District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

NOV 06 2008

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised June 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: COG Operating LLC	Contact: Pat Ellis
Address: 550 W. Texas Ave. Suite 1300, Midland, Tx 79701	Telephone No. (432) 686-3023
Facility Name: Jalmat Yates Unit Battery	Facility Type: Tank Battery

Surface Owner Unknown	Mineral Owner Unknown	Lease No. NM-301048

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	13	25S	36E	1050'	North	1100'	East	Lea

Latitude 32 08.101 **Longitude** 103 12.826

NATURE OF RELEASE

Type of Release Produced water and oil	Volume of Release 50 BO & 300 BW	Volume Recovered 20 BO & 270 BW
Source of Release Oil Tank	Date and Hour of Occurrence 07/06/07	Date and Hour of Discovery 07-06-07 @ 11:00 AM NM Time
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NMOCD, Hobbs, NM	
By Whom? COG pumper Warren Hunt	Date and Hour 07-06-07 @ 11:00 AM NM Time	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*
None

Describe Cause of Problem and Remedial Action Taken.* Free water knockout failed sending water to the oil tanks. The oil tank overflowed. Vacuum truck called in to remove spilled liquids

Describe Area Affected and Cleanup Action Taken.*
Leak was contained with the battery. Vacuum truck onsite to remove spilled liquids. Tetra Tech personnel hand augered and drilled site to determine depth of impact. Upon completion, site was excavated to a depth of 2 feet bgs and soils transported offsite for disposal at Sundance Disposal of Eunice, New Mexico. Site was backfilled and brought up to grade.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Patrick L. Ellis	OIL CONSERVATION DIVISION	
Printed Name: Pat Ellis	Approved by District Supervisor: ENVIRONMENTAL ENGINEER	
Title: Environmental EH&S Advisor	Approval Date: 11.10.08	Expiration Date: —
E-mail Address: pellis@conchoresources.com	Conditions of Approval: —	Attached ☐ IRP1402 #1 of 2
Date: 10/03/08 Phone: (432) 686-3023		

Attach Additional Sheets If Necessary

SITE INFORMATION

REPORT TYPE: Assessment and Closure Report

Report Date: October 21, 2008

General Site Information:	
Site:	Jalmat Yates Unit Battery
Company:	COG Operating LLC
Section, Township and Range	Section 13 Township 25S Range 36E
Unit Letter:	A
Lease Number:	301048
County:	Lea County
GPS:	N 32° 18.101" W 103° 12.826"
Surface Owner:	Unknown
Mineral Owner:	Unknown
Directions:	From the intersection of highway 18 and 12 in Jal, NM go west on 128 for 1.1 miles.
	Turn right onto lease road and travel for 0.7 miles and turn left and travel 0.3 miles
	to TB located on hill.

Release Data:	
Date Released:	7/6/2007
Type Release:	Oil and produced water
Source of Contamination:	Free water knockout failed and allowed the oil tank to overflow
Fluid Released:	50 bbls of oil and 300 bbls of produced water.
Fluids Recovered:	20 bbls of oil and 270 bbls of producted water

Official Communication:			
Name:	Diane Kuykendall		Ike Tavarez
Company:	COG Operating, LLC		Tetra Tech
Address:	550 W. Texas Ave. Ste 1300		1910 N. Big Spring
P.O. Box			
City:	Midland, TX 79701		Midland, Texas
Phone number:	(432) 685-4372		(432) 692- 4559
Email:	dkuykendall@conchoresources.com		iketavarez@tetratech.com

Ranking Criteria		
Depth to Groundwater:	*Ranking Score*	*Site Data*
<50 ft	20	
50-99 ft	**10**	*Average Depth > 55*
>100 ft.	0	
WellHead Protection:	*Ranking Score*	*Site Data*
Water Source <1,000 ft., Private <200 ft.	*20*	*None*
Water Source >1,000 ft., Private >200 ft.	***0***	
Surface Body of Water:	*Ranking Score*	*Site Data*
<200 ft.	*20*	*None*
200 ft - 1,000 ft.	10	*None*
>1,000 ft.	**0**	
Total Ranking Score:	**10**	

Acceptable Soil RRAL (mg/kg)		
Benzene	*Total BTEX*	*Total TPH*
10	**50**	**1,000**

TETRA TECH

October 21, 2008

NOV 06 2008
HOBBS OCD

Mr. Larry Johnson
Environmental Engineer Specialist
Oil Conservation Division- District I
1625 N. French Drive
Hobbs, New Mexico 88240

RE: Assessment and Closure Request for two Spills at the Jalmat Yates Unit Battery, Unit Letter A, Section 13, Township 25 South, Range 36 East, Lea County, New Mexico, Operated by COG Operating LLC.

NMOCD Case 1RP-1402

Dear Mr. Johnson:

Tetra Tech (formerly Highlander Environmental Corp.) was contacted by COG Operating LLC (COG) to assess and to remediate the soil impact from a spill that occurred at the Jalmat Yates Unit Battery located in Unit Letter A, Section 13, Township 25 South, Range 36 East, Lea County, New Mexico. The site location is shown on Figure 1 and Figure 2.

Background

Two spills occurred at this site within a one month time period. The first spill was discovered on July 6, 2007, when the free water knockout failed to shut off, sending water to the oil tanks and allowing them to overflow. The spill was contained within the bermed area of the tanks. Approximately 50 barrels of oil and 300 barrels of water were released from the tank with 20 barrels of oil and 270 barrels of water recovered with a vacuum truck. The second spill was discovered on August 7, 2007, when an electrical failure caused the pumps to shut down and allowing the water to continue to flow. Approximately 600 barrels of water were released from the tank with a vacuum truck utilized to recover a majority of the liquid. The spill was contained within the bermed area of the tanks. The initial and final Form C-141's for the two spills (1RP-1402) are included in Appendix C.

Groundwater and Regulatory

The spill area is located in Section 13, Township 25 South, Range 36 East. The State of New Mexico Well Reports did not show any water wells in Section 13. However, there were water wells shown in Sections 19 and 20,

Tetra Tech
1910 North Big Spring, Midland TX 79705
Tel 432 682 4559 Fax 432 682 3946 www.tetratech.com

Township 25 South, Range 37 East, with an average groundwater depth of approximately 34' to 44' below surface.

Published data, from the Geology and Groundwater Conditions in Southern New Mexico, showed wells in Section 15 and 23, Township 25 South, Range 36 East with reported depths of 120' and 53.7', respectively. In Sections 17, 19 and 20, Township 25 South, Range 37 East, water wells showed average groundwater depths of approximately 62' to 65' below surface. In addition, the USGS data base reported a depth to water at 51'in the southeast quarter of Section 18, Township 25 South, Range 37 East. A monitor well, located in the western edge of Section 18, reportedly had a water level of approximately 63.0' in 2004. Based on the relative elevation of the Site and surrounding wells, the groundwater appears to be greater than 50.0' below surface. The State of New Mexico Well Reports, USGS report and published reports are included in Appendix A.

A risk-based evaluation was performed for the Site in accordance with the NMOCD Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene and xylene). Based on the regional groundwater data, the proposed RRAL for TPH is 1,000 mg/kg.

Assessment and Corrective Action

On August 10, 2007, Tetra Tech personnel inspected the spill area which measured approximately 70 feet by 20 feet and 65 feet by 8 feet within the berm. A total of six (6) auger holes were installed in the spill area. The auger hole locations are shown on Figure 3.

The soil samples collected were analyzed for Total Petroleum Hydrocarbons (TPH) by method modified 8015 DRO/GRO, benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA method 8021B and chloride by EPA method 300.0. All samples were collected and preserved in laboratory prepared sample containers, shipped under proper chain-of-custody control and analyzed within the standard holding times. The sample results are shown in Table 1. The analytical reports and chain-of-custody are shown in Appendix B.

Referring to Table 1, the samples from AH-1 (0-1'), AH-3 (0-1') and AH-4 (0-1') exceeded the RRAL for TPH with concentrations of 1,409 mg/kg, 1,628 mg/kg, and 12,575 mg/kg. The remaining samples at 0-1' were below the RRAL for TPH and BTEX. The chloride concentrations ranged from 112 mg/kg (AH-2, 0-1') to 1,090 mg/kg (AH-6, 0-1').

In order to complete delineation of the site, on April 25, 2008, Tetra Tech personnel were onsite to install three (3) soil borings (SB-1 through SB-3) utilizing an air rotary rig. The borings were installed in the vicinity of the auger holes which exhibited elevated chloride concentrations which were not defined (AH-1, AH-3, and AH-4). The soil borings were extended to a maximum depth of 7 feet below ground surface (bgs) with samples collected at the surface and the terminus of the borings. Samples were submitted to the laboratory for analysis of TPH and chlorides. Analytical results indicated the maximum extent of TPH impact greater than 1,000 mg/kg extended to 2 feet bgs in soil boing SB-3. Chlorides decreased with depth and ranged from <100 mg/kg in several borings to a high of 757 mg/kg in SB-1 at 0-2'. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix B. The results of the sampling are summarized in Table 2. The location of the borehole and auger hole locations are shown in Figure 3.

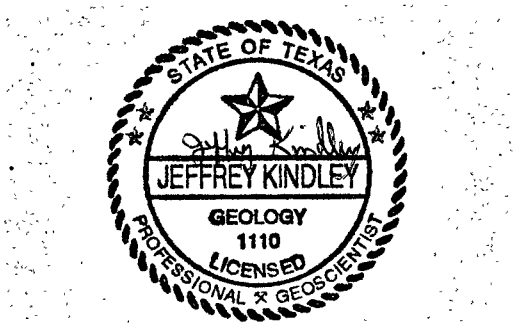
Upon completion of the delineation, COG personnel were onsite to excavate and remove the first two feet of soil from the site. The excavated soils were transported offsite for disposal at Sundance Disposal in Eunice, New Mexico. The site was then backfilled and brought up to grade with clean soil.

Conclusion

The spill from the two releases caused a shallow hydrocarbon impact to the subsurface soils, which were excavated to below NMOCD RRAL. Chloride concentrations were at or below 757 mg/kg and decreased with depth, while BTEX was below the RRAL at the site. Due to the remediation of the TPH and the decreasing chloride concentrations with depth, groundwater (which is greater than 50 feet bgs at the site) does not appear to be at risk of impact from residuals remaining in the soils. Based on the results and remedial activities performed, COG requests closure for the Site. The two final Form C-141's are included in Appendix C.

TETRA TECH

If you require any additional information or have any questions or comments, please contact us at (432) 682-4559.



Tetra Tech

Jeffrey Kindley, P.G.
Senior Geologist

cc: COG – Pat Ellis

FIGURES

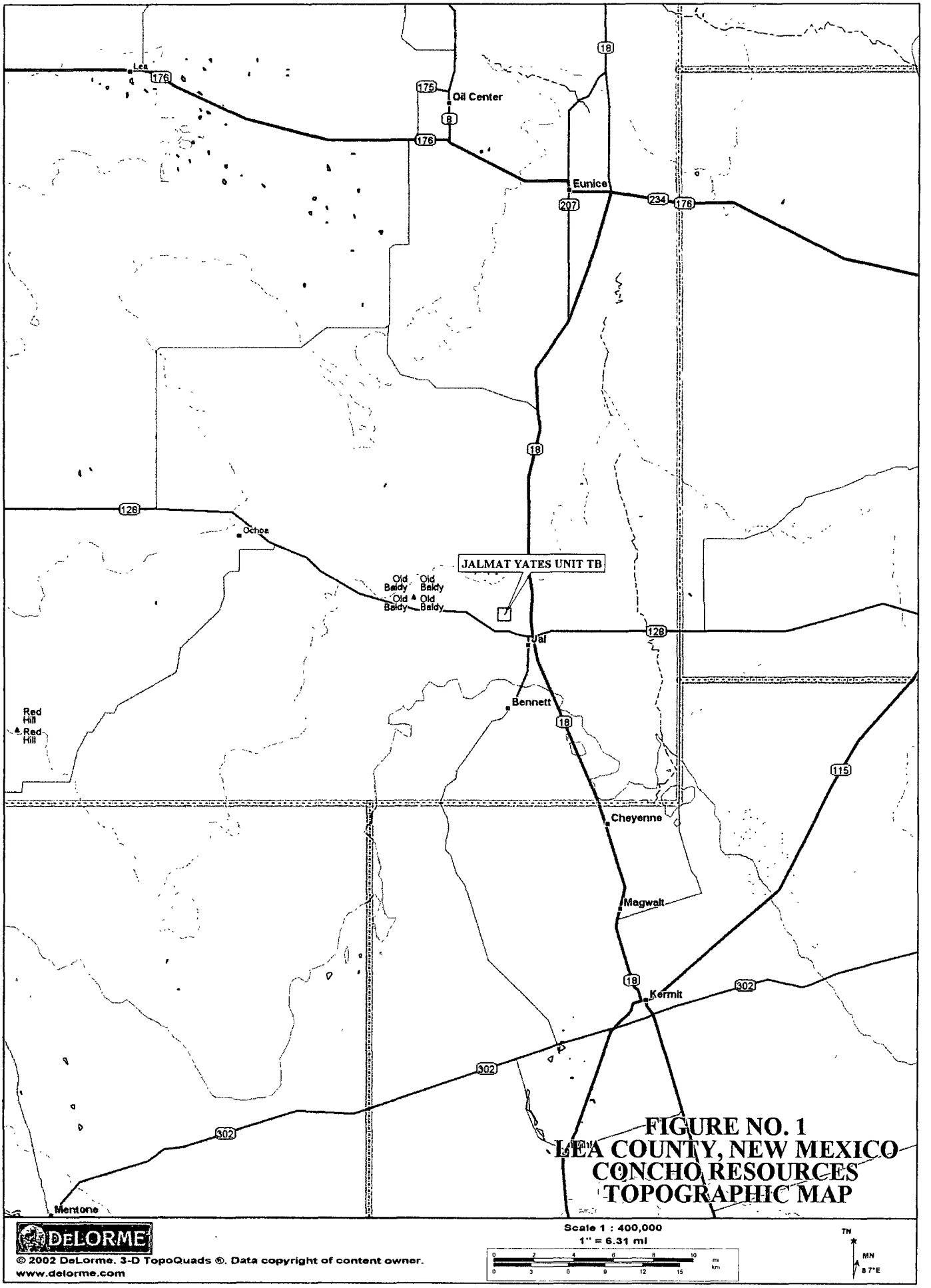


FIGURE NO. 1
LEA COUNTY, NEW MEXICO
CONCHO RESOURCES
TOPOGRAPHIC MAP

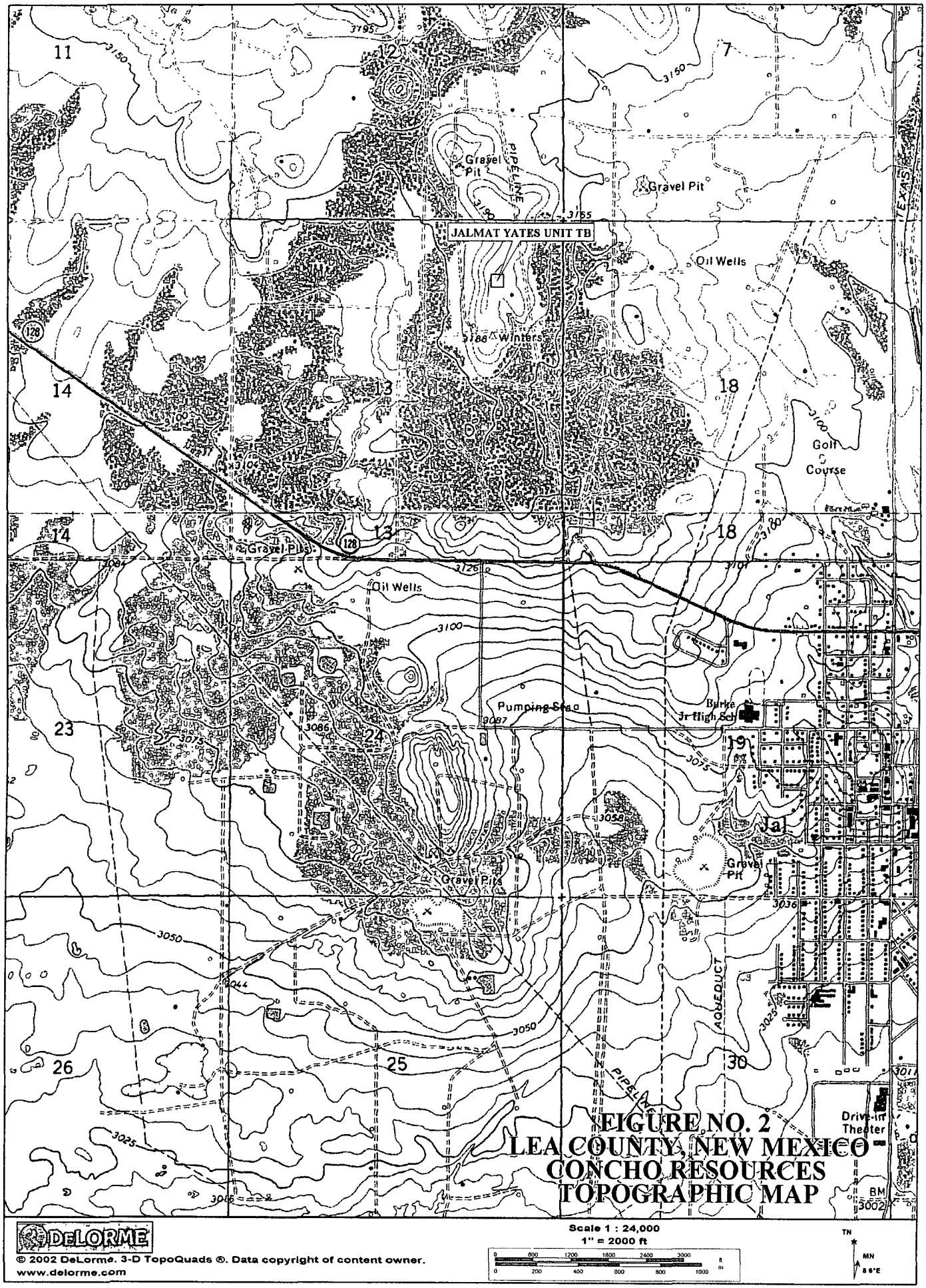
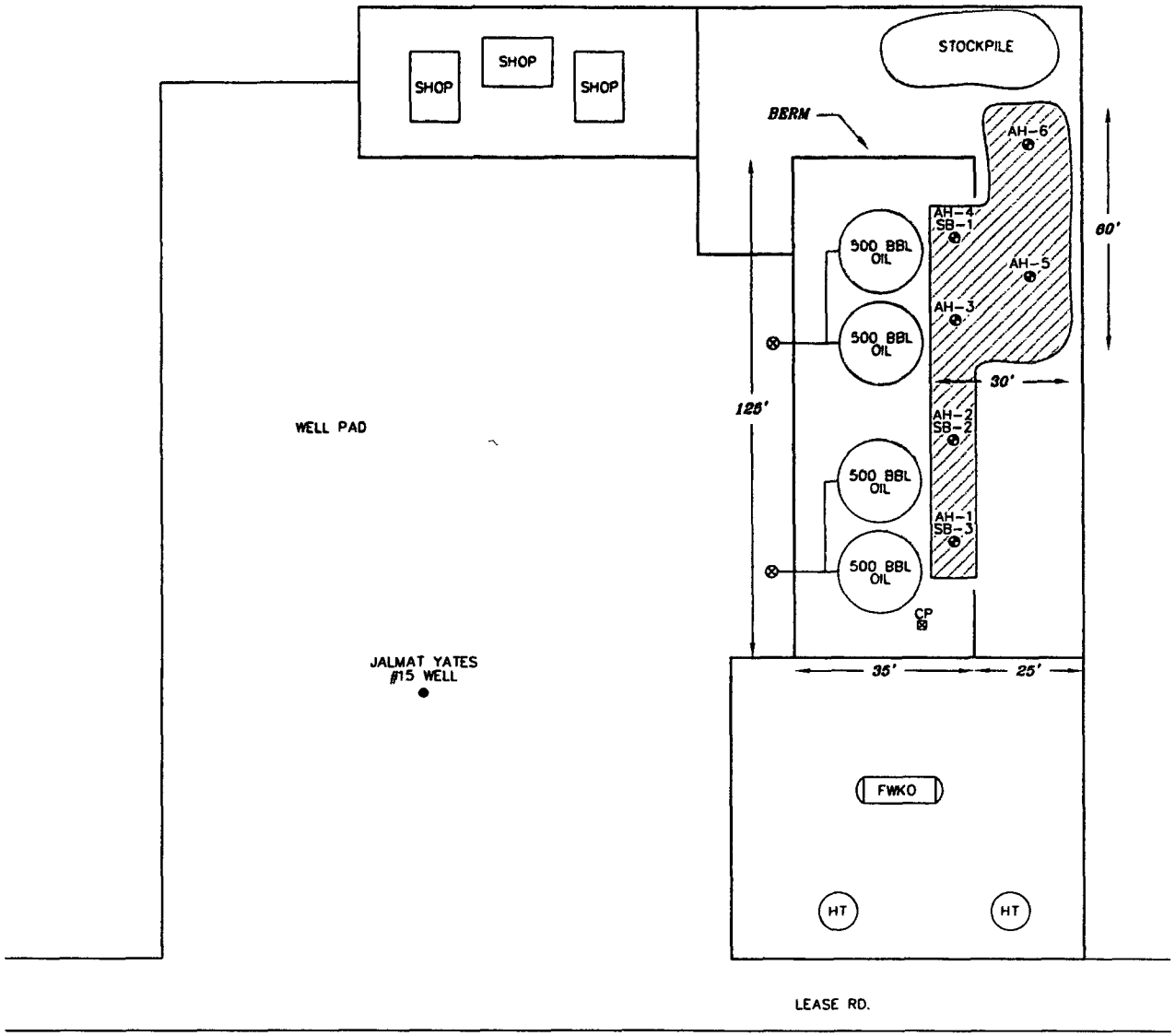


FIGURE NO. 2
LEA COUNTY, NEW MEXICO
CONCHO RESOURCES
TOPOGRAPHIC MAP

Scale 1 : 24,000
1" = 2000 ft

TN
MN
8.6°E



SPILL AREA
AUGER HOLES
BORE HOLES

NOT TO SCALE

FIGURE NO. 3

LEA COUNTY, NEW MEXICO

CONCHO RESOURCES

JALMAT YATES UNIT TB

DATE: 10/15/08
DWN. BY: JJ
FILE: H:\COO1\3111

TETRA TECH, INC.
MIDLAND, TEXAS

TABLES

Table 1
COG Operating LLC
Jalmat Yates Tank Battery
Lea County, NM

Sample ID	Soils Status		Date Sampled	Sample Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
	Insitu	Removed			DRO	GRO	Total					
AH-1		X	08/10/07	0-1.0	1,030	379	1,409	0.402	0.0607	2.90	7.67	266
AH-2		X	08/10/07	0-1.0	704	304	1,008	<0.0500	<0.0500	0.935	0.695	112
AH-3		X	08/10/07	0-1.0	1,590	119	1,709	0.0848	0.116	0.869	2.33	389
AH-4		X	08/10/07	0-1.0	12,200	375	12,575	0.618	0.504	3.63	11.5	134
AH-5		X	08/10/07	0-1.0	204	8.32	212.32	<0.0100	<0.0100	<0.0100	<0.0100	315
AH-6		X	08/10/07	0-1.0	178	2.69	180.69	<0.0100	<0.0100	<0.0100	<0.0100	1,090

(-) Not Analyzed

Table 2
COG Operating LLC
Jalmat Yates Tank Battery
Lea County, NM

Sample ID	Soils Status		Date Sampled	Sample Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
	Insitu	Removed			DRO	GRO	Total					
SB-1		X	04/24/08	0-2	<50.0	<1.00	<50.0	-	-	-	-	757
SB-1	X		04/24/08	5-7	-	-	-	-	-	-	-	504
SB-2		X	04/24/08	0-2	<50.0	<1.00	<50.0	-	-	-	-	121
SB-2	X		04/24/08	5-7	-	-	-	-	-	-	-	<100
SB-3		X	04/24/08	0-2	2,370	545	2,915	-	-	-	-	125
SB-3	X		04/24/08	5-7	111	43.6	154.6	-	-	-	-	<100

(-) Not Analyzed

APPENDIX A
WATER WELL INVENTORY

Water Well Data
Average Depth to Groundwater (ft)
COG - Jalmat Yates Unit Battery, Lea County, New Mexico

24 South 35 East

6	5	4	3	2	1
7	8	9	10 **300**	11	12
18	17	16	15	14	13
19	20 **97**	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

24 South 36 East

6	5	4 **165**	3	2	1
7	8	9	10	11	12
18	17	16	15 **312**	14	13
19	20	21	22	23 **160**	24
30	29	28	27	26	25
31	32	33 **54** **53**	34	35	36

24 South 37 East

6	5 **111**	4	3	2	1
7 **119**	8 **90**	9	10 **120**	11 **64**	12 **18**
18 **124**	17	16 **67**	15	14	13
19	20	21 **69**	22	23 **94**	24 **100**
30	29	28 **70**	27 **41**	26	25 **89** **90**
31	32	33	34 **55**	35	36

25 South 35 East

6	5 **165**	4	3 **108**	2	1
7	8	9	10	11	12
18 **230**	17	16	15	14	13
19	20	21 **218**	22	23	24
30 **80**	29	28	27	26	25
31	32	33	34	35	36

25 South 36 East

6 **295**	5	4	3	2	1
7	8	9	10300 **180**	11	12
18	17	16	15 **120**	14	13 SITE
19	20	21	22	23 **53.7**	24 **455**
30	29	28	27	26	25
31	32	33 **80**	34	35	36

