLS, N.M. 88255
PHONE:
(505) 677-2320
DAY OR NIGHT NUMBER:
(505) 677-3113

STEVE CARTER, INC.

HOT OIL UNITS — OIL FIELD TRANSPORTS — PUMP TRUCK

LOCO HILLS, NEW MEXICO

40919

DATE 9-17-98

DRIVER Big Martinez TRUCK NO. 56 CAPACITY 130 BBLS.

SHIPPED FROM Loco Hills Brine AT

SHIPPED TO Loco Hills S.W.D. LEASE Loco Hills S.W.D.

DESCRIPTION	HRS. OR BBLS.	RATE	AMOUNT		TAX		TOTAL	
Brine	900	57.00	313	50				
		140	80	00				
					22	13	415	63

TIME STARTED 9:30 Am

TIME FINISHED 3:00 pm

5 1/2

COMPANY NAME Loco Hills S.W.D.

BY:

Bryan Printers & Stationers, Inc. Form No 1963-D1

ATTACHMENT B

GULF STATES ANALYTICAL

CORE LAB

6310 Rothway, Houston, Texas 77040
(713) 690-4444, Fax (713) 690-5646

Request for Analysis

Company: ❶ SAIC
Address: 2222 Gallows Rd - Dunn Loring, Va
Tele #: 703 6415 6973
Fax #:
Reports Sent To:
P O #:
Project #:
Project Name: NII 0.1 Pits
Project Location:
Sampler(s) Name: (Signature)
Courier:

❷ Field Sample ID	❸ Sampling Date	❸ Sampling Time	❶ Matrix: Water	Soil	Sludge	Oil	Other	# of Containers	Haz. Sample (Y/N)	VOC	SVOC	PCB	Herb	TAL Metals
1. INP 17 TANK	11/2/98	1540	X							X	X	X	X	X
2. INP 17 Pit		1620	X							X	X	X	X	X
3.														
4.														
5.														
6.														
7.														
8.														
9.														
10.														
11.														
12.														
13.														

Samples delivered to Operator Dick Wilkins

Relinquished by Sampler: (Signature) — Date 11/4/98 — Time 1000
Relinquished by: (Signature) — Date — Time
Received by: (Signature) — Date — Time
Relinquished by: (Signature) — Date — Time
Received by: (Signature) — Date 11/2/98 — Time 5:02 PM
Received by Laboratory: (Signature) — Date — Time

❻ Remarks:

Requested Turnaround

GSAI Group:

Special Detection Limits

QC Package: (check one)
☐ CLP ☐ Site Specific
☐ Tier 1 ☐ Tier 2 ☐ QC Summary

SOUTHERN LITHOGRAPH, INC. - (713) 780-0400

White Copy to Accompany Samples to Lab — Yellow Copy Retained by Client — Pink Copy Retained by Sampler

ATTACHMENT C

GULF STATES ANALYTICAL

CORE LAB

6310 Rothway, Houston, Texas 77040
(713) 690-4444, Fax (713) 690-5646

Company: ❶ SAIC

Address: 2222 Gallows Rd Dunn Loring, VA 22027

Tele #: 703 645 6753

Fax #:

Reports Sent To: Clement

P O #:

Project #:

Project Name: NW Oil Pits

Project Location:

Sampler(s) Name: (Signature)

Courier: FedEx

❸ Sampling

❷ Field Sample ID	Date	Time	❹ Matrix: Water	Soil	Sludge	Oil	Other	# of Containers	Haz. Sample (Y/N)
1. WP N TANK	11/2/95	1540	X					7	
2. WP NW Pit	11/2/95	1620	X					7	
3. EB-01	11/2/95	2155	X					8	
4.									
5.									
6.									
7.									
8.									
9.									
10.									
11.									
12.									
13.									

❺ Request for Analysis

TCLP VOC	TCLP SVOC	TCLP Pest	TCLP Herb	TCLP Metals	8270	
X	X	X	X	X	X	Change to collect with SVOC
↓	↓	↓	↓	↓	↓	
						Do QC on WP NW Pit

Relinquished by: (Signature) — Date — Time

Relinquished by: (Signature) — Date — Time

Relinquished by Sampler: (Signature) — Date 11/3/95 — Time 0700

Received by Laboratory: (Signature) — Date — Time

Received by: (Signature) — Date — Time

Received by: (Signature) — Date — Time

❻ Remarks: Cell Phone # 703 447-3414
Sue # 703 645-6753

Requested Turnaround

GSAI Group:

Special Detection Limits

QC Package: (check one)
☐ CLP ☐ Site Specific
☐ Tier 1 ☐ Tier 2 ☐ QC Summary

SOUTHERN LITHOGRAPH, INC. - (713) 780-0400

White Copy to Accompany Samples to Lab — Yellow Copy Retained by Client — Pink Copy Retained by Sampler

ATTACHMENT D

TABLE 1-1

SUMMARY OF DETECTED CONSTITUENTS FOR WATER SAMPLES LOCATION 1, CARLSBAD, NEW MEXICO

Detected Constituent	WP-19-TANK	WP-19-PIT	EB-01
HSL Metals (SW-846 Methods 3051/6010B/7470A)			
Aluminum	109	1.42	< 0.0382
Arsenic	4.1	0.217	< 0.0037
Barium	16.1	0.342	< 0.0044
Beryllium	0.069 T	0.0072	0.00097 T
Cadmium	< 0.015	0.0010 T	< 0.00033
Calcium	5,380	2,630	< 0.0088
Chromium	5.1	0.0352	< 0.0021
Cobalt	0.662 T	< 0.0011	< 0.0011
Copper	39.0	< 0.003	< 0.003
Iron	6,830	18.4	< 0.0199
Lead	31.5	20.7	< 0.0047
Magnesium	1,150	1,540	< 0.0376
Manganese	34.8	1.81	< 0.00044
Mercury	0.0102	< 0.0001	< 0.0001
Nickel	17.0	0.0177 T	< 0.0017
Potassium	1,250	2,250	0.426 T
Selenium	< 0.41	0.0789	< 0.0091
Silver	< 0.065	< 0.0014	< 0.0014
Sodium	20,700	33,400	1.3 T
Vanadium	< 0.045	< 0.0214 T	< 0.001
Zinc	24.8	0.28	< 0.0017
Total VOCs (SW-846 Method 8260B)			
Acetone	1.3	1.8	< 0.01
Benzene	8.5	3.3 D	< 0.005
Ethylbenzene	1.0	0.54	< 0.005
4-Methyl-2-pentanone	0.42 V	0.34	< 0.01
Toluene	8.8	3.9	< 0.005
Xylene (total)	2.9	1.2	< 0.015

TABLE 1-1 (Continued)

SUMMARY OF DETECTED CONSTITUENTS FOR WATER SAMPLES LOCATION 1, CARLSBAD, NEW MEXICO

Detected Constituent	WP-19-TANK	WP-19-PIT	EB-01
Total SVOCs (SW-846 Method 8270C)			
Benzo(a)anthracene	0.0022 V	< 0.01	< 0.01
Carbazole	0.0025 V	0.0022 V	< 0.01
Chrysene	0.0043 V	0.0026 V	< 0.01
Dibenzofuran	0.0098 V	0.013	< 0.01
2,4-Dimethylphenol	0.260 D	0.054	< 0.01
Fluorene	0.01	0.011	< 0.01
2-Methylnapthalene	0.12	0.11	< 0.01
2-Methylphenol	0.67 D	0.12	< 0.01
4-Methylphenol	0.72 D	0.20	< 0.01
Naphthalene	0.13	0.081	< 0.01
Phenanthrene	0.019	0.023	< 0.01
Phenol	0.9 D	0.20	< 0.01
Pyrene	0.005 V	0.003 V	< 0.01
Pesticides (SW-846 Methods 8081A/8141)			
None Detected			
Polychlorinated Biphenyls (SW-846 Method 8082)			
None Detected			
Herbicides (SW-846 Method 8151)			
None Detected			

Notes:

All concentrations are reported in units of milligrams per liter (mg/L).

Constituents reported in this table include those detected in at least one sample at a concentration greater than the reporting limit.

D	This flag identifies all compounds indentified in an analysis at a secondary dilution factor
HSL	Hazardous Substance List
SVOC	Semivolatile organic compound
SW-846	U.S. EPA (1996), Test Methods for Evaluating Solid Waste: Update III, third edition, Washington, D.C.
T	The reported value is less than the contract required detection limit but greater than the instrument detection limit
V	Result is less than the contract required quantitation limit but greater than zero
VOC	Volatile organic compound

ATTACHMENT E

PROBLEM OIL PIT INSPECTION CHECKLIST

Site Number (State-Year-Waypoint):

Loco Hills #19
11/2/98

Checklists Completed (circle those that apply):

(A) B (C)

Prepared by the US Environmental Protection Agency Region VIII and US Fish and Wildlife Service Region VI

revised 7/8/98

PROBLEM OIL PIT INSPECTION CHECKLIST

SECTION ONE: Site Information

Site Name: Loco Hills Waypoint: #19

Lease Name: n/a Lease Number: n/a

Site Location:

Section 15 Township 17S Range 29E

GPS Coordinates: Lat 32 49 88N Long 104 ~~04 02W~~

City/County/State/Reservation: Eddy County

EPA Facility ID # or Other ID #'s:

Site Type (production, commercial disposal, other): Commercial Disposal

Corporate Owner/Operator Name and Mailing Address: Loco Hills Water Disposal Corp. P.O. Box 68 Loco Hills, NM 88255

Contact Name/Affiliation/Phone: Dirk Malcomey, VP (505) 677-2118

List any known federal, state, or tribal regulatory permits applicable to this site. Include all permit number(s) and take photos of any signage which includes permit numbers: 1) Water Disposal, 2) Oil treating, 3) Brine lease

SECTION TWO: Inspection Information

Inspection date: 11/2/98 Start time: 11:30a Finish time: 5:05p

Describe weather conditions (including estimated temperature): Sunny, Cool

Were any samples taken during the inspection? Yes ✓ No ____. If yes, use a Continuation Sheet to thoroughly document the sampling activity. Include the following information: agency taking the sample(s), individual taking the sample(s), whether or not the samples were split (and with whom), sample type, sample purpose, sample location, and parameters to be analyzed for.

Inspection Team:

Inspector 1	Melissa Smith	Agency:	EPA	Phone:	214-665-7357
Inspector 2	Roger Anderson	Agency:	OCD	Phone:	505-827-7152
Inspector 3	Doug McKenna	Agency:	FWS	Phone:	505-589-2823
Inspector 4	Vince Balderaz	Agency:	BLM	Phone:	505-393-3612
Inspector 5	Tim Reeves	~~Agency~~:	SAIC	Phone:	303-382-6730
Inspector 6	Ed Moriarty	~~Agency~~:	SAIC	Phone:	703-645-6973

SECTION FOUR: Ecological Setting

Use the Site Sketch in Section Three to identify significant ecological features (waterbodies, wetlands, vegetation, etc.)

