

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

State of New Mexico
 Energy Minerals and Natural Resources

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

Form C-141
 Revised 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 #12	Facility Type: Oil Well

Surface Owner Clay Osborn Mineral Owner Lease No. 301048

LOCATION OF RELEASE

API 30 025 09767

Unit Letter	Section\ 13	Township 25S	Range 36E	Feet from the 330'	North/South Line North	Feet from the 330'	East/West Line East	County Lea
A								

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release	Produced oil and water leak	Volume of Release 3BO & 15BW	Volume Recovered 0 bbls
Source of Release	Wellhead Leak – Flowline leak at the wellhead	Date and Hour of Occurrence time unknown	Date and Hour of Discovery 03-18-07
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Gary Wink	
By Whom?	COG employee Boyd Chesser	Date and Hour 03-18-07	RECEIVED
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

APR 03 2008

HOBBS OCD

Describe Cause of Problem and Remedial Action Taken.*

Flowline leak at wellhead. Turned well off and stopped leak. Repaired flowline and returned well to production.

Describe Area Affected and Cleanup Action Taken.*

Leak ran east of location 120' by 20', then ran another 150' by 5'. On 03/19/07, COG excavated and removed contaminated soil from site and stockpiled adjacent to battery. Highlander was onsite to oversee additional excavation on June 18 to 20, 2007. Soils were transported to Sundance in Eunice, New Mexico for disposal.

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: <i>Patricia L. Ellis</i>	OIL CONSERVATION DIVISION <i>S. Johnson</i>		
Printed Name: Pat Ellis	Approved by District Supervisor: ENVIRONMENTAL ENGINEER		
Title: EH&S Coordinator	Approval Date: 4.4.08	Expiration Date: →	
E-mail Address: pellis@conchoresources.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 3/26/08 Phone: (432) 685-4340	→		1RP# 1070

* Attach Additional Sheets If Necessary

SITE INFORMATION

Type of Report: CLOSURE REPORT

1 RP- 1264

General Site Information:

Site:	Jalmat Yates Unit, Well #12
Company:	COG Operating Company
Well Location:	Section 13, T25S, R36E, Unit Letter A
Lease Number:	301048
County:	Lea
Spill Area GPS:	32.13667, 103.21130°
Surface Owner:	Greg Fulfer
Mineral Owner:	-
Directions:	From Jal, New Mexico, intersection of Hwy. 18 and Hwy. 128, go 1.1 miles (west) on 128, turn right (north) into lease road, go north 0.8 miles and turn left (west) and go 0.2 mile and turn left (north) and go 0.2 miles to well location (spill ran east of well).

Release Data:

Date Released:	3/18/2007
Type Release:	produced water and crude oil
Source of Contamination:	flowline leak from well head
Fluid Released:	3 bbls oil and 15 bbls of water .
Fluids Recovered:	No fluids were recovered

Official Communication:

Name:	Pat Ellis	Ike Tavarez
Company:	COG Operating, LLC	Highlander Environmental Corp.
Address:	550 W. Texas Ave. Ste. 1300	1910 N. Big Spring
P.O. Box		
City:	Midland Texas, 79701	Midland, Texas
Phone number:	(432) 683-4340	(432) 682- 4559
Fax:	(432) 683-7443	(432) 682- 3946
Email:	PEllis@conchoresources.com	itavarez@hec-enviro.com

Ranking Criteria:

Depth to Groundwater:	Ranking Score	Site Data
<50 ft	20	
50-99 ft	10	Greater 50'
>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	None

Surface Body of Water:	Ranking Score	Site Data
<200 ft.	20	None
200 ft - 1,000 ft.	10	None
>1,000 ft.	0	None

Total Ranking Score:

10

RECEIVED

APR 03 2008

HOBBS OCD

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



Highlander Environmental Corp.

Midland, Texas

March 26, 2008

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

RE: Assessment and Site Closure for the Spill at the COG Operating Company LLC, Jalmat Yates Unit Well #12, Unit Letter A, Section 13, Township 25 South, Range 36 East, Lea County, New Mexico.

Dear Mr. Johnson:

Highlander Environmental Corp. (Highlander) was contacted by COG Operating Company LLC (COG) to assess and to remediate the soil impact from a spill that occurred at the Jalmat Yates, Well #12, located in Unit Letter A, Section 13, Township 25 South, Range 36 East, Lea County, New Mexico. The site coordinates are N 32.13667°, W 103.21130°. The State of New Mexico C-141 (Initial) is included in Appendix A. The Site is shown on Figure 1 and 2.

Background

On March 18, 2007, the spill was discovered from a flowline leak located at the wellhead. Approximately 3 barrels of oil and 15 barrels of water were spilled and no fluids were recovered. The spill occurred on the well pad and migrated off the pad in two areas one measuring approximately 120' x 20' and a second measuring 150' x 5'. The impacted area off the pad was immediately excavated to depths ranging from 2.5' to 6.0' below surface. The excavated soil was hauled to the tank battery pad and stockpiled pending disposal at Sundance Services. The spill location is shown on Figure 3.

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, 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 a reported depth 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 B.

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

On March 20, 2007, Highlander personnel were onsite to install six (6) auger holes in the spill area. The spill and auger hole locations are shown on Figure 3. Soil samples were analyzed for Total Petroleum Hydrocarbon (TPH) by method modified 8015 DRO/GRO and chlorides by EPA method 300.0. Selected samples were analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA method 8021B. 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 presented in Table 1. The laboratory reports are included in Appendix C.

Soil Sampling Results

Referring to Table 1, all auger holes (AH-1, AH-2, AH-3, AH-4, AH-5, and AH-6) were below the RRAL for TPH and BTEX at 0-1' below excavation bottom. However, the chloride concentrations were elevated in AH-1, AH-5 and AH-6 with levels of ranging from 553 mg/kg in AH-6 at 1-1.5 feet to 851 mg/kg in AH-5 at 1-1.5 feet below ground surface (bgs).

Remediation

On June 20, 2007, Highlander personnel were onsite to oversee the excavation and removal of an additional 2.5 feet of soil in the vicinity of AH-5, six feet of soil in the vicinity of AH-1, and one foot of soil in the vicinity of AH-3 and AH-4. The excavated soils were transported to Sundance Services in Eunice, New Mexico for disposal. A total of 380 cubic yard of soil were transported offsite. Upon completion of the excavation, Highlander personnel installed two additional hand augerholes (SP #1 and SP #2) in the vicinity of AH-1 and AH-5, respectively. The two auger holes were sampled and submitted



to the laboratory for analysis of chlorides. The sample results are presented in Table 2, while the laboratory reports are included in Appendix C. The two additional auger hole locations are shown on Figure 4. The State of New Mexico C-141 (final) is included in Appendix A.

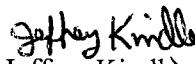
Referring to Table 1, auger hole SP #1 had chloride levels below state mandated levels of 250 mg/kg. Auger hole SP #2 had elevated chlorides which declined with depth. For auger hole SP #2 the chloride concentration ranged from 1,210 mg/kg at 0-1.0 feet to 269 mg/kg at a depth of 3-3.5 feet. Graphs depicting the decline with depth for the two auger holes are shown in Appendix D.

Conclusions

The release area was impacted with soils that exceeded the chloride RRAL of 250 mg/kg to a maximum depth of 8 feet bgs. As a result, the first two to six feet of impacted soils were excavated leaving shallow chlorides in situ which decreased with depth. Since the chlorides decrease with depth and groundwater is approximately 64 feet bgs, it is unlikely that the remaining chlorides in the soil will leach into the surrounding underlying groundwater.

Based upon the results of the assessment and the declining chloride concentration levels with depth, COG requests closure of this spill issue. If you require any additional information or have any questions or comments, please contact us at (432) 682-4559.

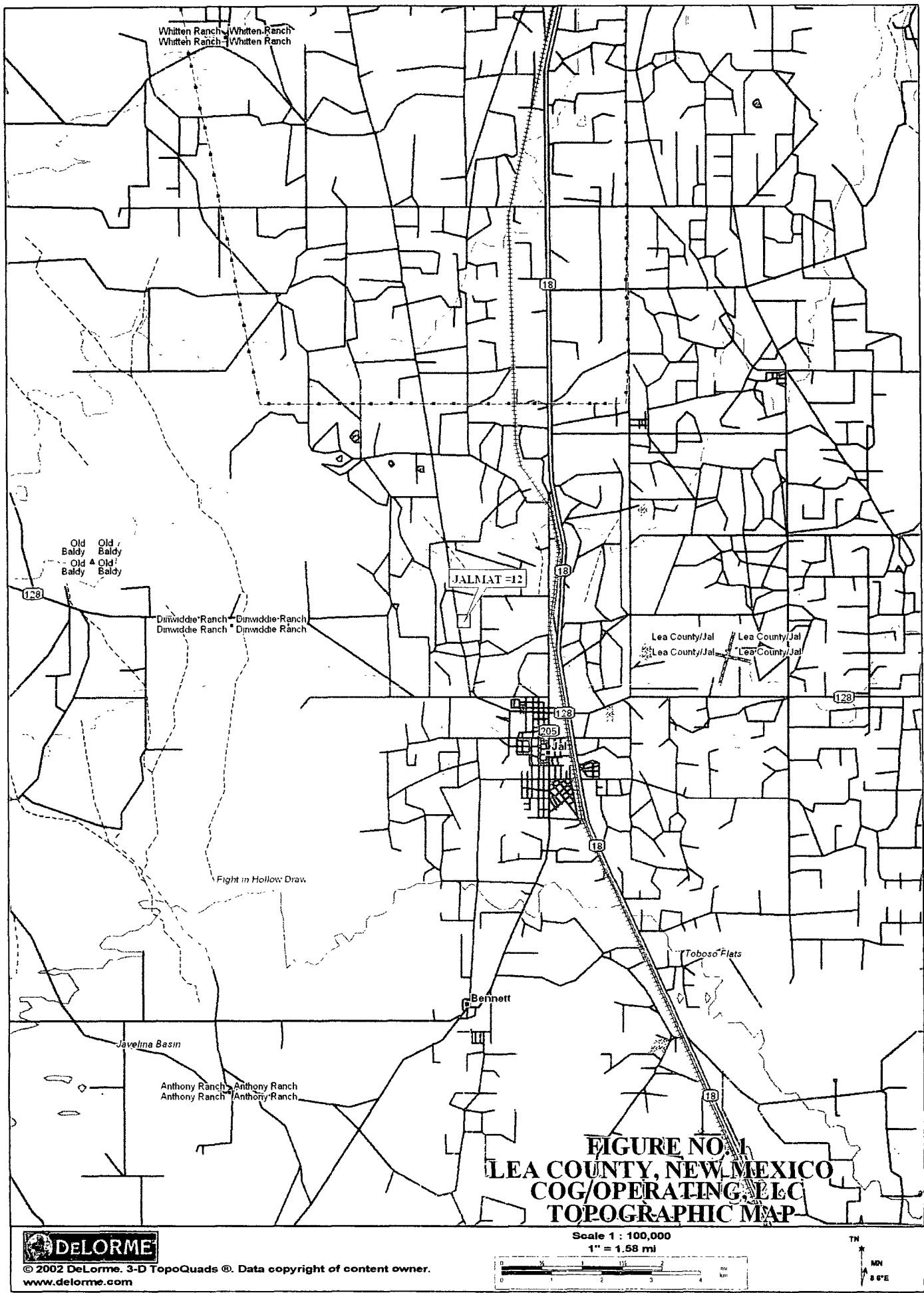
Highlander Environmental Corp.