25 South 37 East

6	5	4	3	2	1 **60**
7	8	9	10 **50**	11	12
18Site **51**	17 **62**	16	15 **59.2**	14	13 **73** **81**
19 **44** **62**	20 **65** **34**	21	22 **26**	23	24 **255**
30 **Jal**	29 **219**	28	27	26 **75**	25 **55**
31	32	33 **86**	34	35 **185**	36

26 South 35 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

26 South 36 East

6	5	4	3	2	1
7	8	9 **175** **177**	10	11	12
18 **220**	17	16	15	14	13
19 **198**	20	21	22	23 **151**	24
30	29	28	27	26	25
31	32	33	34	35	36

26 South 37 East

6	5	4	3	2 **100** **103**	1
7 **196**	8	9 **85**	10	11	12 **97** **102**
18	17	16	15	14 **100** **95**	13
19 **185**	20	21	22	23	24
30	29 **86**	28	27 **120**	26	25
31	32	33	34	35	36

88 New Mexico State Engineers Well Reports

105 USGS Well Reports

90 Geology and Groundwater Conditions in Southern Lea, County, NM (Report 6)
Geology and Groundwater Resources of Eddy County, NM (Report 3)

34 NMOCD - Groundwater Data

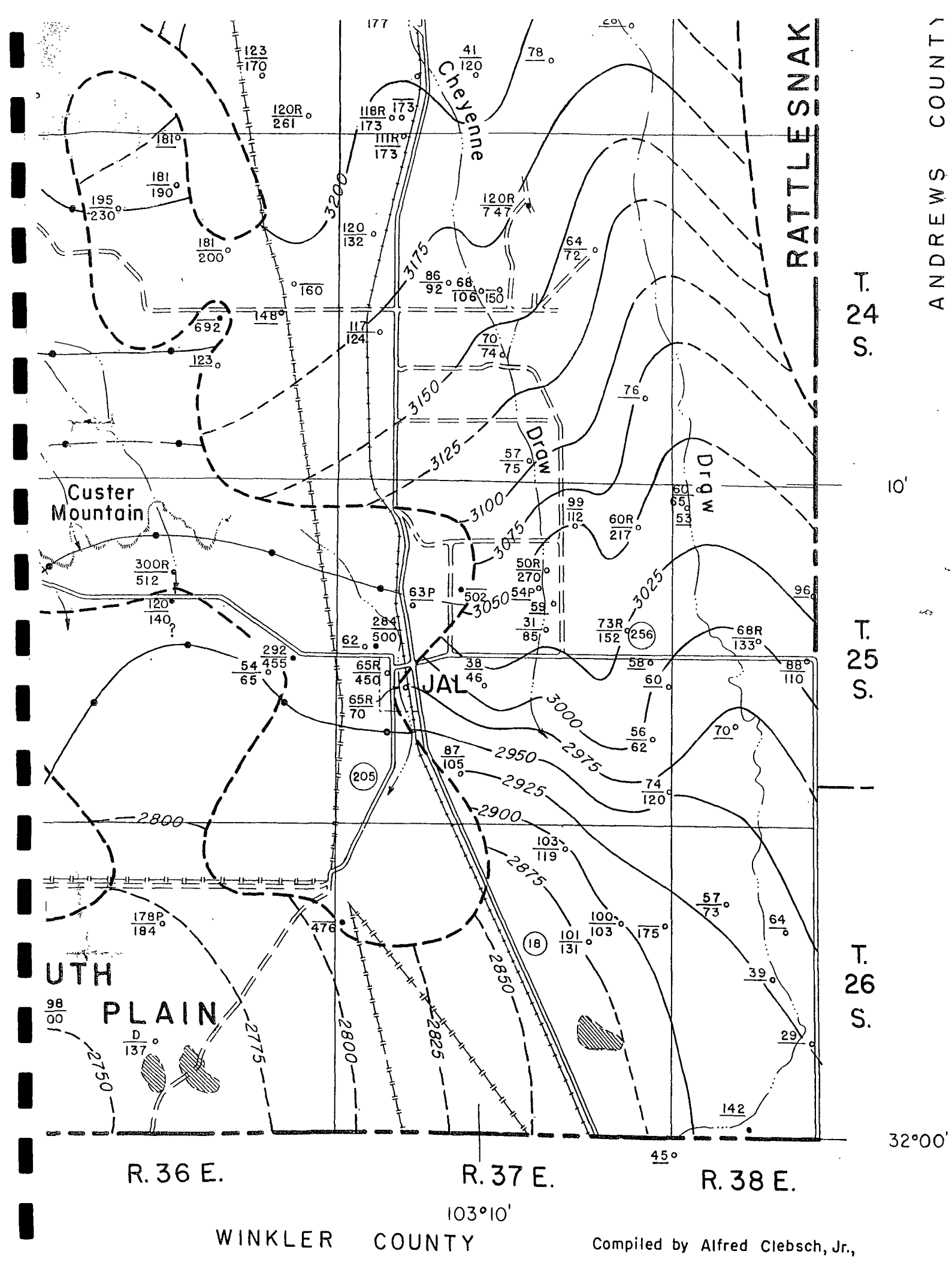

Cheyenne
RATTLESNAK
Draw
Draw
Custer Mountain
JAL
UTH PLAIN
ANDREWS COUNTY
T. 24 S.
T. 25 S.
T. 26 S.
10'
32°00'
R. 36 E.
R. 37 E.
R. 38 E.
103°10'
WINKLER COUNTY
Compiled by Alfred Clebsch, Jr.,

TABLE 6. RECORDS OF WELLS IN SOUTHERN LEA COUNTY, N. MEX. (continued)

Location No.	Owner	Aquifer	Depth of well (feet)	Altitude of well (feet)	Water level: Depth below land surface (feet)	Water level: Date measured	Year completed	Surface diameter of wells	Method of lift	Use of water	Remarks
24.34.35.122	do.	Tr	258M	3,410	223.9	3-29-53	—	6	Lw	S	—
24 35.30.341	do.	Tr	150±M	3,320	139.6	11-27-53	—	6	Lw	S	—
24.36.3 111	—	To	—	3,400	181.1	3-12-53	—	7½	N	N	—
3.333	Charles Whitten	To(?)	190±M	3,390	181.1	3-12-53	—	11½	N	N	—
9 133	do.	To	230	3,395	195.0	3- 6-53	1948	7	N	N	—
13.314	Humble Oil Co	To	160	—	—	—	1941	—	—	—	WBZ sand, 138-158 feet. EY 10 gpm.
24 36 15.222	Canmex Oil Co	To	200	3,370	181.3	3-12-53	1937	7	Lw	D	—
22.220	Continental Oil Co.	Tr	692	3,340	—	—	—	8¼	Li	D	A. H. Meyers "A" well 1. Intake set at about 475 feet Maximum yield 6 gpm.
23 222	—	To	—	3,345	147.9	3- 6-53	—	6¼	Lw	I	Measurement made inside pipe column.
27.221	J R. Wilson	To	—	3,320	122.9	3- 6-53	—	10	N	N	—
24.37.5.111	EPNG	To	173	3,275	111	9- 8-52	1952	10¾	Te	In,D	Jal Plant 4, well 6.
7.431	Fowler Hair	To	132M	3,300	119.9	3- 6-53	—	6¼	N	N	—
10.123	Trinity Production Co.	Tr	747	3,260	120	2- -53	1953	—	Li	In	EY 42 gpm. Chemical analysis in table 8.
14.211	Fowler Hair	To(?)	72M	3,205	64.5	3- 3-53	—	5	N	N	—
24.37.16.342	—	To	106M	3,235	67.7	3-11-53	—	9	N	N	—
16.423	Humble Oil Co.	To	150	3,240	—	—	1951	6⅝	Te	D	Fowler-Ellenburger Camp well 1. WBZ 90-150 feet.
17.422	Fowler Hair	To	92M	3,260	86.5	3- 4-53	—	7½	N	N	—
19.234	—	To	124M	3,290	117.4	3- 5-53	—	10	Lw	S	—
21.444	Dollarhide Water Co.	To	74M	3,210	69.6	3- 2-53	—	7½	N	N	—
25.322	Fowler Hair	To	—	3,136	76.1	3- 3-53	—	6½	Lw	D,S	—
34.320	Plains Production Co.	To	75±M	3,160	56.8	3- 2-53	—	12	N	N	—
25.33.20.443	—	Tr	—	3,395	200-250	8-18-58	—	6	Lw	D,S	—
31.244	Nick Ritz	Tr	320	3,400	257.5	7-26-54	—	8	Lw	S	—
25.34.1.132	Madera Ranch	Tr	300+	3,385	231.0	4-15-53	—	6	N	N	—
25.34.15.242	—	Tr	168	3,335	164.9	7-23-54	—	10	Lw	S	—
25.35.10.223	Georgia Bryant	To	83M	3,180	76.9	4- 2-53	—	9	Lw	S	—
21.122	—	Tr	—	3,230	173.3	4- 2-53	—	8½	N	N	—
25.36.10.313	W. D. Dinwiddie	Tr	512	3,130	300	—	—	—	Lw	S	—
15.111	do.	Tr(?)	140	3,125	120.2	3- -53	1951	—	N	N	—
23.234	—	Qal	65M	3,070	-53.7	3-31-53	—	6½	Lw	S	—
24.112	Humble Oil Co.	Tr	455	3,115	292.4	4-15-53	—	—	N	N	—
25.37.1.340	Pure Oil Co.	To	217	3,108	60	—	—	20	Te	In,D	—
2.332	Richmond Drilling Co.	To	112M	3,140	98.8	3-29-53	—	7	Lw	D	—
9.333	Stanolind Oil Co.	Tr	502	3,140	—	—	1938	—	Lw	D	WBZ 470-502 feet.
10.412	EPNG	To	270	3,120	50	12-20-49	1949	12	Te	In,D	Jal Plant 3, well 2.
10.433	M. B. Owens	To	—	3,100	54.3	2-26-53	—	7½	Lw	S	MWP
13.312a	City of Jal	To	152	3,080	73	6- -54	1954	12	Te	P	New city well. EY 750 gpm. Chemical analysis in table 8.
25.37.15.221	J. M. Owens	To	—	3,100	59.2	2-26-53	—	—	Ti	In	EY 30 gpm. PR.
15.223	Sun Oil Co.	To	—	3,090	—	—	—	—	Lw	D	Chemical analysis in table 8.
15.411	—	Qal	85M	3,070	31.1	2-26-53	—	6½	N	N	—
17.114	—	Qal	—	3,105	62.8	3- 5-53	—	—	Lw	S	MWP
19.211	—	To	—	3,088	62.3	5-30-55	—	6	Je	D	—
19.221	City of Jal	Tr	500	3,110	284.0	11-11-54	1948	10	N	N	Chemical analysis in table 8.
19.240	do.	Tr	450	3,040	65	1942	—	—	—	—	Old public-supply well. WBZ 70-450 feet. EY (1942) 50 gpm. Chemical analysis in table 8.
20.310	do.	Qal	70	3,035	65	1-18-42	—	6×6 ft.	—	—	Dug. WBZ "clayey sand" 65-70 feet. EY 50 gpm. Chemical analysis in table 8.
25.37.20.413	EPNG	Tr	419	—	—	—	—	10¾	Je	In,D	Jal General Camp well 1.
21.411	G. B. Hadfield	To	46M	3,050	38.2	2-12-53	—	6	Lw	S	EY 1 gpm.
24.211	—	To	—	3,071	58.4	2-12-53	—	6	N	N	—
24.422	—	To	—	3,050	60.2	2-12-53	—	8	N	N	—
25.411	—	To	62M	3,055	56.4	2-12-53	—	6	N	N	—
33.114	Olsen Oil Co.	Qal	105	3,000	87.4	2-16-53	—	12	N	N	—
36.244	—	To	120	3,035	74.2	2-13-53	—	10	N	N	—
25.38 6 122	Fowler Hair	To	65M	3,100	60.5	3- 3-53	—	6½	Lw	S	—
6 134	—	To	—	3,095	53.1	2-25-53	—	3	N	N	Cased shothole.
9.343	—	To	—	3,130	95.7	2-25-53	—	6½	Lw	D,S	EY 30 gpm.

TABLE 6. RECORDS OF WELLS IN SOUTHERN LEA COUNTY, N. MEX. (continued)

Location No.	Owner	Aquifer	Depth of well (feet)	Altitude of well (feet)	Water level: Depth below land surface (feet)	Water level: Date measured	Year completed	Surface diameter of wells	Method of lift	Use of water	Remarks
25.38 19.342	Pure Oil Co.	To(?)	133	3,061	68	1952	—	—	—	In	Dollarhide Gasoline Plant well 2.
21.121	Tom Linebury	To	110	3,103	87.7	2-12-53	—	7	Lw	S	—
29.131	—	Qal	—	3,040	69.9	2-15-53	—	6	Lw	N	—
26.32.21.322	Battle Ax Ranch	Tr(?)	253	3,140	180	7-23-54	—	—	Li	D,S	—
26.33.3.444	W. D. Dinwiddie	Qal	180	3,315	102.8	7-23-54	—	6	N	N	—
3.444a	do.	Qal	—	3,315	—	—	—	6(?)	Lw	S	Chemical analysis in table 8. Located 50 feet west of 26.33 3.444.
9.443	—	Qal(?)	—	3,280	106.6	7-26-54	—	—	Lw	S	—
22.433	Battle Ax Ranch	Qal	200(?)	3,270	79.7	7-26-54	—	6	Lw	S	—
26.34.6.213	—	Tr	360	3,330	141.9	7-23-54	—	8	Lw	S	—
26.35.13.222	—	Qal	—	2,990	229.1	12-12-58	—	7	Lw	S	Chemical analysis in table 8.
26.36.9.440	Frank Antheys	Qal	184M	2,940	177.8	12-12-58	—	7	Lw	D,S	MWP
18.311	City of Jal	Qal	559	2,981	220.8	3-17-60	1960	24	Te(?)	P	Yield 453 gpm. Gravel packed. WBZ 275-300, 400-465, 500-530 feet.
19.233	do.	Qal	700	2,950	198.0	—	1960	24	Te(?)	P	Yield 408 gpm. Gravel packed. WBZ 270-280, 400-480, 550-600, 670-680 feet.
21.443	—	—	137(?)	2,900	Dry	12-11-58	—	11	N	N	—
26.37.2.133	Clyde Cooper	Qal(?)	119	3,000	103.4	2-16-53	1937	8	Lw	S	—
7.331	EPNG	Tr	476	2,960	—	—	1937	8⅝	Te	In,D	Jal Plant 1, well 1.
12.314	—	Qal	—	3,010	102.3	2-16-53	—	9½	N	N	—
12.331	—	Qal	103 ± M	3,000	99.9	2-17-53	—	3	N	N	Cased shothole.
12.441	Humble Oil Co.	Qal	175	—	—	—	1944	—	—	—	WBZ 125-150 feet. EY 68 gpm.
14.122	—	Qal	131M	2,985	100.6	2-17-53	—	3	N	N	Cased shothole.
26.38.7.244	Tom Linebury	Qal	73	3,000	57.1	2-24-53	—	8½	N	N	—
8.444	do.	Qal	66	3,000	64.5	2-24-53	—	6½	Lw	S	—
17.414	do.	Qal	—	2,975	39.4	2-24-53	—	5½	Lw	S	—
21.344	do.	Qal	—	2,955	29.0	2-13-53	—	3	N	N	Cased shothole.
32.141	do.	Tr(?)	—	2,950	142.4	2-13-53	—	26	N	N	—

TABLE 7. RECORDS OF SELECTED WELLS IN TEXAS ADJACENT TO SOUTHERN LEA COUNTY, N. MEX.
Explanations of symbols are included in the headnotes of Table 6.

Location No.	Owner	Aquifer	Depth of well (feet)	Altitude of well (feet)	Water level: Depth below land surface (feet)	Water level: Date measured	Year completed	Surface diameter of wells	Method of lift	Use of water	Remarks
				Gaines County Tex.							
A-12.25.341	—	To	50(?)	3,545	40.8	12- 9-53	—	6	Lw	N	—
A-28.3.413	Greenwood	—	—	3,485	35.1	12- 9-53	—	—	Lw	S	—
				Andrews County, Tex.							
A-29.17.320	H. O. Sims	To(?)	82	3,510	79.4	7-28-40	—	—	Lw	S	—
A-39.4.420	do.	To	81	3,478	72.4	10- 9-53	—	6½	Lw	S	—
A-39.14.111	Humble Oil Co.	—	215	3,410	Dry	—	—	—	—	—	—
A-40.16.330	M. L. Goins	To	80	3,305	74.1	10-15-53	—	—	Lw	D,S	—
				Winkler County, Tex.							
C-22.6	Tom Linebury	Qal	—	2,940	45.0	2-13-53	—	6	N	N	—

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County: Basin: Number: Suffix:

Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic
◉ All

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AVERAGE DEPTH OF WATER REPORT 03/08/2006

								(Depth Water in Feet)		
Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	Min	Max	Avg
C	25S	35E	05				1	165	165	165
C	25S	35E	18				1	230	230	230
C	25S	35E	21				2	205	230	218

Record Count: 4

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Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic ◉ All

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AVERAGE DEPTH OF WATER REPORT 03/08/2006

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet) Min	Max	Avg

No Records found, try again

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AVERAGE DEPTH OF WATER REPORT 03/08/2006

								(Depth Water in Feet)		
Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	Min	Max	Avg
CP	25S	37E	19				9	27	63	44
CP	25S	37E	20				6	23	60	34
CP	25S	37E	29				5	187	250	219
CP	25S	37E	35				1	185	185	185

Record Count: 21

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POD / SURFACE DATA REPORT 03/08/2006

DB File Nbr	Use	(acre ft per annum) Diversion	Owner	POD Number	(qua (qua
CP 00120	COM	31.2	CHAPARRAL SERVICES, INC.	CP 00120	
CP 00121	COM	15.6	CHAPARRAL SERVICES, INC.	CP 00121	
CP 00124	COM	31.2	CHAPARRAL SERVICES, INC.	CP 00124	
CP 00211	DOM	0	J. M. OWEN	CP 00211 DCL	
CP 00216	DOM	0	J. M. OWEN	CP 00216 DCL	
CP 00217	DOM	0	J. M. OWEN	CP 00217 DCL	
CP 00219	DOM	0	J. M. OWEN	CP 00219 DCL	
CP 00299	DOM	0	J. J. SMITH	CP 00299 DCL	
CP 00300	STK	0	J. J. SMITH	CP 00300 DCL	
CP 00387	DOM	3	PAUL S. BALLINGER	CP 00387 1	
				CP 00387 REPAR 1	
				CP 00387 REPAR 2	
CP 00388	DOM	0	JAKE MC KOWEN	CP 00388 EXP	
CP 00425	COM	70	PAUL PRATHER P AND S BRINE SAL	CP 00425	
CP 00428	DOM	3	ANNICE KATHLEEN BUTTER	CP 00428	
CP 00429	DOM	3	HOMER E. MOLDER	CP 00429	
CP 00444	DOM	3	D. C. BUFFINGTON	CP 00444	
CP 00460	DOM	3	E. W. RUSCHE	CP 00460	
CP 00461	DOM	0	GOERGE L. BUCKLES COMPANY	CP 00461 DCL	
CP 00487	DOM	3	L. L. REED	CP 00487	
CP 00506	DOM	3	CHARLES D. TAFF	CP 00506	
CP 00507	SAN	3	UNION TEX PETE CO.	CP 00507	
CP 00515	DOM	3	JOHN SHROYER	CP 00515	
CP 00518	DOM	0	V.B. BROCK	CP 00518 EXP	
CP 00526	DOM	0	A.D. KEMP	CP 00526 EXP	
CP 00533	DOM	3	A.D. KEMP	CP 00533	
CP 00534	DOM	3	DAN COX	CP 00534	
CP 00541	DOM	3	BILLY W. MOSLEY	CP 00541	
CP 00557	DOM	3	LUCILLE BOCK WEBB	CP 00557	
CP 00565	DOM	3	SAM R. BEAIRD	CP 00565	
CP 00607	DOM	3	RAYMOND F. GRAY	CP 00607	

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County: Basin: Number: Suffix:

Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic
◉ All

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AVERAGE DEPTH OF WATER REPORT 03/08/2006

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet) Min	Max	Avg
CP	24S	35E	10				1	300	300	300

Record Count: 1

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County: Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic All

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AVERAGE DEPTH OF WATER REPORT 03/08/2006

							(Depth Water in Feet)		
Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	Min	Max	Avg
CP	24S	36E	04				3	155	178	165
CP	24S	36E	15				2	173	450	312
CP	24S	36E	20				1	97	97	97
CP	24S	36E	23				1	160	160	160
CP	24S	36E	33				1	53	53	53

Record Count: 8

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County: Basin: Number: Suffix:

Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic
◉ All

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AVERAGE DEPTH OF WATER REPORT 03/08/2006

							(Depth Water in Feet)		
Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	Min	Max	Avg
CP	24S	37E	05				1	106	106	106
CP	24S	37E	08				1	90	90	90
CP	24S	37E	23				1	94	94	94
CP	24S	37E	24				1	100	100	100
CP	24S	37E	25				1	90	90	90
CP	24S	37E	28				1	70	70	70

Record Count: 6

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AVERAGE DEPTH OF WATER REPORT 03/08/2006

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet) Min	Max	Avg

No Records found, try again

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NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic ◉ All

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AVERAGE DEPTH OF WATER REPORT 03/08/2006

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet) Min	Max	Avg

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Township: 26S Range: 37E Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic ◉ All

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AVERAGE DEPTH OF WATER REPORT 03/08/2006

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet) Min	Max	Avg

No Records found, try again

CP 00460	DOM	3	E. W. RUSCHE	CP 00460	Shallow	25S	37E	19	2	1	3
CP 00461	DOM	0	GOERGE L. BUCKLES COMPANY	CP 00461 DCL		25S	37E	10	4	3	2
CP 00487	DOM	3	L. L. REED	CP 00487	Shallow	25S	37E	29	1	2	
CP 00506	DOM	3	CHARLES D. TAFF	CP 00506		25S	37E	29	2		
CP 00507	SAN	3	UNION TEX PETE CO.	CP 00507		25S	37E	05	4	2	
CP 00515	DOM	3	JOHN SHROYER	CP 00515	Shallow	25S	37E	19	2	4	3
CP 00518	DOM	0	V.B. BROCK	CP 00518 EXP		25S	37E	19	1	2	4
CP 00526	DOM	0	A.D. KEMP	CP 00526 EXP		25S	37E	19	1	4	4
CP 00533	DOM	3	A.D. KEMP	CP 00533	Shallow	25S	37E	19	1	4	4
CP 00534	DOM	3	DAN COX	CP 00534	Shallow	25S	37E	19	2	4	1
CP 00541	DOM	3	BILLY W. MOSLEY	CP 00541	Shallow	25S	37E	19	2	2	4
CP 00557	DOM	3	LUCILLE BOCK WEBB	CP 00557	Shallow	25S	37E	20	3	3	3
CP 00565	DOM	3	SAM R. BEAIRD	CP 00565		25S	37E	19	1	2	3
CP 00607	DOM	3	RAYMOND F. GRAY	CP 00607	Shallow	25S	37E	19	1	2	2
CP 00608	DOM	3	FLOYD MCCUNE MATHIS	CP 00608		25S	37E	19	1	1	1
CP 00619	DOM	3	JOHN T. SWINFORD	CP 00619	Shallow	25S	37E	20	3	1	
CP 00620	DOM	3	D. E. BAILEY	CP 00620	Shallow	25S	37E	20	1	3	3
CP 00638	DOM	3	DONALD R. TRICE	CP 00638	Shallow	25S	37E	29	1	1	
CP 00661	DOM	3	D. E. BAILEY	CP 00661	Shallow	25S	37E	20	1	3	3
CP 00710	DOM	3	S. A. SEARCY	CP 00710	Shallow	25S	37E	19	2	2	3
CP 00777	DOM	3	GUAN D. MILLER	CP 00777	Shallow	25S	37E	20	3	2	4
CP 00782	INJ	0	ARCO OIL AND GAS COMPANY	CP 00782	Shallow	25S	37E	24	1	1	2
CP 00783	INJ	0	ARCO OIL AND GAS COMPANY	CP 00783	Shallow	25S	37E	23	1	2	1
CP 00784	INJ	0	ARCO GAS AND OIL COMPANY	CP 00784	Shallow	25S	37E	23	1	4	3
CP 00844	STK	0	TRUSTEES/JAL PUBLIC LIBRARY	CP 00844		25S	37E	17	3	3	
CP 00888	DOM	3	CLAY & GERALDINE (JERI) OSBORN	CP 00888		25S	37E	18	2	2	4
CP 00889	DOM	3	CLAY & GERALDINE (JERI) OSBORN	CP 00889		25S	37E	07	3	3	2
CP 00891	DOM	3	CLAY & GERALDINE (JERI) OSBORN	CP 00891		25S	37E	18	2	2	3
CP 00892	DOM	3	CLAY & GERALDINE (JERI) OSBORN	CP 00892		25S	37E	18	2	2	3
CP 00893	DOM	3	CLAY & GERALDINE (JERI) OSBORN	CP 00893		25S	37E	18	2	2	4
CP 00894	DOM	3	CLAY & GERALDINE (JERI) OSBORN	CP 00894		25S	37E	18	2	2	4
CP 00900	POL	0	SHELL PIPELINE COMPANY LP	CP 00900	Shallow	25S	37E	32	4	3	4
CP 00901	POL	0	SHELL PIPELINE COMPANY LP	CP 00901	Shallow	25S	37E	32	4	3	4
CP 00902	POL	0	SHELL PIPELINE COMPANY LP	CP 00902	Shallow	25S	37E	32	4	3	4
CP 00903	POL	0	SHELL PIPELINE COMPANY LP	CP 00903	Shallow	25S	37E	32	4	3	4
CP 00904	POL	0	SHELL PIPELINE COMPANY LP	CP 00904	Shallow	25S	37E	32	4	3	4
CP 00905	POL	0	SHELL PIPELINE COMPANY LP	CP 00905	Shallow	25S	37E	32	4	3	4
CP 00906	POL	0	SHELL PIPELINE COMPANY LP	CP 00906	Shallow	25S	37E	32	4	3	4
CP 00909	STK	3	GEORGE WILLIS	CP 00909	Shallow	25S	37E	35	4	4	4