A. GENERAL SETTING

1. Land use surrounding site (e.g. urban, agricultural, rural, residential, industrial) Agricultural

2. Describe sensitive environmental areas adjacent to or in proximity to the site (e.g. parks, monuments, wetlands, prairie potholes). none

3. Potential routes of off-site migration of contaminants observed at site (e.g. swales, depressions, drainage ditches, runoff, windblown particulates, vehicular traffic) none - draining ditches to keep material on-site

4. Threatened and/or endangered species (plant or animal) known to inhabit area ? _____

5. Drinking water sources on or near the site? Yes ____ No ✓ If yes, explain: Caprock piped in

6. Ground water supply wells or monitoring wells on or near the site? Yes ✓ No ____ If yes, what is the distance from the site? ~~100~~ 50ft - 250yd Describe: 13 wells surrounding 60 - 200 ft depth

B. TERRESTRIAL HABITAT

1. Percentage of the site is coverered by: wooded areas ____ %, shrub/scrub vegetation 90 %, open fields 10 %.

2. Presence and/or absence of insects, fish, birds, mammals, etc.? some insects

C. AQUATIC HABITAT

1. Describe any flowing or non-flowing water systems at or near the site (e.g. river, creek, arroyo, ditch, natural pond or lake, artificial lagoon, reservoir, impoundment, etc.). Include type, size, distance from site, and name, if known. none

2. Is there any aquatic vegetation present? If yes, describe. no

3. What observations, if any, were made at the waterbody regarding the presence and/or absence of insects, fish, birds, mammals, etc.? n/a

D. WETLAND HABITAT

1. Based on observations and/or available information, are designated or known wetlands definitely present at the site? no

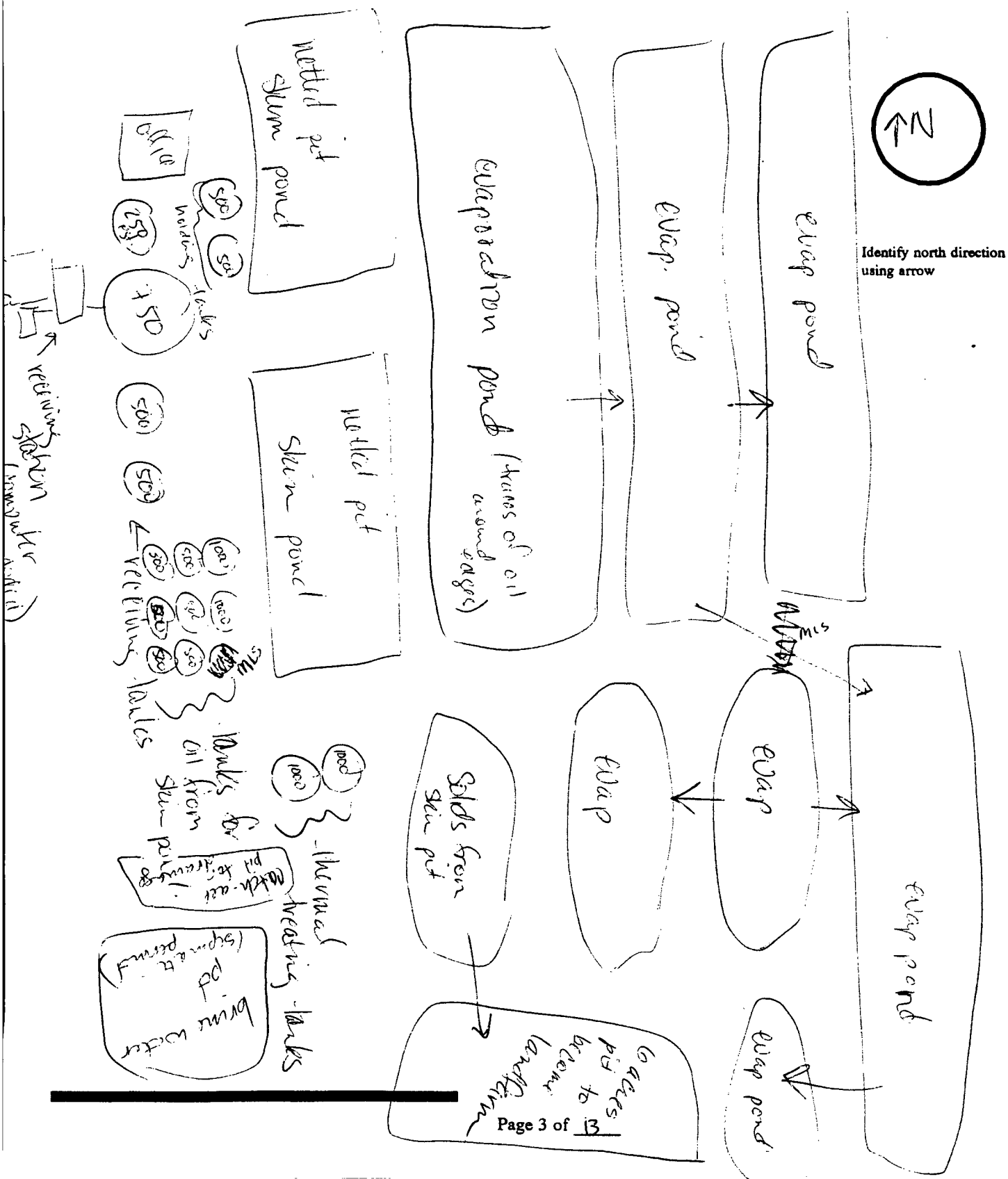
2. Based on the location of the site (e.g. along a waterbody, in a floodplain) and site conditions (e.g. standing water, dark/ wet soils, mud cracks, debris line, water marks), are wetland habitats suspected? no

3. What observations, if any, were made at the wetland regarding the presence and/or absence of insects, fish, birds, mammals, etc.? none

SECTION THREE: Sketch of Site/Layout

Site Name : Loco Hills Waypoint: #19

Include the estimated size (including depth, if possible) of any pits and describe site operations on site sketch. Include description of pertinent features such as waters of the US (location of, distance to, description of conduits to, etc.), for example. Include a north arrow on site sketch.



Identify north direction using arrow

SECTION FIVE: General Observations

#19

A. *PITS. Complete checklist A if any of the following conditions exist:*

1. Does accumulated oil exist on the surface of any pits, ponds, sumps, or other open-topped storage devices ? Yes ✓ No ___

2. Are pits, ponds, tanks, sumps, or other devices which may accumulate oil covered with netting or are there any other wildlife exclusionary or deterrent devices in use (covers, flagging, etc.) ? Yes ✓ No ___

3. Are there any dead or oiled birds or other wildlife on or near the site or any indication of oiled birds/wildlife previously at or near the site (oily tracks, etc.) ? Yes ___ No ✓

B. *DISCHARGES. Complete checklist B if any of the following conditions exist:*

1. Is there a discharge (either ongoing or one-time) from a pit, pond, tank, or other device at the site ? Yes ___ No ✓

What appeared to be a discharge offsite was going to another pit.

2. Is there indication of any past or potential future discharge from a pit, pond, tank, or other device at the site (soil staining, fresh dirt or gravel used as cover, 2 ft or less freeboard maintained, eroded berms, etc.) ? Yes ___ No ✓

C. *TANKS AND CONTAINERS [complete this section only if there are tanks or containers with oil on site with a capacity of 660 gallons (16 barrels) in a single tank/container or total capacity of 1,320 gallons (31 barrels) in all tanks/containers on site]. Complete checklist C if any of the following conditions exist:*

1. Is the secondary containment (dikes, berms, weirs) around tanks, containers, and heater-treaters absent? There are berms Yes mis No ✓

2. Is the secondary containment (dikes, berms, weirs) around tanks, containers, and heater-treaters inadequate (in size, material, eroded or worn down)? Yes ___ No ✓

3. Has there been a discharge or spill outside the secondary containment ? Yes ___ No ✓

D. *OTHER. Complete Supplemental Checklist if any of the following conditions exist:*

1. Do you see or smell any air emissions (smoke, vapors, steam, dust) from any vent, stack, or other site activity or do you have any reason to believe that such an emission might exist? Yes ___ No ✓

2. Do you see pesticide containers in storage and/or trash areas? Yes ___ No ✓

3. Is there evidence that dredged or fill material is being or was removed from or discharged in or on the banks of waters of the US (e.g. ponds, streams, rivers, wetlands, dry arroyos, etc.) or that other inappropriate activities are occuring or having occured on waters of the US ? Yes ___ No ✓

4. Do you see or suspect dumping of any solid or liquid materials at the site, including in pit or ponds (other than oil in pits or ponds as described above) ? Yes ___ No ✓

5. Do you see or suspect any kind of below ground or partially buried storage tanks (for fuels, chemicals or waste products such as waste or used oil)? Yes ___ No ✓

6. Do you see any liquid filled transformers or capacitors? Yes ___ No ✓

7. Is there any indication that hazardous waste is generated or otherwise managed at the site ? Yes ___ No ✓

MLS

#19

PHOTO LOG (see field logbook)

Site Number: WP19

Film Type/ASA/Size: Kodak 35mm color print

Photographer: Melissa Smith

Photo Number	Subject	Direction Photo Taken
1	Front of facility, unloading area, receiving tank	SE
2	(same)	
3	(same)	
4	Skim pit - not currently in use	S
5	Skim pit - in use	SE
6.	Oil being removed from skim pit	
7	Solids from skim pits	SE
8	overflow/spill pit w/ netting	SW
9	landfarming of solids	SE
Photos taken by Tim Reeves:		
1.	first separation pond (skim pit)	N
2.	Offloading of produced water	NE
3	Receiving tanks	E
4	Containment trench at off loading area	N
5	Recovered oil tank battery	NE
6.	Netting on settling / skim pond	
7	Oil + FeS staining on bank of evaporation pond	

PHOTO LOG (CONTINUED)

Photo Number	Subject	Direction Photo Taken

#19

CHECKLIST "A" - PITS

1. If accumulated oil exists on the surface of any pits, ponds, sumps, or other open-topped storage devices, describe observed conditions including size of each pit, pond, sump, or device, percentage of area covered, and thickness of oil. Describe any other observations (visual, odor) of the material in each pit, pond, sump, or other device:

1/4 inch oil on skim pit, 90% covered
Smells like crude oil, black, thick

2. Describe any netting or other wildlife exclusionary or deterrent devices in use at the site. Include description of condition, coverage, netting mesh size, etc.:

pits covered w/ netting except for 2ft area on side where skimming takes place

3. Describe any oiled or dead birds or other wildlife found at or near the site. Indicate the number of mortalities and the seizure tag numbers for any birds collected:

none. Feathers seen, but no birds.