Jeffrey Kindley, P.G.
Senior Environmental Geologist

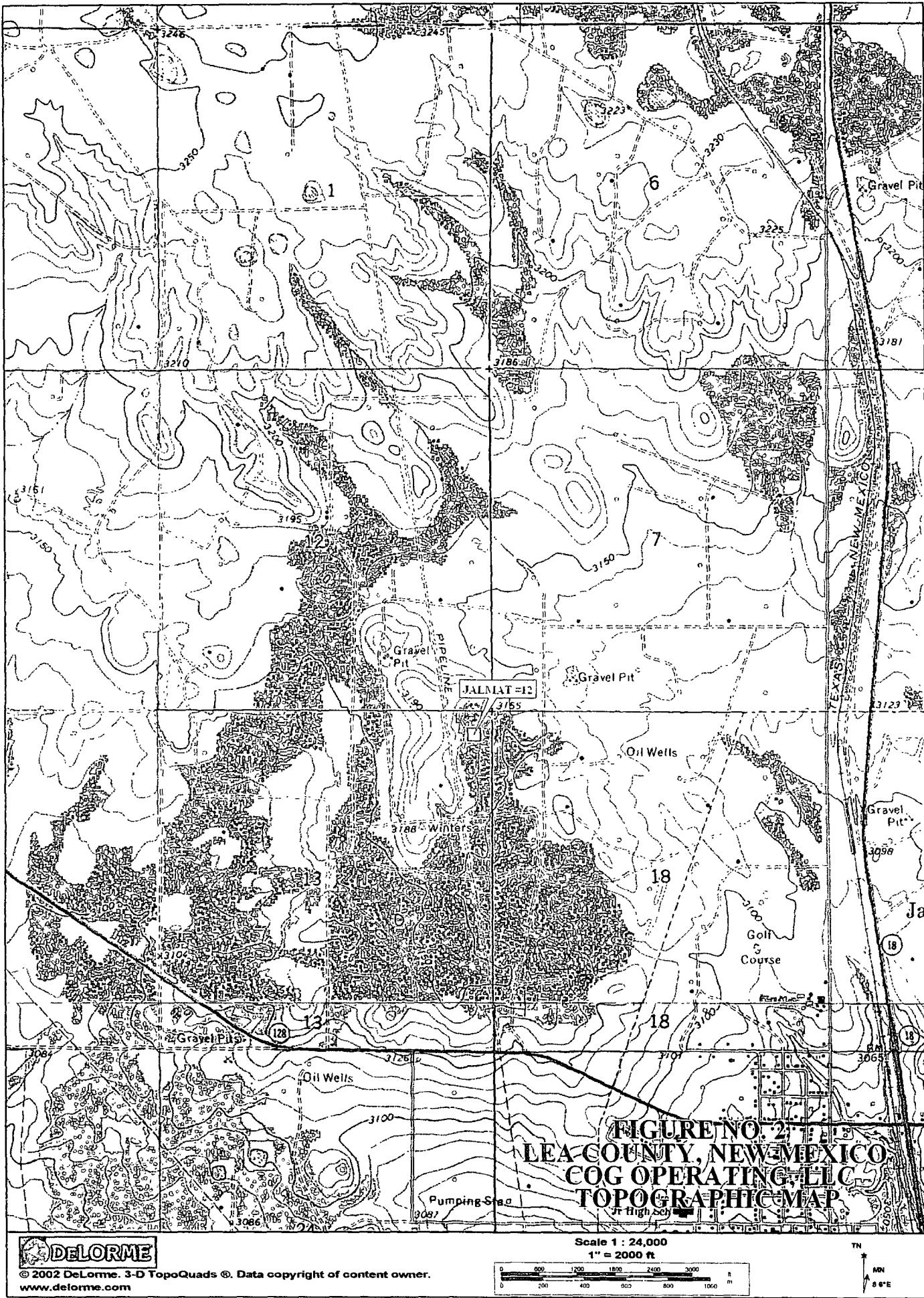
cc: COG – Pat Ellis



FIGURES



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www.delorme.com



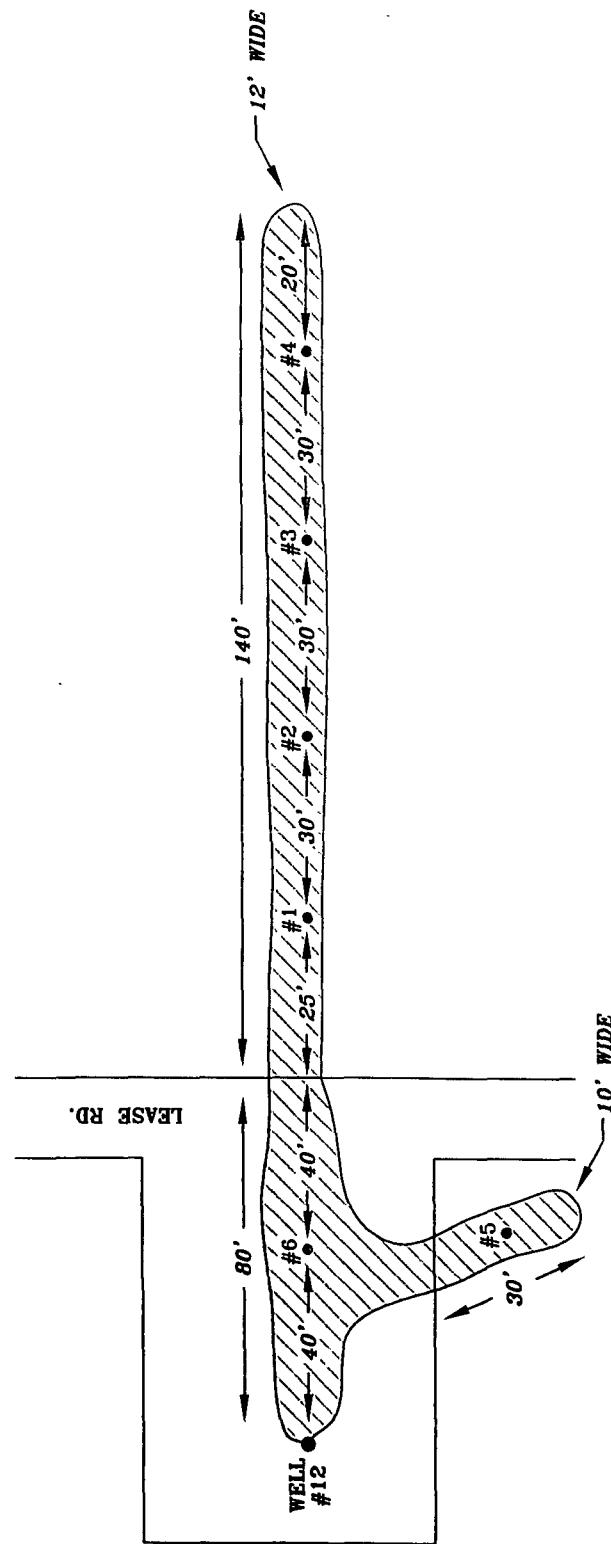


FIGURE NO. 3

LEA COUNTY, NEW MEXICO

COG OPERATING, LLC
JALMAT #12

HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS

DATE: 4/5/07
OWN. BY:
JJ
FILE:
CGOG-2088
JALMAT #12

NOT TO SCALE

- SAMPLE LOCATIONS
- SPILL AREA

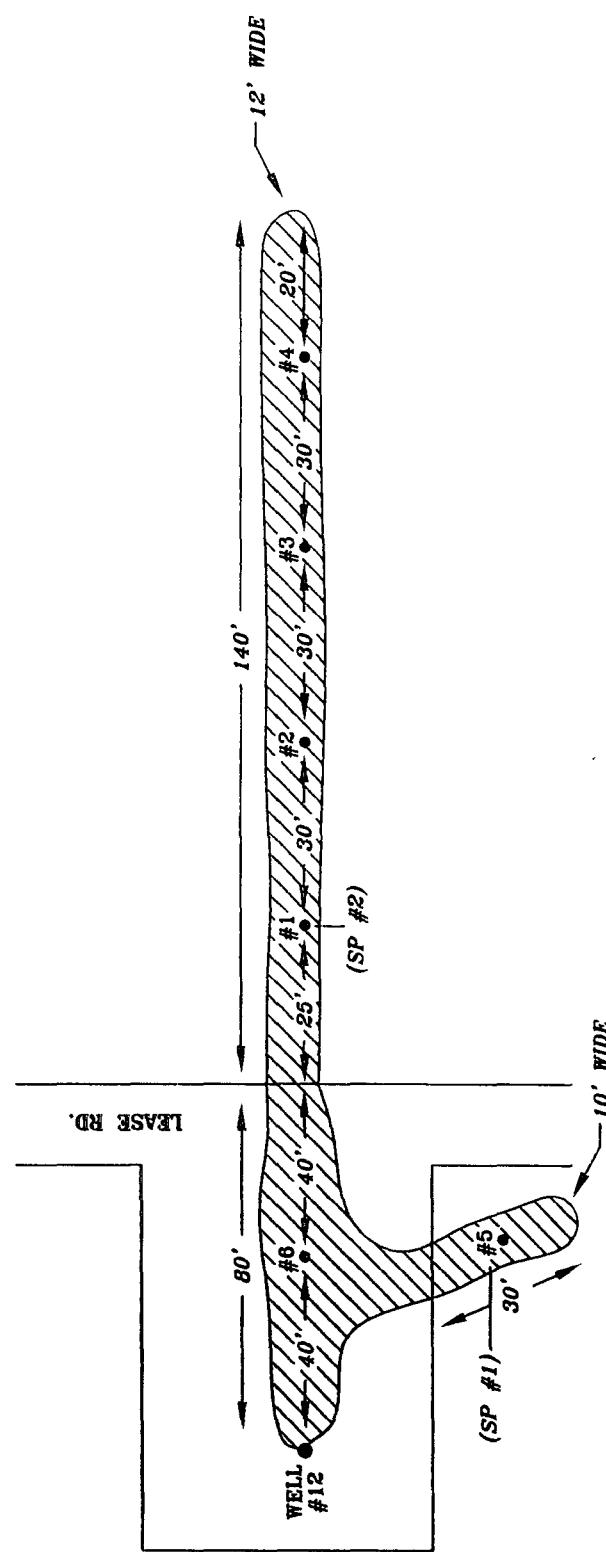


FIGURE NO. 4

LEA COUNTY, NEW MEXICO	COG OPERATING, LLC	JALMAT #12	HIGHLANDER ENVIRONMENTAL CORP.
DATE: 4/5/07	DRAWN BY: JJ	FILE: C:\COG\2008 JALMAT #12	

- SAMPLE LOCATIONS
- ☒ SPILL AREA

NOT TO SCALE

TABLES

Table 1
COG Operating
Jalmat Well # 12 - Leak
Lea County, New Mexico

Sample ID	Date Sampled	Sample Depth (ft) BEB	TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			C6-C12	C12-C28	C28-C35	Total					
AH-1	03/20/07	0-1.0'	<10.0	<10.0	<10.0	<10.0	--	--	--	--	2,980
AH-1	03/20/07	1-1.5'	--	--	--	--	--	--	--	--	1,490
AH-1	03/20/07	2-2.5'	--	--	--	--	--	--	--	--	2,340
AH-1	03/20/07	3-3.5'	--	--	--	--	--	--	--	--	1,910
AH-1	03/20/07	4-4.5'	--	--	--	--	--	--	--	--	510
AH-1	03/20/07	6-6.5'	--	--	--	--	--	--	--	--	681
AH-2	03/20/07	0-1.0'	<10.0	<10.0	<10.0	<10.0	--	--	--	--	2,450
AH-2	03/20/07	1-1.5'	--	--	--	--	--	--	--	--	213
AH-2	03/20/07	2-2.5'	--	--	--	--	--	--	--	--	298
AH-2	03/20/07	3-3.5'	--	--	--	--	--	--	--	--	574
AH-2	03/20/07	4-4.5'	--	--	--	--	--	--	--	--	2,130
AH-2	03/20/07	6-6.5'	--	--	--	--	--	--	--	--	191
AH-3	03/20/07	0-1.0'	<10.0	<10.0	<10.0	<10.0	--	--	--	--	936
AH-3	03/20/07	1-1.5'	--	--	--	--	--	--	--	--	95.7
AH-3	03/20/07	2-2.5'	--	--	--	--	--	--	--	--	181
AH-3	03/20/07	3-3.5'	--	--	--	--	--	--	--	--	702
AH-3	03/20/07	4-4.5'	--	--	--	--	--	--	--	--	1,400
AH-3	03/20/07	6-6.5'	--	--	--	--	--	--	--	--	425
AH-3	03/20/07	8-8.5'	--	--	--	--	--	--	--	--	85.1

Sample Depth (ft) - below excavation bottom

AH-4	03/20/07	0-1.0'	<10.0	<10.0	<10.0	<10.0	--	--	--	--	330
------	----------	--------	-------	-------	-------	-------	----	----	----	----	-----

Table 1
COG Operating
Jalmat Well # 12 - Leak
Lea County, New Mexico

Sample ID	Date Sampled	Sample Depth (ft) BEB	TPH (mg/kg)			Total	Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			C6-C12	C12-C28	C28-C35						
AH-4	03/20/07	1-1.5'	--	--	--	--	--	--	--	--	63.8
AH-4	03/20/07	2-2.5'	--	--	--	--	--	--	--	--	85.1
AH-4	03/20/07	3-3.5'	--	--	--	--	--	--	--	--	95.7
AH-4	03/20/07	4-4.5'	--	--	--	--	--	--	--	--	106
AH-5	03/20/07	0-1.0'	16.9	79.4	21.5	118.0	<0.025	<0.025	<0.025	<0.025	2,130
AH-5	03/20/07	1-1.5'	--	--	--	--	--	--	--	--	851
AH-6	03/20/07	0-1.0'	<10.0	18.2	4.11	18.2	<0.002	<0.002	<0.002	<0.002	3,080
AH-6	03/20/07	1-1.5'	--	--	--	--	--	--	--	--	553

Sample Depth (ft) - below excavation bottom

Table 2
COG Operating
Jalmat Well # 12 - Leak
Lea County, New Mexico

Sample ID	Date Sampled	Sample Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			C6-C12	C12-C28	C28-C35	Total				
SP #1 0-1.0' BEB	6/20/2007	2.5'	--	--	--	--	--	--	--	46.8
SP #1 1-1.5' BEB	6/20/2007	2.5'	--	--	--	--	--	--	--	28.5
SP #1 2-2.5' BEB	6/20/2007	2.5'	--	--	--	--	--	--	--	29.1
SP #2 0-1.0' (BEB)	6/20/2007	6.0'	--	--	--	--	--	--	--	1,210
SP #2 1-1.5' (BEB)	6/20/2007	6.0'	--	--	--	--	--	--	--	1,200
SP #2 2-2.5 (BEB)	6/20/2007	6.0'	--	--	--	--	--	--	--	615
SP #2 3-3.5' (BEB)	6/20/2007	6.0'	--	--	--	--	--	--	--	269

Sample Depth (ft) - below excavation bottom

APPENDIX A

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

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
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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	Phyllis Edwards
Address	550 W. Texas Ave, Ste 1300 Midland, TX 79701	Telephone No.	432-683-4340
Facility Name	Jalmat Yates Unit #12	Facility Type	Oil Well
Surface Owner	Clay Osborne	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	330	North	330	East	Lea

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release	produced oil & water leak	Volume of Release 3 BO & 15 BW	Volume Recovered 0 BO & 0 BW
Source of Release	flowline leak at the wellhead	Date and Hour of Occurrence time unknown	Date and Hour of Discovery 3-18-07
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Gary Wink
By Whom?	COG employee Boyd Chesser	Date and Hour	3-18-07
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully *

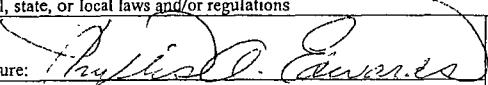
Describe Cause of Problem and Remedial Action Taken.*

Flowline leak at wellhead. Turn well off & stopped the leak. Repaired the flowline and returned well to production.

Describe Area Affected and Cleanup Action Taken.*

Leak ran east of location 120' by 20', then ran another 150' by 5'.
On 3-19-07, COG dug out contaminated dirt and hauled to battery.
Highlander Environmental will assess the leak area and coordinate with the NMOCD.

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

		OIL CONSERVATION DIVISION
Signature:	Printed Name: Phyllis A. Edwards	Approved by District Supervisor
Title: Regulatory Analyst	Approval Date.	Expiration Date:
E-mail Address: pedwards@conchoresources.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 3/19/07 Phone 432-683-4340		

Attach Additional Sheets If Necessary

APPENDIX B

Water Well Data
Average Depth to Groundwater (ft)
COG Operating - Jalmat Yates Unit # 12

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

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

24 South			37 East		
6	5	11	4	3	2
		106			1
7	119	8	9	10	11
		90		64	12
18	17	16	67	15	14
	124				13
19	20	21	69	22	23
			94	24	100
30	29	28	70	27	41
				26	25
					89
					90
31	32	33		34	35
					36
				55	

25 South			35 East		
6	5	4	3	108	2
	165				1
7	8	9	10	11	12
18	17	16	15	14	13
	230				
19	20	21	22	23	24
		218			
30	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	10	11	12
			180		
18	17	16	15	14	13
			120		SITE
19	20	21	22	23	24
				53.7	
30	29	28	27	26	25
31	32	33	34	35	36

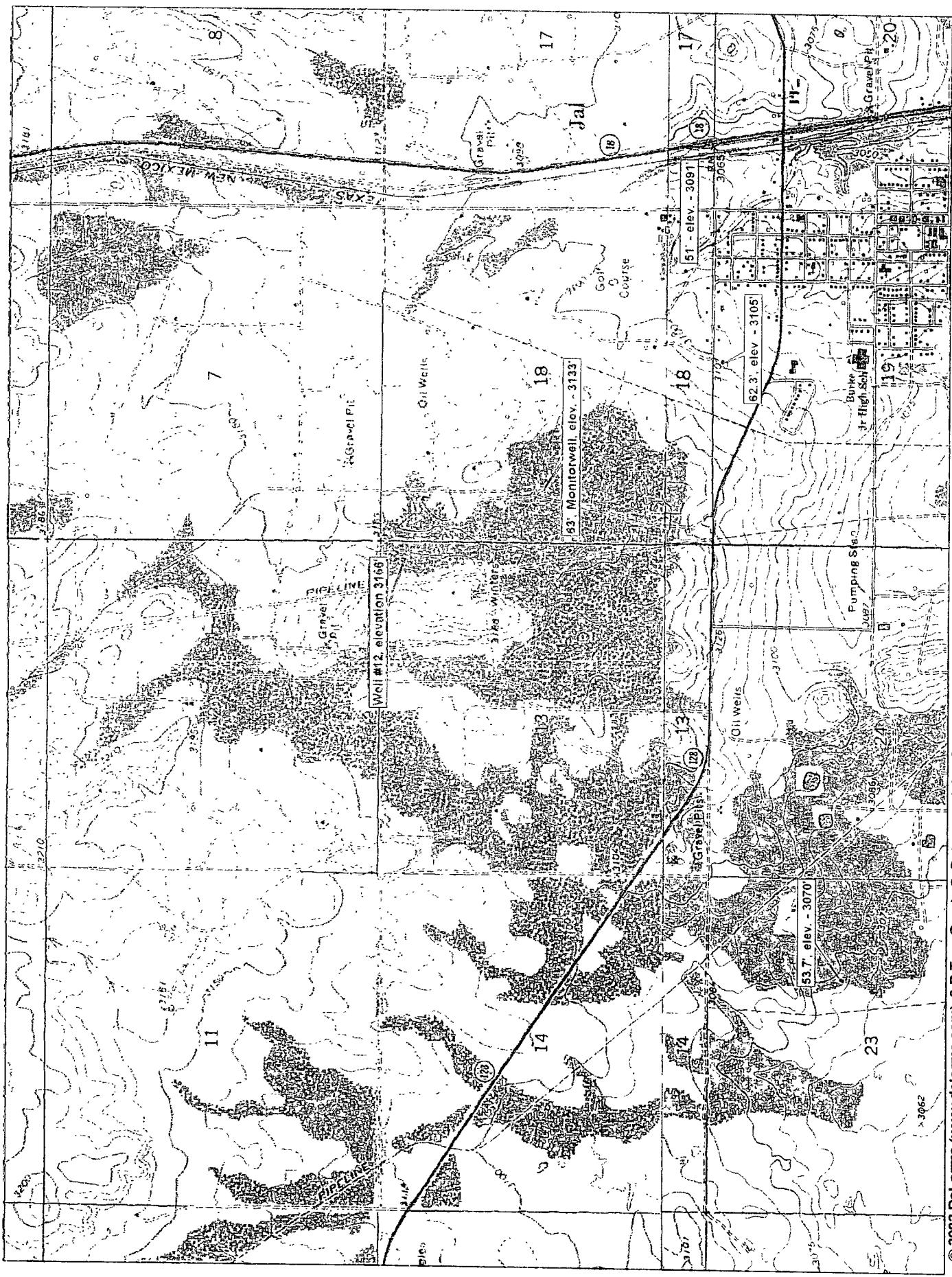
25 South			37 East		
6	5	4	3	2	1
					60
7	8	9	10	50	11
					12
18	17	16	15	14	13
	51			73	
19	44	20	65	21	22
					23
62	34			26	
					255
30	29	28	27	26	25
	219			75	55
31	32	33	34	35	185
					36

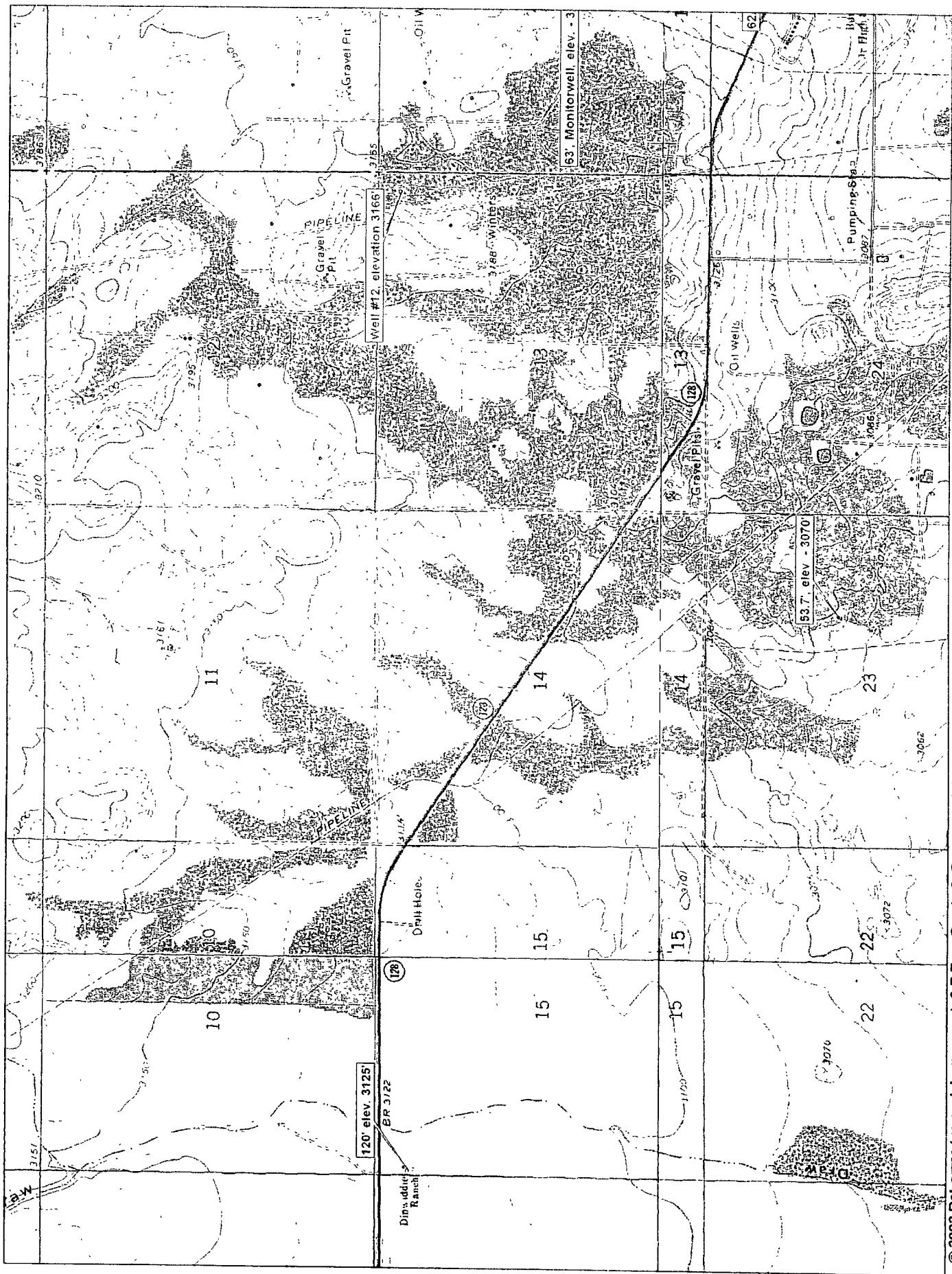
26 South			35 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

26 South			36 East		
6	5	4	3	2	1
7	8	9	173	10	11
					12
18	17	16	15	14	13
19	20	21	22	23	24
			151		
30	29	28	27	26	25
31	32	33	34	35	36

26 South			37 East		
6	5	4	3	2	1
7	196	8	9	85	10
					11
18	17	16	15	14	97
				95	13
19	20	21	22	23	24
	185				
30	29	86	28	27	26
					25
				140	
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)





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 Scale: 1 : 25,000 Map Rotation: 0° Magnetic Declination: 8.7°E
 2,000 ft

ANDREWS COUNTY

T.
24
S.

10'

T.
25
S.

T.
26
S.

32°00'

RATTLESNAK

R. 38 E.

103°10'