Record Count: 56

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(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are biggest to smallest

DB File Nbr	Use	Diversion (acre ft per annum)	Owner	POD Number	Source	Tws	Rng	Sec	q	q	q
CP 00120	COM	31.2	CHAPARRAL SERVICES, INC.	CP 00120	Shallow	25S	37E	20	2	3	1
CP 00121	COM	15.6	CHAPARRAL SERVICES, INC.	CP 00121	Shallow	25S	37E	20	2	4	3
CP 00124	COM	31.2	CHAPARRAL SERVICES, INC.	CP 00124		25S	37E	20	2	4	1
CP 00211	DOM	0	J. M. OWEN	CP 00211 DCL		25S	37E	21	2	4	3
CP 00216	DOM	0	J. M. OWEN	CP 00216 DCL		25S	37E	22	1	2	2
CP 00217	DOM	0	J. M. OWEN	CP 00217 DCL		25S	37E	10	4	3	4
CP 00219	DOM	0	J. M. OWEN	CP 00219 DCL		25S	37E	10	4	3	3
CP 00299	DOM	0	J. J. SMITH	CP 00299 DCL		25S	37E	03	2	4	2
CP 00300	STK	0	J. J. SMITH	CP 00300 DCL		25S	37E	03	4	2	1
CP 00387	DOM	3	PAUL S. BALLINGER	CP 00387 1	Shallow	25S	37E	29	2	3	
				CP 00387 REPAR 1	Shallow	25S	37E	29	2	3	
				CP 00387 REPAR 2	Shallow	25S	37E	29	2	3	
CP 00388	DOM	0	JAKE MC KOWEN	CP 00388 EXP		25S	37E	19	2	2	
CP 00425	COM	70	PAUL PRATHER P AND S BRINE SAL	CP 00425	Shallow	25S	37E	16	4	4	4
CP 00428	DOM	3	ANNICE KATHLEEN BUTTER	CP 00428		25S	37E	20	1		
CP 00429	DOM	3	HOMER E. MOLDER	CP 00429	Shallow	25S	37E	19	2		
CP 00444	DOM	3	D. C. BUFFINGTON	CP 00444	Shallow	25S	37E	19	2	2	

CP 00608	DOM	3	FLOYD MCCUNE MATHIS	CP 00608
CP 00619	DOM	3	JOHN T. SWINFORD	CP 00619
CP 00620	DOM	3	D. E. BAILEY	CP 00620
CP 00638	DOM	3	DONALD R. TRICE	CP 00638
CP 00661	DOM	3	D. E. BAILEY	CP 00661
CP 00710	DOM	3	S. A. SEARCY	CP 00710
CP 00777	DOM	3	GUAN D. MILLER	CP 00777
CP 00782	INJ	0	ARCO OIL AND GAS COMPANY	CP 00782
CP 00783	INJ	0	ARCO OIL AND GAS COMPANY	CP 00783
CP 00784	INJ	0	ARCO GAS AND OIL COMPANY	CP 00784
CP 00844	STK	0	TRUSTEES/JAL PUBLIC LIBRARY	CP 00844
CP 00888	DOM	3	CLAY & GERALDINE (JERI) OSBORN	CP 00888
CP 00889	DOM	3	CLAY & GERALDINE (JERI) OSBORN	CP 00889
CP 00891	DOM	3	CLAY & GERALDINE (JERI) OSBORN	CP 00891
CP 00892	DOM	3	CLAY & GERALDINE (JERI) OSBORN	CP 00892
CP 00893	DOM	3	CLAY & GERALDINE (JERI) OSBORN	CP 00893
CP 00894	DOM	3	CLAY & GERALDINE (JERI) OSBORN	CP 00894
CP 00900	POL	0	SHELL PIPELINE COMPANY LP	CP 00900
CP 00901	POL	0	SHELL PIPELINE COMPANY LP	CP 00901
CP 00902	POL	0	SHELL PIPELINE COMPANY LP	CP 00902
CP 00903	POL	0	SHELL PIPELINE COMPANY LP	CP 00903
CP 00904	POL	0	SHELL PIPELINE COMPANY LP	CP 00904
CP 00905	POL	0	SHELL PIPELINE COMPANY LP	CP 00905
CP 00906	POL	0	SHELL PIPELINE COMPANY LP	CP 00906
CP 00909	STK	3	GEORGE WILLIS	CP 00909

Record Count: 56

Water Resources

Data Category: Ground Water | Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320149103134201

Save file of selected sites to local disk for future upload

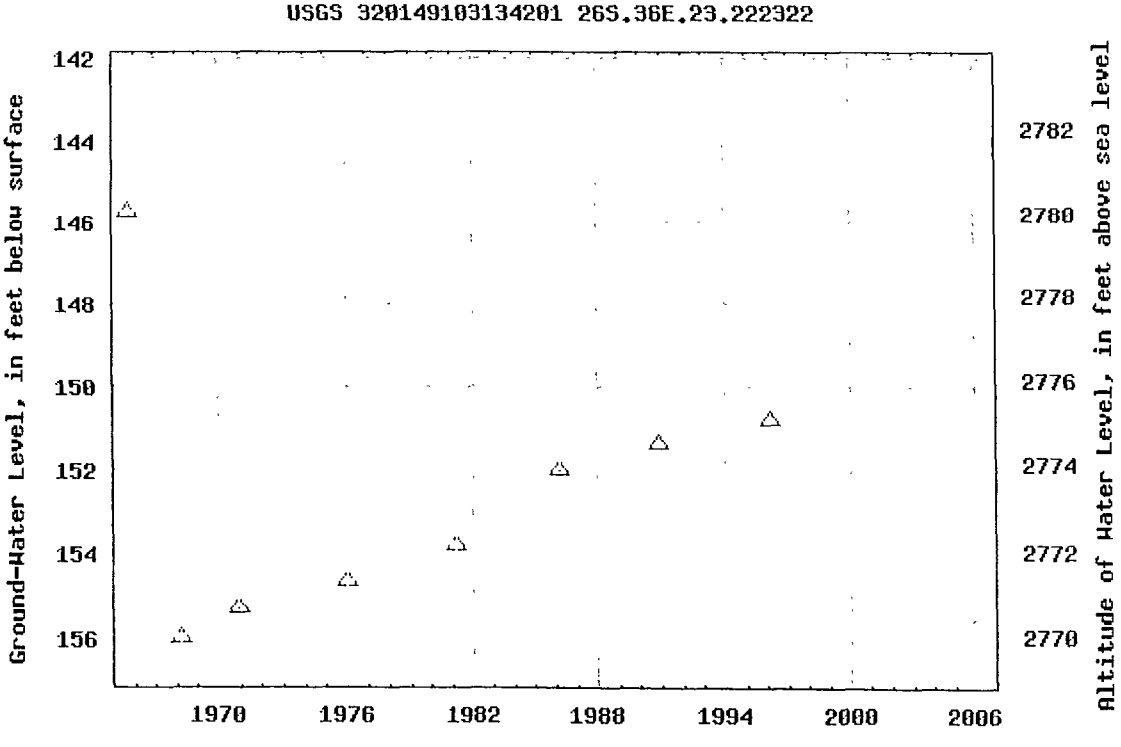
USGS 320149103134201 26S.36E.23.222322

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°01'49", Longitude 103°13'42" NAD27
Land-surface elevation 2,925.80 feet above sea level NGVD29
The depth of the well is 200 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320251103154201

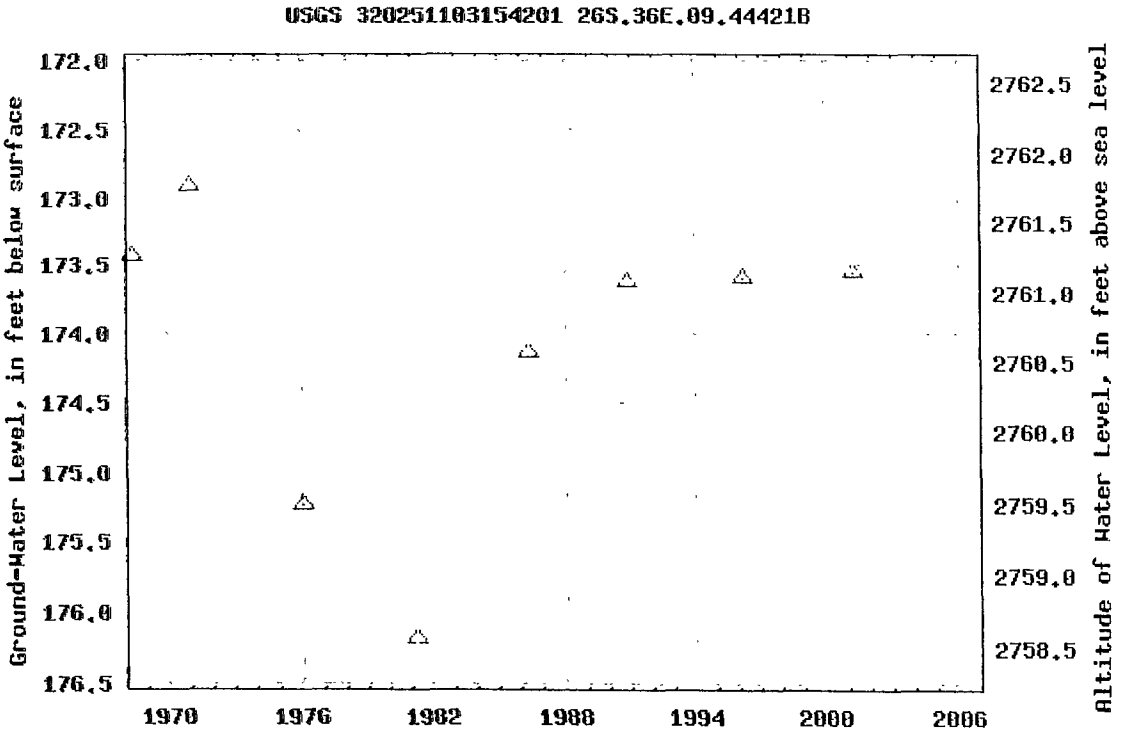
Save file of selected sites to local disk for future upload

USGS 320251103154201 26S.36E.09.44421B

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°02'51", Longitude 103°15'42" NAD27
Land-surface elevation 2,934.70 feet above sea level NGVD29
The depth of the well is 200 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats
- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water | Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320042103103901

Save file of selected sites to local disk for future upload

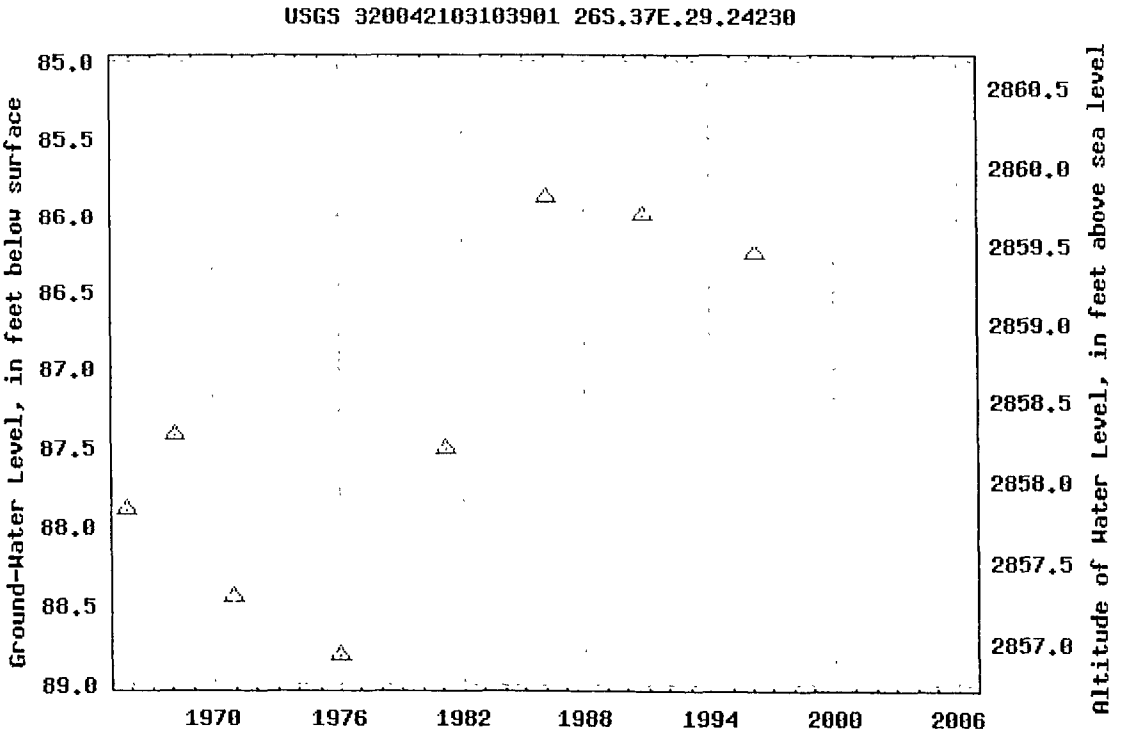
USGS 320042103103901 26S.37E.29.24230

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°00'42", Longitude 103°10'39" NAD27
Land-surface elevation 2,945.70 feet above sea level NGVD29
The depth of the well is 115 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water | Geographic Area: New Mexico | go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320046103085101

Save file of selected sites to local disk for future upload

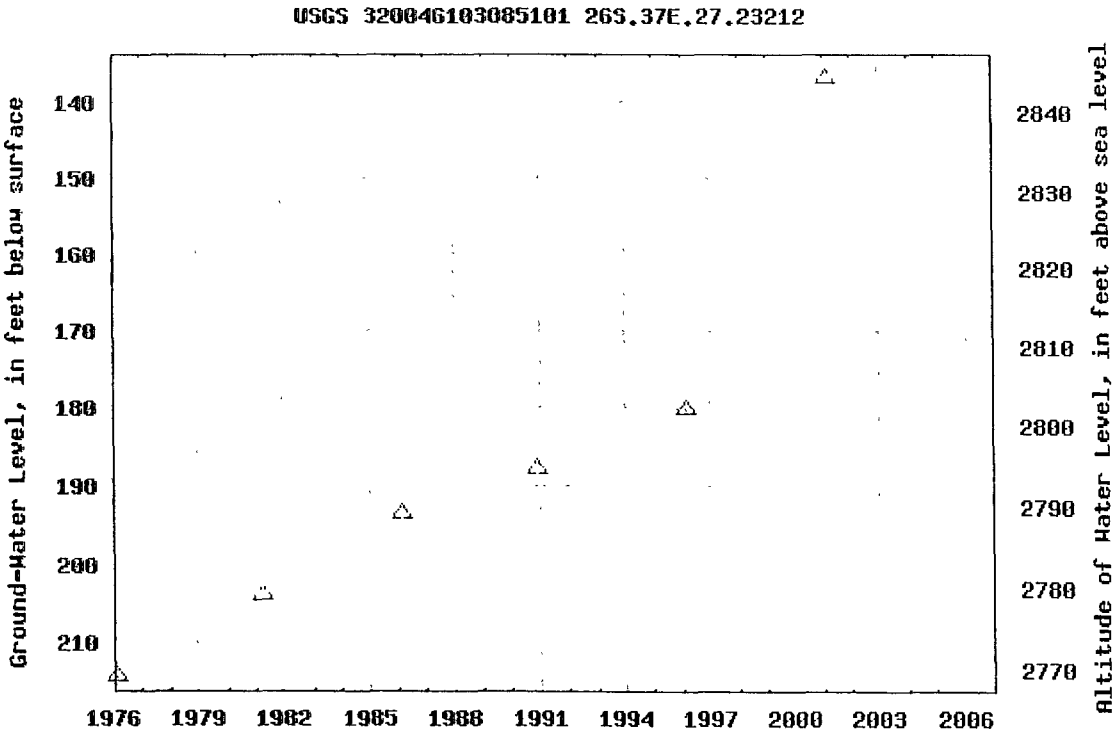
USGS 320046103085101 26S.37E.27.23212

Available data for this site | Ground-water: Levels | GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°00'46", Longitude 103°08'51" NAD27
Land-surface elevation 2,982.20 feet above sea level NGVD29
The depth of the well is 525 feet below land surface.
This well is completed in the SANTA ROSA SANDSTONE (231SNRS) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320104103120301

Save file of selected sites to local disk for future upload

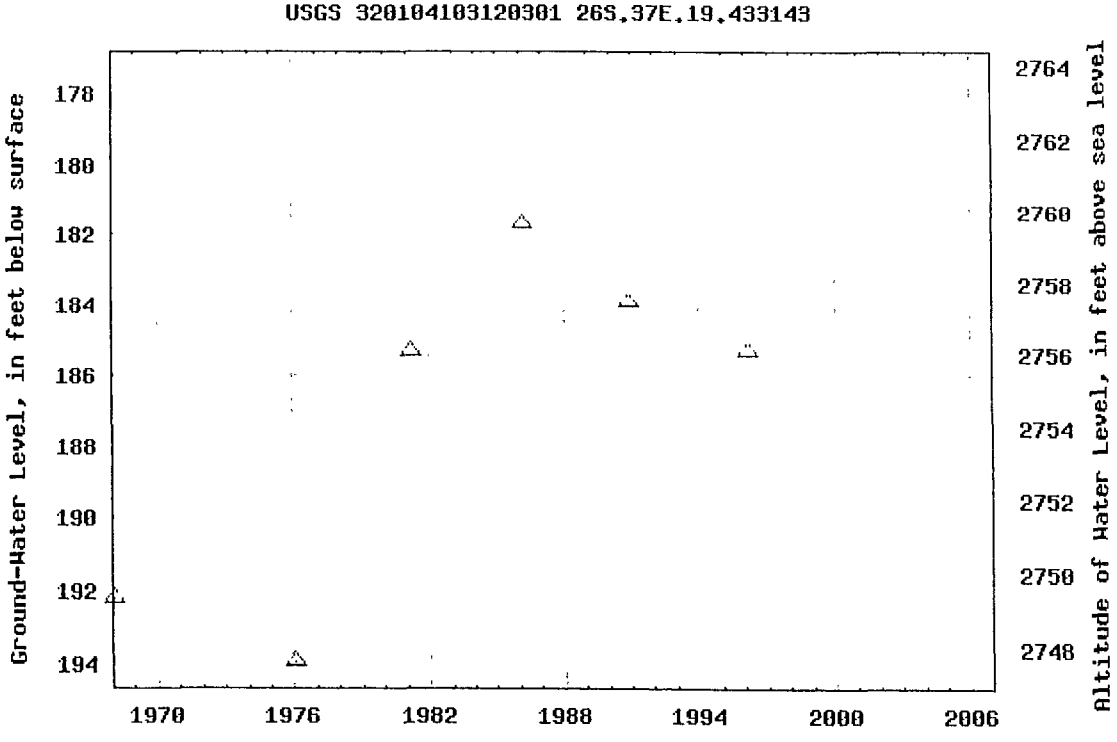
USGS 320104103120301 26S.37E.19.433143

Available data for this site EPA Surf your Watershed GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°01'04", Longitude 103°12'03" NAD27
Land-surface elevation 2,941.40 feet above sea level NGVD29
The depth of the well is 500 feet below land surface.
This well is completed in the SANTA ROSA SANDSTONE (231SNRS) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water | Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320303103100901

Save file of selected sites to local disk for future upload

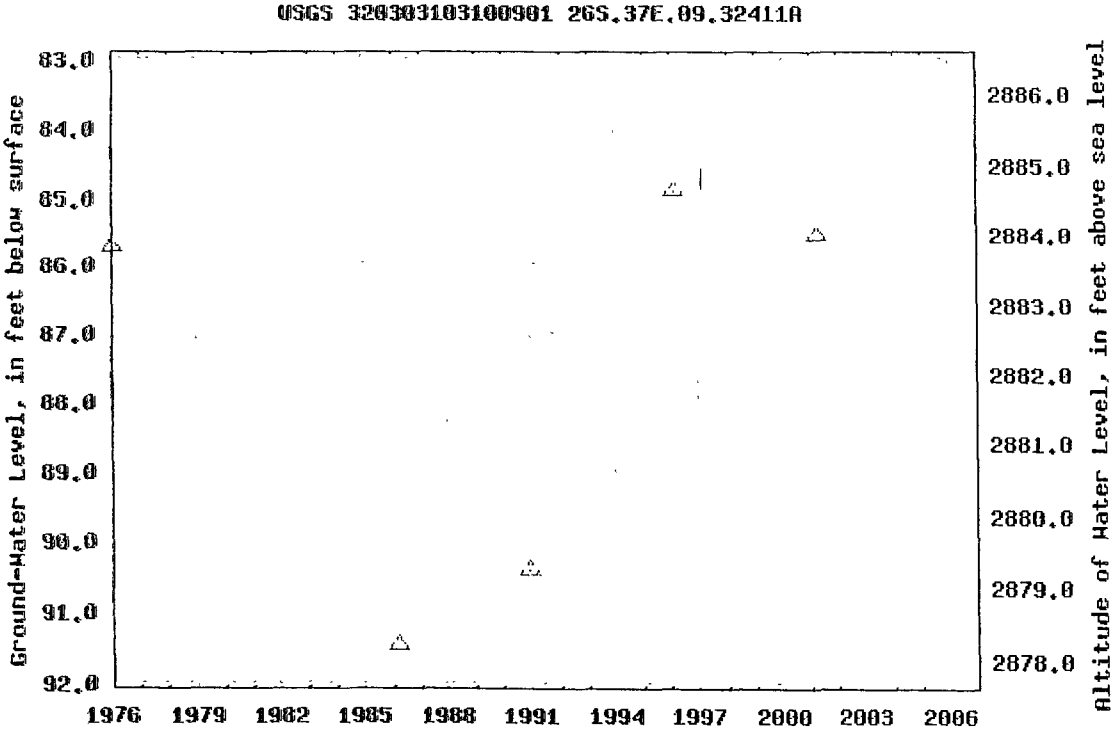
USGS 320303103100901 26S.37E.09.32411A

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°03'03", Longitude 103°10'09" NAD27
Land-surface elevation 2,969.60 feet above sea level NGVD29
The depth of the well is 140 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320259103122201

Save file of selected sites to local disk for future upload

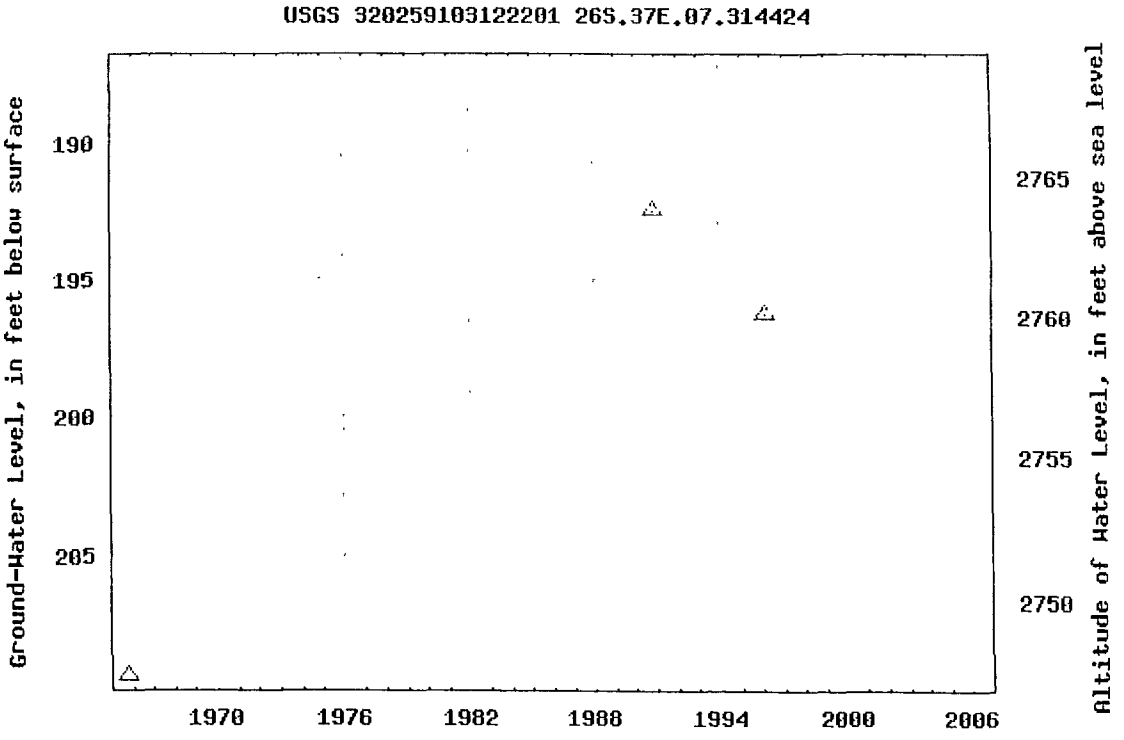
USGS 320259103122201 26S.37E.07.314424

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°02'59", Longitude 103°12'22" NAD27
Land-surface elevation 2,956.40 feet above sea level NGVD29
The depth of the well is 470 feet below land surface.
This well is completed in the SANTA ROSA SANDSTONE (231SNRS) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320251103071401