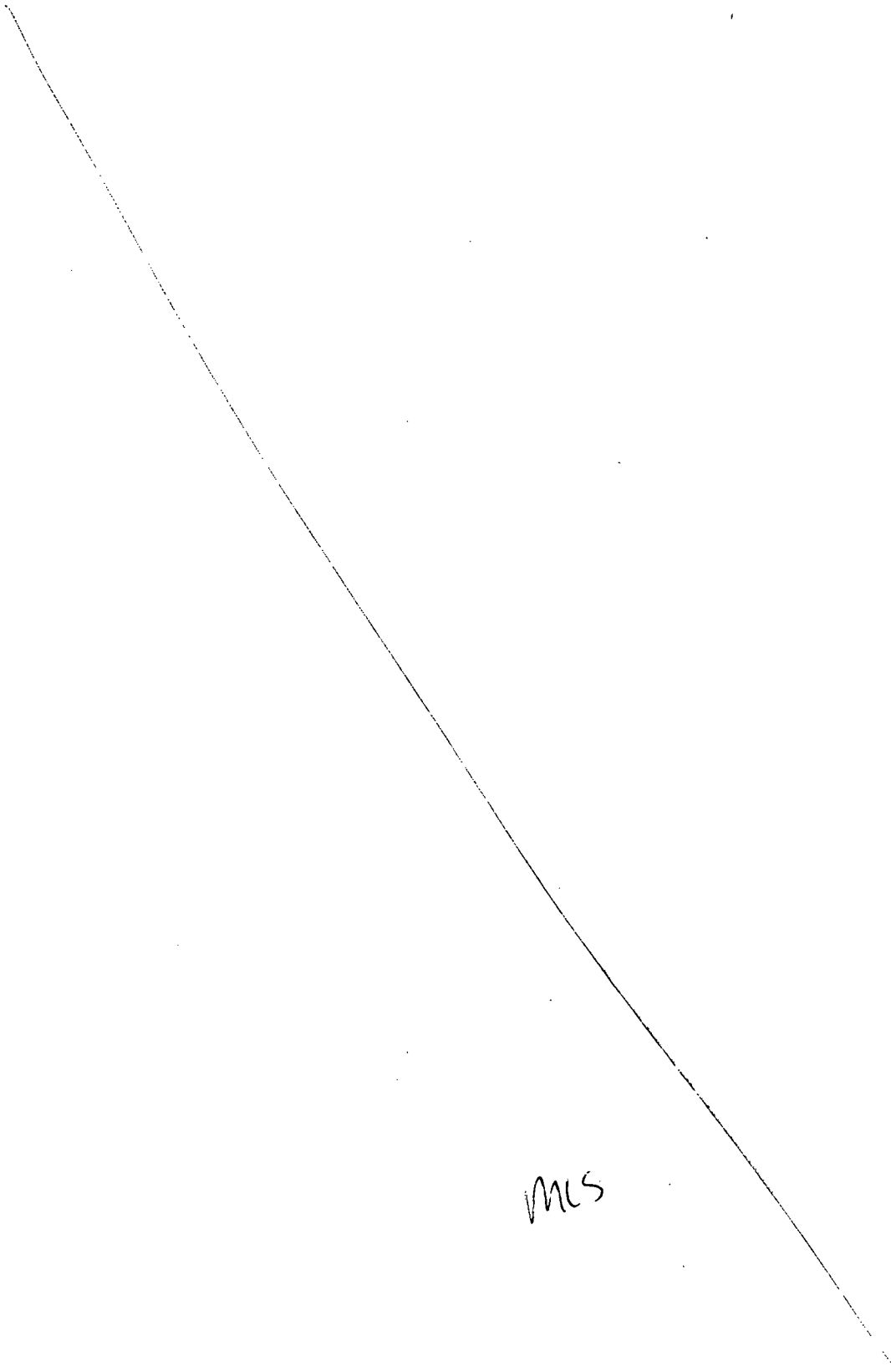
4. Describe the construction and operation of any pits or ponds located at the site. Include a description of the pond liner system, if possible. Estimate the freeboard observed at the time of the inspection:

no pond liners, skim pits are constantly flowing into evap. pits

5. Indicate how long any pits or ponds at the site have been in operation:

since 1982

6. If a pit, pond, sump, or other device is used as a loading/unloading area at a non-production site, describe any secondary containment used: n/a



MLS

#19

CHECKLIST "B" - DISCHARGES AND SPILLS N/a

1. Indicate whether or not the site has a NPDES permit and, if so, indicate the permit number and whether or not the number is posted on site:

2. Describe any **ongoing discharges or one-time spills** from pits, ponds, or other devices at the site. For each discharge, include a description of the source, duration, and rate (gal/min or cfs) of material discharged. For each spill, describe the amount and area of the spilled material. Also describe any observations (oil sheen, odor) regarding the type of material discharged or spilled:

3. Describe any indications (e.g. soil / vegetation staining on ground or in drainages) of **past discharges or spills** from pits, ponds, tanks, or other devices at the site. Include any indication of the type of material discharged or spilled (e.g. oil stain, salt brine, etc.) and when and for how long the discharge or spill occurred:

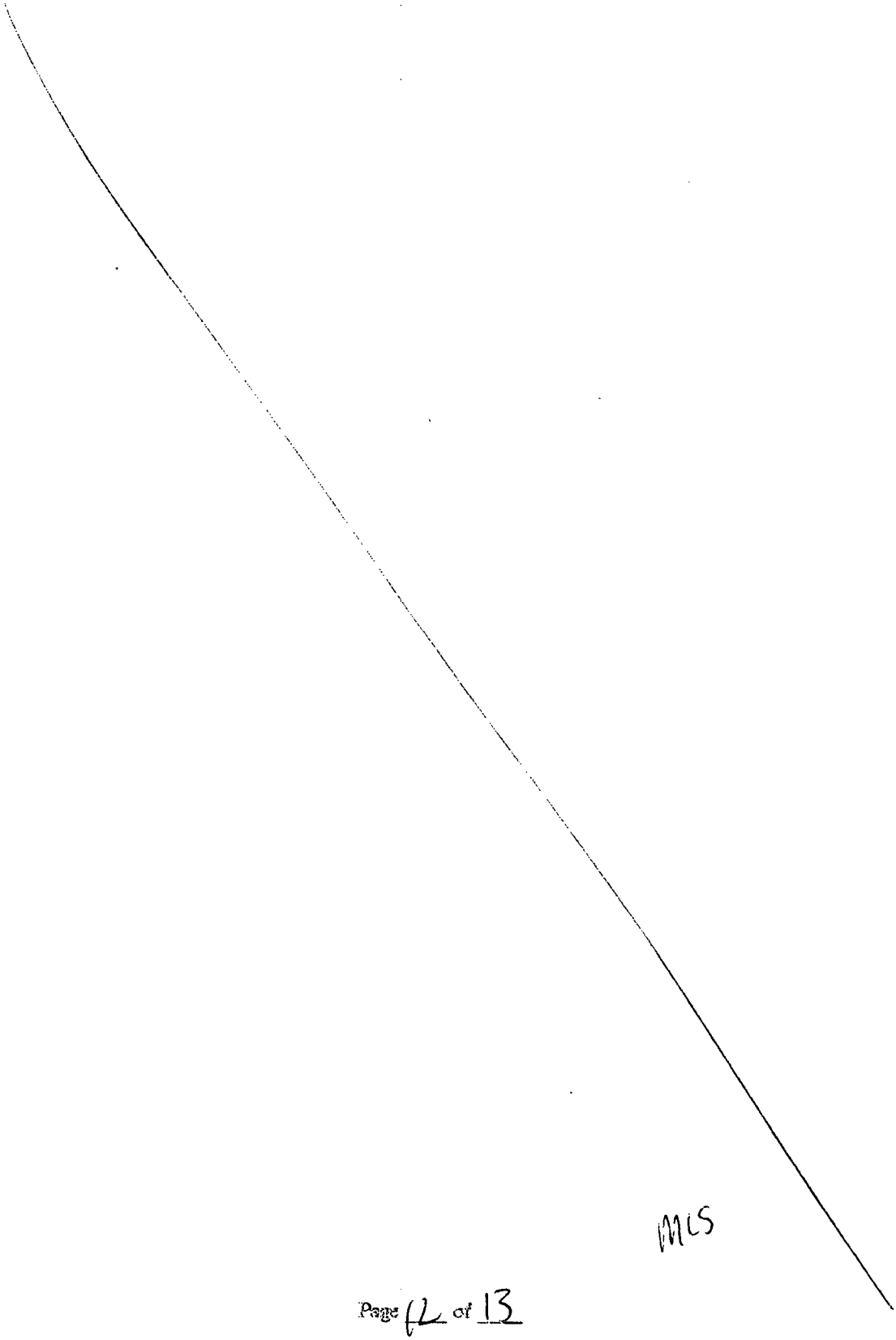
4. Identify and describe the **drainage pathway** (dry arroyo, ditch, stream, etc.) of any current or suspected past discharges or spills from the site. Trace the drainage pathway to a flowing waterway, if possible, and describe the extent of any oil staining. Include a description of whether the drainage is dry at the time of the inspection, contains standing water that doesn't appear to be flowing or, if flowing, the estimated flowrate (gal/min or cfs) of water and/or discharged material:

5. Identify and describe any pits, ponds, or other devices in which less than 2 ft of freeboard exists at the time of the inspection. Also describe any indications that less than 2 ft of freeboard has been maintained in the past, such as staining of pond banks or overtopping of berms, etc.:

6. If possible, estimate the receipt rate or production rate (gal/day) of oil and/or produced water at the site:

7. If possible, determine whether or not any discharges or spills from the site have been reported and, if so, describe how (letter, phone, etc.), when, and to whom (EPA, BLM, DEQ, OGCC, BIA, etc.) it was reported:

8. Describe the general housekeeping and maintenance of the facility and any conditions which could result in a discharge or spill (valves which could be opened, poorly supported pipelines, etc.):



MLS

#19

CHECKLIST "C" - TANKS AND CONTAINERS

1. Is there a Spill Prevention, Control, and Countermeasure (SPCC) Plan on site? no water nearby Yes ___ No ✓

   Has it been certified by a registered Professional Engineer? Yes ___ No ___ How confirmed: ___

   If no SPCC Plan on site, is there one elsewhere? Yes ___ No ___ Where? ___

2. Is the facility manned 8 hrs/day or more? Yes ✓ No ___

3. Are there any flowing, non-flowing, or wetland water systems at or near the site? Yes ___ No ✓. If yes, what is the distance from the site? ___. Describe: ___

4. Describe any threat/potential for spill (e.g. oil soaked containment; containment filled with water, debris, vegetation; leaking valves; overfilling of tanks; corroded tanks; holes in tanks; oil discharge at loading/unloading area; etc.): none

5. Is there a method to remove water from secondary containment, such as piping? Yes ✓ No ___ Is it closed? no

6. If secondary containment is not adequate (in size, material, eroded or worn down), describe: n/a .

7. Describe all items below. Be sure to include each tank/container and its secondary containment on the site sketch (Section Three). IMPORTANT: Estimate capacity or height and diameter of each tank/container, if not marked or known.

Tank / Container Type and Use	Maximum Capacity	or	Height/ Diameter	Markings	Secondary Containment	Condition / Comments (Corrosion, overtopping)

See diagram on page 3

OCD FILES

35MM DRAWINGS

NM 1004

FILE NUMBER

General Correspondence

DOCUMENT TYPE

1998

6

NO OF DWGS

Getty
HBP
029420

33

(Marala, Inc)
070003
Yates Pet
12-1-83
19618
Nestin Oil
Federal
TD 8450
D/A 5-31-80
1A
Yates
Pet
3-1-83
17595
SWZ HBC
34
Sunray M-C
Foster
TD 4516

Marala, Inc.
070003
Yates
Pet
3-1-93
17595
35
W.A.E.E.R Hudson
Lowe-Fed
TD 4410

Marala, Inc.
070003
W.A.E.E.R Hudson
Lowe-Fed
SA Disc
F66

Amoco
11-1-86
V 408
1225 Gas
Tex. O&G
(Continental)
9 4103
Cont'l
HBP
B 4189
So. Roy.
(Maxwell)
B 3627
36
Amoco
9-1-89
LG 6954
453'
Exxon
HBP
B 2613

(Casper Drlg.)
029410B
HBP
Cities Serv.
Amoco
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03428
Amoco
6-1-89
069105
Ken Turner
TD 4627

Arrowhead Oil & Gas
Wallingford
(Pan Am)
Kersey & Co
Gulf
DG 5119
Kersey
Fritchie
32
Yates Pet.
Tr 12
Tr 11
Antwell, etal
"Cooper-Stale"
Anadarko, etal
TD 3642
Stark-Richfield

Honda
H.E. Yates
029388
(Apco)
H.E. Yates
28095
H.E. Yates
Con-Ken-Fed
Mesq. Disc)
(3 Mi.l)
F211
F210
F24
H.E. Yates
"Hondo-Fed"
U.S.
3
P101

H.E. Yates
(Pennzoil)
Marathon
029388
H.E.
2 Yates
(Hudson &
Hudson)
P85
062052
(Atapaz)
"Mesquite-Fed" U.S.