R. 36 E.

WINKLER COUNTY

Compiled by Alfred Clebsch, Jr.,

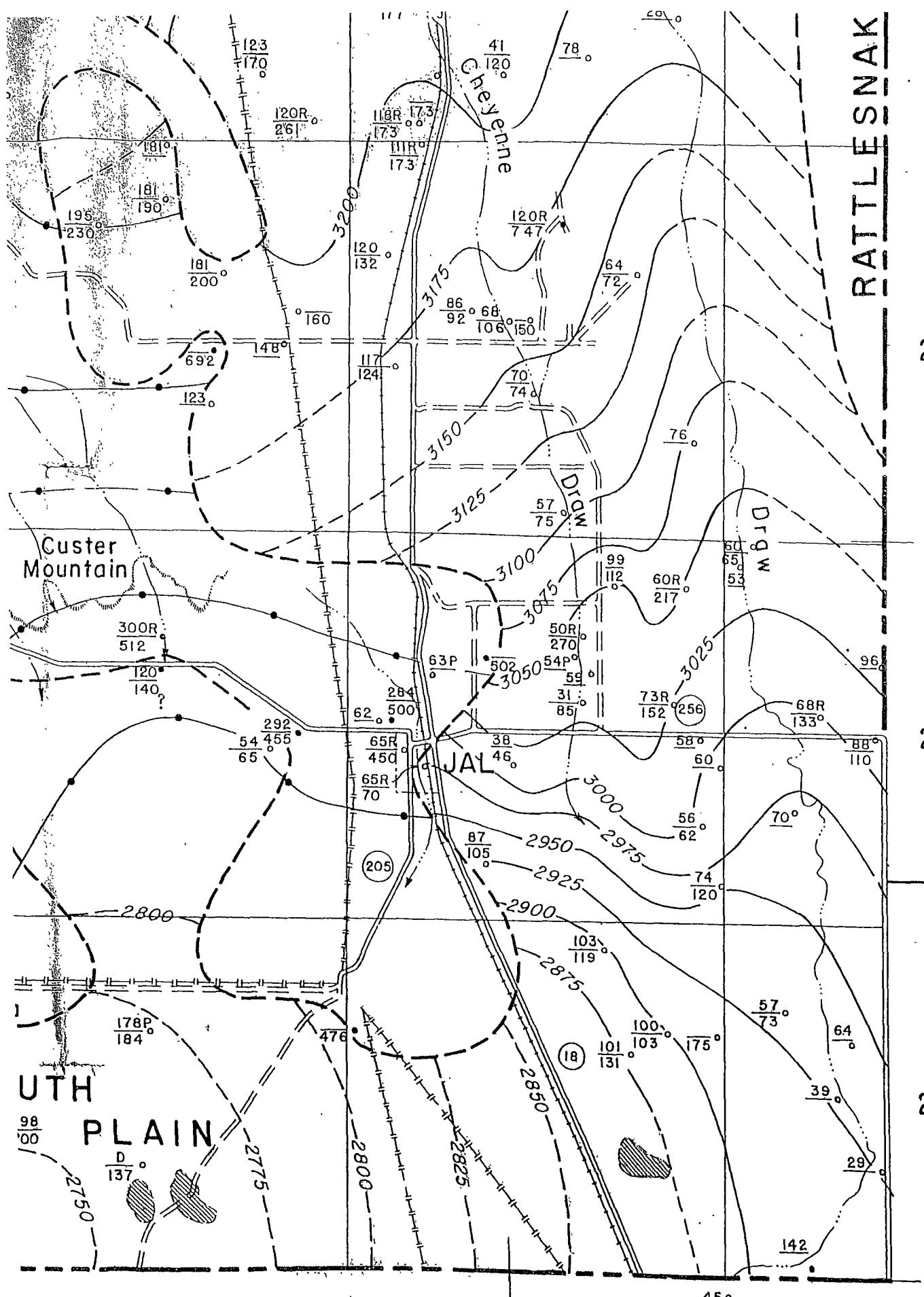


TABLE 6. RECORDS OF WELLS IN SOUTHERN LEA COUNTY, N. MEX. (continued)

Location No.	Owner	Aquifer	Water level								Remarks
			Depth of well (feet)	Altitude of well (feet)	Depth below land surface (feet)	Date measured	Year completed	Surface diameter of wells	Method of lift	Use of water	
24.34.35.122	do.	Tr	258M	3,410	228.9	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	—	—	—	8½	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	—	6½	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	10½	Te	In,D	Jal Plant 4, well 6.
7.431	Fowler Hair	To	132M	3,300	119.9	3- 6-53	—	6½	N	N	—
10.123	Trinity Production Co.	Tr	747	3,260	120	2- 5-53	1953	—	Li	In	EY 42 gpm. Chemical analysis in table 8.
14.211	Fowler Hair	To(?)	72M	3,205	64.5	3- 8-53	—	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	6½	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	—	To	—	3,230	173.3	4- 2-53	—	8½	N	N	—
25.36.10.313	W. D. Dinwiddie	To	512	3,130	300	—	—	—	Lw	S	—
15.111	do.	To(?)	140	3,125	120.2	3- 5-53	1951	—	N	N	—
23.234	—	Qal	65M	3,070	—53.7	3-31-53	—	6½	Lw	S	—
24.412	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	—	—	1958	—	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	—	8½	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	—	—	Tl	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	3,085	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	—	—	—	—	10½	Je	In,D	Jal General Camp well 1. EY 1 gpm.
21.411	G. B. Hadfield	To	46M	3,050	38.2	2-12-53	—	6	Lw	S	—
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	Water level								Remarks
			Depth of well (feet)	Altitude of well (feet)	Depth below land surface (feet)	Date measured	Year completed	Surface diameter of wells	Method of lift	Use of water	
25.38.19.342	Pure Oil Co.	To(?)	133	3,051	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	8½	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								Remarks	
					Depth below land surface (feet)	Date measured	Year completed	Surface diameter of wells	Method of lift	Use of water				
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	2-15-53	—	6	N	N	—	—	—	

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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

(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
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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
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County: Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic
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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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NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic
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DB File Nbr	Use	Diversion	Owner	POD Number
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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NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

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

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	35E	10				1	300	300	300

Record Count: 1

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NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

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

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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NAD27 X: Y: Zone: Search Radius: 1County: Basin: Number: Suffix:Owner Name: (First) (Last) Non-Domestic Domestic
 All

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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NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic
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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
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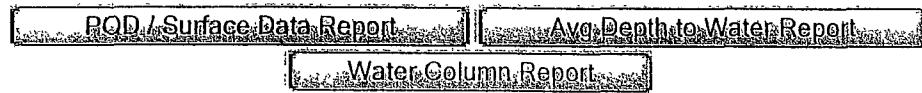
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Owner Name: (First) (Last) Non-Domestic Domestic
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(Depth Water in Feet)

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	Min	Max	Avg
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Basin:



Number:

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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
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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	Shallow	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		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		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 4
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

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 25S Range: 37E Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

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

POD / SURFACE DATA REPORT 03/08/2006

(acre ft per annum)		
DB File Nbr	Use	Diversion Owner
CP 00120	COM	31.2 CHAPARRAL SERVICES, INC.
CP 00121	COM	15.6 CHAPARRAL SERVICES, INC.
CP 00124	COM	31.2 CHAPARRAL SERVICES, INC.
CP 00211	DOM	0 J. M. OWEN
CP 00216	DOM	0 J. M. OWEN
CP 00217	DOM	0 J. M. OWEN
CP 00219	DOM	0 J. M. OWEN
CP 00299	DOM	0 J. J. SMITH
CP 00300	STK	0 J. J. SMITH
CP 00387	DOM	3 PAUL S. BALLINGER
CP 00388	DOM	0 JAKE MC KOWEN
CP 00425	COM	70 PAUL PRATHER P AND S BRINE SAL
CP 00428	DOM	3 ANNICE KATHLEEN BUTTER
CP 00429	DOM	3 HOMER E. MOLDER
CP 00444	DOM	3 D. C. BUFFINGTON

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

(quarters are biggest to smallest)

POD Number	Source	Tws	Rng	Sec	q	q	q
CP 00120	Shallow	25S	37E	20	2	3	1
CP 00121	Shallow	25S	37E	20	2	4	3
CP 00124		25S	37E	20	2	4	1
CP 00211 DCL		25S	37E	21	2	4	3
CP 00216 DCL		25S	37E	22	1	2	2
CP 00217 DCL		25S	37E	10	4	3	4
CP 00219 DCL		25S	37E	10	4	3	3
CP 00299 DCL		25S	37E	03	2	4	2
CP 00300 DCL		25S	37E	03	4	2	1
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 EXP		25S	37E	19	2	2	
CP 00425	Shallow	25S	37E	16	4	4	4
CP 00428		25S	37E	20	1		
CP 00429	Shallow	25S	37E	19	2		
CP 00444	Shallow	25S	37E	19	2	2	

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

Record Count: 56

Water Resources

Data Category:
Ground WaterGeographic 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

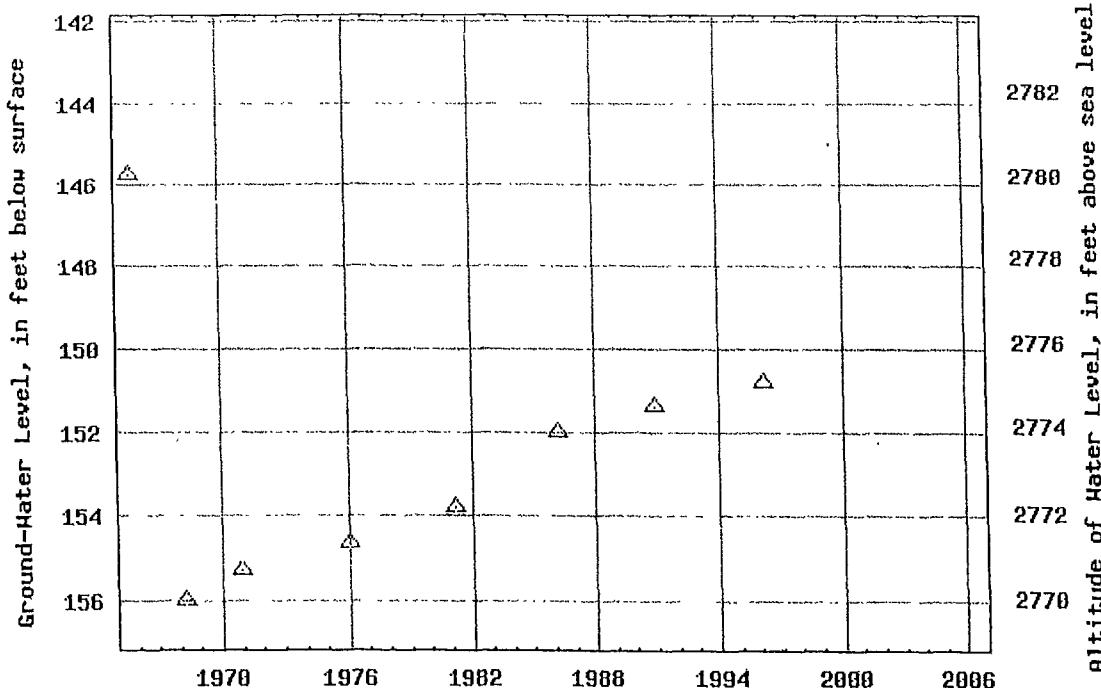
Table of data

Tab-separated data

Graph of data

Reselect period

USGS 320149103134201 26S.36E.23.222322



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

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.

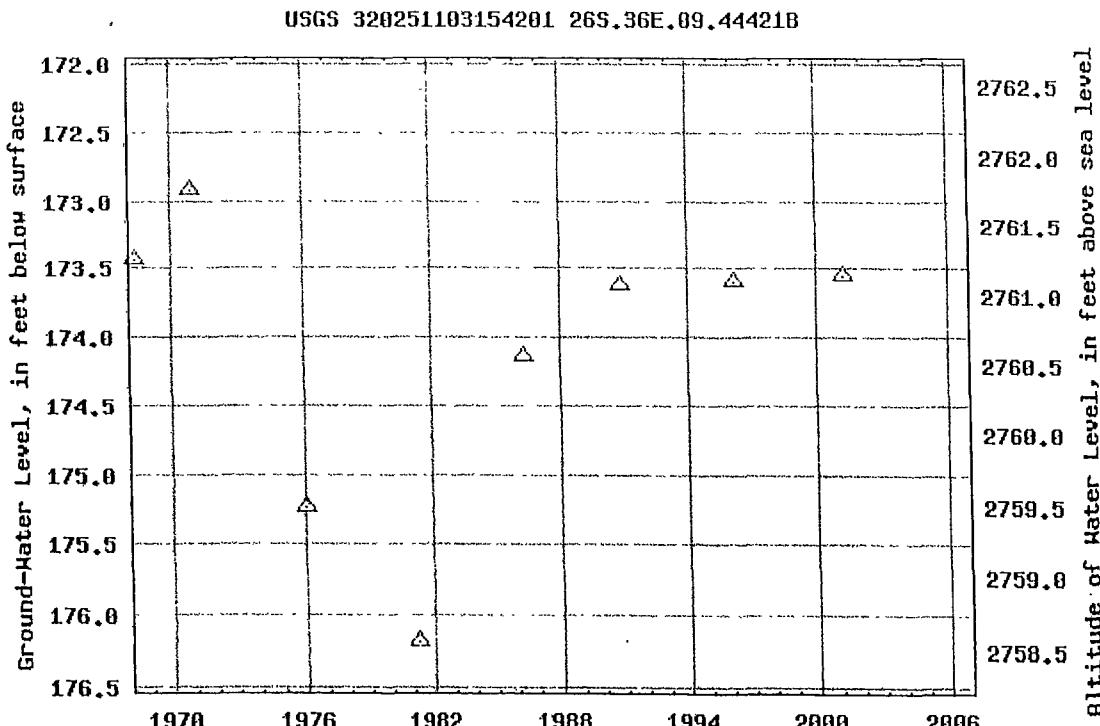
Output formats

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 WaterGeographic Area:
New Mexico

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



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.

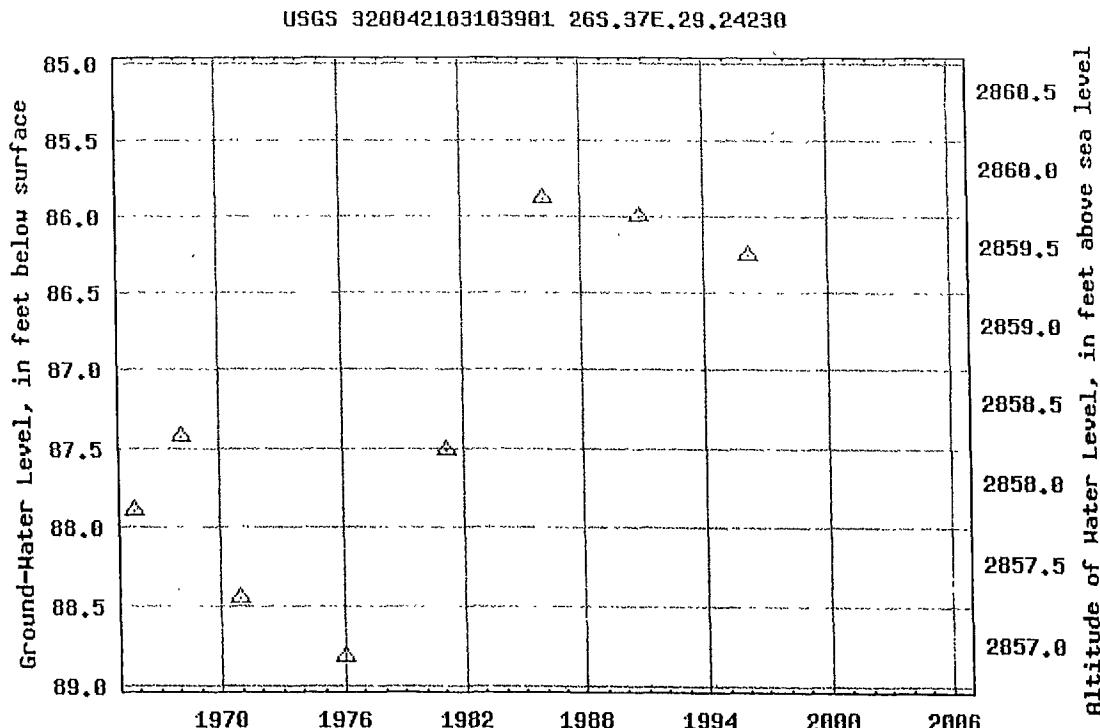
Output formats

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 WaterGeographic Area:
New Mexico