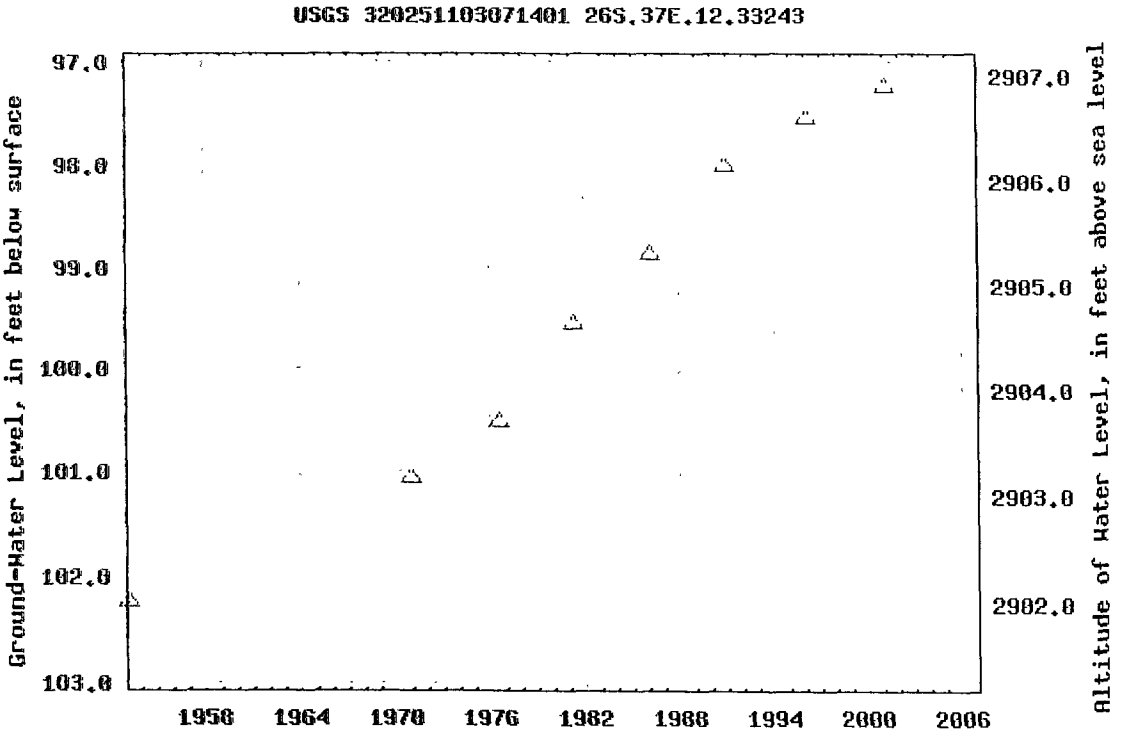
Save file of selected sites to local disk for future upload

USGS 320251103071401 26S.37E.12.33243

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°02'51", Longitude 103°07'14" NAD27
Land-surface elevation 3,004.20 feet above sea level NGVD29
The depth of the well is 160 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats
- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320309103080401

Save file of selected sites to local disk for future upload

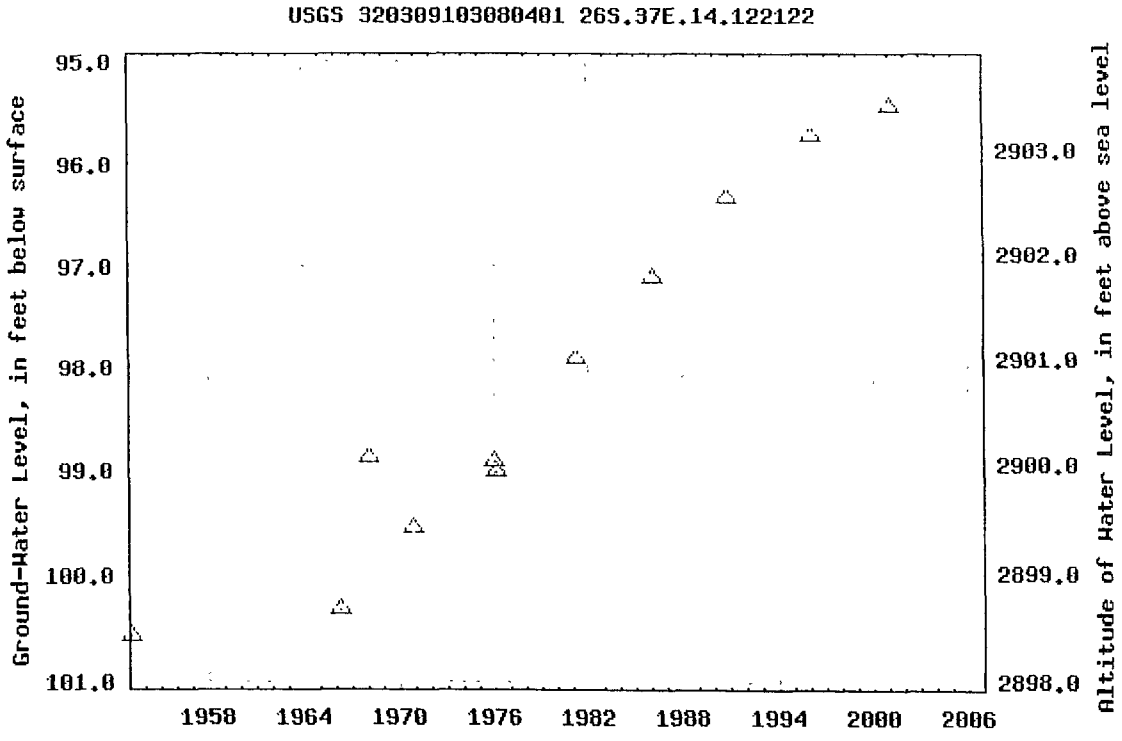
USGS 320309103080401 26S.37E.14.122122

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code
Latitude 32°03'09", Longitude 103°08'04" NAD27
Land-surface elevation 2,998.90 feet above sea level NGVD29
The depth of the well is 131 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320918103211701

Save file of selected sites to local disk for future upload

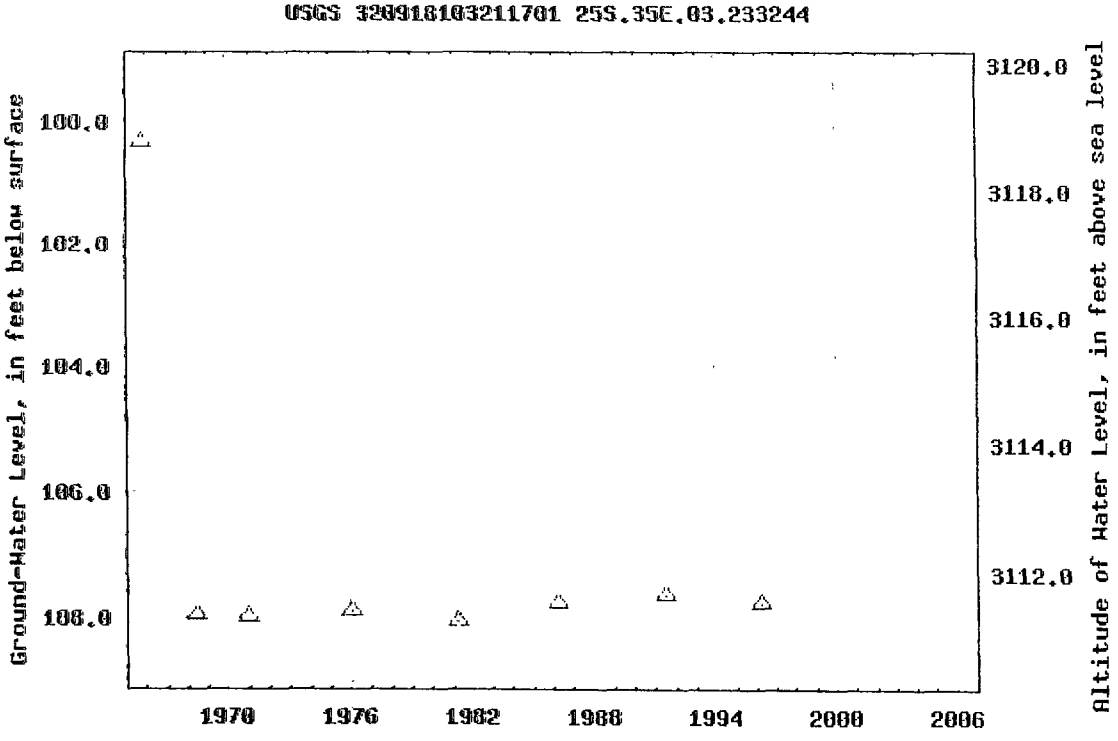
USGS 320918103211701 25S.35E.03.233244

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°09'18", Longitude 103°21'17" NAD27
Land-surface elevation 3,219.20 feet above sea level NGVD29
The depth of the well is 122 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water | Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320721103221201

Save file of selected sites to local disk for future upload

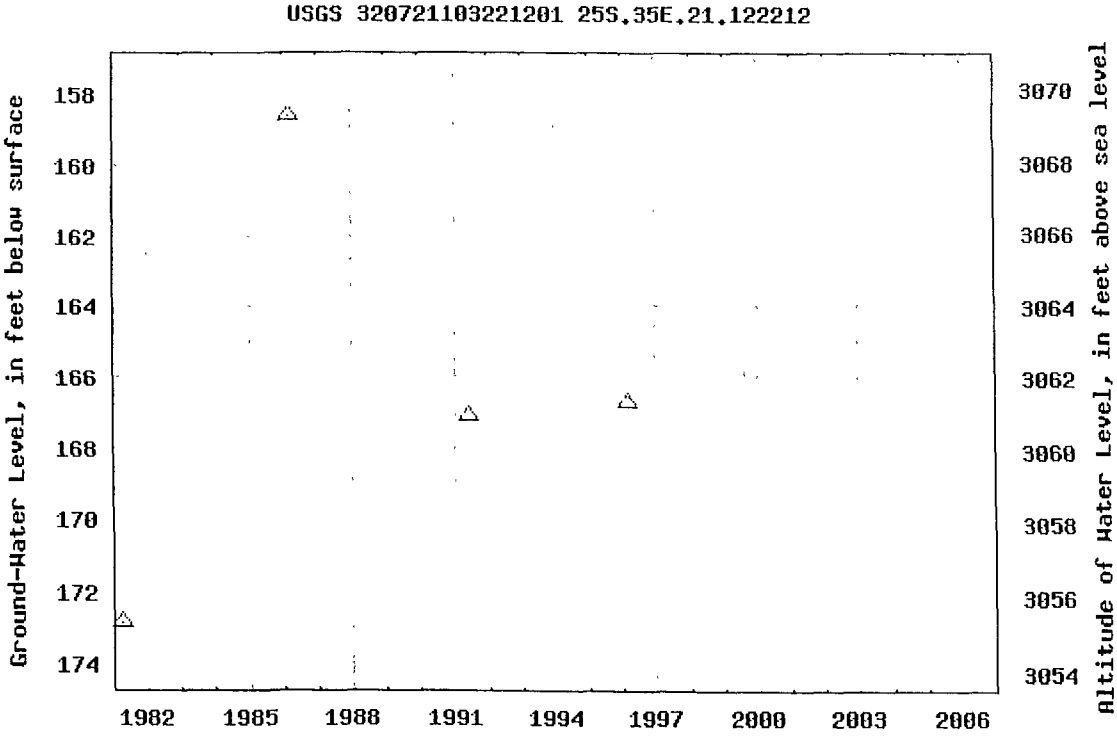
USGS 320721103221201 25S.35E.21.122212

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code
Latitude 32°07'21", Longitude 103°22'12" NAD27
Land-surface elevation 3,228.00 feet above sea level NGVD29
The depth of the well is 275 feet below land surface.
This well is completed in the SANTA ROSA SANDSTONE (231SNRS) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320916103182501

Save file of selected sites to local disk for future upload

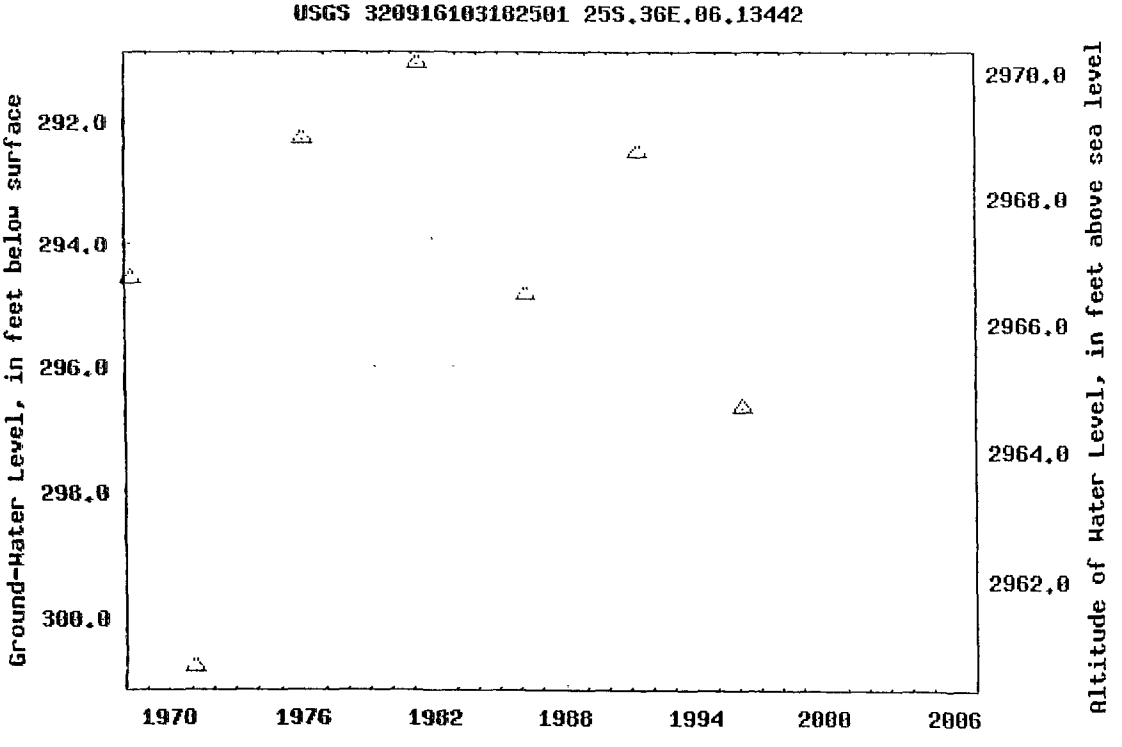
USGS 320916103182501 25S.36E.06.13442

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°09'16", Longitude 103°18'25" NAD27
Land-surface elevation 3,261.30 feet above sea level NGVD29
The depth of the well is 605 feet below land surface.
This well is completed in the SANTA ROSA SANDSTONE (231SNRS) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320813103152901

Save file of selected sites to local disk for future upload

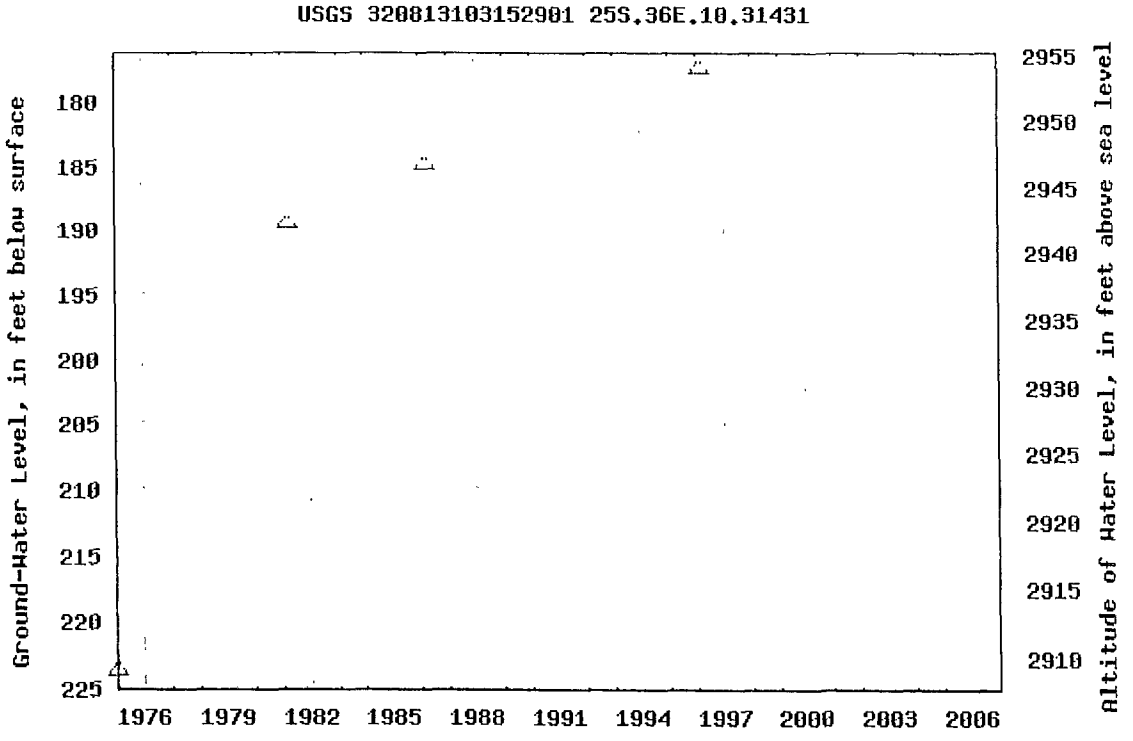
USGS 320813103152901 25S.36E.10.31431

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°08'13", Longitude 103°15'29" NAD27
Land-surface elevation 3,132.10 feet above sea level NGVD29
The depth of the well is 512 feet below land surface.
This well is completed in the SANTA ROSA SANDSTONE (231SNRS) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water | Geographic Area: New Mexico | go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320639103071301

Save file of selected sites to local disk for future upload

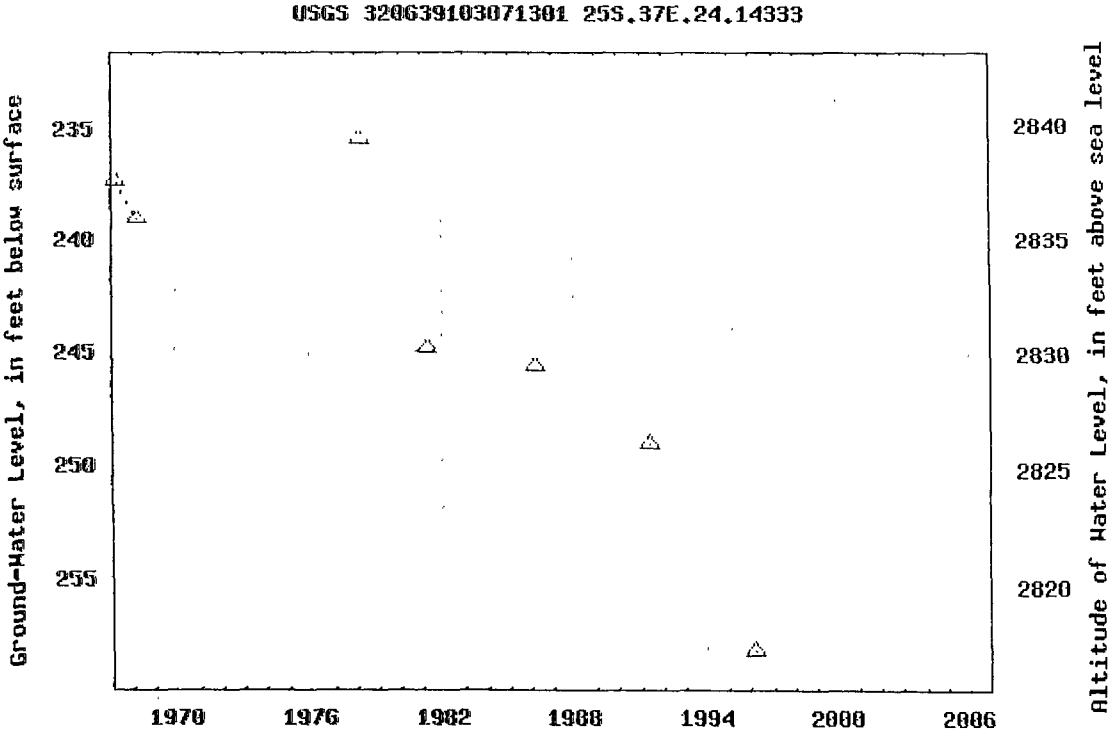
USGS 320639103071301 25S.37E.24.14333

Available data for this site | Ground-water: Levels | GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°06'39", Longitude 103°07'13" NAD27
Land-surface elevation 3,075.10 feet above sea level NGVD29
The depth of the well is 901 feet below land surface.
This well is completed in the RUSTLER FORMATION (312RSLR) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320651103110202

Save file of selected sites to local disk for future upload

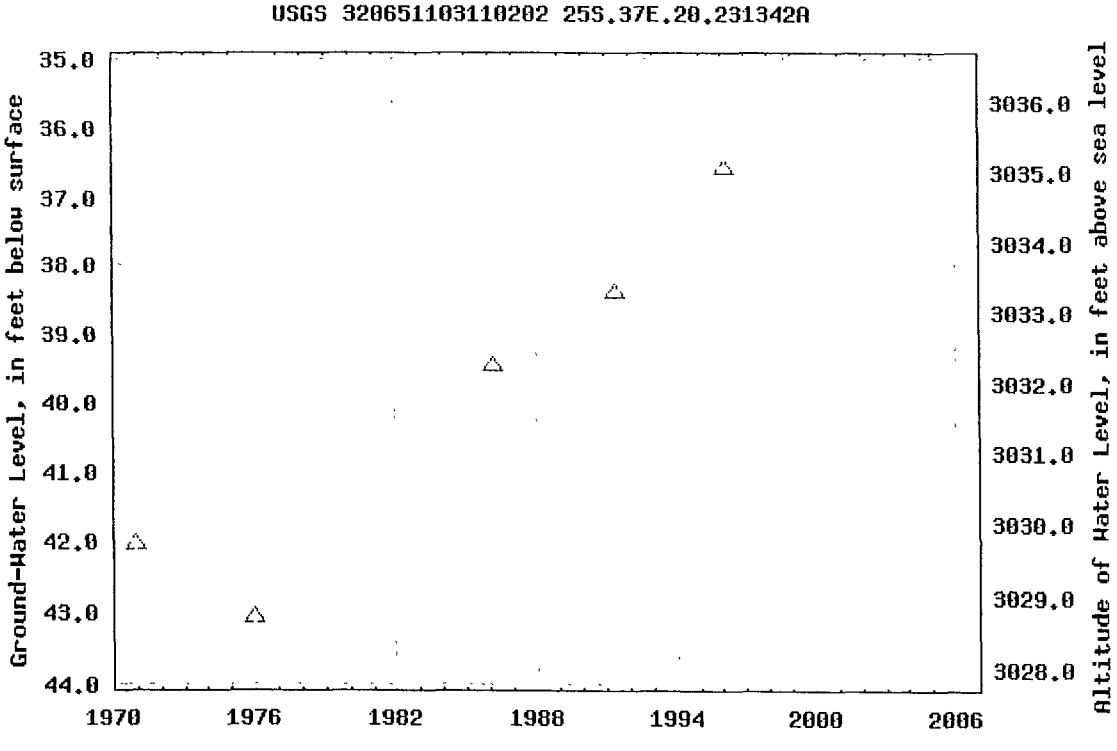
USGS 320651103110202 25S.37E.20.231342A

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°06'51", Longitude 103°11'02" NAD27
Land-surface elevation 3,071.70 feet above sea level NGVD29
The depth of the well is 510 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water | Geographic Area: New Mexico | go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320724103071502

Save file of selected sites to local disk for future upload

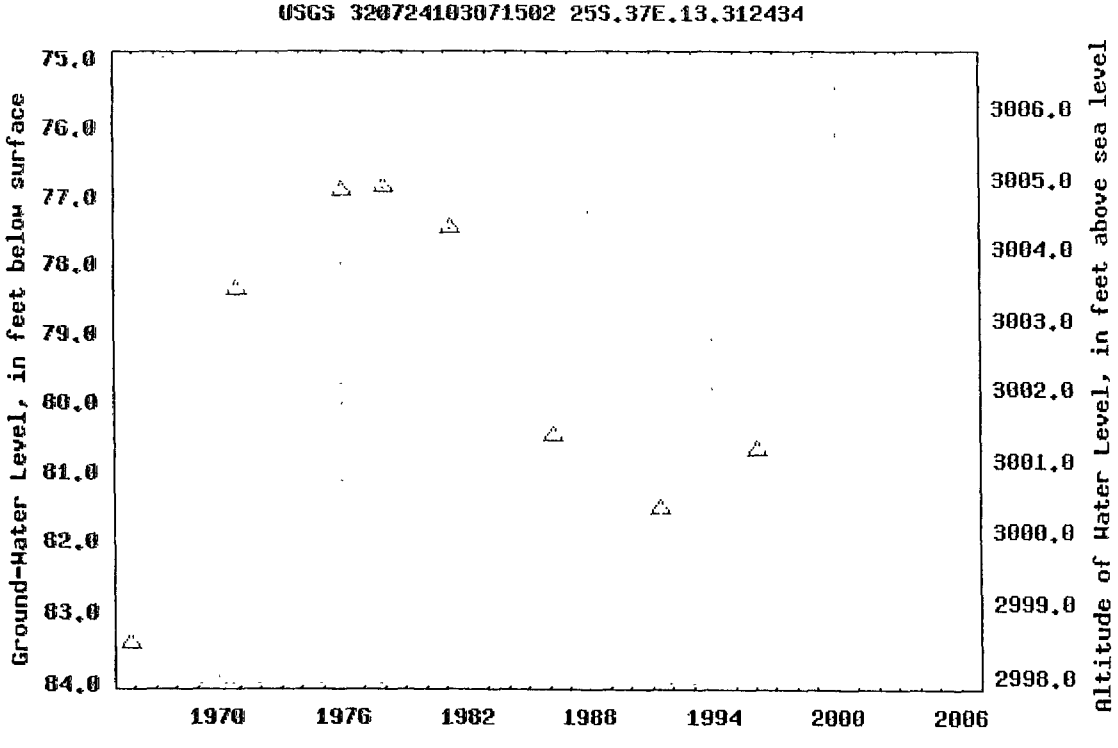
USGS 320724103071502 25S.37E.13.312434

Available data for this site | Ground-water: Levels | GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°07'24", Longitude 103°07'15" NAD27
Land-surface elevation 3,081.80 feet above sea level NGVD29
The depth of the well is 145 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water | Geographic Area: New Mexico | go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320634103083901