3
Atapaz
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Marathon
HBP
029388

Amoco
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LG 8368
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Mobil
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(Amoco)
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TD 9425
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Shell
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TD 4500
D.A 12-11-63
H.E Yates
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Yates Ener 1/2
So. Roy
& Gulf
10-1-90
2538
Yates Ener 1/2
So. Roy
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10-1-80
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U.S.
Sullivan
(Loeffler)
TD 6

Cities Serv.
H.B.P.
029410B
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La Rue & Muncy
Walker Fed.
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(D/A 6-29-59)
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R-6134
R-6083

=R-3221-B

CLAYTON BASIN

Topography by Max J. Gleissner, S. T. Penick, M. C. McClellan, C. E. Walker, R. E. Isto, R. E. Mann, W. A. McLaughlin, D. F. C. Moor, and N. B. Wright
Surveyed in 1935, 1938, 1939 and 1942

U. S. POTASH CO. MINE 1.3 MI.
23 MI. TO U. S. 285

ROAD CLASSIFICATION

HARD-SURFACE ALL WEATHER ROADS — DRY WEATHER ROADS
Heavy duty ——— 4 LANE 2 LANE — Improved dirt ———
Medium duty — — 4 LANE 2 LANE — Unimproved dirt ·····
Loose-surface, graded or narrow hard-surface — — —
U. S. Route ◯ State Route

SCALE 1:62500

Contour interval 10 feet
Datum is mean sea level

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092

Polyconic projection. 1927 North American datum
10000 foot grid based on New Mexico (East) rectangular coordinate system
1000-meter Universal Transverse Mercator grid ticks, zone 13, shown in blue

CLAYTON BASIN, N. MEX.

N3230—W10345/15
1942
PHOTOREVISED 1961

R·4148

R·4047

Maljamar

Taylor

Cedar Lake

Lea Hills

Lopez Hills

QUERECHO PLAINS

Little Lake

CLAYTON BASIN
5249 III

R·40
R·41

Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Photorevised by photogrammetric methods from aerial photographs taken 1957. Field checked and unchecked surveys 1963

Polyconic projection. 1927 North American datum
10,000-foot grid based on New Mexico coordinate system, east zone
1,000-meter Universal Transverse Mercator grid ticks
zone 13, shown in blue

To place on the predicted North American Datum 1983 move the projection lines 8 meters south and 47 meters east

SCALE 1:62500

CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

ROAD CLASSIFICATION

Medium-duty ——— Light-duty ·····

Unimproved dirt - - - -

U.S. Route State Route

NEW MEXICO

QUADRANGLE LOCATION

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

MALJAMAR, N. MEX.
N3245—W10345/15

1963

DMA 5249 IV—SERIES V781

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

NEW MEXICO
CLAYTON BASIN QUADRANGLE
15-MINUTE SERIES

R-3909
R-6279, R-6134
R-3778
R-3771
R-3760
R-4165
R-3813
R-6134
R-6083

· R-6279
· R-4165
· R-3905
· R-3813
· R-3778
· R-3771
· R-3670
R-6134
R-6083

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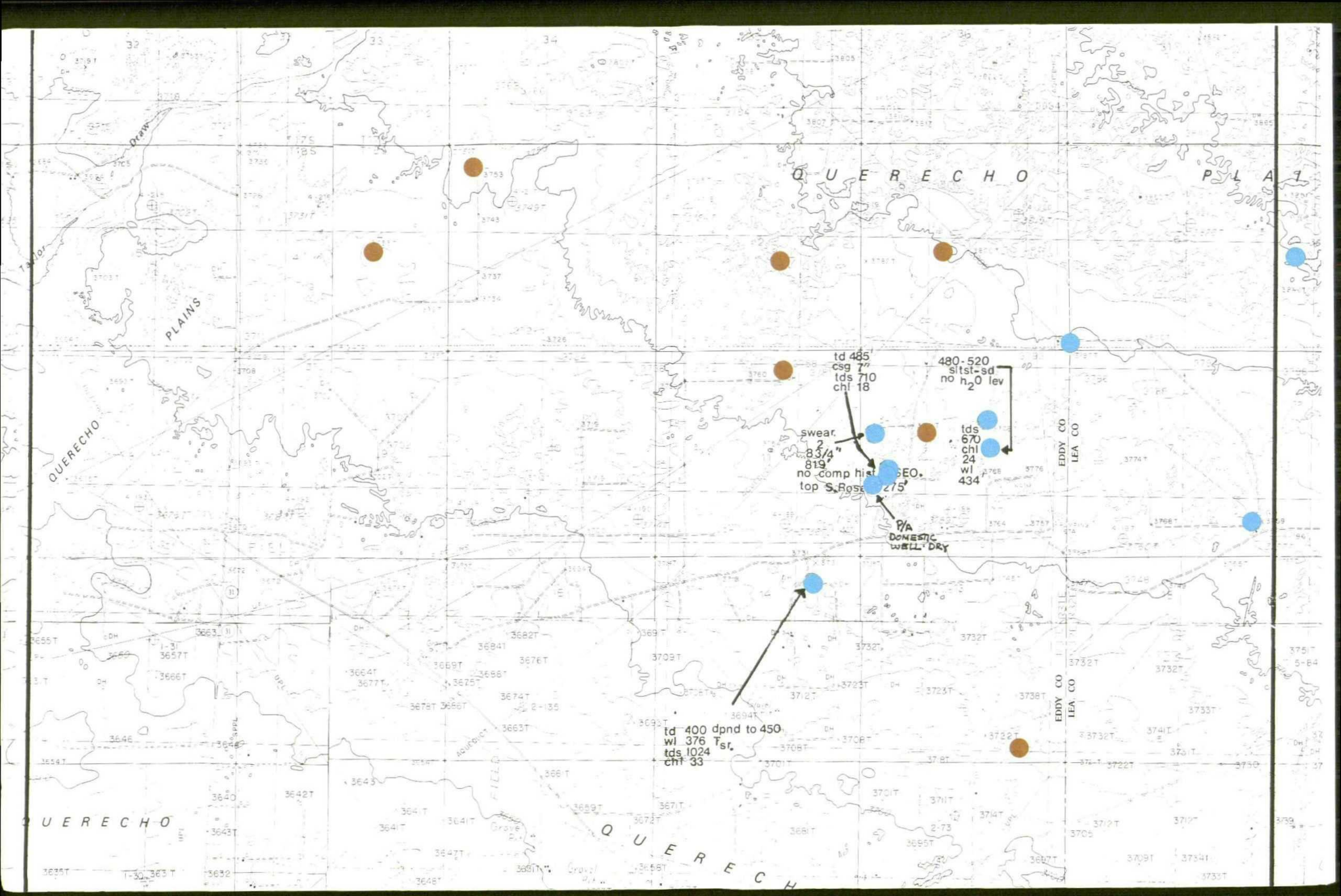
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QUERECHO PLAINS
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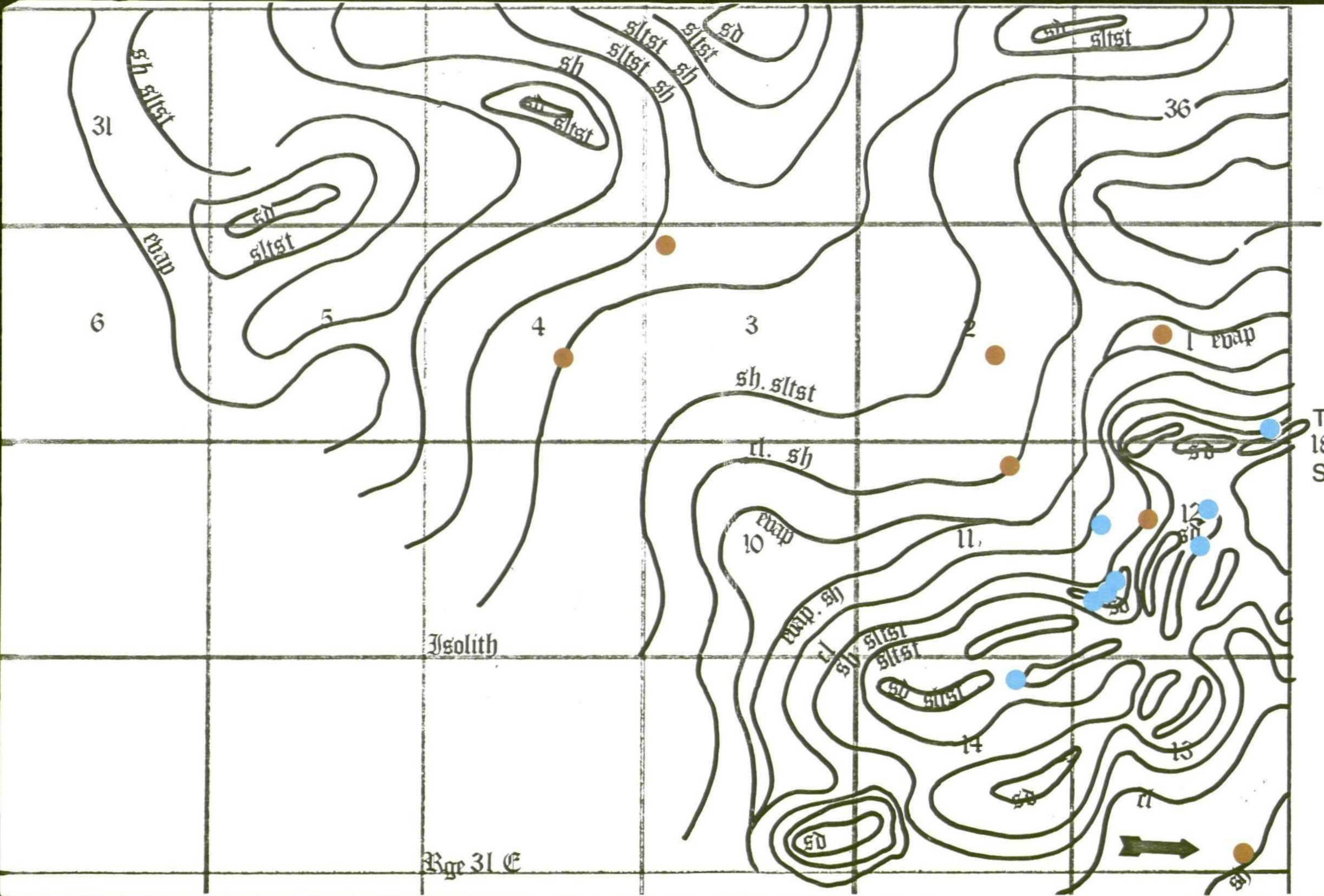
QUERECHO PLAINS
QUERECHO PLAINS