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



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

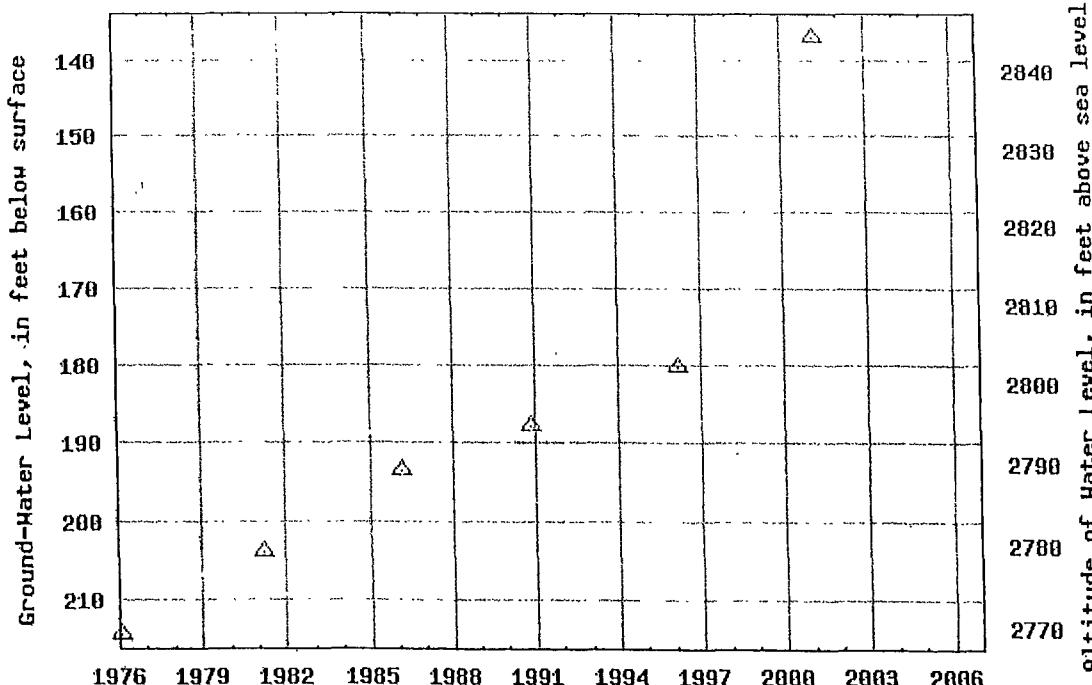
Table of data

Tab-separated data

Graph of data

Reselect period

USGS 320046103085101 26S.37E.27.23212



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



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



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

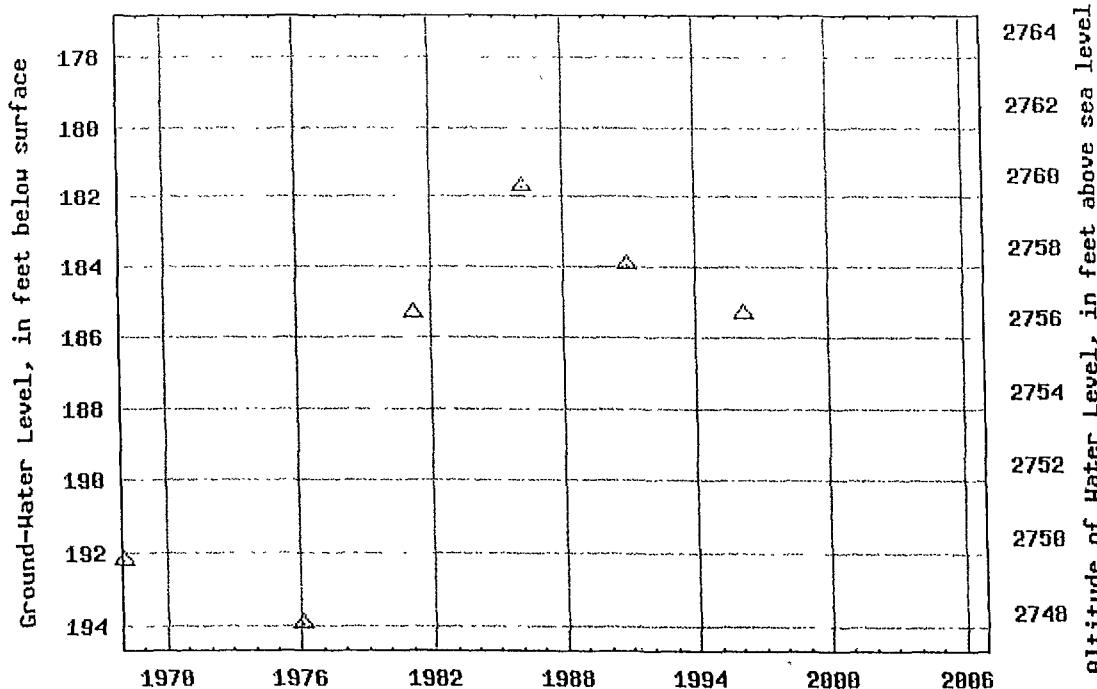
The depth of the well is 500 feet below land surface.

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](#)

USGS 320104103120301 26S.37E.19.433143



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

Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

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



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

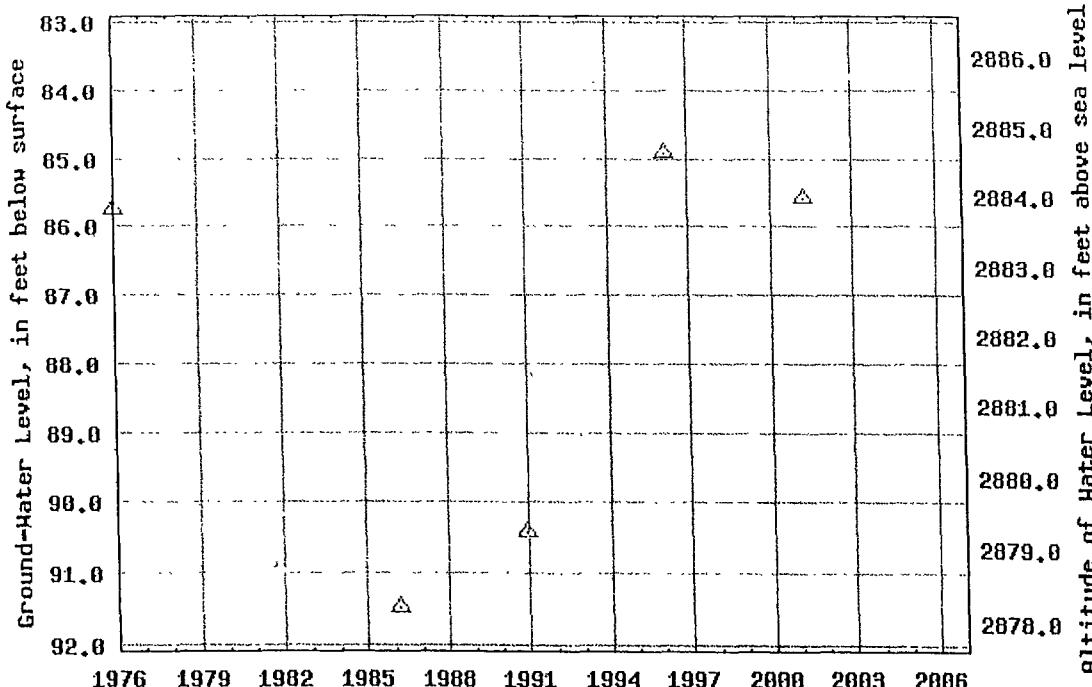
Table of data

Tab-separated data

Graph of data

Reselect period

USGS 320303103100901 26S.37E.09.32411A



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

Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

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



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

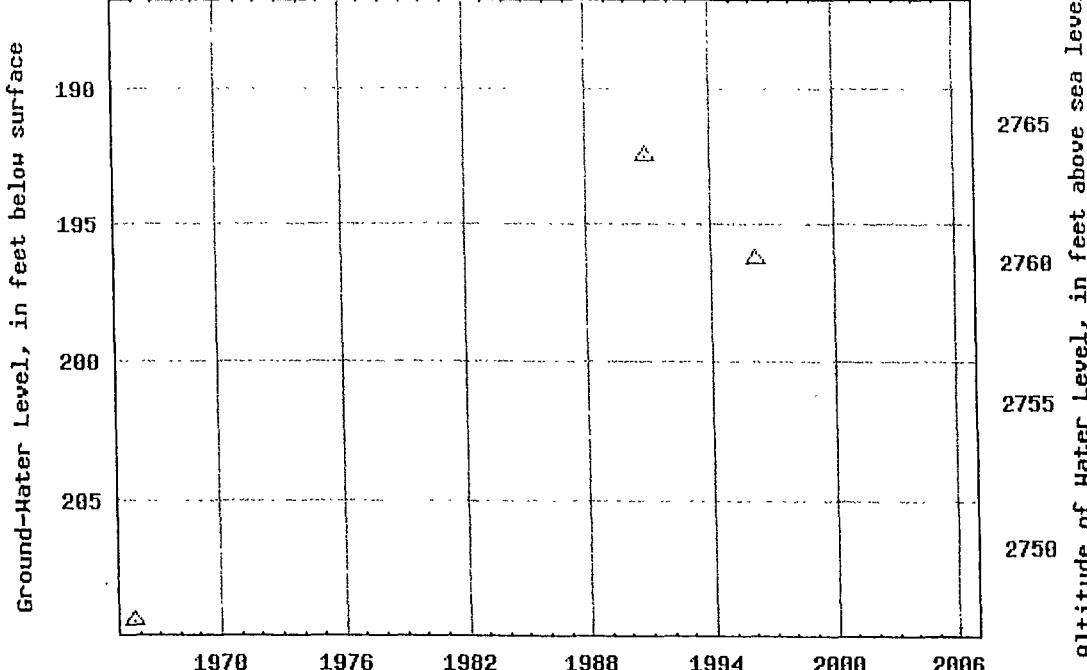
The depth of the well is 470 feet below land surface.

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](#)

USGS 320259103122201 26S.37E.07.314424



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

Water Resources

Data Category:
Ground WaterGeographic 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

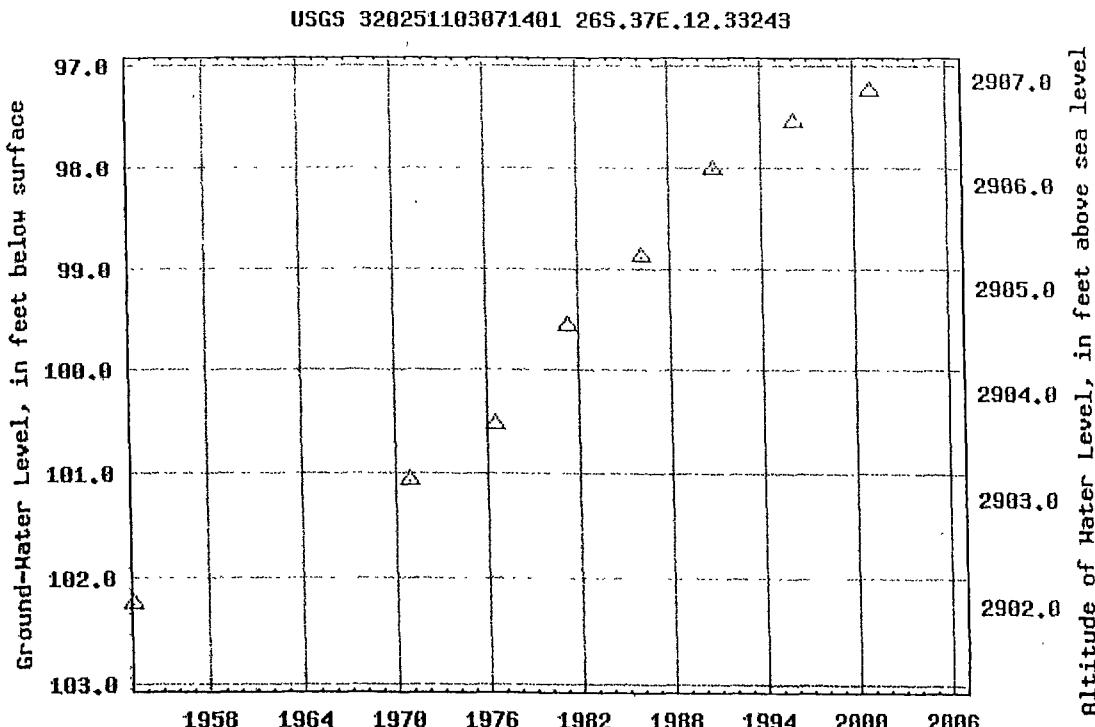
Latitude 32°02'51", Longitude 103°07'14" NAD27

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



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



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

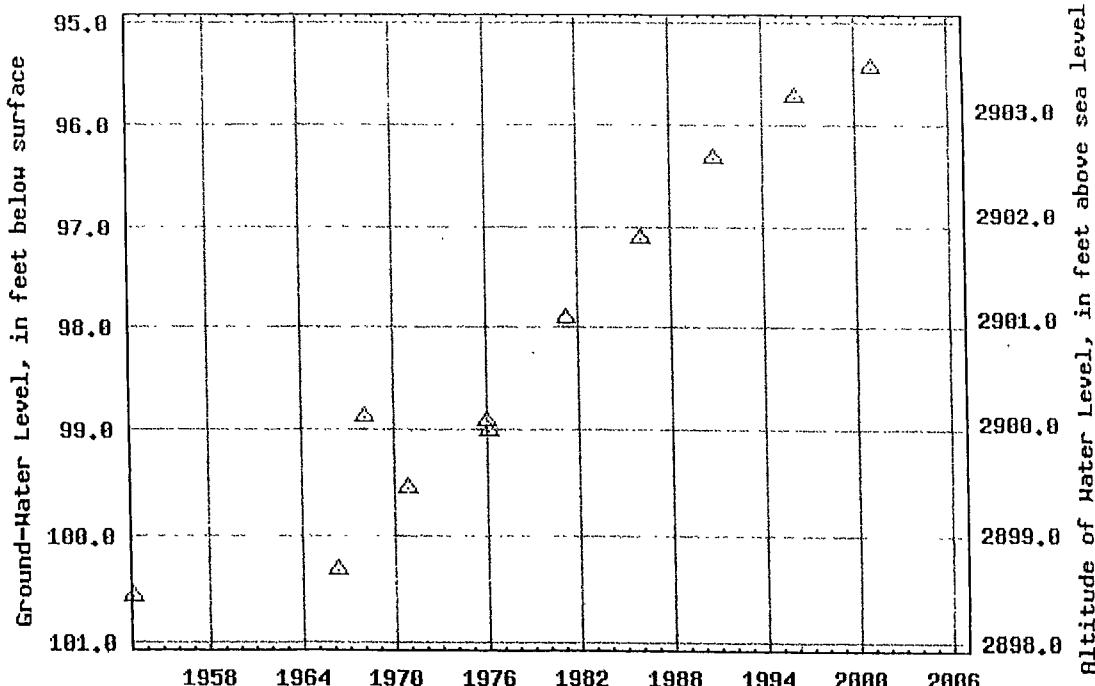
The depth of the well is 131 feet below land surface.

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](#)

USGS 320309103080401 26S.37E.14.122122



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

Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

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



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

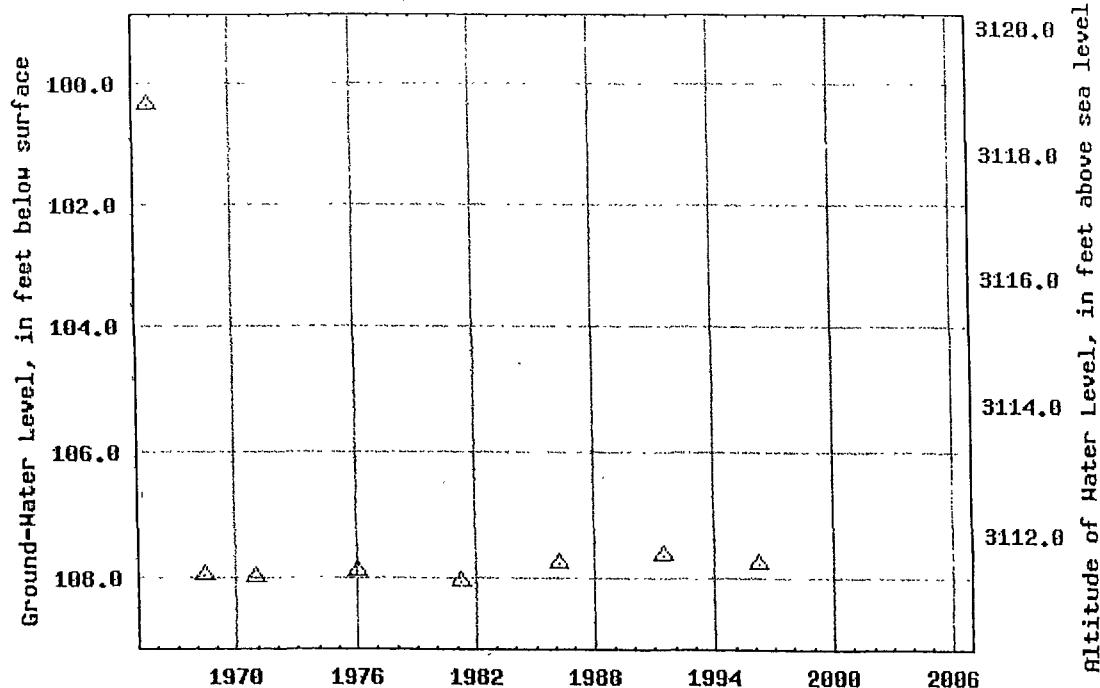
Table of data

Tab-separated data

Graph of data

Reselect period

USGS 320918103211701 25S.35E.03.233244



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

Water Resources

Data Category:
Ground WaterGeographic 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