Save file of selected sites to local disk for future upload

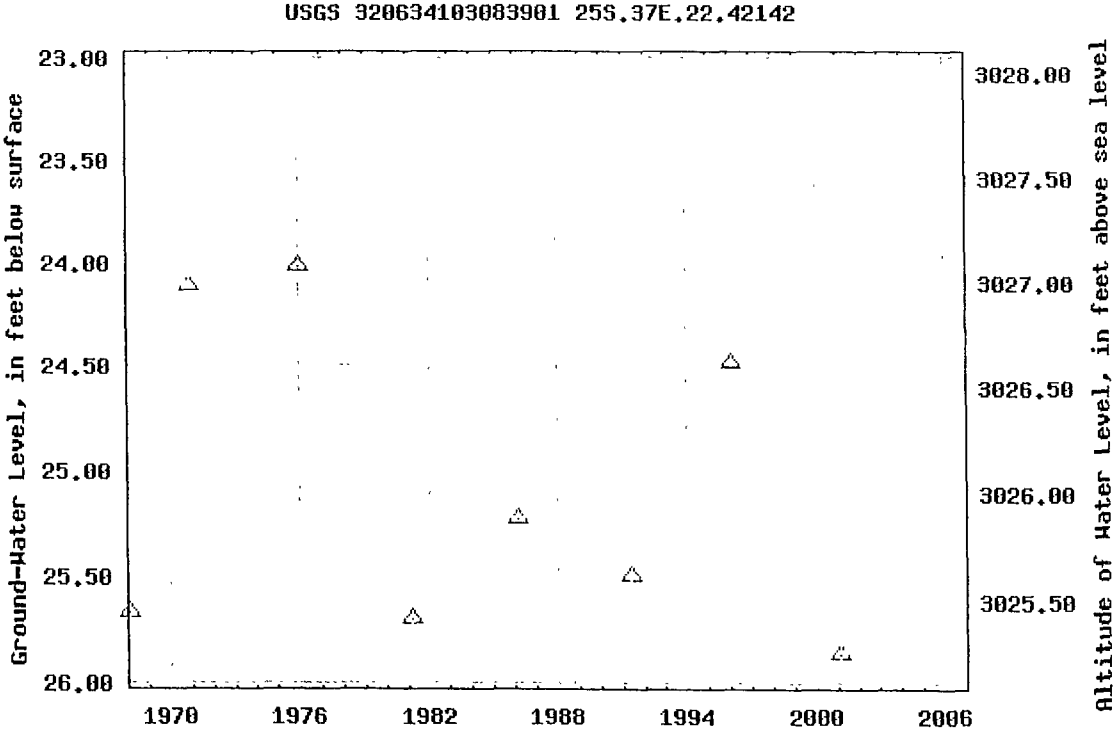
USGS 320634103083901 25S.37E.22.42142

Available data for this site Ground-water: Levels | GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°06'34", Longitude 103°08'39" NAD27
Land-surface elevation 3,051.10 feet above sea level NGVD29
The depth of the well is 42 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water | Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320510103101301

Save file of selected sites to local disk for future upload

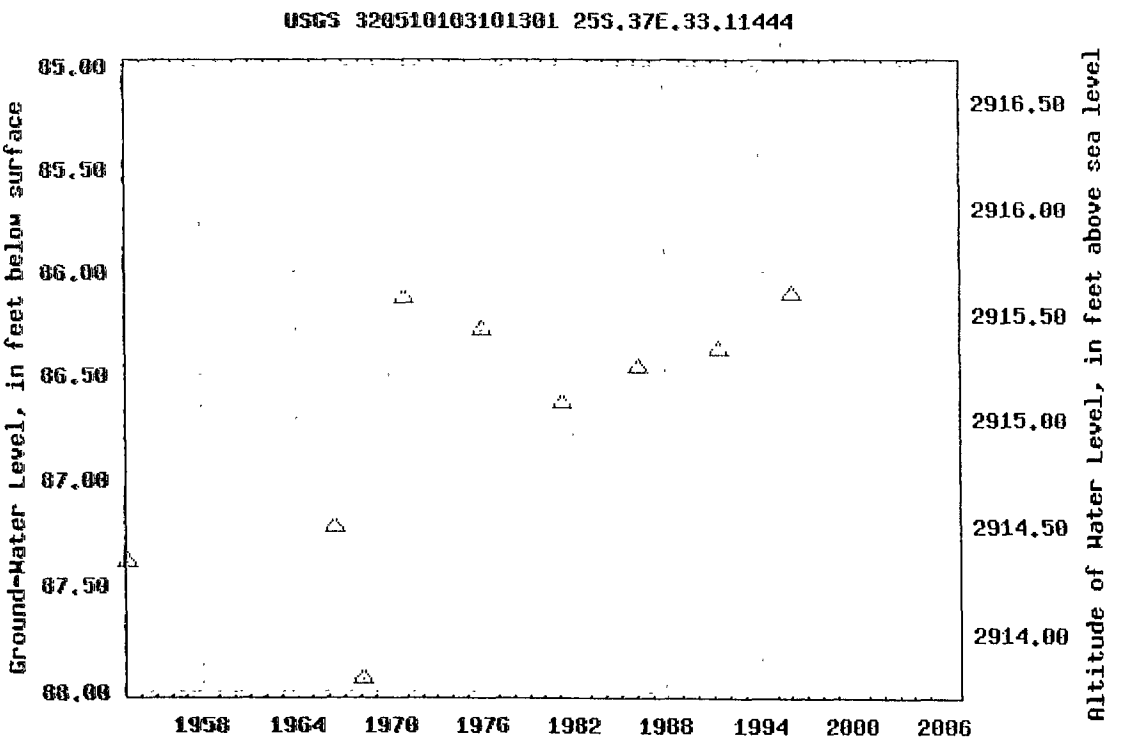
USGS 320510103101301 25S.37E.33.11444

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°05'10", Longitude 103°10'13" NAD27
Land-surface elevation 3,001.70 feet above sea level NGVD29
The depth of the well is 105 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320547103065702

Save file of selected sites to local disk for future upload

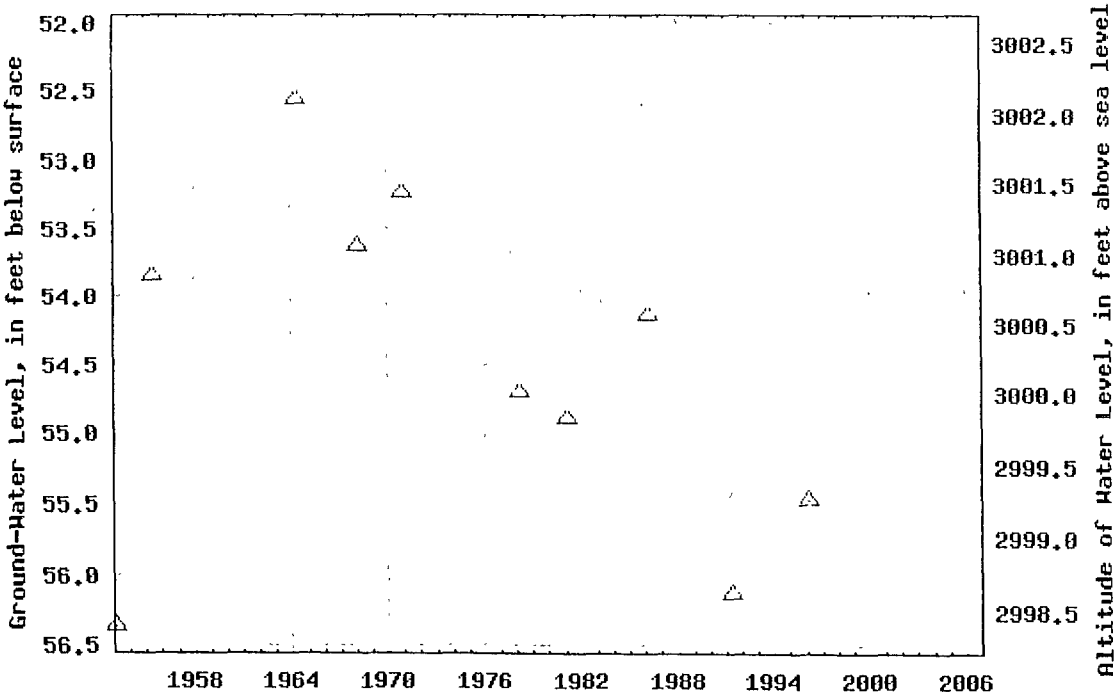
USGS 320547103065702 25S.37E.25.23332A

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°05'47", Longitude 103°06'57" NAD27
Land-surface elevation 3,054.70 feet above sea level NGVD29
The depth of the well is 62 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water | Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320550103081001

Save file of selected sites to local disk for future upload

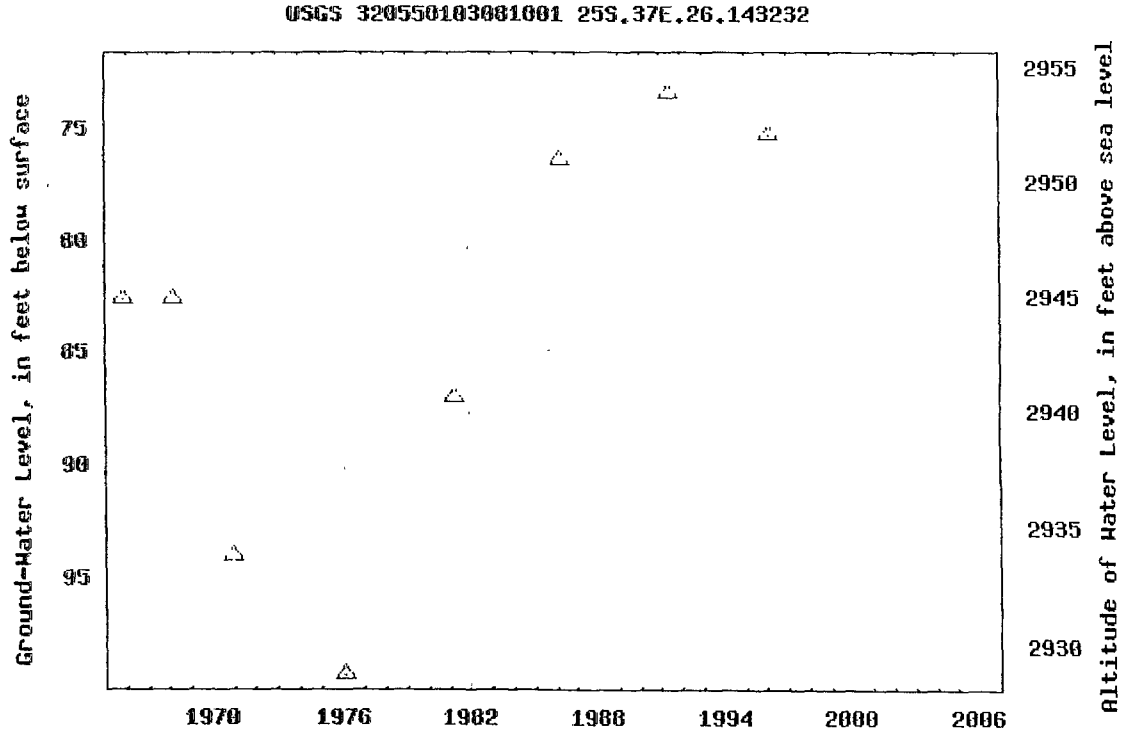
USGS 320550103081001 25S.37E.26.143232

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°05'50", Longitude 103°08'10" NAD27
Land-surface elevation 3,027.60 feet above sea level NGVD29
The depth of the well is 106 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320730103114801

Save file of selected sites to local disk for future upload

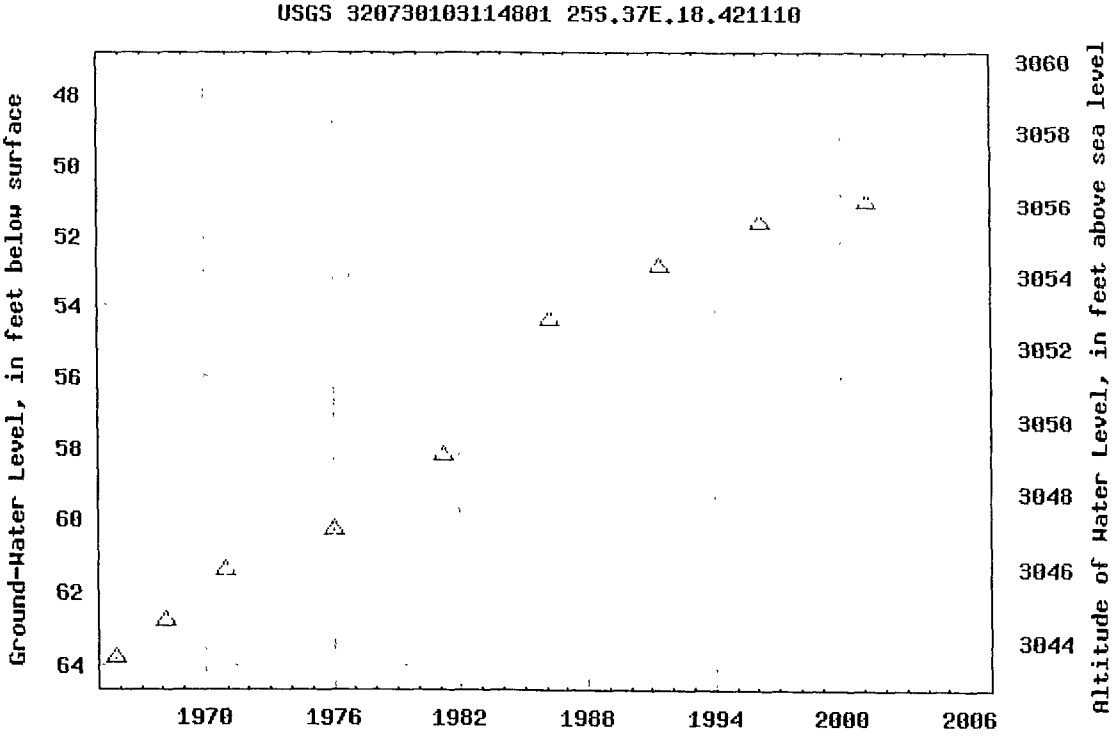
USGS 320730103114801 25S.37E.18.421110

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°07'30", Longitude 103°11'48" NAD27
Land-surface elevation 3,107.20 feet above sea level NGVD29
The depth of the well is 100 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water | Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320823103082901

Save file of selected sites to local disk for future upload

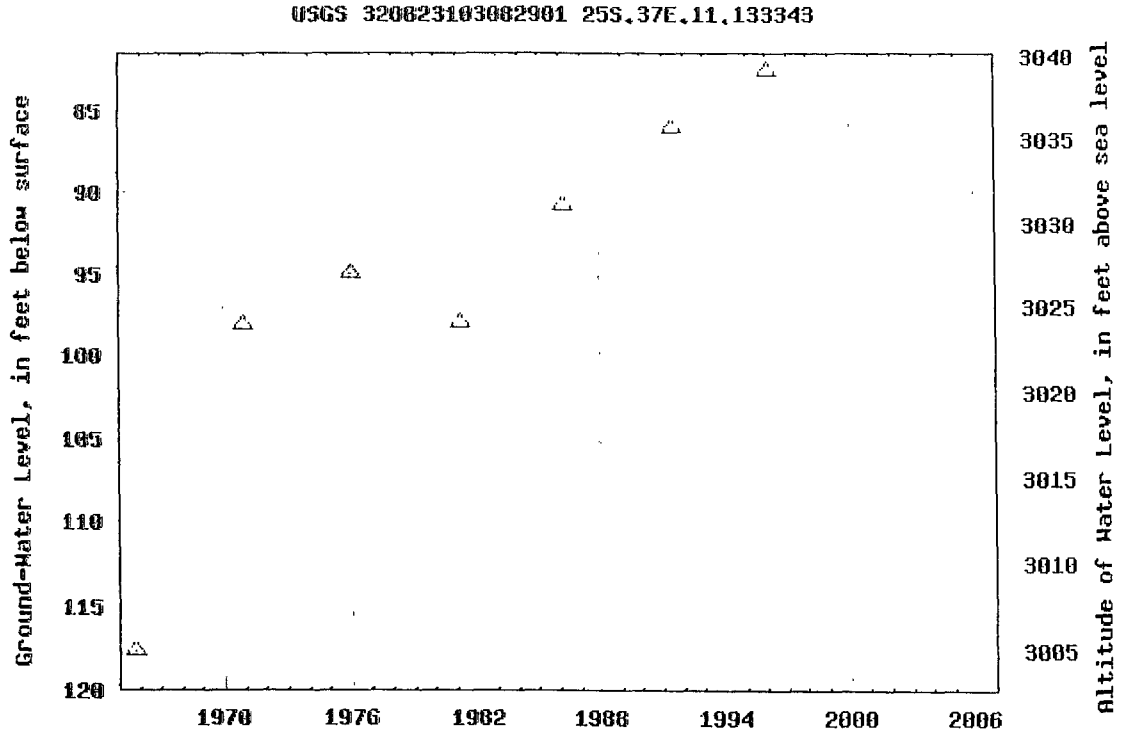
USGS 320823103082901 25S.37E.11.133343

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°08'23", Longitude 103°08'29" NAD27
Land-surface elevation 3,122.10 feet above sea level NGVD29
The depth of the well is 192 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 320850103080501

Save file of selected sites to local disk for future upload

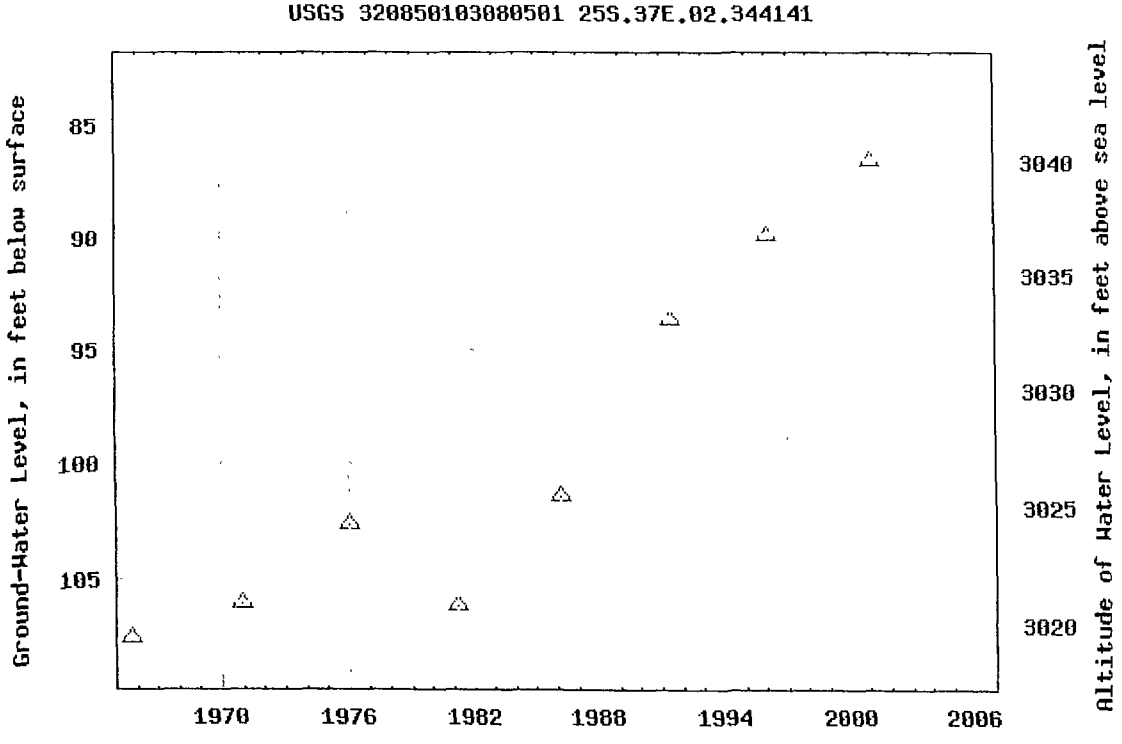
USGS 320850103080501 25S.37E.02.344141

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°08'50", Longitude 103°08'05" NAD27
Land-surface elevation 3,126.70 feet above sea level NGVD29
The depth of the well is 154 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 321003103085201

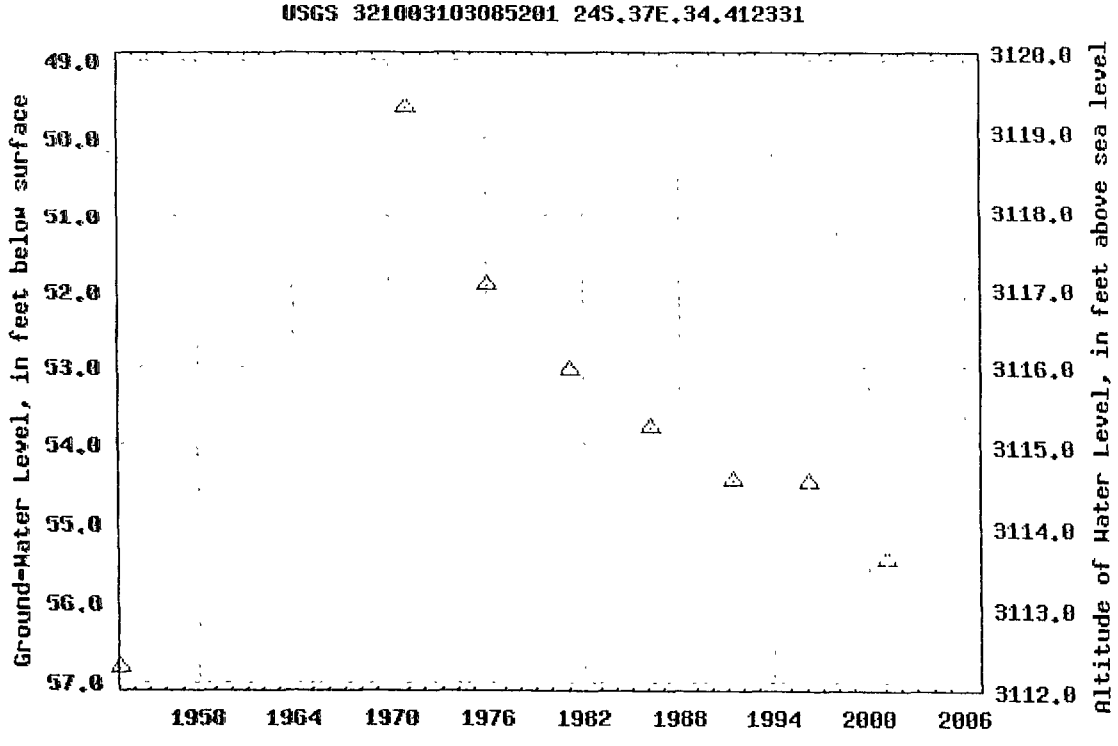
Save file of selected sites to local disk for future upload

USGS 321003103085201 24S.37E.34.412331

Available data for this site Ground-water Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°10'03", Longitude 103°08'52" NAD27
Land-surface elevation 3,169.00 feet above sea level NGVD29
The depth of the well is 75 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats
- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 321050103090301