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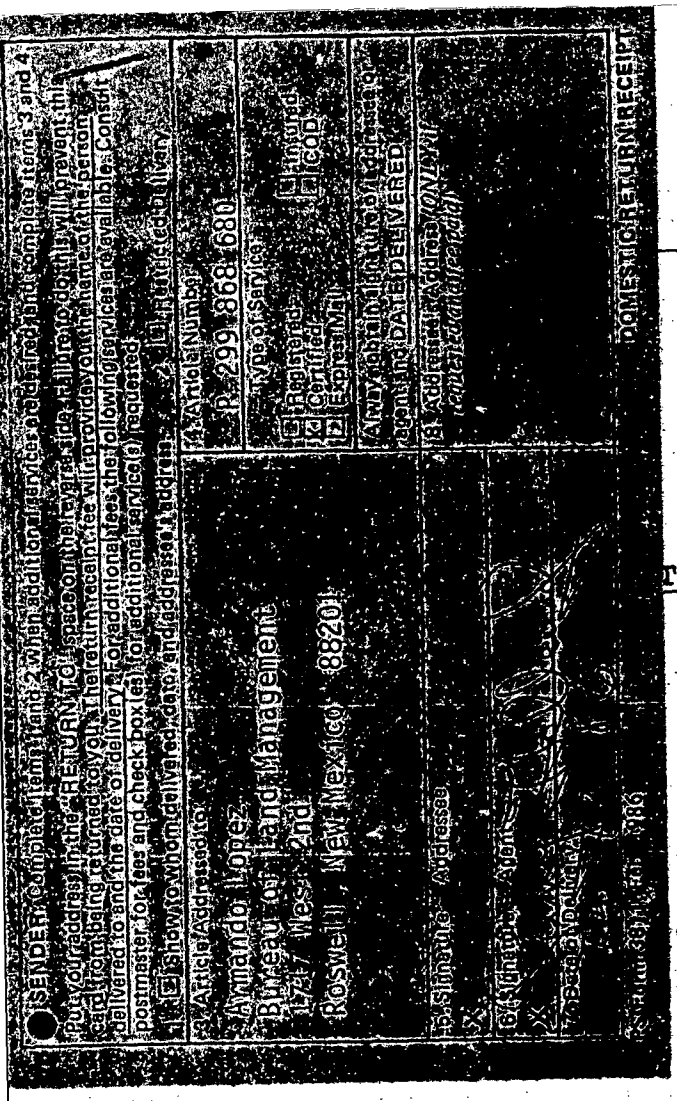


HARVEY E. YATES COMPANY

P O BOX 1933 ONE SUNWEST CENTRE 505 623 6601
ROSWELL, NEW MEXICO 88201

December 11, 1986

T REQUESTED

Re: Salt Water Disposal on Leases

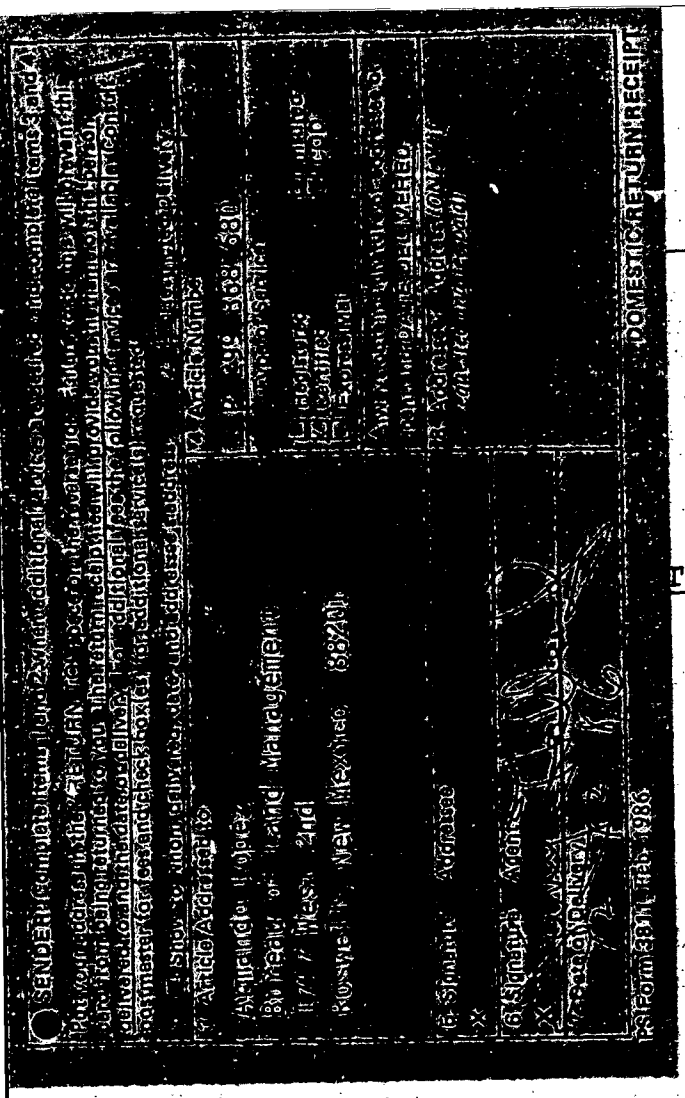
NM-2537	LC-047800(a)
NM-2538	LC-047800(b)
LC-058709(a)	LC-029388(d)
LC-058709(b)	LC-029389(b)
LC-062052	NM-28095
LC-062052(b)	

Gentlemen:

HEYCO proposes to dispose of salt water and associated produced fluids from HEYCO operated wells in Sections 1, 2, 3, 4, 11, 12 and 13, into properly constructed unlined disposal pits located at the following sites:

1. Section 1: NE/4 SW/4
2. Section 2: NW/4 SE/4
3. Section 3: NW/4 NW/4
4. Section 4: NW/4 SE/4
5. Section 11: NW/4 NE/4
6. Section 12: SE/4 NW/4
7. Section 13: SE/4 SE/4

New Mexico Oil Conservation Division regulations state that offsetting operators and/or unleased mineral owners should be notified of a proposed conversion and waive objection to the operation.



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6. Section 12: SE/4 NW/4
7. Section 13: SE/4 SE/4

New Mexico Oil Conservation Division regulations state that offsetting operators and/or unleased mineral owners should be notified of a proposed conversion and waive objection to the operation.

Location	Well Status	Altitude (feet)	Depth of Well(ft.)	Depth to Water(ft.)	Aquifer	Date of Measurement	Remarks
17.28.14.220	Stock/domestic			80	Dckm ?		
19.200	Stock			224.3	Ckbf/Rslr	Dec.2,1948	
22.230	Abandoned stock			45.5	Rslr/Dckm	Dec.1,1948	
24.224	Stock	3565	33.88	24.2		Oct.14,1977	
17.29. 8.231	Stock	3617	92.7	90.13		Oct.14,1977	
22.110	Stock	3550		79.7	Dckm ?	Nov.29,1948	
29.400	Stock			210	Dckm ?	Dec.3,1948	
17.31.34.000	Stock			271+	Dckm	Dec.6,1948	
18.27. 8.240	Unused	3505		181.40		Jan.9,1964	
8.244	Industrial	3513	381	325 ?		Apr.,1951	Oil test
10.200	Unused	3470		46.92		Jan.9,1964	
10.214	Industrial	3493	130	50		Jul.,1958	Oil test
28.13	Domestic/stock	3377	120	100		May,1960	
28.140	Unused	3415		91.37		Jan.9,1964	
33.42	Stock	3447	90	49.3		Sep.,1969	
18.28. 8.330	Stock			81.6	Ckbf/Rslr	Dec.3,1948	
30.110	Stock/domestic	3560		137.1	Ckbf ?	Dec.2,1948	
18.29.24.142	Windmill	3436		156.44		Oct.18,1977	S.C.2600; 21°C
24.23311	Windmill	3436		160.20	Trsc	Apr.8,1971	
24.300	Stock	3430		158.3	Dckm	Apr.28,1950	
34.324	Stock	3440	250	230		Mar.,1960	Yield: 63gpm
18.30.21.4200	Open cased hole	3495		266.48	Trcl	Dec.9,1965	
22.2220	Open cased hole	3430		239.26	Trcl	Apr.8,1971	
26.4140	Stock	3430	223.0	201.67	Trcl	Dec.14,1977	S.C. 1100
31.323	Observation	3370	161.0	157.80		Nov.18,1977	
32.32422	Windmill	3380		161.28	Trcl	Apr.8,1971	
32.413	Abandoned windmill	3370	266	158.77		Oct.18,1977	
18.31. 1.44432	Windmill	3797		460.42	Trcl	Apr.7,1971	
12.223	Stock	3795	480+	453.39		Oct.18,1977	
12.23144	Stock	3775	600	435.34	Trcl	Apr.7,1971	

Records of wells from Eddy County, New Mexico

Location	Well Status	Altitude (feet)	Depth of Well(ft.)	Depth to Water(ft.)	Aquifer	Date of Measurement	Remarks
18.31.14.22133	Open cased hole	3731	400	377.30	Trcl	Apr.6,1971	
35.31324	Domestic	3631	300	261.08	Trcl	Apr.5,1971	
19.27.13.310	Dug well	3450	75	60.7	Ckbf	Sep.3,1948	Very small yield
14.242	Stock/Domestic	3450	95 ?	82.4	Ckbf	Jan.20,1950	North well of 3
16.13	Stock	3342	926	18		Jan.,1969	
19.28. 2.122	Stock	3460	160	128.3	Rslr ?	Dec.13,1948	Yield: 1gpm(est.)
2.23311	Domestic/Stock	3439		153.84	Rslr	Apr.2,1968	
5.21114	Windmill	3547	160.0	150.62	Rslr	Jan.28,1971	
5.411		3530	312	145		Nov.,1969	
9.31	Stock	3545	365	265		May,13,1966	Yield: 60gpm;afte 24 hrs. pumping
13.210	Stock	3370		154.5	Rslr	Dec.3,1948	Yield: 3gpm
13.21441	Stock	3369	160	153.02	Rslr	Feb.1,1971	Yield:½(est.)
18.120	Stock	3502		82.8	Ckbf ?	Sep.3,1948	
18.11	Stock	3490	93	74		Mar.,1972	
18.12113	Stock	3505	100	88.31	Rslr	Jan.28,1971	
19.11	Stock	3495	100	91		Mar.,1972	
24.32233	Windmill	3351		130.10	Rslr	Feb.1,1971	
33.210	Stock	3345	170	123.41	Rslr ?	Dec.21,1948	
33.21422	Windmill	3545	125	121.07	Rslr	Jan.28,1971	
36.43233	Windmill	3292	87	71.75	Rslr	Feb1,1971	
19.29.10.43211	Stock	3370	153.0	145.84	Rslr	Feb.1,1971	
13.410	Stock	3310	250	123.2	Rslr/Dckm	Dec.21,1948	
13.41224	Windmill	3310		113.03	Rslr	Dec.9,1965	
13.412243	Open cased hole	3311		110.64	Rslr	Feb. 1, 1971	
20.220	Stock	3305		62.9	Rslr ?	Dec. 13,1948	Yield: 2gpm(est.)
20.24111	Windmill	3305		66.87	Rslr	Feb.1,1971	
23.23144	Windmill	3268	85.0	68.91	Rslr	Feb.1,1971	
25.232	Stock	3355	125.7	64.03		Oct.18,1977	Yield: 1gpm(est.) S.C.2950;21°C
19.30. 9.441	Industrial	3358	300		Rslr		Yield:500gpm; 21°
17.441	Stock	3329		142.70	Trsc	Feb. 1,1971	

OIL CONSERVATION COM.
SANTA FE, NEW MEXICO
RECEIVED
OCT 1 1948

FORM C-105

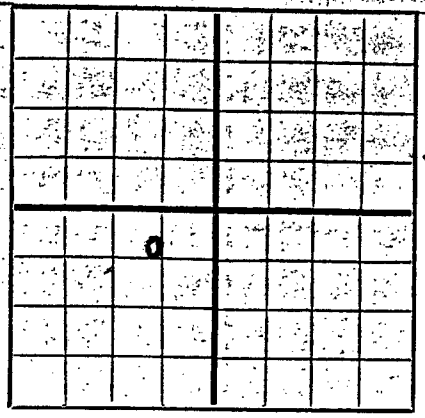
NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

Log # 5769

WELL RECORD

18.31.12



AREA 640 ACRES
LOCATE WELL CORRECTLY

Mail to Oil Conservation Commission, Santa Fe, New Mexico, or its proper agent, not more than twenty days after completion of well. Follow instructions in the Rules and Regulations of the Commission. Indicate questionable data by following it with (?). SUBMIT IN TRIPLICATE. FORM C-110 WILL NOT BE APPROVED UNTIL FORM C-105 IS PROPERLY FILLED OUT.