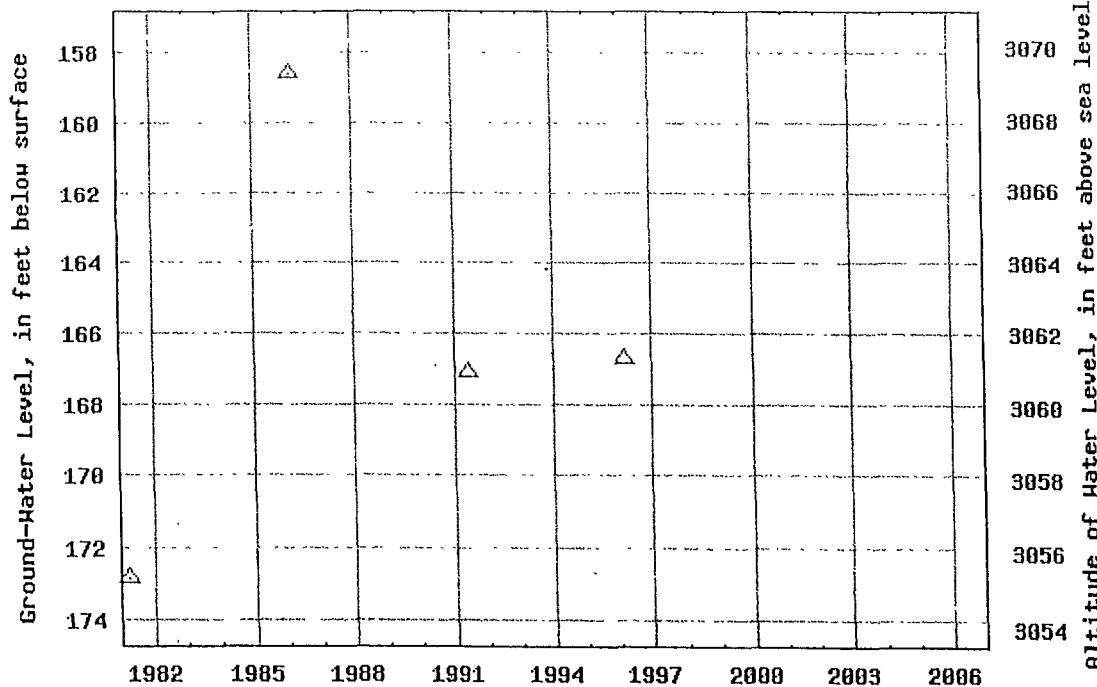
Table of data

Tab-separated data

Graph of data

Reselect period

USGS 320721103221201 25S.35E.21.122212



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

Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

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



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

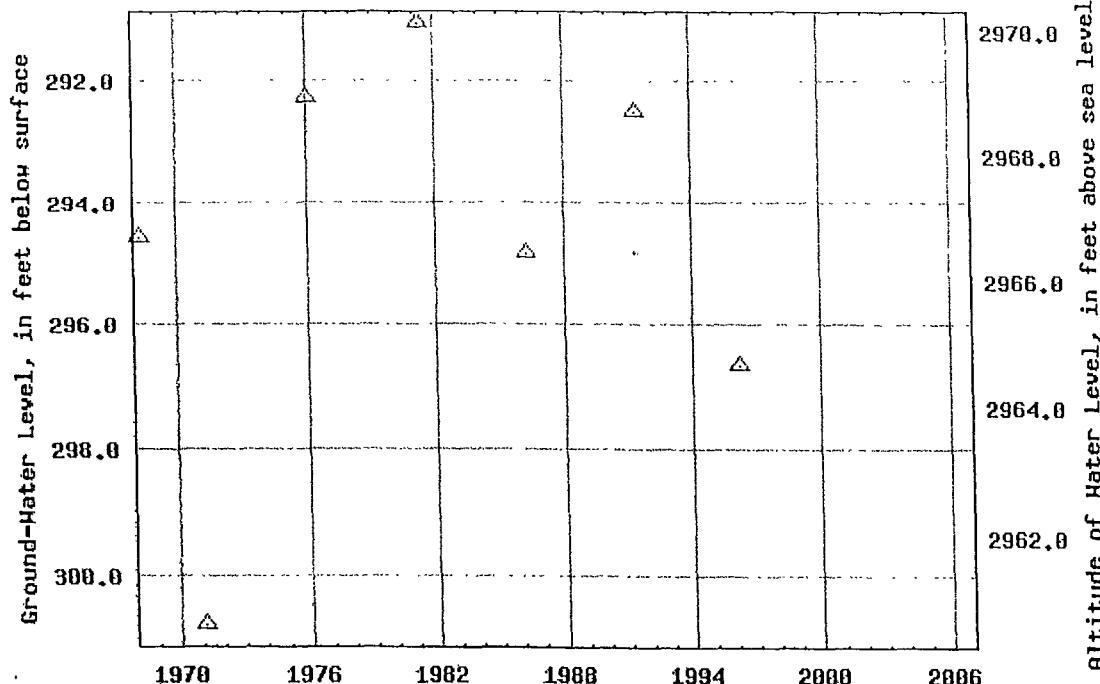
Table of data

Tab-separated data

Graph of data

Reselect period

USGS 320916103182501 25S.36E.06.13442



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

Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

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

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

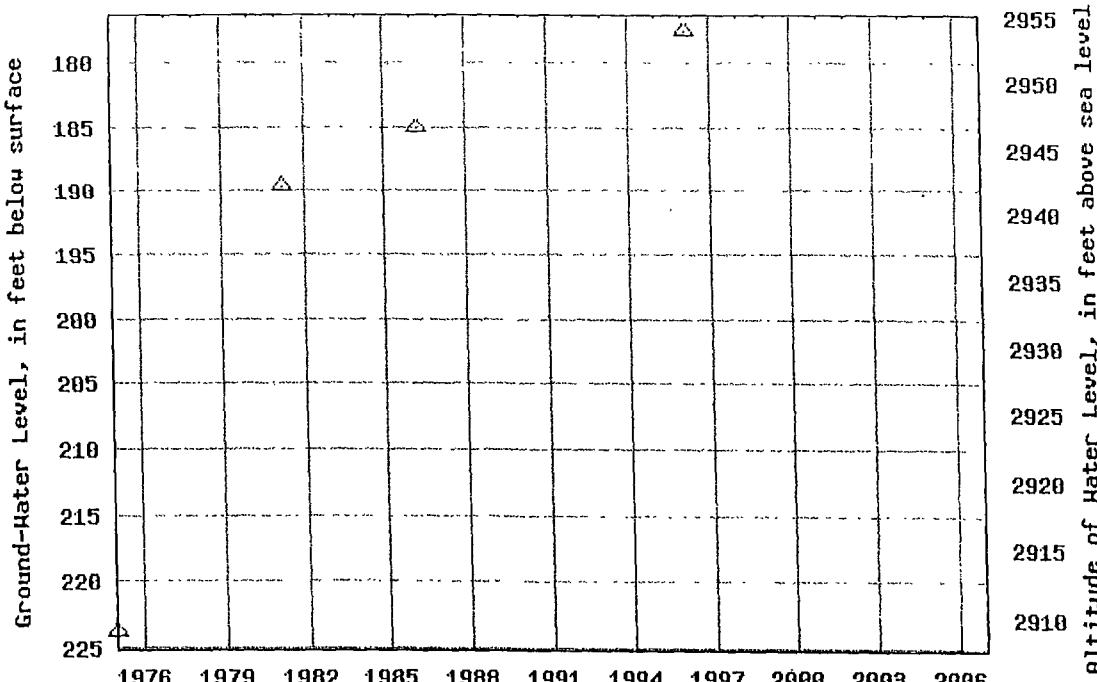
The depth of the well is 512 feet below land surface.

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](#)

USGS 320813103152901 25S.36E.10.31431



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

Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

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



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

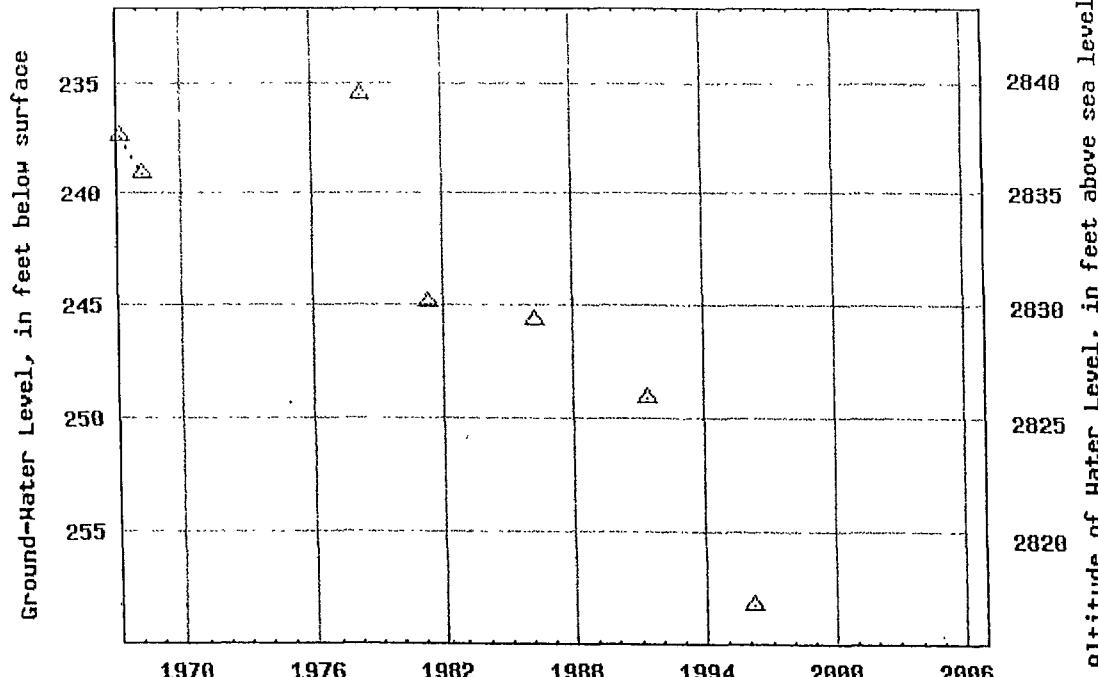
Table of data

Tab-separated data

Graph of data

Reselect period

USGS 320639103071301 25S.37E.24.14333



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

Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

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



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.

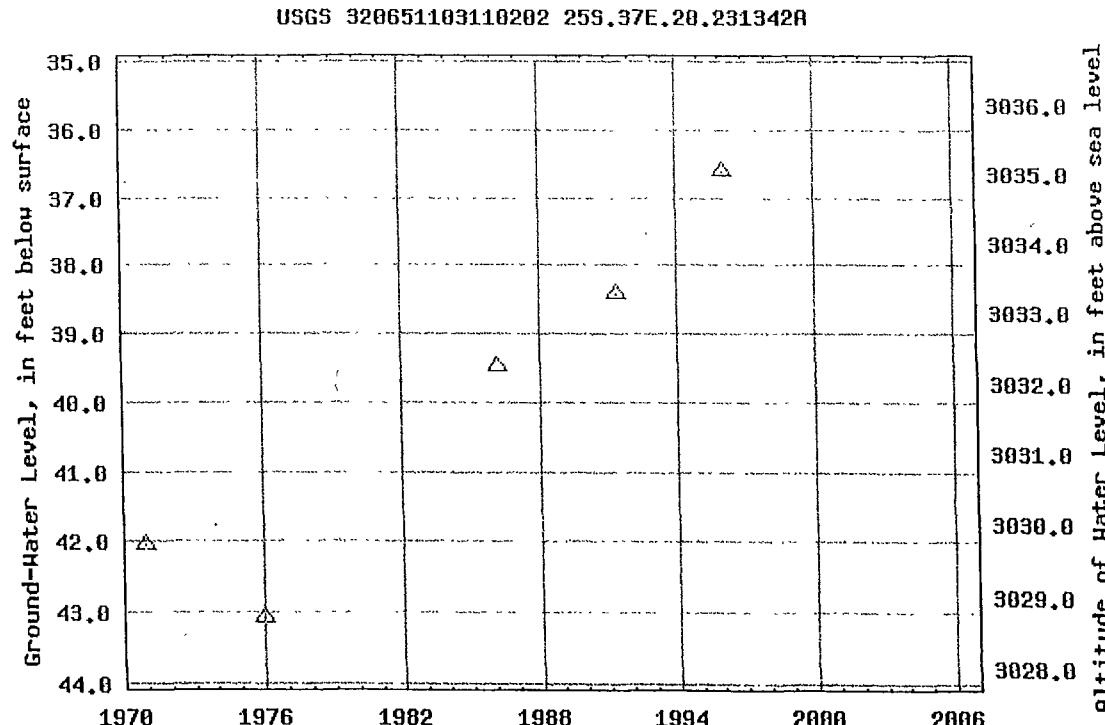
Output formats

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 WaterGeographic Area:
New Mexico

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.

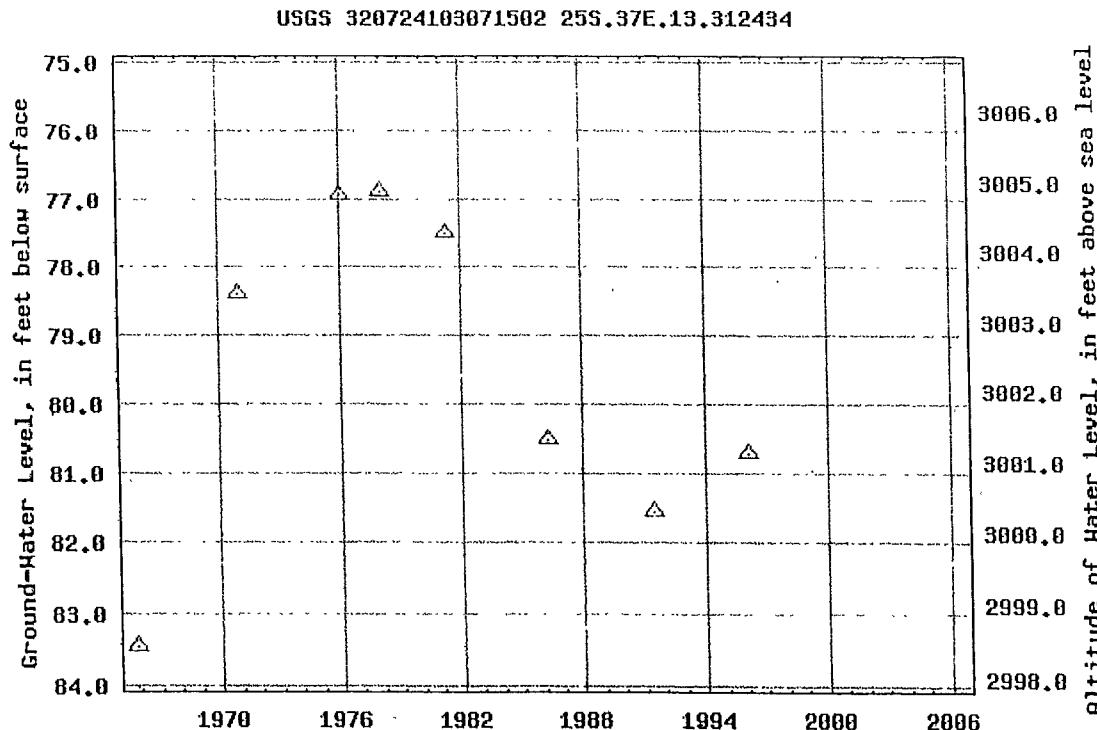
Output formats

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 WaterGeographic Area:
New Mexico

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



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.

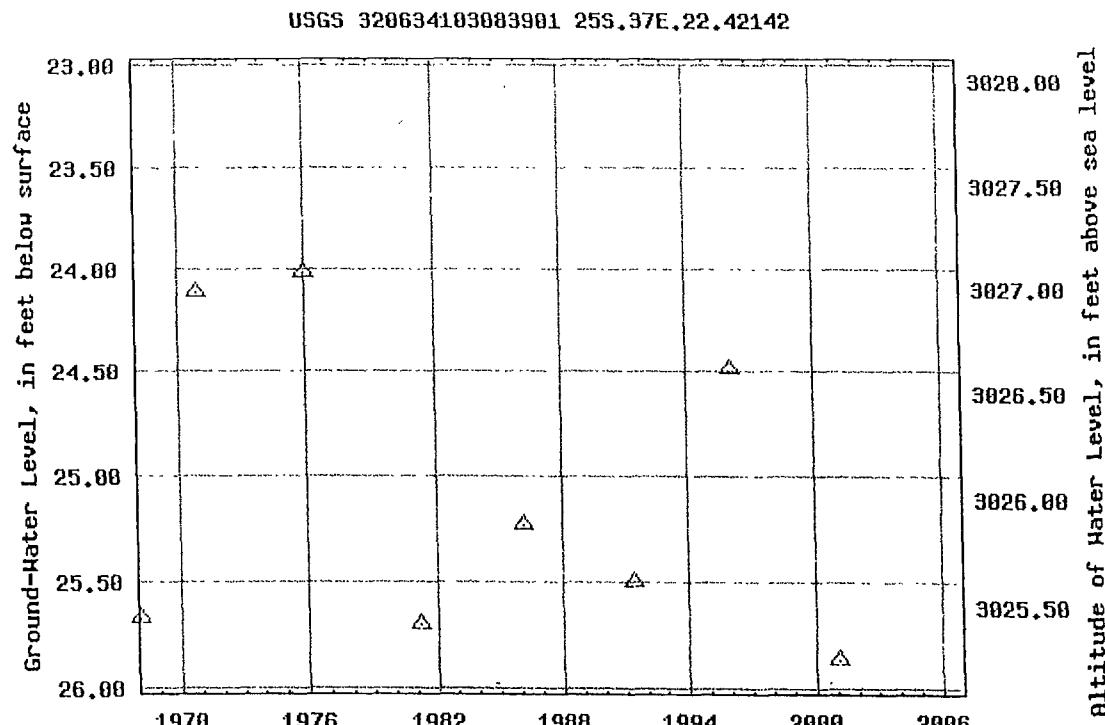
Output formats

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 WaterGeographic Area:
New Mexico

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.