Save file of selected sites to local disk for future upload

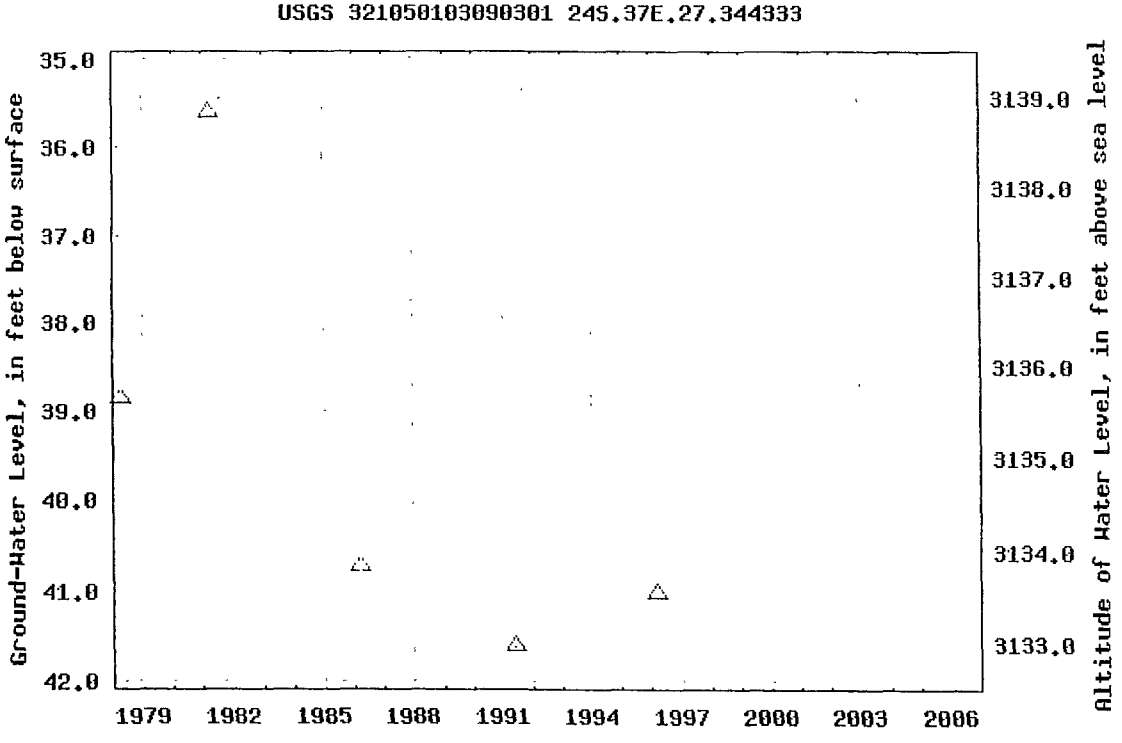
USGS 321050103090301 24S.37E.27.344333

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code
Latitude 32°10'50", Longitude 103°09'03" NAD27
Land-surface elevation 3,174.50 feet above sea level NGVD29
The depth of the well is 84 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water | Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 321105103064901

Save file of selected sites to local disk for future upload

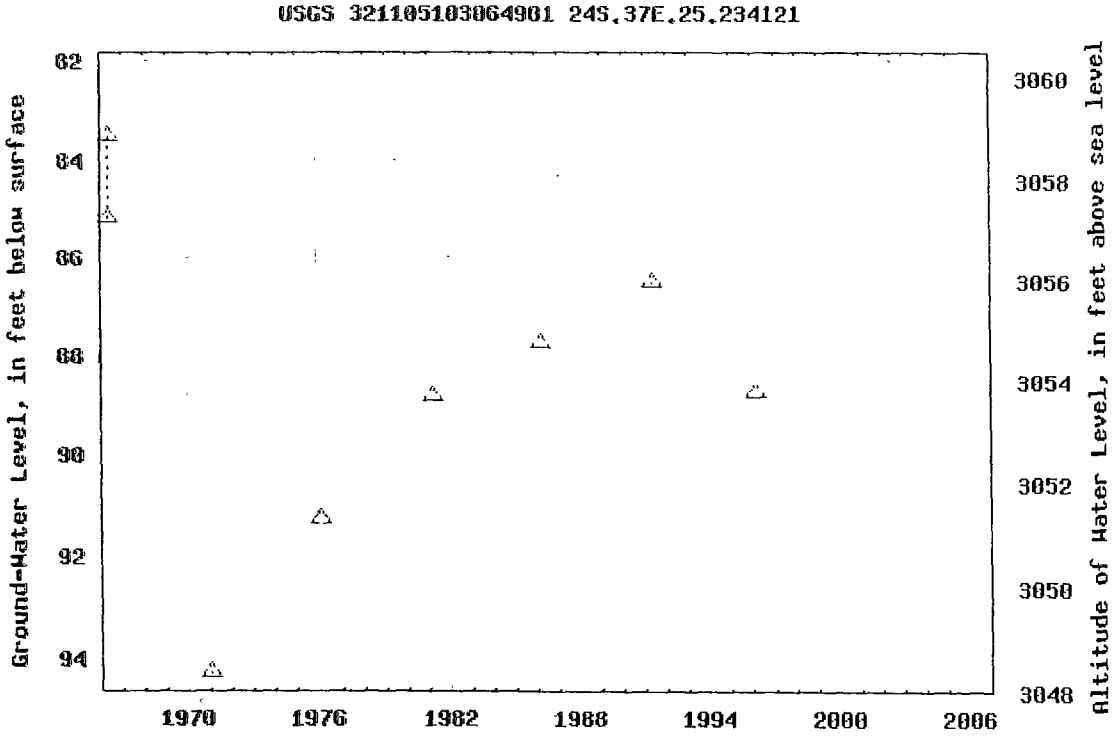
USGS 321105103064901 24S.37E.25.234121

Available data for this site Ground-water Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°11'05", Longitude 103°06'49" NAD27
Land-surface elevation 3,142.50 feet above sea level NGVD29
The depth of the well is 135 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water | Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 321125103093001

Save file of selected sites to local disk for future upload

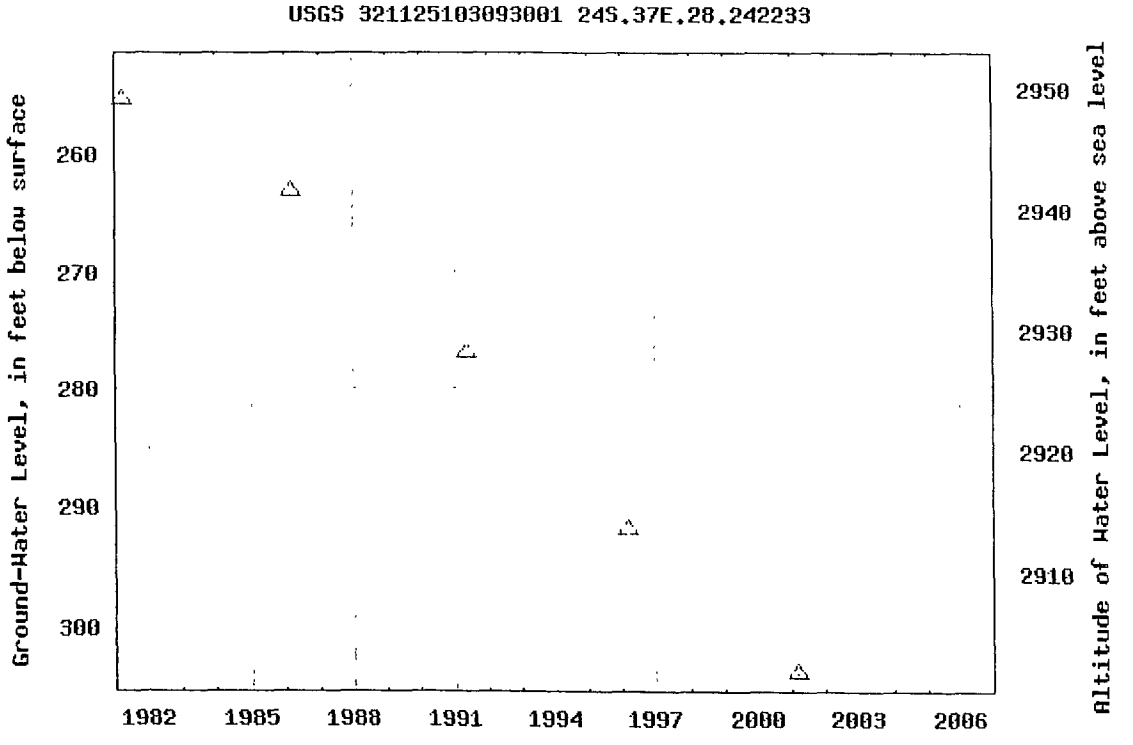
USGS 321125103093001 24S.37E.28.242233

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code
Latitude 32°11'25", Longitude 103°09'30" NAD27
Land-surface elevation 3,205.00 feet above sea level NGVD29
The depth of the well is 770 feet below land surface.
This well is completed in the SANTA ROSA SANDSTONE (231SNRS) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water | Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 321045103092301

Save file of selected sites to local disk for future upload

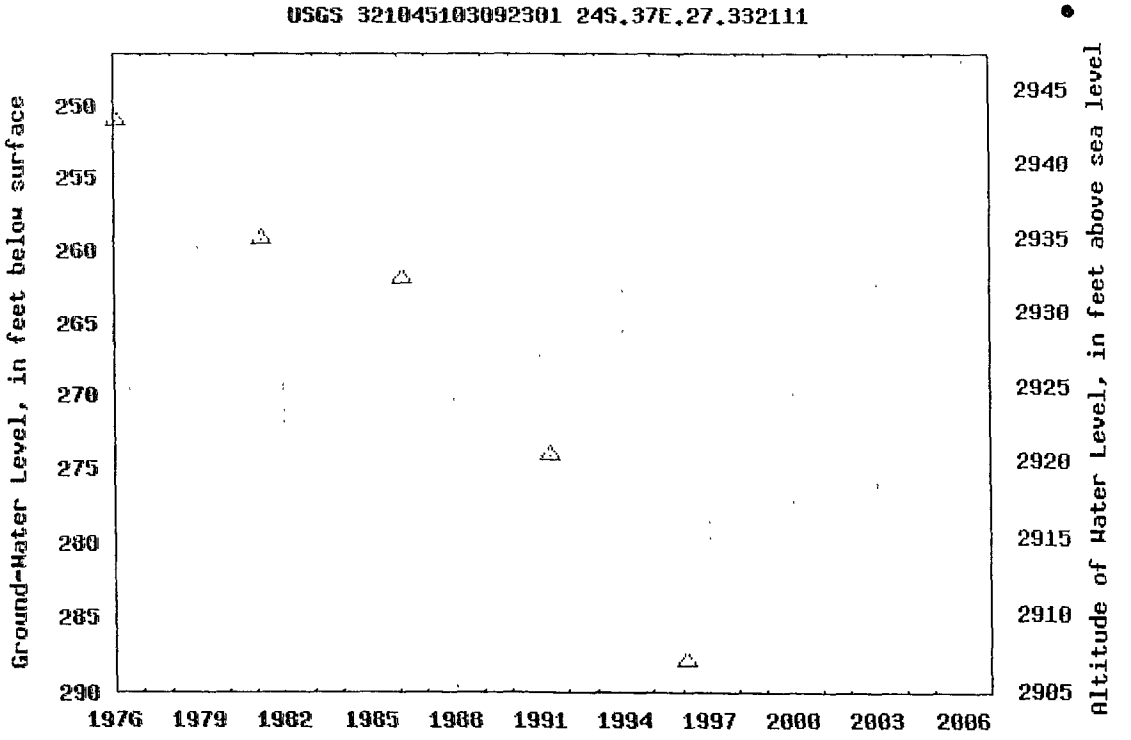
USGS 321045103092301 24S.37E.27.332111

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°10'45", Longitude 103°09'23" NAD27
Land-surface elevation 3,194.20 feet above sea level NGVD29
The depth of the well is 830 feet below land surface.
This well is completed in the SANTA ROSA SANDSTONE (231SNRS) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water | Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 321235103094701

Save file of selected sites to local disk for future upload

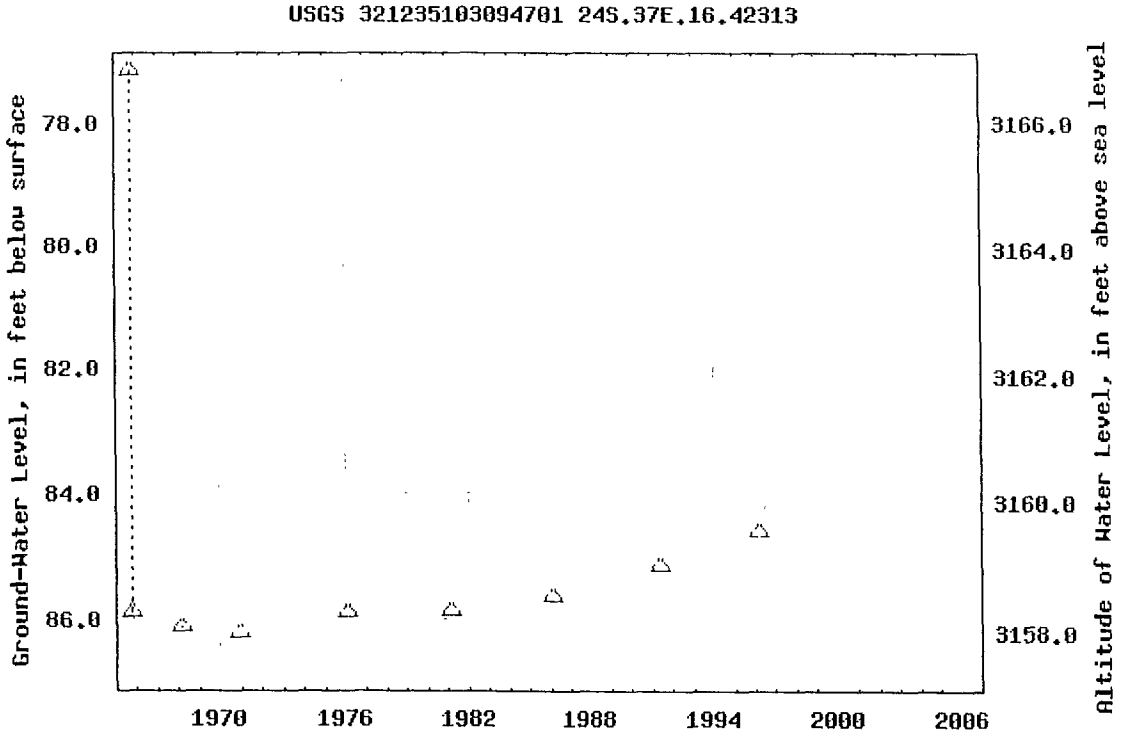
USGS 321235103094701 24S.37E.16.42313

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°12'35", Longitude 103°09'47" NAD27
Land-surface elevation 3,244.10 feet above sea level NGVD29
The depth of the well is 150 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water | Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 321312103080602

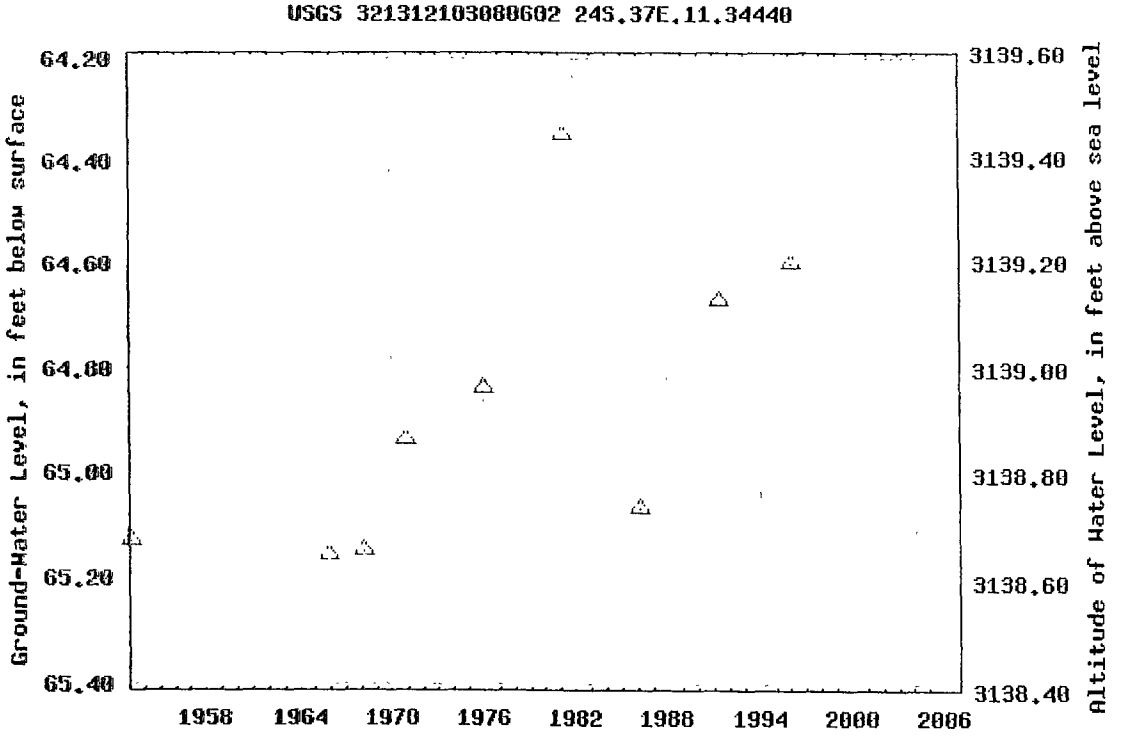
Save file of selected sites to local disk for future upload

USGS 321312103080602 24S.37E.11.34440

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°13'12", Longitude 103°08'06" NAD27
Land-surface elevation 3,203.80 feet above sea level NGVD29
The depth of the well is 80 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats
- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water | Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 321219103120401

Save file of selected sites to local disk for future upload

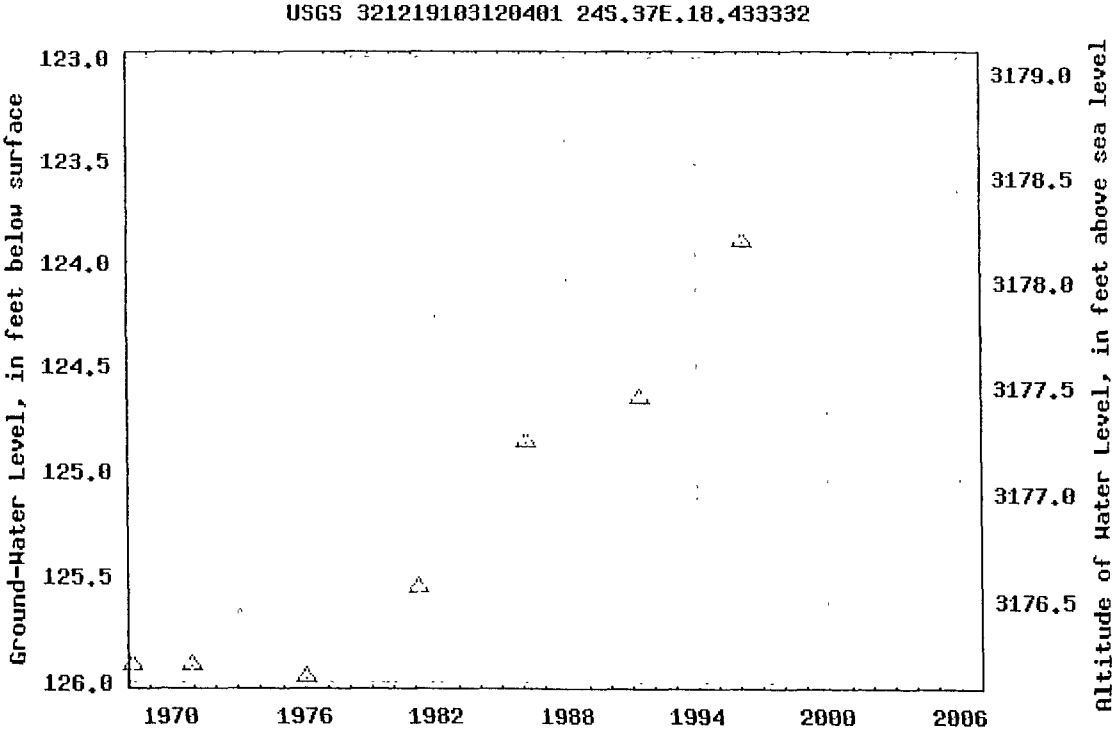
USGS 321219103120401 24S.37E.18.433332

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°12'19", Longitude 103°12'04" NAD27
Land-surface elevation 3,302.10 feet above sea level NGVD29
The depth of the well is 150 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water | Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 321316103094001

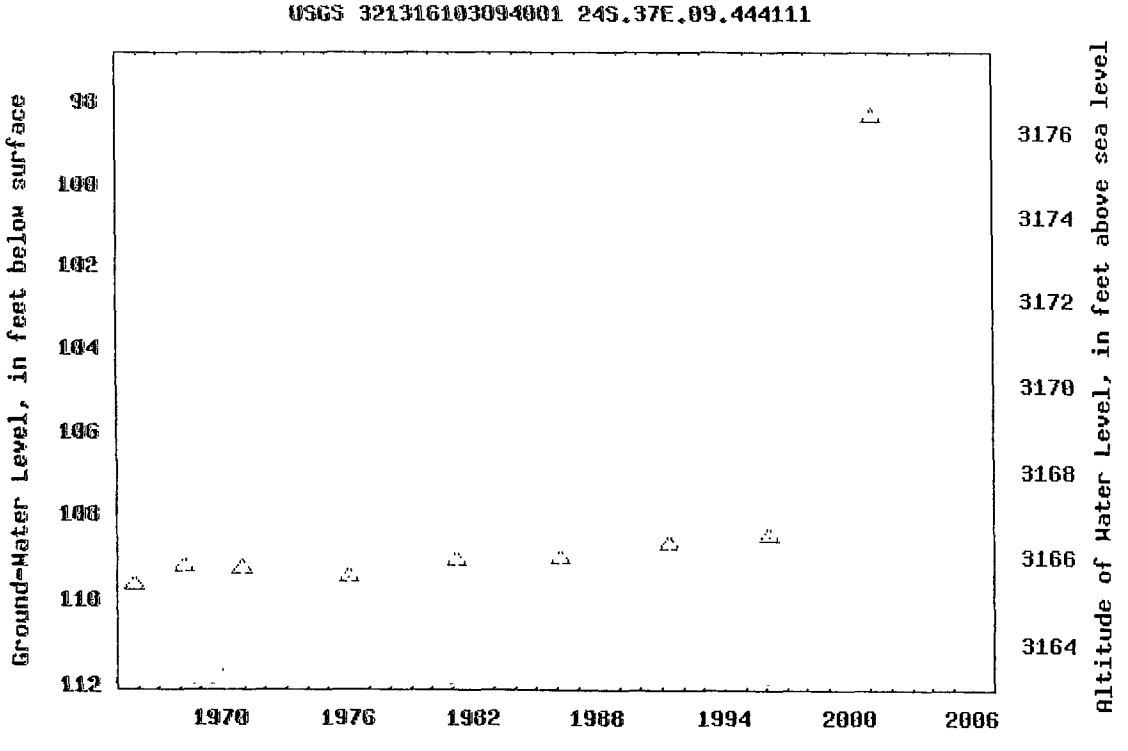
Save file of selected sites to local disk for future upload

USGS 321316103094001 24S.37E.09.444111

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°13'16", Longitude 103°09'40" NAD27
Land-surface elevation 3,274.90 feet above sea level NGVD29
The depth of the well is 160 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats
- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water | Geographic Area: New Mexico | go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 321319103115701

Save file of selected sites to local disk for future upload

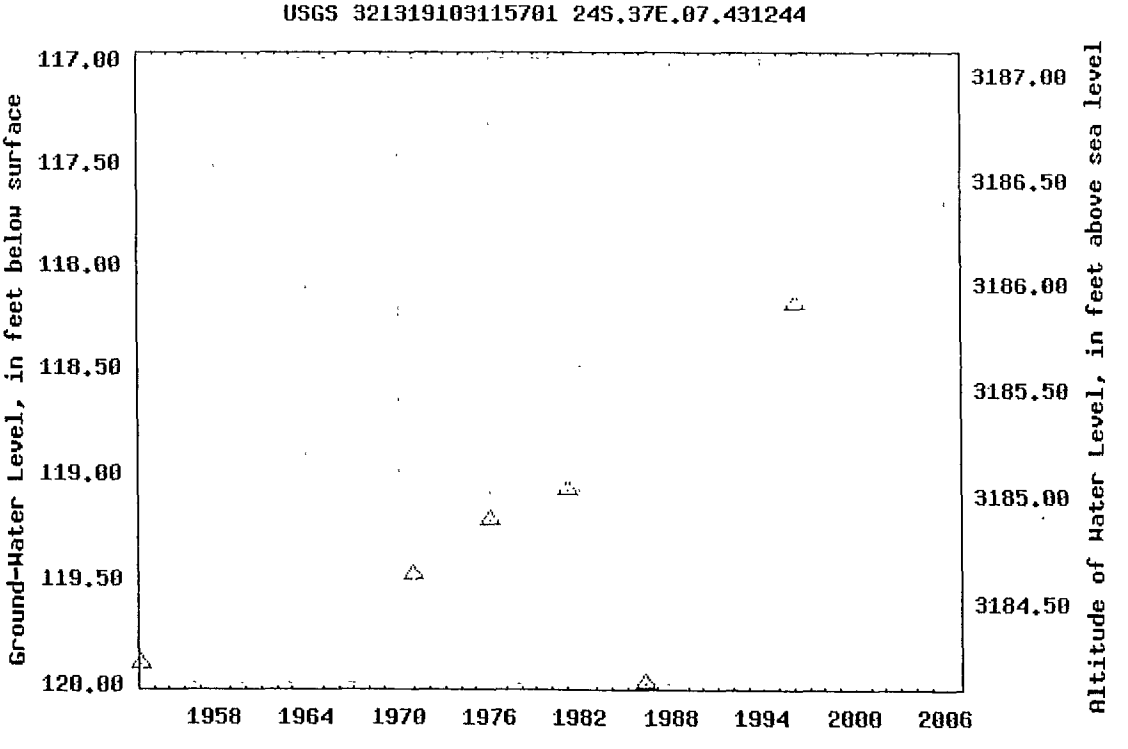
USGS 321319103115701 24S.37E.07.431244

Available data for this site | Ground-water: Levels | GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°13'19", Longitude 103°11'57" NAD27
Land-surface elevation 3,304.10 feet above sea level NGVD29
The depth of the well is 152 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water | Geographic Area: New Mexico | go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 321215103134302

Save file of selected sites to local disk for future upload

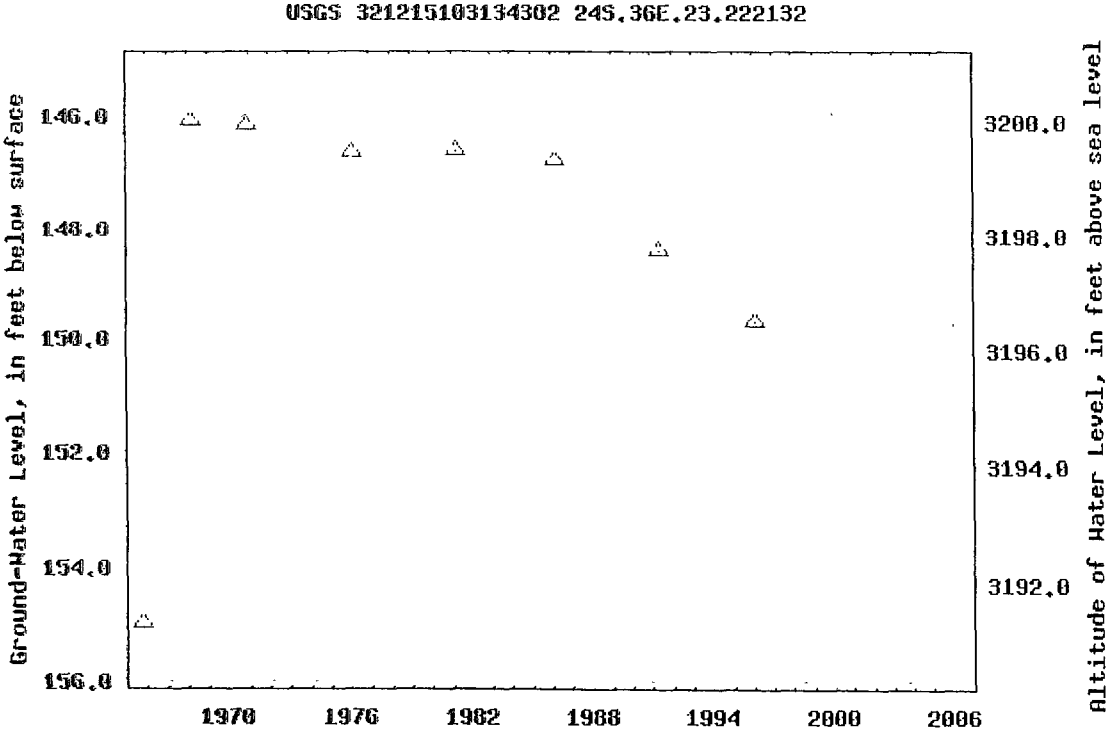
USGS 321215103134302 24S.36E.23.222132

Available data for this site | Ground-water: Levels | GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°12'15", Longitude 103°13'43" NAD27
Land-surface elevation 3,346.20 feet above sea level NGVD29
The depth of the well is 170 feet below land surface.
This well is completed in the OGALLALA FORMATION (121OGLL) local aquifer.