Worth Drilling Company, Inc. Fort Worth National Bank Bldg., Fort Worth 2, Texas.
Company or Operator Address

A. C. Taylor Well No. 6-A in SW/4 of Sec. 12, T 18-South
Lease

R. 31-East, N. M. P. M., North Shugart Field, Eddy County.

Well is 3300 (1980) feet south of the North (S) line and 3300 (1980) feet west of the East (W) line of Section 12

If State land the oil and gas lease is No. X Assignment No. X

If patented land the owner is X Address X

If Government land the permittee is A. C. Taylor Address Maljamar, New Mexico

The Lessee is Worth Drilling Company, Incorporated Address Fort Worth, Texas

Drilling commenced July 17 19 48 Drilling was completed September 27 19 48

Name of drilling contractor Worth Drilling Company, Incorporated Address Fort Worth, Texas

Elevation above sea level at top of casing 3750 feet.

The information given is to be kept confidential until No Time 19

OIL SANDS OR ZONES

No. 1, from 3561 to 3588 No. 4, from to

No. 2, from to No. 5, from to

No. 3, from to No. 6, from to

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from 450 to 485 feet. Normal

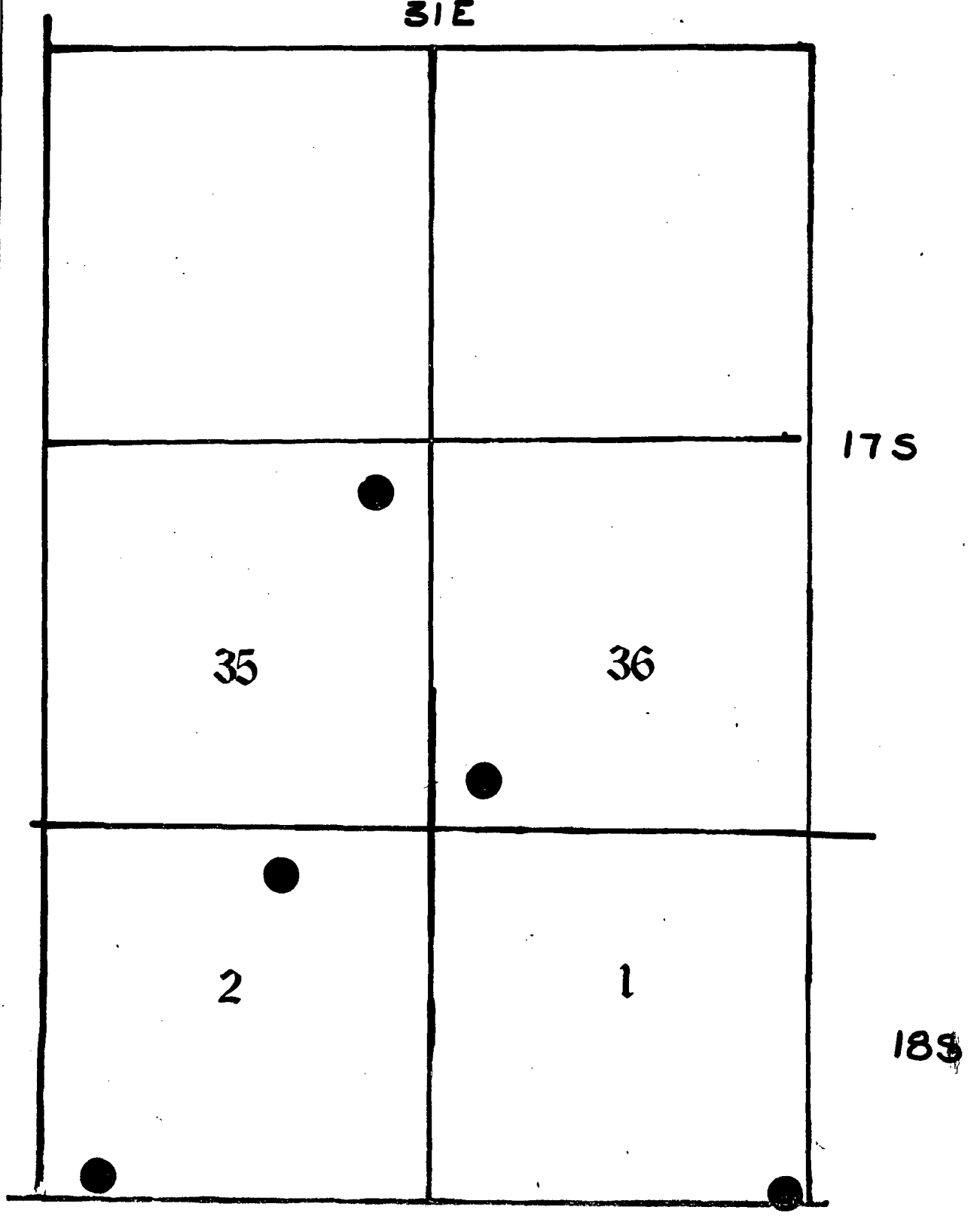
No. 2, from to feet.

No. 3, from to feet.

No. 4, from to feet.