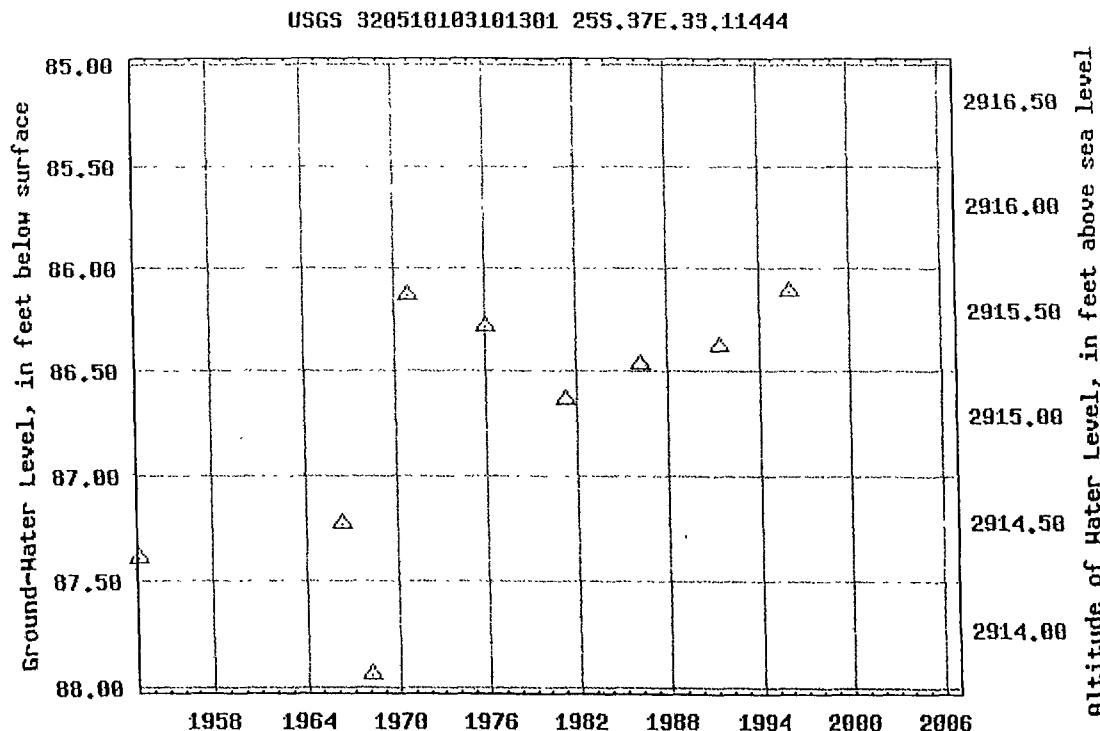
Output formats

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

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

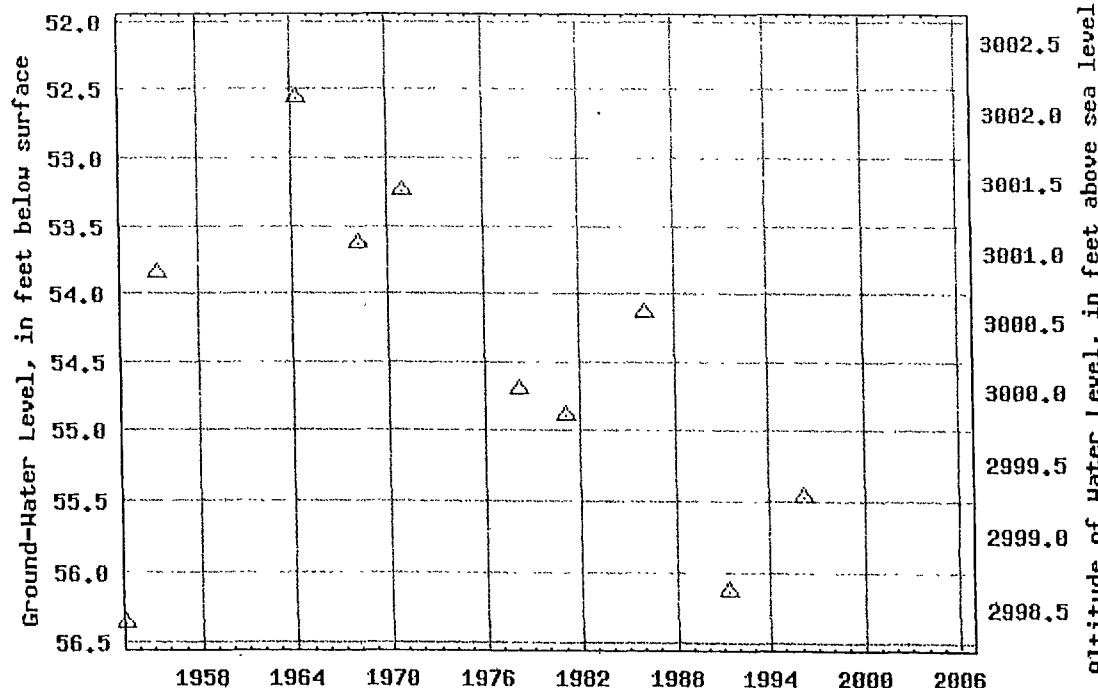
Table of data

Tab-separated data

Graph of data

Reselect period

USGS 320547103065702 25S.37E.25.23332A



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

Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

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



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

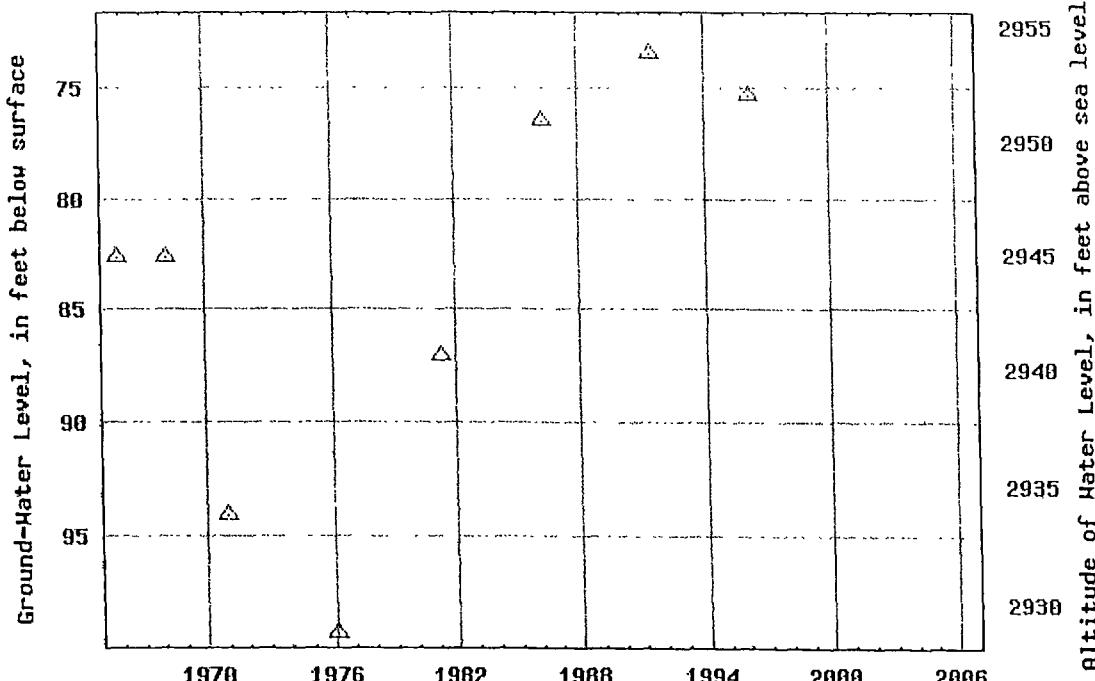
Table of data

Tab-separated data

Graph of data

Reselect period

USGS 320550103081001 25S.37E.26.143232



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



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



Lea County, New Mexico

Hydrologic Unit Code 13070007

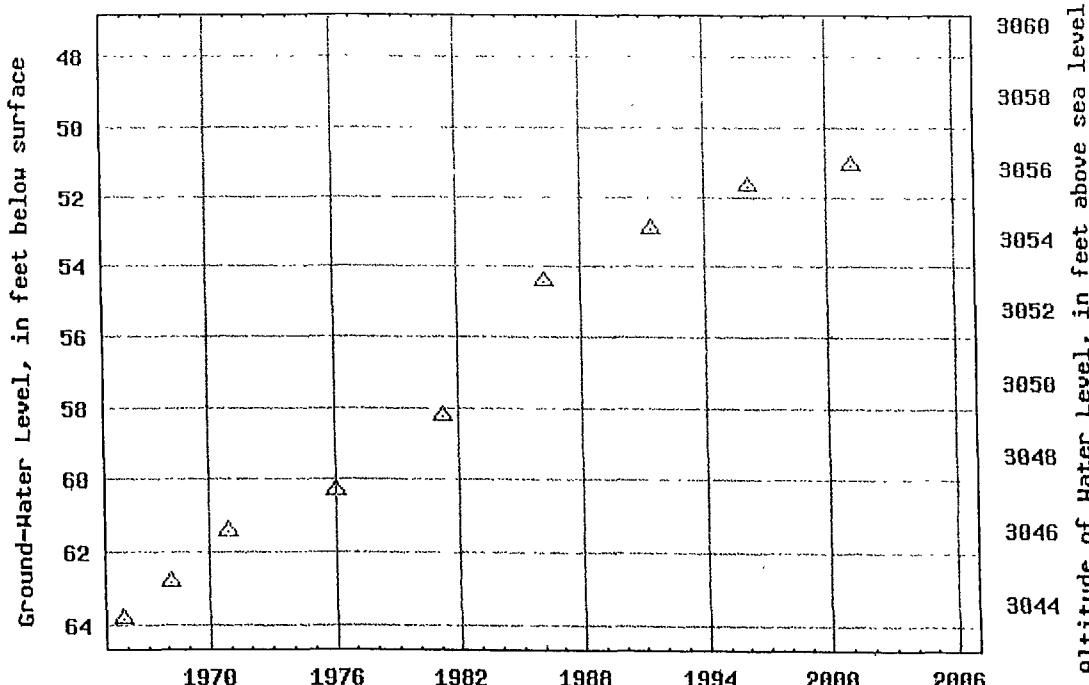
Latitude 32°07'30", Longitude 103°11'48" NAD27

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](#)**USGS 320730103114801 25S.37E.18.421110**

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

Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

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



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.

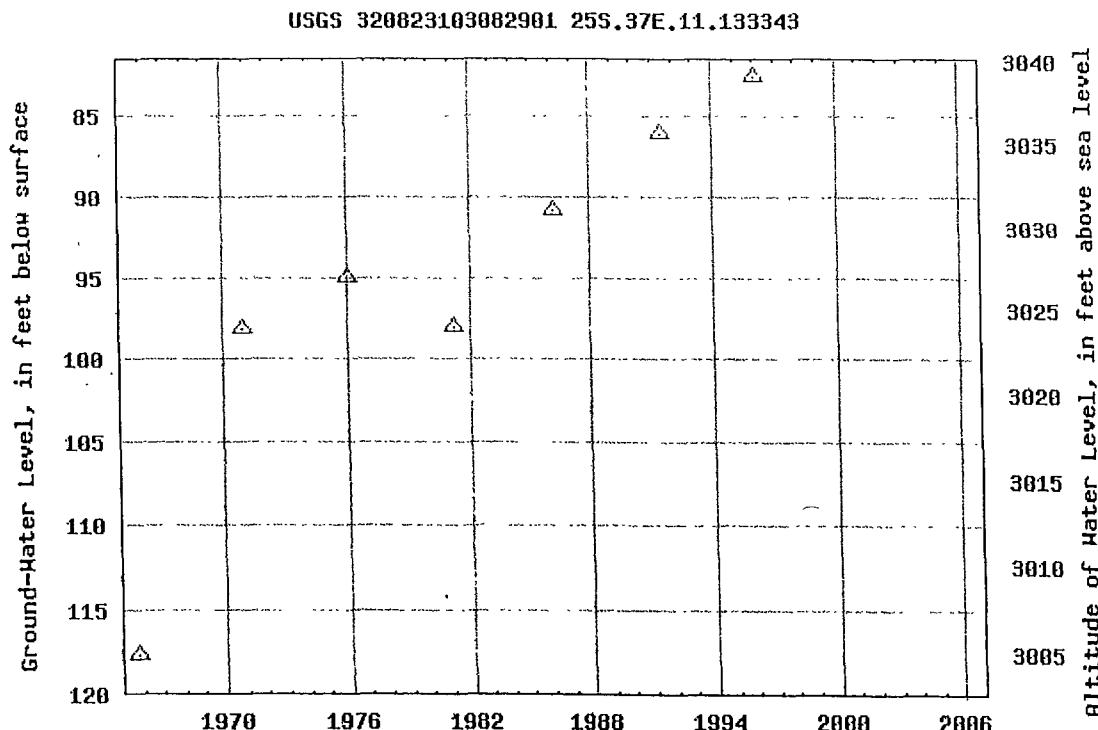
Output formats

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 WaterGeographic Area:
New Mexico

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



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

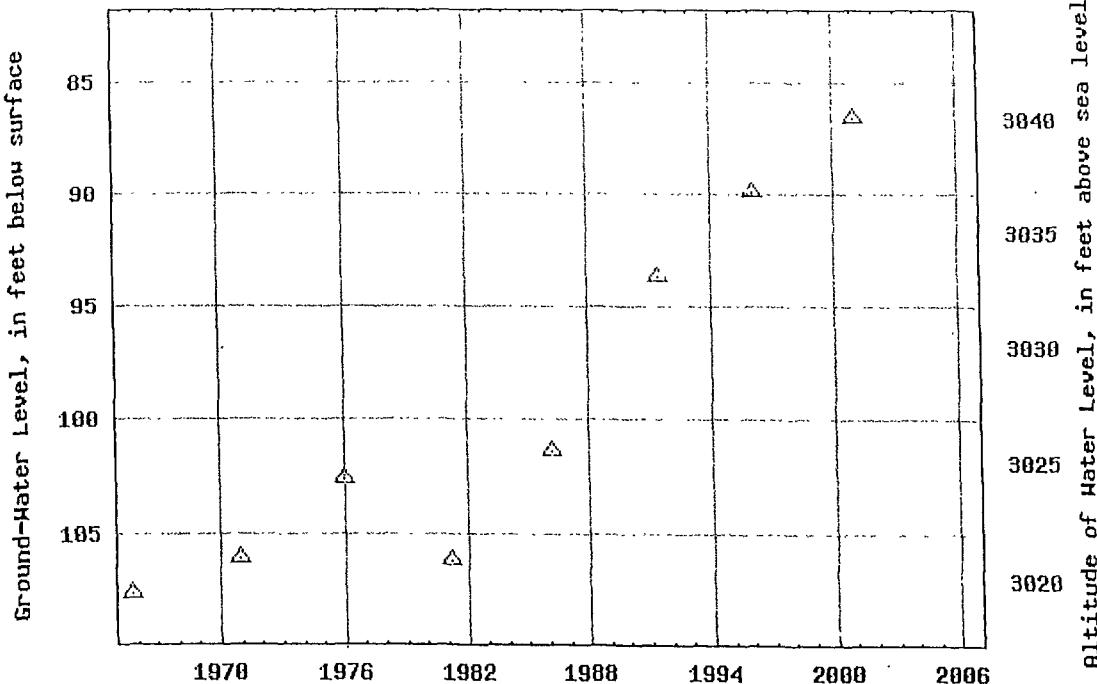
Table of data

Tab-separated data

Graph of data

Reselect period

USGS 320850103080501 25S.37E.02.344141



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

Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

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



Lea County, New Mexico

Hydrologic Unit Code 13070007

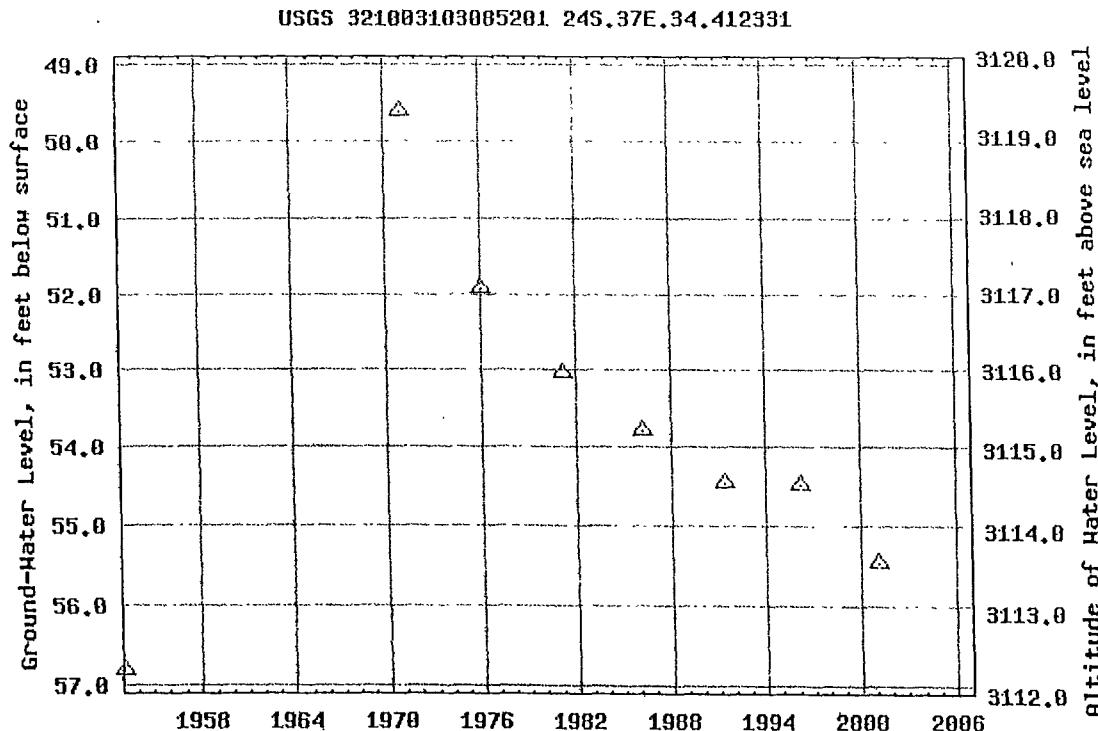
Latitude 32°10'03", Longitude 103°08'52" NAD27

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 WaterGeographic 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

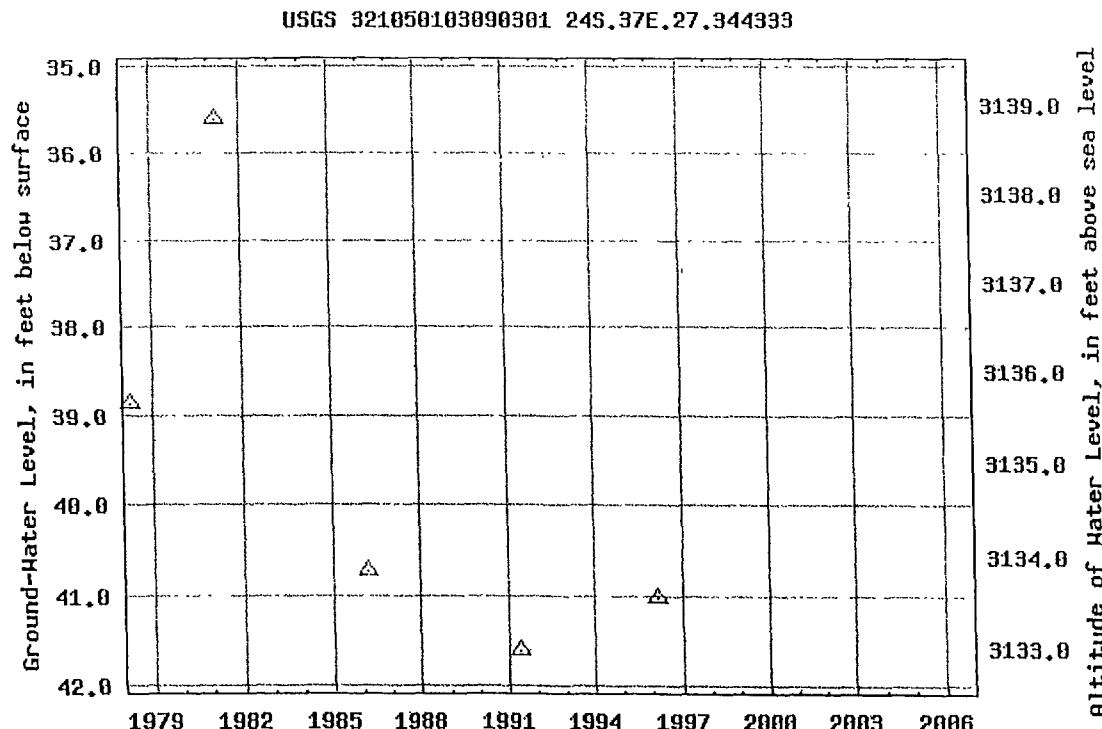
Latitude 32°10'50", Longitude 103°09'03" NAD27

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 WaterGeographic Area:
New Mexico

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



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

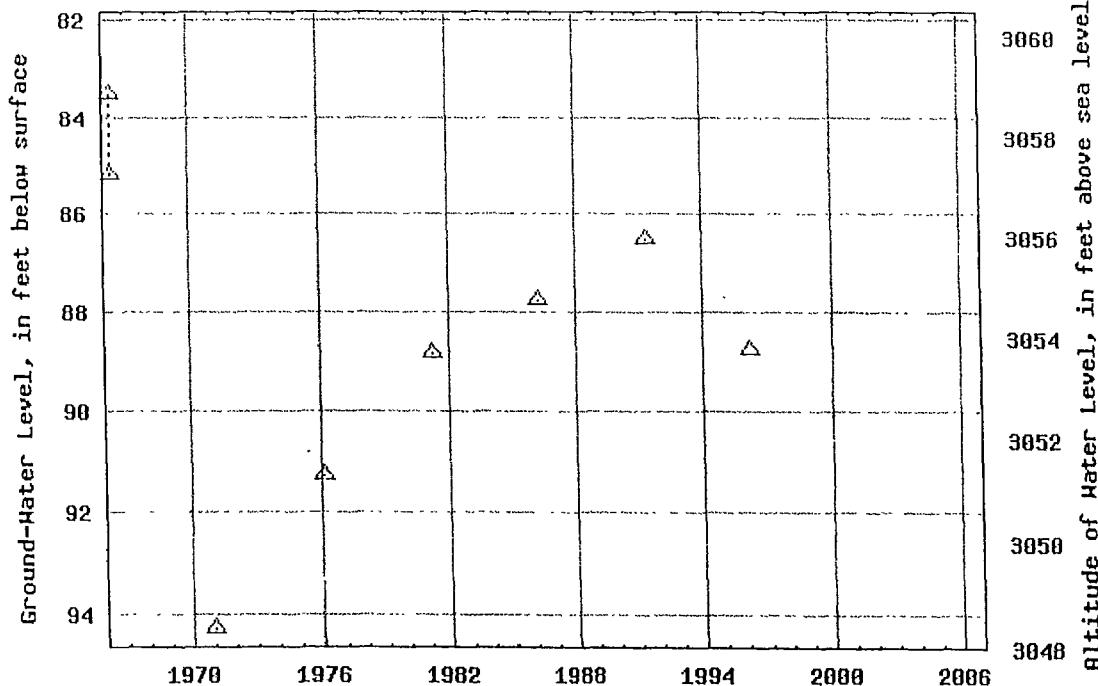
The depth of the well is 135 feet below land surface.