Output formats

- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

Water Resources

Data Category: Ground Water Geographic Area: New Mexico go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 321024103162901

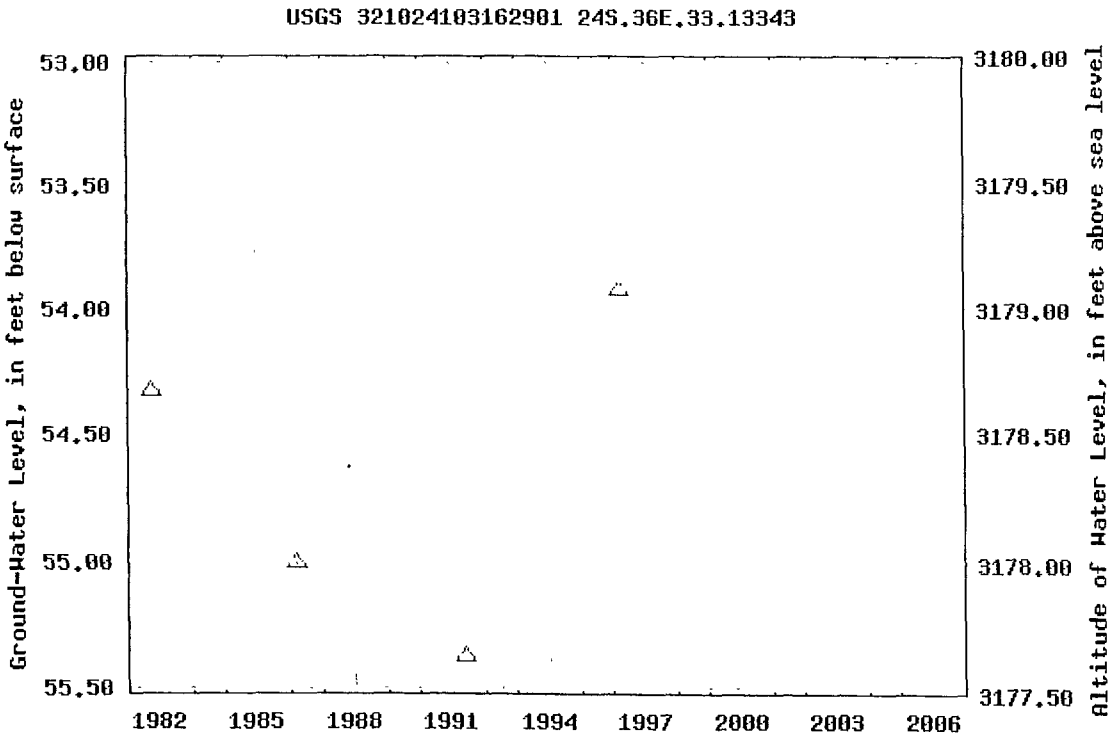
Save file of selected sites to local disk for future upload

USGS 321024103162901 24S.36E.33.13343

Available data for this site Ground-water: Levels GO

Lea County, New Mexico
Hydrologic Unit Code
Latitude 32°10'24", Longitude 103°16'29" NAD27
Land-surface elevation 3,233.00 feet above sea level NGVD29
The depth of the well is 75 feet below land surface.
This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats
- Table of data
- Tab-separated data
- Graph of data
- Reselect period



Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

APPENDIX B
LABORATORY ANALYSIS

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Ike Tavarez
Highlander Environmental Services
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: August 16, 2007

Work Order: 7081040

Project Location: Lea County, NM
Project Name: COG/Jalmat Yates Unit Battery
Project Number: 3111

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
132839	AH-1 (0-1.0')	soil	2007-08-10	00:00	2007-08-10
132840	AH-2 (0-1.0')	soil	2007-08-10	00:00	2007-08-10
132841	AH-3 (0-1.0')	soil	2007-08-10	00:00	2007-08-10
132842	AH-4 (0-1.0')	soil	2007-08-10	00:00	2007-08-10
132843	AH-5 (0-1.0')	soil	2007-08-10	00:00	2007-08-10
132844	AH-6 (0-1.0')	soil	2007-08-10	00:00	2007-08-10

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Analytical Report

Sample: 132839 - AH-1 (0-1.0')

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	40066	Date Analyzed:	2007-08-14	Analyzed By:	
Prep Batch:	34675	Sample Preparation:	2007-08-14	Prepared By:	

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		**0.402**		mg/Kg	5	0.0100
Toluene		**0.0607**		mg/Kg	5	0.0100
Ethylbenzene		**2.90**		mg/Kg	5	0.0100
Xylene		**7.67**		mg/Kg	5	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4.78	mg/Kg	5	5.00	96	39.6 - 116
4-Bromofluorobenzene (4-BFB)	[1]	9.86	mg/Kg	5	5.00	197	47.3 - 144.2

Sample: 132839 - AH-1 (0-1.0')

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	40049	Date Analyzed:	2007-08-14	Analyzed By:	AR
Prep Batch:	34661	Sample Preparation:		Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**266**		mg/Kg	25	2.00

Sample: 132839 - AH-1 (0-1.0')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	39974	Date Analyzed:	2007-08-13	Analyzed By:	
Prep Batch:	34601	Sample Preparation:	2007-08-13	Prepared By:	

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		**1030**		mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		152	mg/Kg	1	150	101	39.1 - 137.7

Sample: 132839 - AH-1 (0-1.0')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	40072	Date Analyzed:	2007-08-14	Analyzed By:	
Prep Batch:	34675	Sample Preparation:	2007-08-14	Prepared By:	

[1] High surrogate recovery due to peak interference.

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**379**	mg/Kg	5	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.85	mg/Kg	5	5.00	57	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)	[2]	23.2	mg/Kg	5	5.00	464	50.8 - 131.6

Sample: 132840 - AH-2 (0-1.0')

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	40066	Date Analyzed:	2007-08-14	Analyzed By:	
Prep Batch:	34675	Sample Preparation:	2007-08-14	Prepared By:	

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0500	mg/Kg	5	0.0100
Toluene		<0.0500	mg/Kg	5	0.0100
Ethylbenzene		**0.935**	mg/Kg	5	0.0100
Xylene		**0.695**	mg/Kg	5	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		3.77	mg/Kg	5	5.00	75	39.6 - 116
4-Bromofluorobenzene (4-BFB)	[3]	8.69	mg/Kg	5	5.00	174	47.3 - 144.2

Sample: 132840 - AH-2 (0-1.0')

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	40049	Date Analyzed:	2007-08-14	Analyzed By:	AR
Prep Batch:	34661	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**112**	mg/Kg	25	2.00

Sample: 132840 - AH-2 (0-1.0')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	39974	Date Analyzed:	2007-08-13	Analyzed By:	
Prep Batch:	34601	Sample Preparation:	2007-08-13	Prepared By:	

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**704**	mg/Kg	1	50.0

[2]High surrogate recovery due to peak interference.
[3]High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		175	mg/Kg	1	150	117	39.1 - 137.7

Sample: 132840 - AH-2 (0-1.0')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	40072	Date Analyzed:	2007-08-14	Analyzed By:	
Prep Batch:	34675	Sample Preparation:	2007-08-14	Prepared By:	

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**304**	mg/Kg	5	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		3.31	mg/Kg	5	5.00	66	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)	[4]	22.1	mg/Kg	5	5.00	442	50.8 - 131.6

Sample: 132841 - AH-3 (0-1.0')

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	40066	Date Analyzed:	2007-08-14	Analyzed By:	
Prep Batch:	34675	Sample Preparation:	2007-08-14	Prepared By:	

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		**0.0848**	mg/Kg	2	0.0100
Toluene		**0.116**	mg/Kg	2	0.0100
Ethylbenzene		**0.869**	mg/Kg	2	0.0100
Xylene		**2.33**	mg/Kg	2	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.00	mg/Kg	2	2.00	100	39.6 - 116
4-Bromofluorobenzene (4-BFB)	[5]	3.51	mg/Kg	2	2.00	176	47.3 - 144.2

Sample: 132841 - AH-3 (0-1.0')

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	40049	Date Analyzed:	2007-08-14	Analyzed By:	AR
Prep Batch:	34661	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**389**	mg/Kg	25	2.00

[4]High surrogate recovery due to peak interference.
[5]High surrogate recovery due to peak interference.

Sample: 132841 - AH-3 (0-1.0')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	39974	Date Analyzed:	2007-08-13	Analyzed By:	
Prep Batch:	34601	Sample Preparation:	2007-08-13	Prepared By:	

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		**1590**		mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[6]	307	mg/Kg	1	150	205	39.1 - 137.7

Sample: 132841 - AH-3 (0-1.0')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	40072	Date Analyzed:	2007-08-14	Analyzed By:	
Prep Batch:	34675	Sample Preparation:	2007-08-14	Prepared By:	

Parameter	Flag	Result	RL	Units	Dilution	RL
GRO		**119**		mg/Kg	2	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.16	mg/Kg	2	2.00	58	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)	[7]	7.92	mg/Kg	2	2.00	396	50.8 - 131.6

Sample: 132842 - AH-4 (0-1.0')

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	40066	Date Analyzed:	2007-08-14	Analyzed By:	
Prep Batch:	34675	Sample Preparation:	2007-08-14	Prepared By:	

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		**0.618**		mg/Kg	10	0.0100
Toluene		**0.504**		mg/Kg	10	0.0100
Ethylbenzene		**3.63**		mg/Kg	10	0.0100
Xylene		**11.5**		mg/Kg	10	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		7.38	mg/Kg	10	10.0	74	39.6 - 116
4-Bromofluorobenzene (4-BFB)	[8]	14.6	mg/Kg	10	10.0	146	47.3 - 144.2

[6]High surrogate recovery due to peak interference.
[7]High surrogate recovery due to peak interference.
[8]High surrogate recovery due to peak interference.

Sample: 132842 - AH-4 (0-1.0')

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	40049	Date Analyzed:	2007-08-14	Analyzed By:	AR
Prep Batch:	34661	Sample Preparation:		Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**134**		mg/Kg	25	2.00

Sample: 132842 - AH-4 (0-1.0')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	39974	Date Analyzed:	2007-08-13	Analyzed By:	
Prep Batch:	34601	Sample Preparation:	2007-08-13	Prepared By:	

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		**12200**		mg/Kg	10	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[9]	1860	mg/Kg	10	150	1240	39.1 - 137.7

Sample: 132842 - AH-4 (0-1.0')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	40072	Date Analyzed:	2007-08-14	Analyzed By:	
Prep Batch:	34675	Sample Preparation:	2007-08-14	Prepared By:	

Parameter	Flag	Result	RL	Units	Dilution	RL
GRO		**375**		mg/Kg	10	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5.73	mg/Kg	10	10.0	57	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)	[10]	20.7	mg/Kg	10	10.0	207	50.8 - 131.6

Sample: 132843 - AH-5 (0-1.0')

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	40066	Date Analyzed:	2007-08-14	Analyzed By:	
Prep Batch:	34675	Sample Preparation:	2007-08-14	Prepared By:	

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.0100		mg/Kg	1	0.0100
Toluene		<0.0100		mg/Kg	1	0.0100
Ethylbenzene		<0.0100		mg/Kg	1	0.0100

[9]High surrogate recovery due to peak interference.
[10]High surrogate recovery due to peak interference.

continued ...

sample 132843 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.07	mg/Kg	1	1.00	107	39.6 - 116
4-Bromofluorobenzene (4-BFB)		1.29	mg/Kg	1	1.00	129	47.3 - 144.2

Sample: 132843 - AH-5 (0-1.0')

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	40049	Date Analyzed:	2007-08-14	Analyzed By:	AR
Prep Batch:	34661	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**315**	mg/Kg	25	2.00

Sample: 132843 - AH-5 (0-1.0')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	39974	Date Analyzed:	2007-08-13	Analyzed By:	
Prep Batch:	34601	Sample Preparation:	2007-08-13	Prepared By:	

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**204**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		194	mg/Kg	1	150	129	39.1 - 137.7

Sample: 132843 - AH-5 (0-1.0')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	40072	Date Analyzed:	2007-08-14	Analyzed By:	
Prep Batch:	34675	Sample Preparation:	2007-08-14	Prepared By:	

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**8.32**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.857	mg/Kg	1	1.00	86	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)		1.01	mg/Kg	1	1.00	101	50.8 - 131.6

Sample: 132844 - AH-6 (0-1.0')

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	40066	Date Analyzed:	2007-08-14	Analyzed By:	
Prep Batch:	34675	Sample Preparation:	2007-08-14	Prepared By:	

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.0100		mg/Kg	1	0.0100
Toluene		<0.0100		mg/Kg	1	0.0100
Ethylbenzene		<0.0100		mg/Kg	1	0.0100
Xylene		<0.0100		mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.08	mg/Kg	1	1.00	108	39.6 - 116
4-Bromofluorobenzene (4-BFB)		1.23	mg/Kg	1	1.00	123	47.3 - 144.2

Sample: 132844 - AH-6 (0-1.0')

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	40049	Date Analyzed:	2007-08-14	Analyzed By:	AR
Prep Batch:	34661	Sample Preparation:		Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**1090**		mg/Kg	25	2.00

Sample: 132844 - AH-6 (0-1.0')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	39974	Date Analyzed:	2007-08-13	Analyzed By:	
Prep Batch:	34601	Sample Preparation:	2007-08-13	Prepared By:	

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		**178**		mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		203	mg/Kg	1	150	135	39.1 - 137.7

Sample: 132844 - AH-6 (0-1.0')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	40072	Date Analyzed:	2007-08-14	Analyzed By:	
Prep Batch:	34675	Sample Preparation:	2007-08-14	Prepared By:	

continued ...

sample 132844 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**2.69**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.838	mg/Kg	1	1.00	84	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)		0.992	mg/Kg	1	1.00	99	50.8 - 131.6

Method Blank (1) QC Batch: 39974

QC Batch: 39974 | Date Analyzed: 2007-08-13 | Analyzed By:
Prep Batch: 34601 | QC Preparation: 2007-08-13 | Prepared By:

Parameter	Flag	MDL Result	Units	RL
DRO		<14.6	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		116	mg/Kg	1	150	77	33.3 - 157.4

Method Blank (1) QC Batch: 40049

QC Batch: 40049 | Date Analyzed: 2007-08-14 | Analyzed By: AR
Prep Batch: 34661 | QC Preparation: 2007-08-14 | Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Method Blank (1) QC Batch: 40066

QC Batch: 40066 | Date Analyzed: 2007-08-14 | Analyzed By:
Prep Batch: 34675 | QC Preparation: 2007-08-14 | Prepared By:

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00110	mg/Kg	0.01
Toluene		<0.00150	mg/Kg	0.01
Ethylbenzene		<0.00160	mg/Kg	0.01
Xylene		<0.00410	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.980	mg/Kg	1	1.00	98	58.2 - 121.3
4-Bromofluorobenzene (4-BFB)		0.912	mg/Kg	1	1.00	91	53.1 - 111.6

Method Blank (1) QC Batch: 40072

QC Batch: 40072 | Date Analyzed: 2007-08-14 | Analyzed By:
Prep Batch: 34675 | QC Preparation: 2007-08-14 | Prepared By:

Parameter	Flag	MDL Result	Units	RL
GRO		<0.739	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.883	mg/Kg	1	1.00	88	67.8 - 103
4-Bromofluorobenzene (4-BFB)		0.629	mg/Kg	1	1.00	63	55.4 - 111.8

Laboratory Control Spike (LCS-1)

QC Batch: 39974 | Date Analyzed: 2007-08-13 | Analyzed By:
Prep Batch: 34601 | QC Preparation: 2007-08-13 | Prepared By:

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	182	mg/Kg	1	250	<14.6	73	48.1 - 140.9

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	162	mg/Kg	1	250	<14.6	65	48.1 - 140.9	12	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	85.2	88.4	mg/Kg	1	150	57	59	42.1 - 138.9

Laboratory Control Spike (LCS-1)

QC Batch: 40049 | Date Analyzed: 2007-08-14 | Analyzed By: AR
Prep Batch: 34661 | QC Preparation: 2007-08-14 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	94.8	mg/Kg	1	100	<0.500	95	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	95.7	mg/Kg	1	100	<0.500	96	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 40066 | Date Analyzed: 2007-08-14 | Analyzed By:
Prep Batch: 34675 | QC Preparation: 2007-08-14 | Prepared By:

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.09	mg/Kg	1	1.00	<0.00110	109	71.2 - 119
Toluene	0.948	mg/Kg	1	1.00	<0.00150	95	76.3 - 116.5
Ethylbenzene	0.935	mg/Kg	1	1.00	<0.00160	94	77.6 - 114
Xylene	2.79	mg/Kg	1	3.00	<0.00410	93	78.8 - 113.9

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.04	mg/Kg	1	1.00	<0.00110	104	71.2 - 119	5	20
Toluene	0.922	mg/Kg	1	1.00	<0.00150	92	76.3 - 116.5	3	20
Ethylbenzene	0.905	mg/Kg	1	1.00	<0.00160	90	77.6 - 114	3	20
Xylene	2.71	mg/Kg	1	3.00	<0.00410	90	78.8 - 113.9	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.888	0.928	mg/Kg	1	1.00	89	93	56.1 - 107.8
4-Bromofluorobenzene (4-BFB)	1.09	1.10	mg/Kg	1	1.00	109	110	56.2 - 118.8

Laboratory Control Spike (LCS-1)

QC Batch: 40072 | Date Analyzed: 2007-08-14 | Analyzed By:
Prep Batch: 34675 | QC Preparation: 2007-08-14 | Prepared By:

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	6.61	mg/Kg	1	10.0	<0.739	66	56 - 105.2

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	7.58	mg/Kg	1	10.0	<0.739	76	56 - 105.2	14	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.06	0.957	mg/Kg	1	1.00	106	96	61.1 - 148.1
4-Bromofluorobenzene (4-BFB)	0.786	0.844	mg/Kg	1	1.00	79	84	67.2 - 119.2

Matrix Spike (MS-1) Spiked Sample: 132843

QC Batch: 39974 | Date Analyzed: 2007-08-13 | Analyzed By:
Prep Batch: 34601 | QC Preparation: 2007-08-13 | Prepared By:

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	[11]	1020	mg/Kg	1	250	204	326	35.6 - 173.6

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	[12]	1070	mg/Kg	1	250	204	346	35.6 - 173.6	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	[13] [14]	300	296	mg/Kg	1	150	200	197	33 - 156.2

Matrix Spike (MS-1) Spiked Sample: 132844

QC Batch: 40049 | Date Analyzed: 2007-08-14 | Analyzed By: AR
Prep Batch: 34661 | QC Preparation: 2007-08-14 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	3480	mg/Kg	25	2500	1090	96	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	3510	mg/Kg	25	2500	1090	97	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample:

QC Batch: 40066 | Date Analyzed: 2007-08-14 | Analyzed By:
Prep Batch: 34675 | QC Preparation: 2007-08-14 | Prepared By:

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.19	mg/Kg	1	1.00	<0.00110	119	65.7 - 119.1
Toluene	1.36	mg/Kg	1	1.00	0.1775	118	47.7 - 153.8
Ethylbenzene	1.19	mg/Kg	1	1.00	0.0103	118	73.5 - 126.3
Xylene	3.56	mg/Kg	1	3.00	0.0485	117	73.6 - 125.9

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

[11] Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[12] Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[13] High surrogate recovery due to peak interference.
[14] High surrogate recovery due to peak interference.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	[15]	1.39	mg/Kg	1	1.00	<0.00110	139	65.7 - 119.1	16	20
Toluene		1.44	mg/Kg	1	1.00	0.1775	126	47.7 - 153.8	6	20
Ethylbenzene	[16]	1.30	mg/Kg	1	1.00	0.0103	129	73.5 - 126.3	9	20
Xylene	[17]	3.94	mg/Kg	1	3.00	0.0485	130	73.6 - 125.9	10	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.901	0.960	mg/Kg	1	1	90	96	51 - 109.6
4-Bromofluorobenzene (4-BFB)	1.11	1.13	mg/Kg	1	1	111	113	60.3 - 124.3

Matrix Spike (MS-1) Spiked Sample: 132843

QC Batch: 40072 | Date Analyzed: 2007-08-14 | Analyzed By:
Prep Batch: 34675 | QC Preparation: 2007-08-14 | Prepared By:

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	12.0	mg/Kg	1	10.0	8.322	37	10 - 102.2

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	[18]	9.57	mg/Kg	1	10.0	8.322	12	10 - 102.2	22	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.682	0.740	mg/Kg	1	1	68	74	47.2 - 84.2
4-Bromofluorobenzene (4-BFB)	0.933	0.873	mg/Kg	1	1	93	87	58 - 162.6

Standard (ICV-1)

QC Batch: 39974 | Date Analyzed: 2007-08-13 | Analyzed By:

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	218	87	85 - 115	2007-08-13

Standard (CCV-1)

QC Batch: 39974 | Date Analyzed: 2007-08-13 | Analyzed By:

[15]MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.
[16]MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.
[17]MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.
[18]RPD is out of control limits due to extraction process. Use LCS/LCSD to demonstrate method is under control.