CASING RECORD

SIZE	WEIGHT PER FOOT	THREADS PER INCH	MAKE	AMOUNT	KIND OF SHOE	CUT & FILLED FROM	PERFORATED FROM	PERFORATED TO	PURPOSE
8-5/8"	28#	2.25	Nat'l	973'3"	Pattern	No	-	-	Surface Casing
7"	20#	3	Nat'l	3435'9"	None	No	-	-	Production String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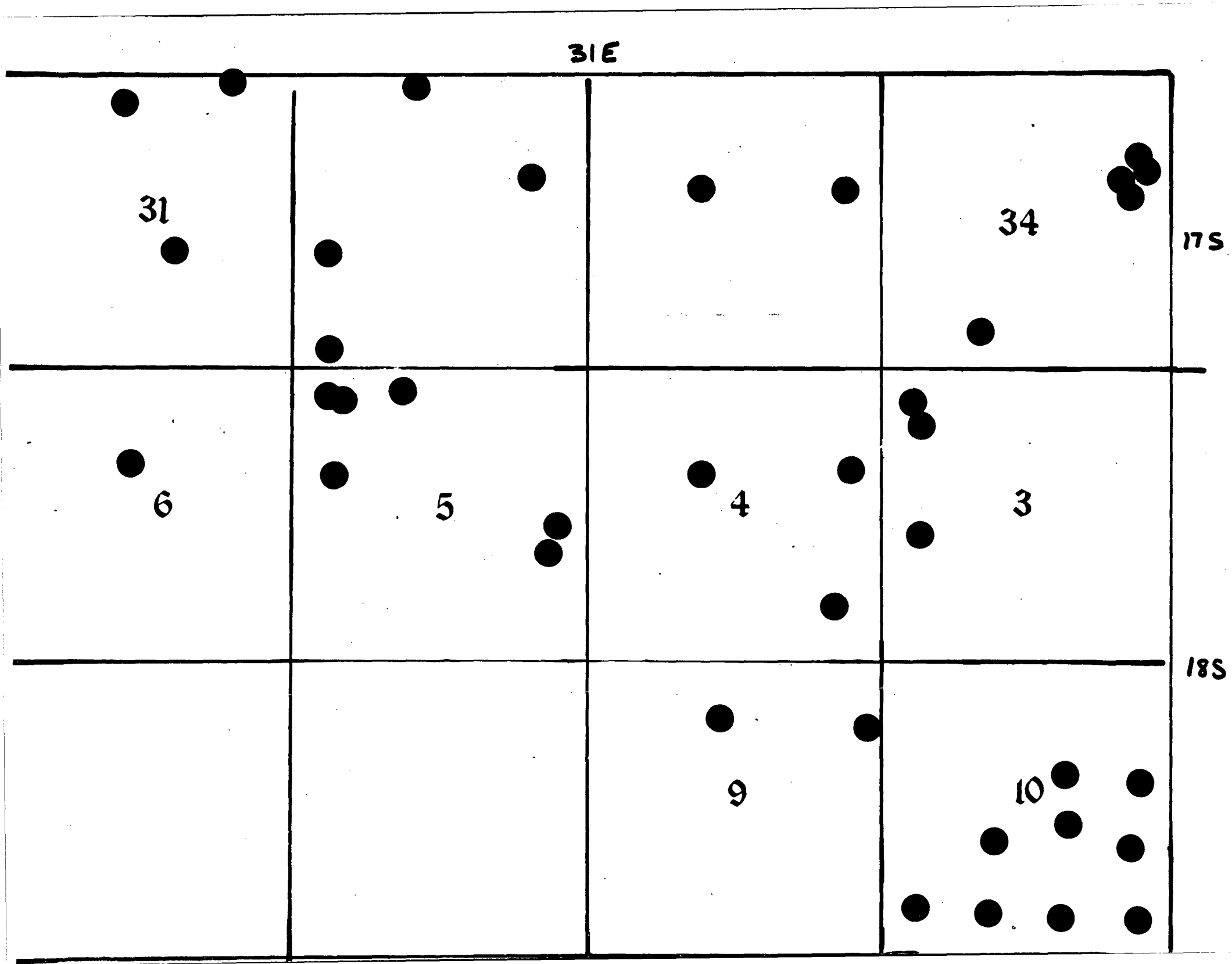
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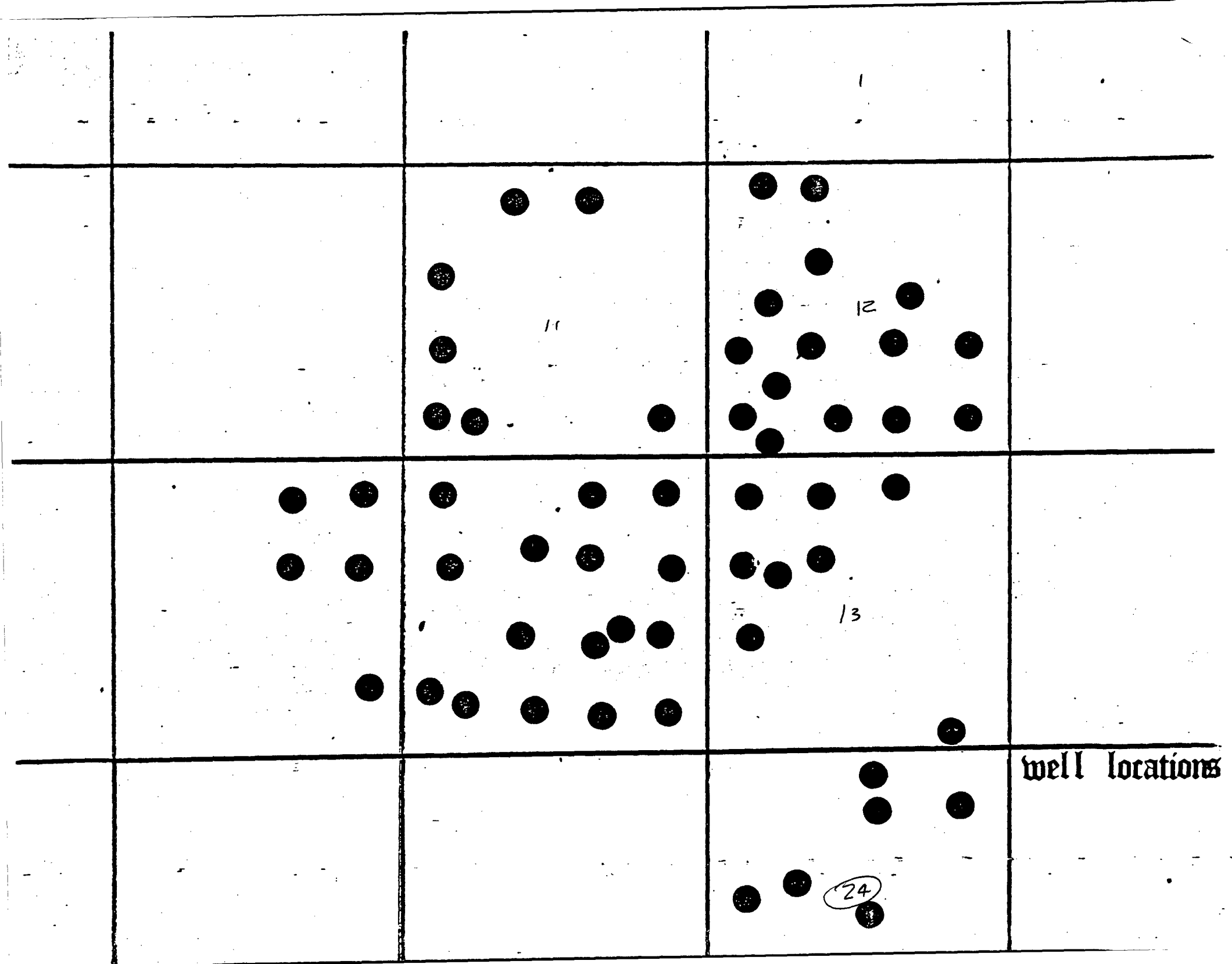
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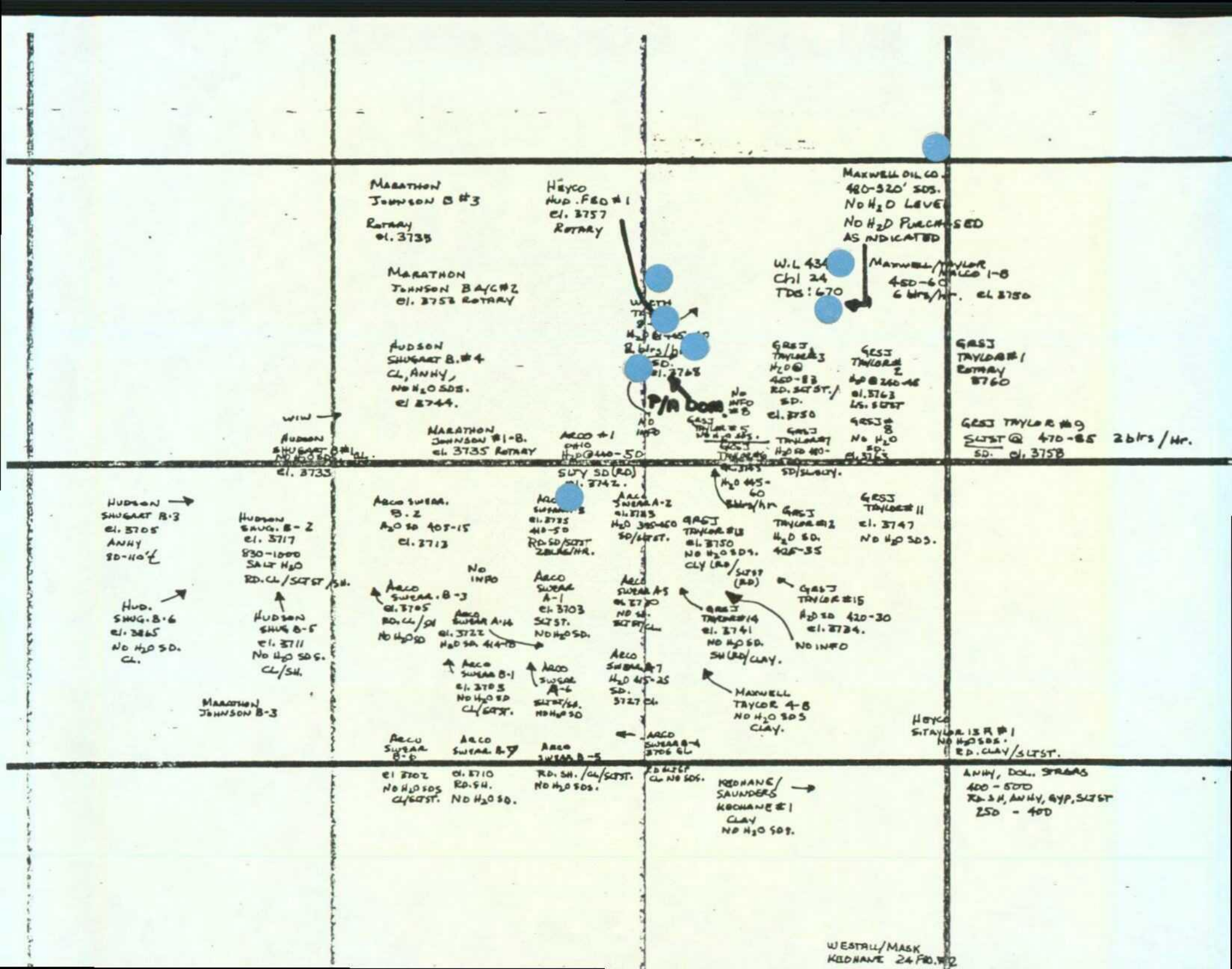
well locations


MARATHON JOHNSON B #3
ROTARY el. 3735
HEYCO HUD. FED #1 el. 3757 ROTARY
MAXWELL OIL CO. 480-520' SDS. NO H_2O LEVEL NO H_2O PURCHASED AS INDICATED
W.L. 434 Chl 24 TDS: 670
MAXWELL/TAYLOR MALCO 1-B 460-6 6 bbls/hr. el. 3750
MARATHON JOHNSON B A/C #2 el. 3758 ROTARY
HUDSON SHUGART B. #4 CL, ANHY, NO H_2O SDS. el. 3744.
GRSJ TAYLOR #3 H_2O @ 460-83 RD. SLTST./SD. el. 3750
GRSJ TAYLOR #2 H_2O @ 240-46 el. 3763 LS. SLTST
GRSJ TAYLOR #1 ROTARY 3760
GRSJ TAYLOR #9 SLTST @ 470-85 2 bbls/Hr. SD. el. 3758
P/A bore
No INFO #8
GRSJ TAYLOR #5
GRSJ TAYLOR #7 H_2O SD 480- SD/SLTY.
GRSJ #8 No H_2O SDS el. 3763
H_2O 445-60 Bbls/Hr
WIW
HUDSON SHUGART B #1 el. 3735
MARATHON JOHNSON #1-B. el. 3735 ROTARY
ARCO #1 PHIO H_2O @ 440-50 SLTY SD (RD) el. 3742.
HUDSON SHUGART B-3 el. 3705 ANHY 80-110'
HUDSON SHUG. B-2 el. 3717 830-1000 SALT H_2O RD. CL/SLTST/SH.
ARCO SWEAR. B-2 H_2O SD 405-15 el. 3713
ARCO SWEAR. B-3 el. 3705 RD. CL/SH No H_2O SD
No INFO
ARCO SWEAR A-1 el. 3703 SLTST. NO H_2O SDS.
ARCO SWEAR A-2 el. 3723 H_2O 395-460 SD/SLTST.
ARCO SWEAR A-5 el. 3730 NO H_2O SLTST/CL
ARCO SWEAR A-6 SLTST/SD. NO H_2O SD
ARCO SWEAR A-7 H_2O 445-25 SD. 3727 CL.
GRSJ TAYLOR #13 el. 3750 NO H_2O SDS. CLY (RD)/SLTST (RD)
GRSJ TAYLOR #12 H_2O SD. 405-35
GRSJ TAYLOR #11 el. 3747 NO H_2O SDS.
GRSJ TAYLOR #15 H_2O SD 420-30 el. 3734.
GRSJ TAYLOR #14 el. 3741 NO H_2O SD. SHALE/CLAY.
NO INFO
HUD. SHUG. B-6 el. 3865 NO H_2O SD. CL.
HUDSON SHUG B-5 el. 3711 No H_2O SDS. CL/SH.
MARATHON JOHNSON B-3
ARCO SWEAR B-1 el. 3705 NO H_2O SD CL/SLTST.
ARCO SWEAR A-4 el. 3722 H_2O SD 414-18
MAXWELL TAYLOR 4-B NO H_2O SDS CLAY.
ARCO SWEAR B-4 3706 CL
ARCO SWEAR B-5 RD. SH./CL/SLTST. NO H_2O SDS.
ARCO SWEAR B-6 el 3702 NO H_2O SDS CL/SLTST.
ARCO SWEAR B-7 el. 3710 RD. SH. NO H_2O SD.
KEOHANE/SAUNDERS KEOHANE #1 CLAY NO H_2O SDS.
HEYCO STAYLOR 13 R #1 NO H_2O SDS. RD. CLAY/SLTST.
ANHY, DOL. STRKS 400 - 500 RD. SH, ANHY, GYP, SLTST 250 - 400
WESTALL/MASK KEOHANE 24 FED. #2

OCD FILES

35MM DRAWINGS

NM 1004

FILE NUMBER

General Correspondence

DOCUMENT TYPE

1998

4

NO OF DWGS

B

B′

4200′ | 4300′ | 5100′ | 1300′ | 2700′ | 3700′ | 3600′ | 3600′ | 1800′

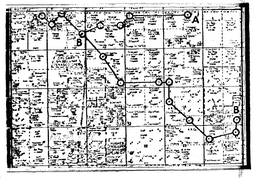
UNION TEXAS FED. 5 #1	PAUL HASKINS EDWARDS FED. #5	MALCO ERWIN FED. #1	OHIO OIL JOHNSON FED. #1-A	HUDSON SHUGART #1-B	BOB JOHNSON SWEARINGEN #3-B	BOB JOHNSON SWEARINGEN #5-B	SIETE OIL ARCO FED. #1	SIETE OIL GERONIMO FED. #3	HEYCO SO TAYLOR 13 FED. #1
SEC. 5, T-18-S, R-31-E	SEC. 9, T-18-S, R-31-E	SEC. 9, T-18-S, R-31-E	SEC. 10, T-18-S, T R-31-E	SEC. 11, T-18-S, R-31-E	SEC. 14, T-19-S, R-31-E	SEC. 14, T-19-S, R-31-E	SEC. 24, T-18-S, R-31-E	SEC. 24, T-18-S, R-31-E	SEC. 13, T-18-S, R-31-E
K.B. 3723	K.B. 3706′	K.B. 3712′	K.B. 3721′	K.B. 3733′	K.B. 3707′	K.B. 3709′	K.B. 3707′	K.B. 3714′	K.B. 3726′