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](#)

USGS 321105103064901 24S.37E.25.234121



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

Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

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



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

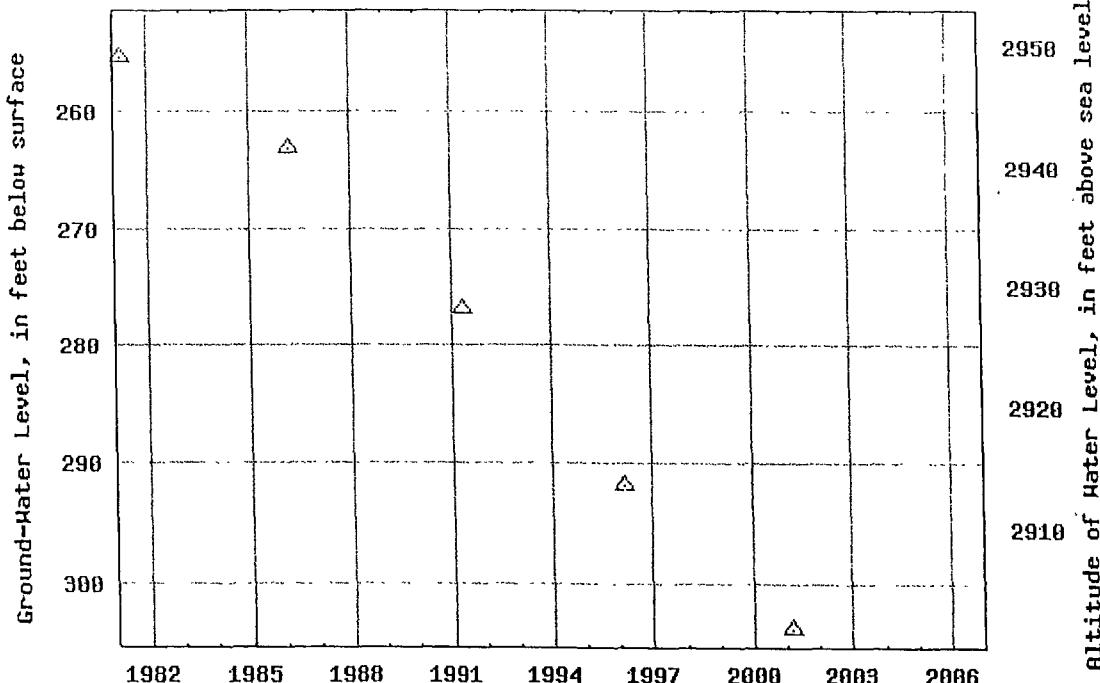
Table of data

Tab-separated data

Graph of data

Reselect period

USGS 321125103093001 24S.37E.28.242233



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

Water Resources

Data Category:
Ground WaterGeographic 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

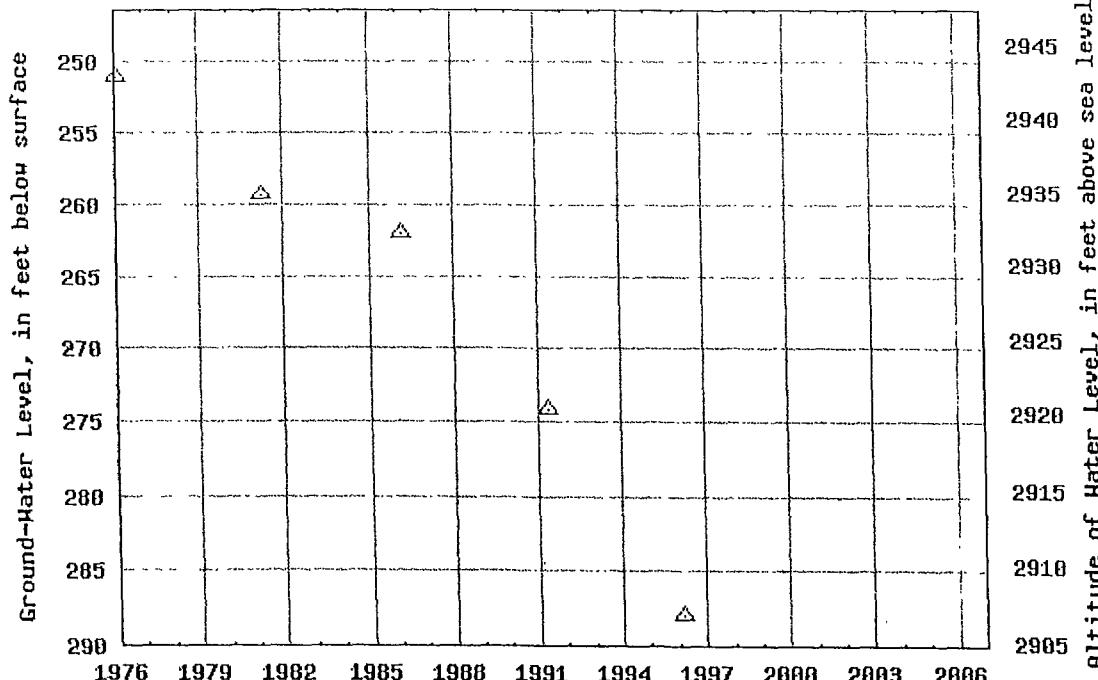
Table of data

Tab-separated data

Graph of data

Reselect period

USGS 321045103092301 24S.37E.27.332111



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

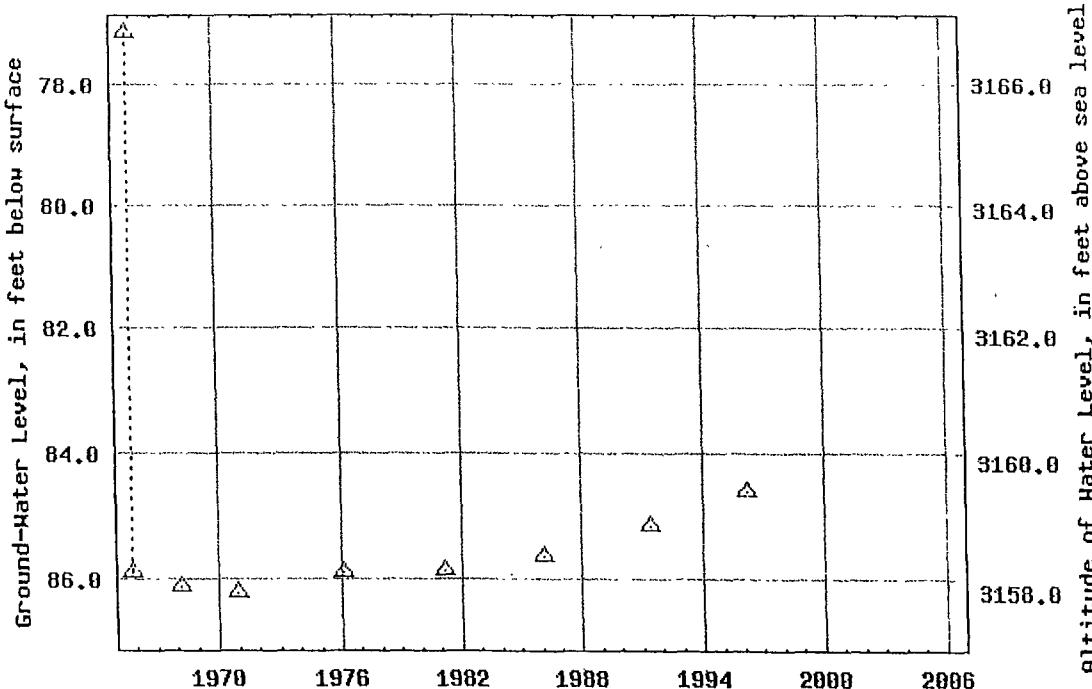
Latitude 32°12'35", Longitude 103°09'47" NAD27

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

USGS 321235103094701 24S.37E.16.42313



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

Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

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

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.

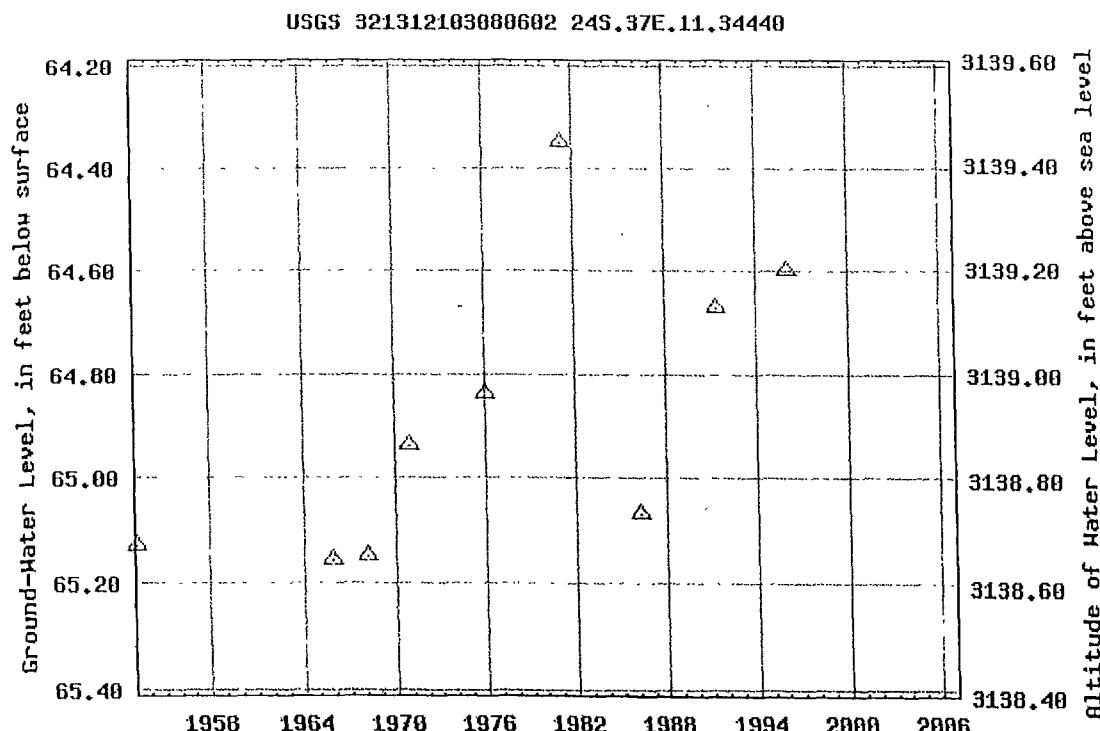
Output formats

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 WaterGeographic 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

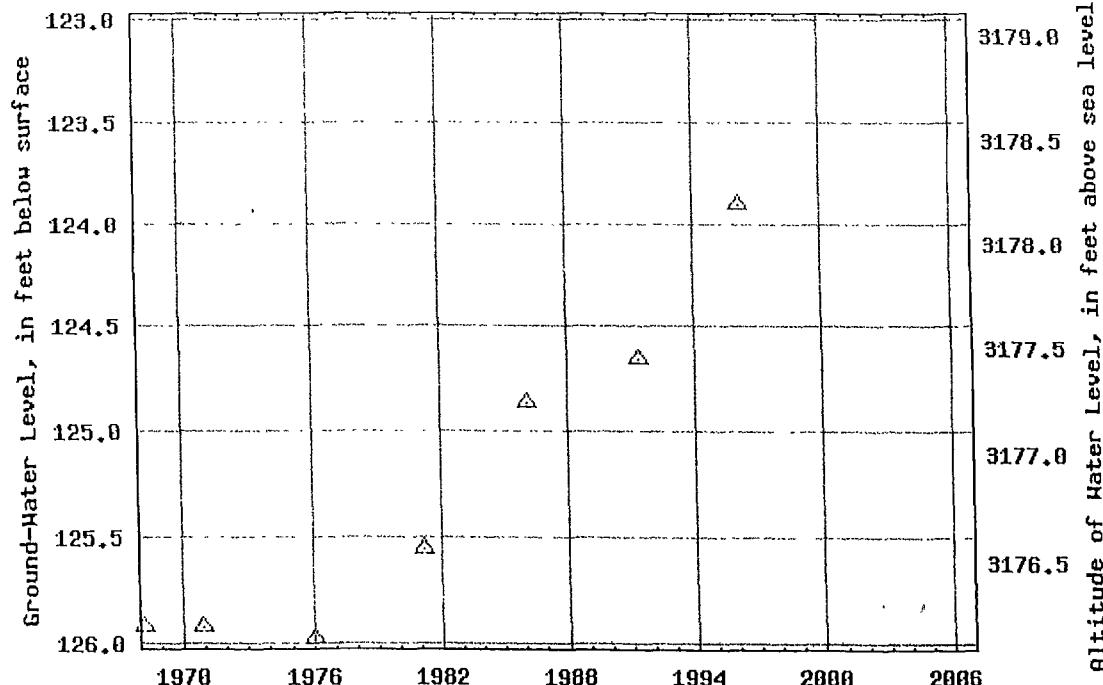
Ground-water: Levels

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](#)

USGS 321219103120401 24S.37E.18.433332



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

Water Resources

Data Category:
Ground WaterGeographic 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