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	224	90	85 - 115	2007-08-13

Standard (ICV-1)

QC Batch: 40049 Date Analyzed: 2007-08-14 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	103	103	85 - 115	2007-08-14

Standard (CCV-1)

QC Batch: 40049 Date Analyzed: 2007-08-14 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	96.6	96	85 - 115	2007-08-14

Standard (ICV-1)

QC Batch: 40066 Date Analyzed: 2007-08-14 Analyzed By:

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.101	101	85 - 115	2007-08-14
Toluene		mg/Kg	0.100	0.0898	90	85 - 115	2007-08-14
Ethylbenzene		mg/Kg	0.100	0.0889	89	85 - 115	2007-08-14
Xylene		mg/Kg	0.300	0.266	89	85 - 115	2007-08-14

Standard (CCV-1)

QC Batch: 40066 Date Analyzed: 2007-08-14 Analyzed By:

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.108	108	85 - 115	2007-08-14
Toluene		mg/Kg	0.100	0.0933	93	85 - 115	2007-08-14
Ethylbenzene		mg/Kg	0.100	0.0906	91	85 - 115	2007-08-14
Xylene		mg/Kg	0.300	0.271	90	85 - 115	2007-08-14

Standard (ICV-1)

QC Batch: 40072 Date Analyzed: 2007-08-14 Analyzed By:

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.933	93	85 - 115	2007-08-14

Standard (CCV-1)

QC Batch: 40072 Date Analyzed: 2007-08-14 Analyzed By:

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.897	90	85 - 115	2007-08-14

Work order: 7081040

Analysis Request and Chain of Custody Record

PAGE: 1 OF: 1

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 3111

PROJECT NAME: COG/Jalmat Yates Unit Battery
Lea Co, NM

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8020/602	MTBE 8020/602	TPH (8015 MOD.) TX1005 / 418.1	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	BOD, TSS, pH, TDS, (Chloride)	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
132839	8/10/07		S		X	AH-1 (0-1.0')	1				X		X		X											X			
840			S		X	AH-2 (0-1.0')	1				X		X		X											X			
841			S		X	AH-3 (0-1.0')	1				X		X		X											X			
842			S		X	AH-4 (0-1.0')	1				X		X		X											X			
843			S		X	AH-5 (0-1.0')	1				X		X		X											X			
844			S		X	AH-6 (0-1.0')	1				X		X		X											X			

RELINQUISHED BY: (Signature) Date: 8/10/2007 Time: 1:46
RECEIVED BY: (Signature) Date: Time:
SAMPLED BY: (Print & Sign) Jeremy Jones/Kelt Harrison Date: 8/10/07 Time:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL #:
HAND DELIVERED UPS OTHER:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: Texas ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: 8.10.07 TIME: 16:45

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3°C Intact

MATRIX: W-Water A-Air SD-Solid S-Soil SL-Sludge O-Other

REMARKS:

Please Fill out all copies - Laboratory retains yellow copy - Return original copy to Highlander Enviromental Corp. - Project Manager retains pink copy - Accounting receives Gold copy.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Ike Tavarez
Highlander Environmental Services
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: May 1, 2008

Work Order: 8042513

Project Location: Jal, NM
Project Name: COG/Jalmat TB
Project Number: 3111

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
157880	SB-1 0-2'	soil	2008-04-24	00:00	2008-04-25
157881	SB-1 5-7'	soil	2008-04-24	00:00	2008-04-25
157882	SB-2 0-2'	soil	2008-04-24	00:00	2008-04-25
157883	SB-2 5-7'	soil	2008-04-24	00:00	2008-04-25
157884	SB-3 0-2'	soil	2008-04-24	00:00	2008-04-25
157885	SB-3 5-7'	soil	2008-04-24	00:00	2008-04-25

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Analytical Report

Sample: 157880 - SB-1 0-2'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	47951	Date Analyzed:	2008-04-30	Analyzed By:	RG
Prep Batch:	41236	Sample Preparation:	2008-04-30	Prepared By:	RG

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**757**	mg/Kg	10	3.25

Sample: 157880 - SB-1 0-2'

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	47879	Date Analyzed:	2008-04-28	Analyzed By:	LD
Prep Batch:	41166	Sample Preparation:	2008-04-28	Prepared By:	LD

Parameter	Flag	Result	RL Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		59.4	mg/Kg	1	100	59	10 - 250.4

Sample: 157880 - SB-1 0-2'

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	47924	Date Analyzed:	2008-04-29	Analyzed By:	MT
Prep Batch:	41211	Sample Preparation:	2008-04-29	Prepared By:	MT

Parameter	Flag	Result	RL Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.03	mg/Kg	1	1.00	103	75.6 - 128
4-Bromofluorobenzene (4-BFB)		1.31	mg/Kg	1	1.00	131	78.5 - 139

Sample: 157881 - SB-1 5-7'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	47898	Date Analyzed:	2008-04-29	Analyzed By:	AR
Prep Batch:	41186	Sample Preparation:	2008-04-29	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**504**	mg/Kg	50	2.00

Sample: 157882 - SB-2 0-2'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	47951	Date Analyzed:	2008-04-30	Analyzed By:	RG
Prep Batch:	41236	Sample Preparation:	2008-04-30	Prepared By:	RG

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**121**		mg/Kg	10	3.25

Sample: 157882 - SB-2 0-2'

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	47879	Date Analyzed:	2008-04-28	Analyzed By:	LD
Prep Batch:	41166	Sample Preparation:	2008-04-28	Prepared By:	LD

Parameter	Flag	Result	RL	Units	Dilution	RL
DRO		<50.0		mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		60.5	mg/Kg	1	100	60	10 - 250.4

Sample: 157882 - SB-2 0-2'

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	47924	Date Analyzed:	2008-04-29	Analyzed By:	MT
Prep Batch:	41211	Sample Preparation:	2008-04-29	Prepared By:	MT

Parameter	Flag	Result	RL	Units	Dilution	RL
GRO		<1.00		mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.08	mg/Kg	1	1.00	108	75.6 - 128
4-Bromofluorobenzene (4-BFB)		1.35	mg/Kg	1	1.00	135	78.5 - 139

Sample: 157883 - SB-2 5-7'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	47898	Date Analyzed:	2008-04-29	Analyzed By:	AR
Prep Batch:	41186	Sample Preparation:	2008-04-29	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		<100		mg/Kg	50	2.00

Sample: 157884 - SB-3 0-2'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	47951	Date Analyzed:	2008-04-30	Analyzed By:	RG
Prep Batch:	41236	Sample Preparation:	2008-04-30	Prepared By:	RG

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**125**	mg/Kg	10	3.25

Sample: 157884 - SB-3 0-2'

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	47879	Date Analyzed:	2008-04-28	Analyzed By:	LD
Prep Batch:	41166	Sample Preparation:	2008-04-28	Prepared By:	LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**2370**	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		237	mg/Kg	5	100	237	10 - 250.4

Sample: 157884 - SB-3 0-2'

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	47924	Date Analyzed:	2008-04-29	Analyzed By:	MT
Prep Batch:	41211	Sample Preparation:	2008-04-29	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**545**	mg/Kg	10	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.959	mg/Kg	10	1.00	96	75.6 - 128
4-Bromofluorobenzene (4-BFB)	[1]	43.4	mg/Kg	10	1.00	4340	78.5 - 139

Sample: 157885 - SB-3 5-7'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	47898	Date Analyzed:	2008-04-29	Analyzed By:	AR
Prep Batch:	41186	Sample Preparation:	2008-04-29	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

[1] High surrogate recovery due to peak interference.

Method Blank (1) QC Batch: 47879

QC Batch:	47879	Date Analyzed:	2008-04-28	Analyzed By:	LD
Prep Batch:	41166	QC Preparation:	2008-04-28	Prepared By:	LD

Parameter	Flag	MDL Result	Units	RL
DRO		<15.8	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		70.5	mg/Kg	1	100	70	30.9 - 146.4

Method Blank (1) QC Batch: 47898

QC Batch:	47898	Date Analyzed:	2008-04-29	Analyzed By:	AR
Prep Batch:	41186	QC Preparation:	2008-04-29	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Method Blank (1) QC Batch: 47924

QC Batch:	47924	Date Analyzed:	2008-04-29	Analyzed By:	MT
Prep Batch:	41211	QC Preparation:	2008-04-29	Prepared By:	MT

Parameter	Flag	MDL Result	Units	RL
GRO		<0.144	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.974	mg/Kg	1	1.00	97	85 - 116
4-Bromofluorobenzene (4-BFB)		0.561	mg/Kg	1	1.00	56	45.2 - 98.8

Method Blank (1) QC Batch: 47951

QC Batch:	47951	Date Analyzed:	2008-04-30	Analyzed By:	RG
Prep Batch:	41236	QC Preparation:	2008-04-30	Prepared By:	RG

Parameter	Flag	MDL Result	Units	RL
Chloride		<1.80	mg/Kg	3.25

Laboratory Control Spike (LCS-1)

QC Batch: 47879 | Date Analyzed: 2008-04-28 | Analyzed By: LD
Prep Batch: 41166 | QC Preparation: 2008-04-28 | Prepared By: LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	196	mg/Kg	1	250	<15.8	78	27.8 - 152.1

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	224	mg/Kg	1	250	<15.8	90	27.8 - 152.1	13	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	65.4	67.5	mg/Kg	1	100	65	68	38 - 130.4

Laboratory Control Spike (LCS-1)

QC Batch: 47898 | Date Analyzed: 2008-04-29 | Analyzed By: AR
Prep Batch: 41186 | QC Preparation: 2008-04-29 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.0	mg/Kg	1	100	<0.500	99	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	100	mg/Kg	1	100	<0.500	100	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 47924 | Date Analyzed: 2008-04-29 | Analyzed By: MT
Prep Batch: 41211 | QC Preparation: 2008-04-29 | Prepared By: MT

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	9.96	mg/Kg	1	10.0	<0.144	100	76.4 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	9.70	mg/Kg	1	10.0	<0.144	97	76.4 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.996	0.941	mg/Kg	1	1.00	100	94	80.3 - 113
4-Bromofluorobenzene (4-BFB)	0.972	0.953	mg/Kg	1	1.00	97	95	70.7 - 110

Laboratory Control Spike (LCS-1)

QC Batch: 47951 | Date Analyzed: 2008-04-30 | Analyzed By: RG
Prep Batch: 41236 | QC Preparation: 2008-04-30 | Prepared By: RG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	100	mg/Kg	1	100	<1.80	100	96.8 - 103

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	100	mg/Kg	1	100	<1.80	100	96.8 - 103	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 157559

QC Batch: 47879 | Date Analyzed: 2008-04-28 | Analyzed By: LD
Prep Batch: 41166 | QC Preparation: 2008-04-28 | Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO [2]	3500	mg/Kg	5	250	2537.31	385	18 - 179.5

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO [3]	2470	mg/Kg	5	250	2537.31	0	18 - 179.5	34	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane [4 5]	169	228	mg/Kg	5	100	169	228	34.1 - 158

Matrix Spike (MS-1) Spiked Sample: 157910

QC Batch: 47898 | Date Analyzed: 2008-04-29 | Analyzed By: AR
Prep Batch: 41186 | QC Preparation: 2008-04-29 | Prepared By: AR

[2]Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[3]Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[4]High surrogate recovery due to peak interference.
[5]High surrogate recovery due to peak interference.

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5220	mg/Kg	50	5000	174.74	101	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	5300	mg/Kg	50	5000	174.74	102	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 157555

QC Batch: 47924 | Date Analyzed: 2008-04-29 | Analyzed By: MT
Prep Batch: 41211 | QC Preparation: 2008-04-29 | Prepared By: MT

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	[6]	272	mg/Kg	20	10.0	240	320	40.1 - 154

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	[7]	313	mg/Kg	20	10.0	240	730	40.1 - 154	14	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)		1.12	1.13	mg/Kg	20	1	112	113	16.6 - 155
4-Bromofluorobenzene (4-BFB)	[8] [9]	15.3	24.1	mg/Kg	20	1	1530	2410	40.1 - 176

Matrix Spike (MS-1) Spiked Sample: 158056

QC Batch: 47951 | Date Analyzed: 2008-04-30 | Analyzed By: RG
Prep Batch: 41236 | QC Preparation: 2008-04-30 | Prepared By: RG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	514	mg/Kg	10	500	32.76	96	76.4 - 123

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	528	mg/Kg	10	500	32.76	99	76.4 - 123	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

[6]Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[7]Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[8]Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[9]Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

Standard (ICV-1)

QC Batch: 47879 Date Analyzed: 2008-04-28 Analyzed By: LD

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	235	94	85 - 115	2008-04-28

Standard (CCV-1)

QC Batch: 47879 Date Analyzed: 2008-04-28 Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	214	86	85 - 115	2008-04-28

Standard (CCV-2)

QC Batch: 47879 Date Analyzed: 2008-04-28 Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	218	87	85 - 115	2008-04-28

Standard (ICV-1)

QC Batch: 47898 Date Analyzed: 2008-04-29 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.8	100	85 - 115	2008-04-29

Standard (CCV-1)

QC Batch: 47898 Date Analyzed: 2008-04-29 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2008-04-29

Standard (ICV-1)

QC Batch: 47924 Date Analyzed: 2008-04-29 Analyzed By: MT

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.920	92	85 - 115	2008-04-29

Standard (CCV-1)

QC Batch: 47924 Date Analyzed: 2008-04-29 Analyzed By: MT

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.954	95	85 - 115	2008-04-29

Standard (ICV-1)

QC Batch: 47951 Date Analyzed: 2008-04-30 Analyzed By: RG

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2008-04-30

Standard (CCV-1)

QC Batch: 47951 Date Analyzed: 2008-04-30 Analyzed By: RG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2008-04-30

WO # 8042513

Analysis Request of Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

PAGE: 1 OF:

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 3111

PROJECT NAME: COG JALMAT TB, JAL, NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE
157880	04/24/08		S		✓	SB-1 (0-2') *	1				✓	✓
881	04/24/08		S		✓	SB-1 (5-7')	1				✓	✓
882	04/24/08		S		✓	SB-2 (0-2') *	1				✓	✓
883	04/24/08		S		✓	SB-2 (5-7')	1				✓	✓
884	04/24/08		S		✓	SB-3 (0-2') *	1				✓	✓
885	04/24/08		S		✓	SB-3 (5-7')	1				✓	✓
886	04/24/08		S		✓	SB-3 (10-12') (Hold)	1				✓	✓

ANALYSIS REQUEST (Circle or Specify Method No.)

BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
	✓											✓				
												✓				
	✓											✓				
												✓				
	✓											✓				
												✓				
												✓				

RELINQUISHED BY: (Signature) Date: 4/25/08 Time: 9:40 — RECEIVED BY: (Signature) Date: Time:

SAMPLED BY: (Print & Initial) Jeffrey Kindle JWK Date: 04/24/08 Time: 1800

RELIQUISHED BY: (Signature) Date: Time: — RECEIVED BY: (Signature) Date: Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS AIRBILL #: OTHER:

RELIQUISHED BY: (Signature) Date: Time: — RECEIVED BY: (Signature) Date: Time:

HIGHLANDER CONTACT PERSON: Ike Tavarez — Results by:

RECEIVING LABORATORY: Trace Analysis
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) [signature]
DATE: 4/25/08 TIME: 9:40

RUSH Charges Authorized: Yes (No)

SAMPLE CONDITION WHEN RECEIVED: 3.2° intact

REMARKS: * IFTPH is ≥ 1,000 mg/kg run next deeper sample for TPH. Continue until TPH is ≤ 1,000 mg/kg all tests - Midland

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Highlander Environmental Corp. - Project Manager retains Pink copy - Accounting receives Gold copy.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Ike Tavarez
Highlander Environmental Services
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: May 8, 2008

Work Order: 8042513

Project Location: Jal, NM
Project Name: COG/Jalmat TB
Project Number: 3111

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
157885	SB-3 5-7'	soil	2008-04-24	00:00	2008-04-25

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 5 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Blair Leftwich

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Analytical Report

Sample: 157885 - SB-3 5-7'

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	47997	Date Analyzed:	2008-05-02	Analyzed By:	LD
Prep Batch:	41270	Sample Preparation:	2008-05-01	Prepared By:	LD

Parameter	Flag	Result	RL Result	Units	Dilution	RL
DRO			**111**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		92.6	mg/Kg	1	100	93	10 - 250.4

Sample: 157885 - SB-3 5-7'

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	48018	Date Analyzed:	2008-05-01	Analyzed By:	DC
Prep Batch:	41288	Sample Preparation:	2008-04-30	Prepared By:	DC

Parameter	Flag	Result	RL Result	Units	Dilution	RL
GRO			**43.6**	mg/Kg	2	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.12	mg/Kg	2	2.00	106	70 - 130
4-Bromofluorobenzene (4-BFB)		2.20	mg/Kg	2	2.00	110	70 - 130

Method Blank (1) QC Batch: 47997

QC Batch:	47997	Date Analyzed:	2008-05-02	Analyzed By:	LD
Prep Batch:	41270	QC Preparation:	2008-05-01	Prepared By:	LD

Parameter	Flag	MDL Result	Units	RL
DRO		<15.8	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		102	mg/Kg	1	100	102	30.9 - 146.4

Method Blank (1) QC Batch: 48018

QC Batch:	48018	Date Analyzed:	2008-05-01	Analyzed By:	DC
Prep Batch:	41288	QC Preparation:	2008-04-30	Prepared By:	DC

Parameter	Flag	MDL Result	Units	RL
GRO		<0.739	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.948	mg/Kg	1	1.00	95	70 - 130
4-Bromofluorobenzene (4-BFB)		0.955	mg/Kg	1	1.00	96	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 47997 | Date Analyzed: 2008-05-02 | Analyzed By: LD
Prep Batch: 41270 | QC Preparation: 2008-05-01 | Prepared By: LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	269	mg/Kg	1	250	<15.8	108	27.8 - 152.1

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	268	mg/Kg	1	250	<15.8	107	27.8 - 152.1	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	110	106	mg/Kg	1	100	110	106	38 - 130.4

Laboratory Control Spike (LCS-1)

QC Batch: 48018 | Date Analyzed: 2008-05-01 | Analyzed By: DC
Prep Batch: 41288 | QC Preparation: 2008-04-30 | Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	8.20	mg/Kg	1	10.0	<0.739	82	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	8.37	mg/Kg	1	10.0	<0.739	84	70 - 130	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.976	0.936	mg/Kg	1	1.00	98	94	70 - 130
4-Bromofluorobenzene (4-BFB)	0.981	0.994	mg/Kg	1	1.00	98	99	70 - 130

Matrix Spike (MS-1) Spiked Sample: 157885

QC Batch: 47997 | Date Analyzed: 2008-05-02 | Analyzed By: LD
Prep Batch: 41270 | QC Preparation: 2008-05-01 | Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	289	mg/Kg	1	250	110.76	71	18 - 179.5

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	291	mg/Kg	1	250	110.76	72	18 - 179.5	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	105	104	mg/Kg	1	100	105	104	34.1 - 158

Matrix Spike (MS-1) Spiked Sample: 157993

QC Batch: 48018 | Date Analyzed: 2008-05-01 | Analyzed By: DC
Prep Batch: 41288 | QC Preparation: 2008-04-30 | Prepared By: DC

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	10.3	mg/Kg	1	10.0	<0.739	103	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	10.1	mg/Kg	1	10.0	<0.739	101	70 - 130	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.12	1.10	mg/Kg	1	1	112	110	70 - 130
4-Bromofluorobenzene (4-BFB)	1.17	1.15	mg/Kg	1	1	117	115	70 - 130

Standard (ICV-1)

QC Batch: 47997 | Date Analyzed: 2008-05-02 | Analyzed By: LD

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	271	108	85 - 115	2008-05-02

Standard (CCV-1)

QC Batch: 47997 | Date Analyzed: 2008-05-02 | Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	277	111	85 - 115	2008-05-02

Standard (ICV-1)

QC Batch: 48018 Date Analyzed: 2008-05-01 Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.03	103	85 - 115	2008-05-01

Standard (CCV-1)

QC Batch: 48018 Date Analyzed: 2008-05-01 Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.899	90	85 - 115	2008-05-01

WO # 8042513

Analysis Request of Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

PAGE: 1 OF:

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 3111

PROJECT NAME: COG JALMAT TB, JAL, NM

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
157880	04/24/08		S		✓	SB-1 (0-2') *	1				✓	✓		✓										✓				
881	04/24/08		S		✓	SB-1 (5-7')	1				✓	✓												✓				
882	04/24/08		S		✓	SB-2 (0-2') *	1				✓	✓		✓										✓				
883	04/24/08		S		✓	SB-2 (5-7')	1				✓	✓												✓				
884	04/24/08		S		✓	SB-3 (0-2') *	1				✓	✓		✓										✓				
885	04/24/08		S		✓	SB-3 (5-7')	1				✓	✓												✓				
886	04/24/08		S		✓	SB-3 (10-12') (Hold)	1				✓	✓																

RELINQUISHED BY: (Signature) Date: 4/25/08 Time: 9:40 — RECEIVED BY: (Signature) Date: Time:

SAMPLED BY: (Print & Initial) Jeffrey Kindler JWK Date: 04/24/08 Time: 1800

RELIQUISHED BY: (Signature) Date: Time: — RECEIVED BY: (Signature) Date: Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS AIRBILL #: OTHER:

RELIQUISHED BY: (Signature) Date: Time: — RECEIVED BY: (Signature) Date: Time:

HIGHLANDER CONTACT PERSON: Ike Tavarez — Results by:

RECEIVING LABORATORY: Trace Analysis — RECEIVED BY: (Signature)

ADDRESS: CITY: Midland STATE: TX ZIP: CONTACT: PHONE:

DATE: 4/25/08 TIME: 9:40

RUSH Charges Authorized: Yes (No)

SAMPLE CONDITION WHEN RECEIVED: 3.2° intact

REMARKS: * IFTPH is ≥ 1,000 mg/kg run next deeper sample for TPH. Continue until TPH is ≤ 1,000 mg/kg all tests - Midland

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Highlander Environmental Corp. - Project Manager retains Pink copy - Accounting receives Gold copy.

APPENDIX C
INITIAL/FINAL C-141'S

District I
1625 N French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St. Francis Dr., Santa Fe, NM 87505

NOV 06 2008

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

HOBBS OCD

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☒ Final Report

Name of Company COG Operating LLC	Contact Kanicia Carrillo
Address 550 W. Texas Ave, Ste 1300 Midland, TX 79701	Telephone No. 432-685-4332
Facility Name Jalmat Yates Unit Battery	Facility Type Tank Battery

Surface Owner	Mineral Owner	Lease No. 301048

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	13	25S	36E	1050	North	1100	East	Lea

Latitude__________ Longitude__________

NATURE OF RELEASE

Type of Release produced & fresh water leak	Volume of Release 600 bbls	Volume Recovered Full recovery expected
Source of Release Battery	Date and Hour of Occurrence 08/07/07 time unknown	Date and Hour of Discovery 8/06/07 apprx 9:00 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Hobbs NMOCD	
By Whom? COG Pumper Warren Hunt	Date and Hour 9:00 am 08/07/07	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

THIS SPILL OCCURED ON TOP OF A PREVIOUS SPILL THAT WAS IN THE PROCESS OF BEING CLEANED UP. REFER TO RP 1402

Describe Cause of Problem and Remedial Action Taken.*

Electrical failure caused the pumps to stop and the water was still flowing. Called for clean up.

Describe Area Affected and Cleanup Action Taken.*

Leak was contained within the battery. Immediate pick up and return to system. Highlander Environmental will turn in second report.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: [signature]	**OIL CONSERVATION DIVISION**	
Printed Name: Kanicia Carrillo	Approved by District ~~Supervisor~~ ENVIRO ENGR: [signature]	
Title: Regulatory Analyst	Approval Date: 8·8·07	Expiration Date: —
E-mail Address: kcarrillo@conchoresources.com	Conditions of Approval: —	Attached ☐
Date: 08/07/07 Phone: 432-685-4332		

* Attach Additional Sheets If Necessary

RP# 1402

District I
1625 N French Dr , Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St. Francis Dr., Santa Fe, NM 87505

NOV 06 2008
HOBBS OCD

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company **COG Operating LLC**	Contact **Diane Kuykendall**
Address **550 W. Texas Ave, Ste 1300 Midland, TX 79701**	Telephone No. **432-685-4372**
Facility Name **Jalmat Yates Unit Battery**	Facility Type **Oil Battery**

Surface Owner	Mineral Owner	Lease No. **301048**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	13	25S	36E	1050	North	1100	East	Lea

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release **produced oil & water leak**	Volume of Release **50 BO & 300 BW**	Volume Recovered **20 BO & 270 BW**
Source of Release **Oil Tank**	Date and Hour of Occurrence **7/06/07 time unknown**	Date and Hour of Discovery **7/06/07 apprx 11:00 am**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Hobbs NMOCD**	
By Whom? **COG Pumper Warren Hunt**	Date and Hour **11:00 am 7/06/07**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Received Hobbs OCD

Describe Cause of Problem and Remedial Action Taken.*

Free water knock off failed sending water to the oil tanks. The oil tank over flowed. Called vacuum truck

Describe Area Affected and Cleanup Action Taken.*

Leak was contained within the battery. Remediation began 7-6-07 with vacuum truck . Vacuum truck picked up 20 BO & 270 BW. Dig up contaminated dirt & stored at facility. Will have Highland Environmental access and turn in a work plan,

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Diane Kuykendall

Printed Name: Diane Kuykendall

Title: Regulatory Analyst

E-mail Address: dkuykendall@conchoresources.com

Date: 7/06/07 Phone: 432-685-4372

Attach Additional Sheets If Necessary

OIL CONSERVATION DIVISION

Approved by District Supervisor: ENVIRO ENGR

Approval Date: 7.11.07 Expiration Date: 8.20.07

Conditions of Approval:
- SUBMIT CLEANUP PLAN OF OCD APPROVAL BY
- SUBMIT CHLORIDES ON ALL

Attached ☐

RP#1402

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

NOV 06 2008

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised June 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: COG Operating LLC	Contact: Pat Ellis
Address: 550 W. Texas Ave. Suite 1300, Midland, Tx 79701	Telephone No. (432) 686-3023
Facility Name: Jalmat Yates Unit Battery	Facility Type: Tank Battery

Surface Owner Unknown	Mineral Owner Unknown	Lease No. NM-301048

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	13	25S	36E	1050'	North	1100'	East	Lea

Latitude 32 08.101 **Longitude** 103 12.826

NATURE OF RELEASE

Type of Release Produced and Fresh Water spill	Volume of Release 600 BBLs	Volume Recovered unknown
Source of Release Tank Battery	Date and Hour of Occurrence 08/07/07	Date and Hour of Discovery 08-06-07 @ 9:00 AM NM Time
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NMOCD, Hobbs, NM	
By Whom? COG pumper Warren Hunt	Date and Hour 08-0-07 @ 9:00 AM NM Time	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*
None

Describe Cause of Problem and Remedial Action Taken.* Electrical failure caused the pumps to stop and the water was still flowing. Called for clean up.

Describe Area Affected and Cleanup Action Taken.*
Leak was contained with the battery. Vacuum truck onsite to remove spilled liquids. Tetra Tech personnel hand augered and drilled site to determine depth of impact. Upon completion, site was excavated to a depth of 2 feet bgs and soils transported offsite for disposal at Sundance Disposal of Eunice, New Mexico. Site was backfilled and brought up to grade.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Patrick L. Ellis	OIL CONSERVATION DIVISION
Printed Name: Pat Ellis	Approved by District Supervisor: ENVIRONMENTAL ENGINEER
Title: Environmental EH&S Advisor	Approval Date: 11.10.08 Expiration Date: —
E-mail Address: pellis@conchoresources.com	Conditions of Approval: Attached ☐
Date: 10/03/08 Phone: (432) 686-3023	IRP 1402 #2

* Attach Additional Sheets If Necessary