DATUM - 3300

T/ RUSTLER

DATUM - 3300

T/ RUSTLER



HEYCO
ROSWELL
FORTWORTH

SURFACE DISPOSAL
INTO UNLINED PITS
EDDY COUNTY, NEW MEXICO
T-18-S, R-31-E
DATUM - 3300

L. BROOKS DEC. 1986

A

EASTLAND OIL
ALLIED FED. #1
SEC. 6, T-18-S, R-31-E
K.B. 3658'

1800'

EASTLAND OIL
ARCO FED. #2
SEC. 5, T-18-S, R-31-E
K.B. 3600'

2000'

EASTLAND OIL
ARCO FED. #3
SEC. 5, T-18-S, R-31-E
K.B. 3604'

4100'

UNION TEXAS
FEDERAL "5" #1
SEC. 5, T-18-S, R-31-E
KB. 3723

2800'

HEYCO
HONDO "4" FED. #1
SEC. 4, T-18-S, R-31-E
K.B. 3758'

2700'

HEYCO
CAN-KEN "4" FED. #1
SEC. 4, T-18-S, R-31-E
K.B. 3739'

1800'

PENNZOIL
FEDERAL #1-A
SEC. 3, T-18-S, R-31-E
KB. 3722

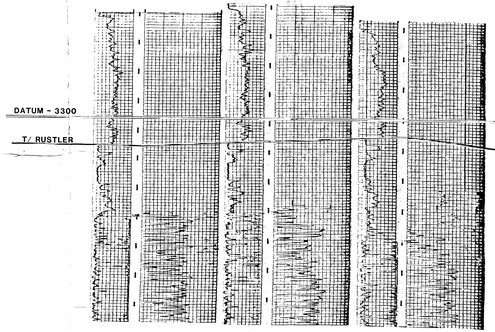
7600'

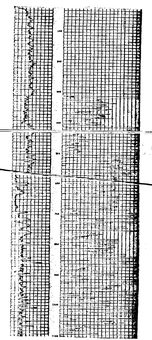
SHELL OIL
STATE "MC" #1
SEC. 2, T-18-31, R-31-E
K.B. 3813'

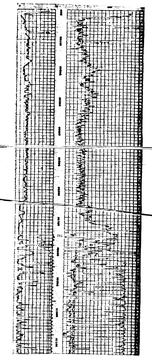
A'

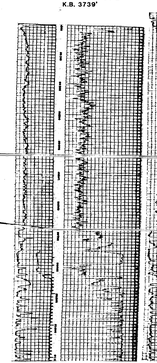
DATUM - 3300

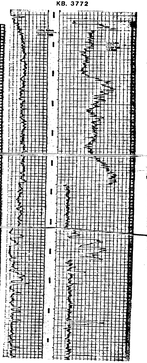
T/ RUSTLER

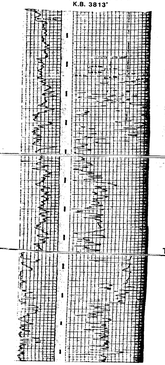












DATUM - 3300

T/ RUSTLER

HEYCO
ROSWELL NEW MEXICO

SURFACE DISPOSAL
INTO UNLINED PITS
EDDY COUNTY, NEW MEXICO

T-18-S, R-31-E
DATUM - 3300

L. BROOKS DEC. 1988

A

1800'

EASTLAND OIL
ALLIED FED. #1
SEC. 6, T-18-S, R-31-E
K.B. 3658'

2000'

EASTLAND OIL
ARCO FED. #2
SEC. 5, T-18-S, R-31-E
K.B. 3690'

EASTLAND OIL
ARCO FED. #3
SEC. 5, T-18-S, R-31-E
K.B. 3604'

4100'

UNION TEXAS
FEDERAL "5" #1
SEC. 5, T-18-S, R-31-E
KB. 3723

2800'

HEYCO
HONDO "4" FED. #1
SEC. 4, T-18-S, R-31-E
K.B. 3758'

2700'

HEYCO
CAN-KEN "4" FED. #1
SEC. 4, T-18-S, R-31-E
K.B. 3739'

1800'

PENNZOIL
FEDERAL #1-A
SEC. 3, T-18-S, R-31-E
KB. 3772

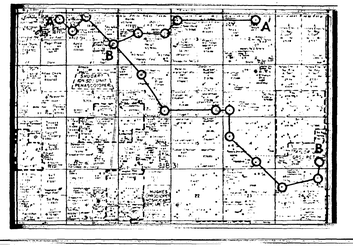
7600'

SHELL OIL
STATE "NC" #1
SEC. 2, T-18-S, R-31-E
K.B. 3813'

A'

DATUM - 3300

T/ RUSTLER



BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
EXHIBIT NO. 4a
CASE NO. 9059

HEYCO
MIDLAND ROSWELL

SURFACE DISPOSAL
INTO UNLINED PITS
EDDY COUNTY, NEW MEXICO
T-18-S, R-31-E
DATUM - 3300
L. BROOKS DEC. 1986

Ex. 4a

B

4200' | 4300' | 5100' | 1300' | 2700' | 3700' | 3600' | 3600' | 1800'

UNION TEXAS
FED. S #1
SEC. S, T-18-S, R-31-E
K.B. 3723

PAUL HASKINS
EDWARDS FED. #5
SEC. 9, T-18-S, R-31-E
K.B. 3706'

MALCO
ERWIN FED. #1
SEC. 9, T-18-S, R-31-E
K.B. 3712'

OHIO OIL
JOHNSON FED. #1-A
SEC. 10, T-18-S, T R-31-E
K.B. 3721'

HUDSON
SHUGART #1-B
SEC. 11, T-18-S, R-31-E
K.B. 3733'

BOB JOHNSON
SWEARINGEN #3-B
SEC. 14, T-18-S, R-31-E
K.B. 3707'

BOB JOHNSON
SWEARINGEN #5-B
SEC. 14, T-18-S, R-31-E
K.B. 3709'

SIETE OIL
ARCO FED. #1
SEC. 24, T-18-S, R-31-E
K.B. 3707'

SIETE OIL
GERONIMO FED. #3
SEC. 24, T-18-S, R-31-E
K.B. 3714'

HEYCO
SO TAYLOR 13 FED. #1
SEC. 13, T-18-S, R-31-E
K.B. 3726'

B'

DATUM - 3300

T/ RUSTLER

Present Salt Section

Some/Sal. Rep. of Bedding. No salt present.

Some/Salt Rep. of Bedding. No salt present.

DATUM - 3300

T/ RUSTLER

In E/2 of Sec. 11 & W/2 of Sec. 12, H_2S Encountered in salt as exhibited by log. No H_2S Anticipated or Beneficially Used to Date. Ok Fenline.

In N/2 of Section H_2S Reading 50 PPM/60. Rep. Well Abandoned. (Stuck Tools)

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
EXHIBIT NO. 4A
CASE NO. 9859

HEYCO
MIDLAND ROSWELL

SURFACE DISPOSAL INTO UNLINED PITS
EDDY COUNTY, NEW MEXICO
T-18-S, R-31-E
DATUM - 3300

L. BROOKS DEC. 1986

R 31 E

T. 16 S.

T. 17 S.

T. 18 S.

T. 19 S.

T. 20 S.

R 26 E | R 27 E | R 28 E | R 29 E | R 30 E

T 16 S | T 17 S | T 18 S | T 19 S | T 20 S | T 21 S | T 22 S | T 23 S

TD 111' WL 69 (+3340') Cl 1719 TDS 3758 8/28/80 ABANDONED (DOCKUM)

TD 80' TRIASSIC NO WATER

TD 150 TRIASSIC NO WATER

TD 123' TRIASSIC NO WATER

TD 200' TRIASSIC

TD 130' TRIASSIC NO WATER

TD 320' RUSTLER NO WATER

EL 3643' TD 505' BASAL RUSTLER WL 300 (+3313') HOLE FULL OF WATER Cl 10,850 7-14-1952

TDS?

WL 1533' Cl 3320 ppm HELPT BY NEW MEXICO OIL CONSERVATION COMMISSION 4/24/56

WL 160+ (+3340 est) Cl 234 1969 224 1976 2035 1980 TDS 6882 8/28/80

EL 3430' WL 140 (+3290') 4/28/50 1969 1976 8/28/80 Cl 310 342 32 26 SO4 911 - - 442 TDS 1760 - - 932

WL (+3229') 1965

WL (+3311') 1976

WL (+3225') Cl 162 COND 1534 1965

TD 215' WL 195' (+3235') 1976 12/30/80 Cl 149 138 SO4 241 808 TDS - 1236 COND 1800

EL 3350' est TD 376' WL 150,152 SO4 15,696 TDS 33,432

ROS 3326

ABD STOCK WELL

TD 505' WL 320 (+3330') 1976 Cl 101 SO4 242 TDS 664

HYDRAULIC GRADIENT

3500 3450 3400 3350 3300 3250

150 155 160

SALT LAKE

PECOS RIVER

B&E 7612

THE REPRODUCTION OF THE FOLLOWING DOCUMENT (S) CANNOT BE IMPROVED DUE TO THE CONDITION OF THE ORIGINAL

LEGEND

- ⊕ Abandoned windmill, domestic well, or testhole
- ⊙ Windmill or domestic well
- ✧ Dry and abandoned well
- El. Sea level elevation
- T.D. Total depth
- Cl Chloride ion concentration in mg/l
- SO_4 Sulfate ion concentration in mg/l
- TDS Total dissolved solids in mg/l
- Cond. Conductivity in micromhos
- W.L. Static water level

Underlined values taken from state bureau of mines and mineral resourses, New Mexico institute of Mining and technological, Report 3

All other values taken by Ed L. Reed and Associates, Inc.

8000' 0 8000' 16,000'

SCALE IN FEET

N

FIGURE 5

EDDY COUNTY, NEW MEXICO

LOCO HILLS WATER DISPOSAL COMPANY

SALT WATER DISPOSAL SITE

BASIC DATA MAP

3-1981

DRN. BY DR.

ED L. REED & ASSOCIATES, INC
CONSULTING HYDROLOGISTS
MIDLAND, CORPUS CHRISTI, TEXAS

3.

Loco Hills
8/27/97

Loco Hills
8/27/97

Loco Hills
8/27/97

Loco Hills

8/27/57

Loco Hills
8/27/97

Loco Hills

6/27/47

Loco Hills
8/27/97

Loco Hills

8/27/97

Loco Hills

8/27/97

Loco Hills

8/27/97

8/27/97

Coco Hills

Loco Hills

8/27/97

Loco Hills

8/27/97

Loco Hills
8/27/97

Loco Hills

8/27/97

Loco Hills
8/27/57

Loco Hills

8/27/97

Loco Hills
8/27/97

Loco Hills

8/27/97

Loco Hills
8/27/97

Loco Hills

8/27/97

Loco Hills

8/27/97

Loco Hills
8/27/97


GMC

Loco Hills

8/27/97

Loco Hills 5/1/67

Loco Hills 5/1/07

Loco Hills 5/1/87

Loco Hills 5/1/87

Loco Hills 5/1/87

Loco Hills 5/1/87

Loco Hills 5/1/07

Loco Hills 5/1/87

Loco Hills 5/1/87

Loco Hills 5/1/87

Zoo Hills 1/27/86

Loco Hills 1/20/86

Loco Hills 1/27/86

Loco Hills 1/27/86