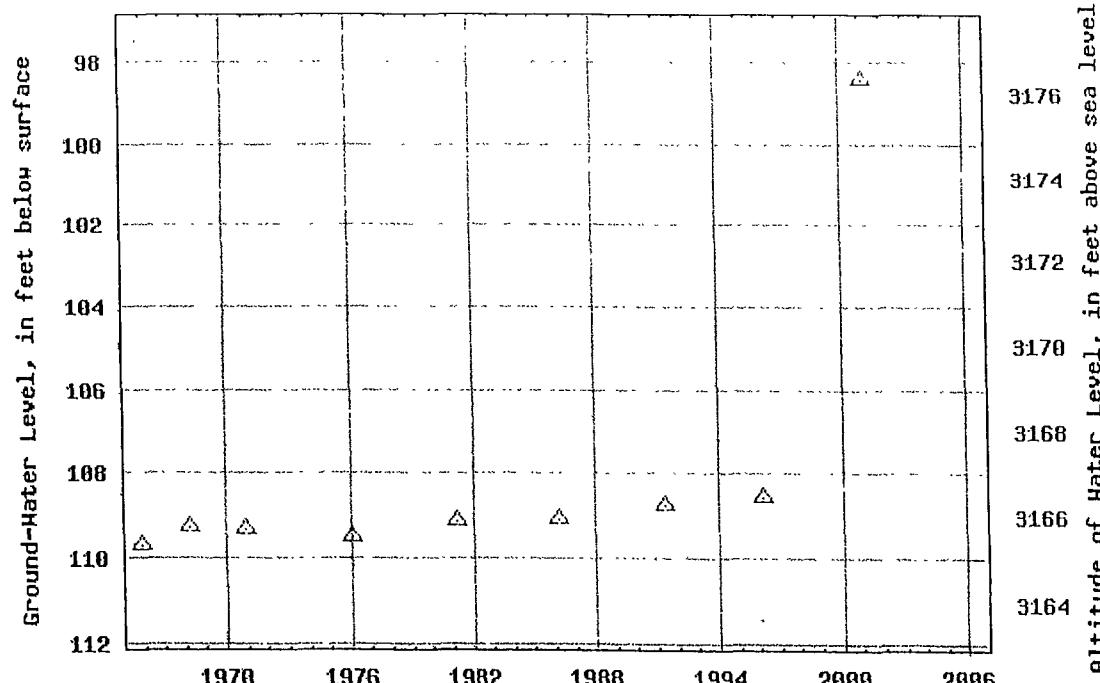
Table of data

Tab-separated data

Graph of data

Reselect period

USGS 321316103094001 24S.37E.09.444111



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

Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

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



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

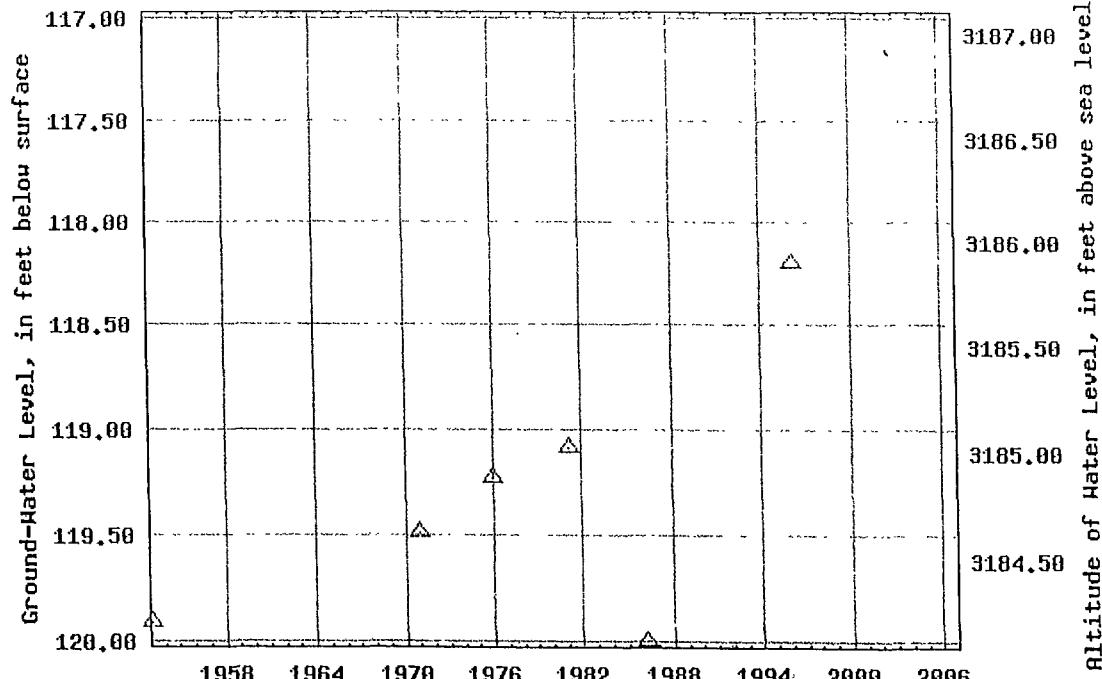
Table of data

Tab-separated data

Graph of data

Reselect period

USGS 321319103115701 24S.37E.07.431244



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

Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

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



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

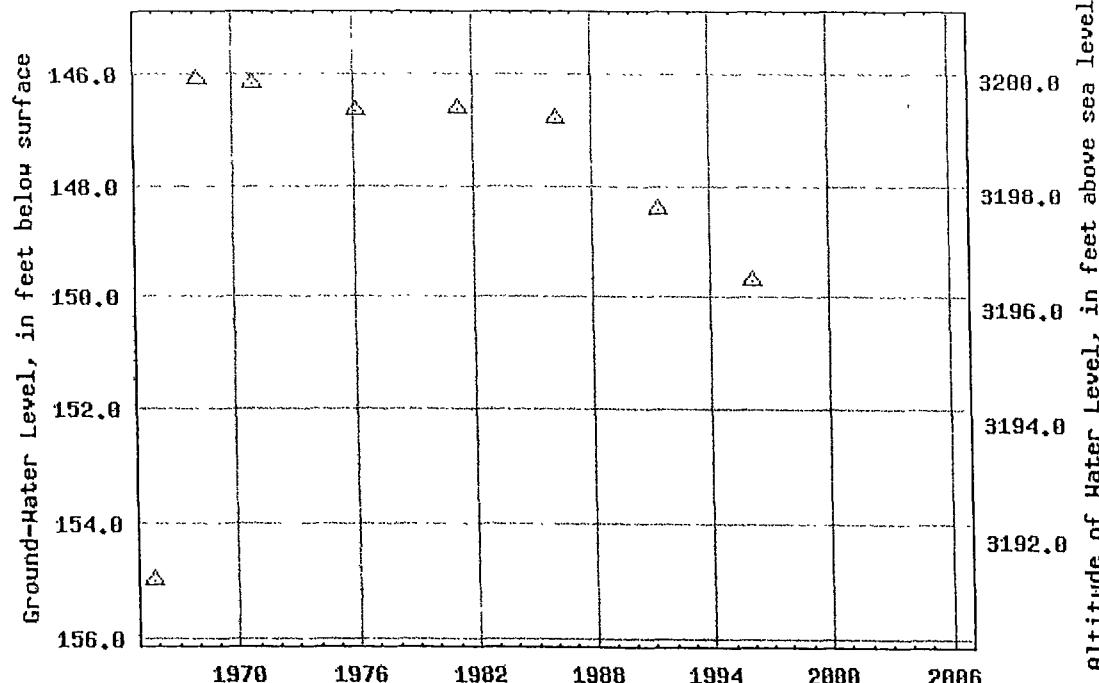
Table of data

Tab-separated data

Graph of data

Reselect period

USGS 321215103134302 24S.36E.23.222132



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

Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

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



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.

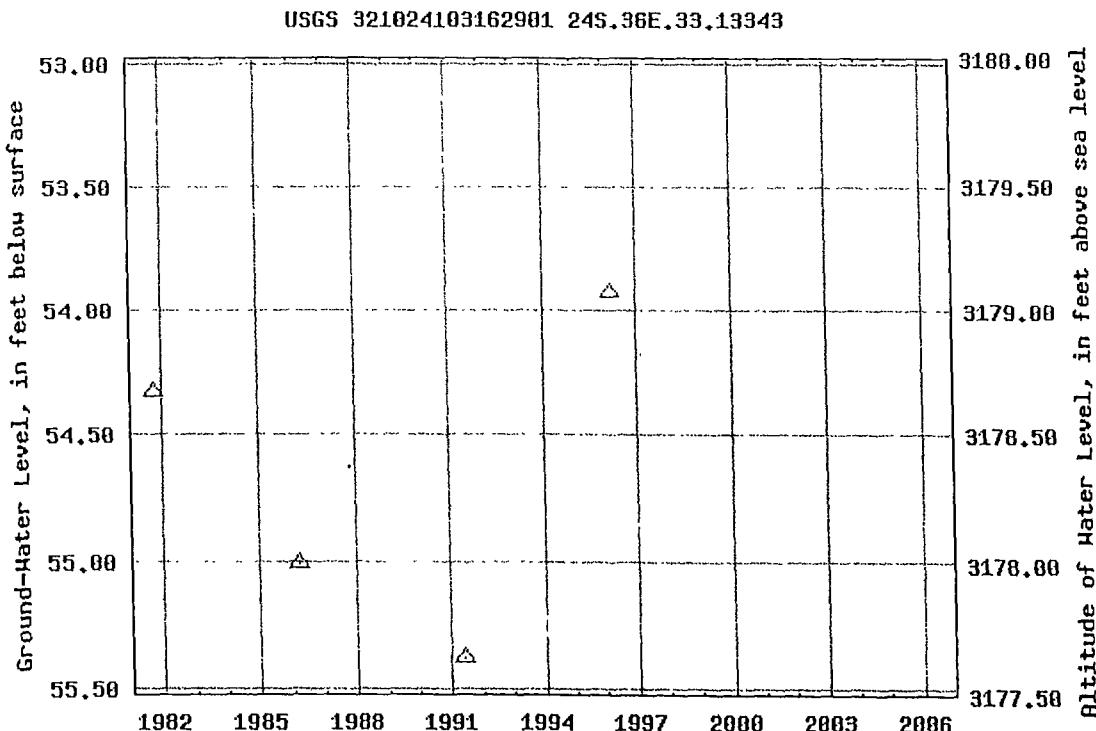
Output formats

Table of data

Tab-separated data

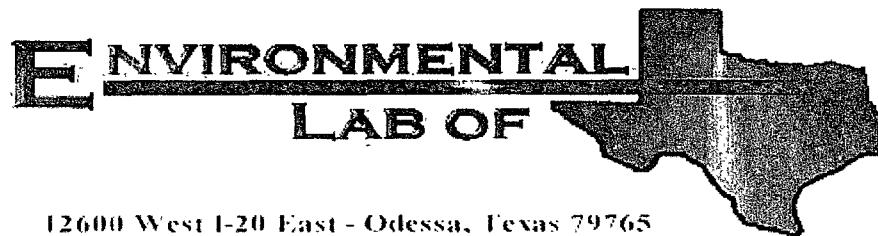
Graph of data

Reselect period



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

APPENDIX C



A Xenco Laboratories Company

Analytical Report

Prepared for:

Ike Tavarez

Highlander Environmental Corp.
1910 N. Big Spring St.
Midland, TX 79705

Project: COG/ Jalmat #12 Well

Project Number: 2968

Location: Lea County, NM

Lab Order Number: 7C21014

Report Date: 03/30/07

Highlander Environmental Corp
1910 N Big Spring St
Midland TX, 79705

Project COG/ Jalmat #12 Well
Project Number 2968
Project Manager Ike Tavarez

Fax (432) 682-3946

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AH-1 (0'-1 0') BEB	7C21014-01	Soil	03/20/07 00 00	03-21-2007 16 00
AH-1 (1 0'-1.5') BEB	7C21014-02	Soil	03/20/07 00 00	03-21-2007 16.00
AH-1 (2 0'-2 5') BEB	7C21014-03	Soil	03/20/07 00 00	03-21-2007 16.00
AH-1 (3 0'-3 5') BEB	7C21014-04	Soil	03/20/07 00 00	03-21-2007 16 00
AH-1 (4 0'-4.5') BEB	7C21014-05	Soil	03/20/07 00:00	03-21-2007 16 00
AH-1 (6 0'-6.5') BEB	7C21014-06	Soil	03/20/07 00 00	03-21-2007 16 00
AH-2 (0-1 0') BEB	7C21014-07	Soil	03/20/07 00 00	03-21-2007 16.00
AH-2 (1 0'-1.5') BEB	7C21014-08	Soil	03/20/07 00 00	03-21-2007 16 00
AH-2 (2 0'-2 5') BEB	7C21014-09	Soil	03/20/07 00 00	03-21-2007 16 00
AH-2 (3 0'-3 5') BEB	7C21014-10	Soil	03/20/07 00 00	03-21-2007 16 00
AH-2 (4 0'-4.5') BEB	7C21014-11	Soil	03/20/07 00 00	03-21-2007 16 00
AH-2 (6 0'-6 5') BEB	7C21014-12	Soil	03/20/07 00 00	03-21-2007 16 00
AH-3 (0-1 0') BEB	7C21014-13	Soil	03/20/07 00 00	03-21-2007 16 00
AH-3 (1 0'-1 5') BEB	7C21014-14	Soil	03/20/07 00 00	03-21-2007 16 00
AH-3 (2 0'-2 5') BEB	7C21014-15	Soil	03/20/07 00 00	03-21-2007 16 00
AH-3 (3 0'-3 5') BEB	7C21014-16	Soil	03/20/07 00 00	03-21-2007 16 00
AH-3 (4 0'-4 5') BEB	7C21014-17	Soil	03/20/07 00 00	03-21-2007 16 00
AH-3 (6 0'-6 5') BEB	7C21014-18	Soil	03/20/07 00 00	03-21-2007 16 00
AH-3 (8 0'-8 5') BEB	7C21014-19	Soil	03/20/07 00 00	03-21-2007 16 00
AH-4 (0-1 0') BEB	7C21014-20	Soil	03/20/07 00 00	03-21-2007 16.00
AH-4 (1 0'-1 5') BEB	7C21014-21	Soil	03/20/07 00 00	03-21-2007 16 00
AH-4 (2 0'-2 5') BEB	7C21014-22	Soil	03/20/07 00 00	03-21-2007 16 00
AH-4 (3 0'-3 5') BEB	7C21014-23	Soil	03/20/07 00 00	03-21-2007 16 00
AH-4 (4 0'-4 5') BEB	7C21014-24	Soil	03/20/07 00 00	03-21-2007 16 00
AH-5 (0-1 0') BEB	7C21014-25	Soil	03/20/07 00 00	03-21-2007 16 00
AH-5 (1 0'-1 5') BEB	7C21014-26	Soil	03/20/07 00 00	03-21-2007 16 00
AH-6 (0-1 0') BEB	7C21014-27	Soil	03/20/07 00 00	03-21-2007 16 00
AH-6 (1 0'-1 5') BEB	7C21014-28	Soil	03/20/07 00 00	03-21-2007 16'00

Highlander Environmental Corp
1910 N Big Spring St
Midland TX, 79705

Project COG/ Jalmat #12 Well
Project Number 2968
Project Manager Ike Tavarez

Fax (432) 682-3946

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AH-1 (0-1.0') BEB (7C21014-01) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC72209	03/22/07	03/27/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	"
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	"
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	"
<i>Surrogate: 1-Chlorooctane</i>		113 %	70-130		"	"	"	"	"
<i>Surrogate: 1-Chlorooctadecane</i>		126 %	70-130		"	"	"	"	"
AH-2 (0-1.0') BEB (7C21014-07) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC72209	03/22/07	03/27/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	"
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	"
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	"
<i>Surrogate: 1-Chlorooctane</i>		81.2 %	70-130		"	"	"	"	"
<i>Surrogate: 1-Chlorooctadecane</i>		84.7 %	70-130		"	"	"	"	"
AH-3 (0-1.0') BEB (7C21014-13) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC72209	03/22/07	03/27/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	"
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	"
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	"
<i>Surrogate: 1-Chlorooctane</i>		112 %	70-130		"	"	"	"	"
<i>Surrogate: 1-Chlorooctadecane</i>		127 %	70-130		"	"	"	"	"
AH-4 (0-1.0') BEB (7C21014-20) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC72209	03/22/07	03/27/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	"
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	"
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	"
<i>Surrogate: 1-Chlorooctane</i>		123 %	70-130		"	"	"	"	"
<i>Surrogate: 1-Chlorooctadecane</i>		130 %	70-130		"	"	"	"	"

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Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AH-5 (0-1.0') BEB (7C21014-25) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EC72907	03/29/07	03/30/07	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.0 %	75-125		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		82.0 %	75-125		"	"	"	"	
Carbon Ranges C6-C12	16.9	10.0	mg/kg dry	1	EC72209	03/22/07	03/27/07	EPA 8015M	
Carbon Ranges C12-C28	79.4	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	21.5	10.0	"	"	"	"	"	"	
Total Hydrocarbons	118	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		116 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		128 %	70-130		"	"	"	"	
AH-6 (0-1.0') BEB (7C21014-27) Soil									
Benzene	ND	0.00200	mg/kg dry	2	EC72907	03/29/07	03/29/07	EPA 8021B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00200	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00200	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		85.4 %	75-125		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		80.4 %	75-125		"	"	"	"	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC72209	03/22/07	03/27/07	EPA 8015M	
Carbon Ranges C12-C28	18.2	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	J [4.11]	10.0	"	"	"	"	"	"	J
Total Hydrocarbons	18.2	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		167 %	70-130		"	"	"	"	S-04
<i>Surrogate: 1-Chlorooctadecane</i>		174 %	70-130		"	"	"	"	S-04

Highlander Environmental Corp 1910 N Big Spring St Midland TX, 79705	Project COG/ Jalmat #12 Well Project Number 2968 Project Manager Ike Tavarez	Fax (432) 682-3946
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General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
AH-1 (0-1.0') BEB (7C21014-01) Soil									
Chloride	2980	40.0	mg/kg Wet	2	EC72805	03/28/07	03/28/07	SW 846 9253	
% Moisture	11.5	0.1	%	1	EC72303	03/22/07	03/22/07	% calculation	
AH-1 (1.0'-1.5') BEB (7C21014-02) Soil									
Chloride	1490	40.0	mg/kg Wet	2	EC72805	03/28/07	03/28/07	SW 846 9253	
AH-1 (2.0'-2.5') BEB (7C21014-03) Soil									
Chloride	2340	40.0	mg/kg Wet	2	EC72805	03/28/07	03/28/07	SW 846 9253	
AH-1 (3.0'-3.5') BEB (7C21014-04) Soil									
Chloride	1910	40.0	mg/kg Wet	2	EC72805	03/28/07	03/28/07	SW 846 9253	
AH-1 (4.0'-4.5') BEB (7C21014-05) Soil									
Chloride	510	40.0	mg/kg Wet	2	EC72805	03/28/07	03/28/07	SW 846 9253	
AH-1 (6.0'-6.5') BEB (7C21014-06) Soil									
Chloride	681	40.0	mg/kg Wet	2	EC72805	03/28/07	03/28/07	SW 846 9253	
AH-2 (0-1.0') BEB (7C21014-07) Soil									
Chloride	2450	40.0	mg/kg Wet	2	EC72805	03/28/07	03/28/07	SW 846 9253	
% Moisture	9.7	0.1	%	1	EC72303	03/22/07	03/22/07	% calculation	
AH-2 (1.0'-1.5') BEB (7C21014-08) Soil									
Chloride	213	40.0	mg/kg Wet	2	EC72805	03/28/07	03/28/07	SW 846 9253	
AH-2 (2.0'-2.5') BEB (7C21014-09) Soil									
Chloride	298	40.0	mg/kg Wet	2	EC72805	03/28/07	03/28/07	SW 846 9253	
AH-2 (3.0'-3.5') BEB (7C21014-10) Soil									
Chloride	574	40.0	mg/kg Wet	2	EC72805	03/28/07	03/28/07	SW 846 9253	

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Project COG/ Jalmat #12 Well
Project Number 2968
Project Manager Ike Tavarez

Fax: (432) 682-3946

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AH-2 (4.0'-4.5') BEB (7C21014-11) Soil									
Chloride	2130	40.0	mg/kg Wet	2	EC72805	03/28/07	03/28/07	SW 846 9253	
AH-2 (6.0'-6.5') BEB (7C21014-12) Soil									
Chloride	191	40.0	mg/kg Wet	2	EC72809	03/28/07	03/28/07	SW 846 9253	
AH-3 (0-1.0') BEB (7C21014-13) Soil									
Chloride	936	40.0	mg/kg Wet	2	EC72809	03/28/07	03/28/07	SW 846 9253	
% Moisture	11.9	0.1	%	1	EC72303	03/22/07	03/22/07	% calculation	
AH-3 (1.0'-1.5') BEB (7C21014-14) Soil									
Chloride	95.7	40.0	mg/kg Wet	2	EC72809	03/28/07	03/28/07	SW 846 9253	
AH-3 (2.0'-2.5') BEB (7C21014-15) Soil									
Chloride	181	40.0	mg/kg Wet	2	EC72809	03/28/07	03/28/07	SW 846 9253	
AH-3 (3.0'-3.5') BEB (7C21014-16) Soil									
Chloride	702	40.0	mg/kg Wet	2	EC72809	03/28/07	03/28/07	SW 846 9253	
AH-3 (4.0'-4.5') BEB (7C21014-17) Soil									
Chloride	1400	40.0	mg/kg Wet	2	EC72809	03/28/07	03/28/07	SW 846 9253	
AH-3 (6.0'-6.5') BEB (7C21014-18) Soil									
Chloride	425	40.0	mg/kg Wet	2	EC72809	03/28/07	03/28/07	SW 846 9253	
AH-3 (8.0'-8.5') BEB (7C21014-19) Soil									
Chloride	85.1	40.0	mg/kg Wet	2	EC72809	03/28/07	03/28/07	SW 846 9253	
AH-4 (0-1.0') BEB (7C21014-20) Soil									
Chloride	330	40.0	mg/kg Wet	2	EC72809	03/28/07	03/28/07	SW 846 9253	
% Moisture	11.7	0.1	%	1	EC72303	03/22/07	03/22/07	% calculation	

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Project COG/ Jalmat #12 Well
Project Number 2968
Project Manager Ike Tavarez

Fax: (432) 682-3946

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AH-4 (1.0'-1.5') BEB (7C21014-21) Soil									
Chloride	63.8	40.0	mg/kg Wet	2	EC72809	03/28/07	03/28/07	SW 846 9253	
AH-4 (2.0'-2.5') BEB (7C21014-22) Soil									
Chloride	85.1	40.0	mg/kg Wet	2	EC72809	03/28/07	03/28/07	SW 846 9253	
AH-4 (3.0'-3.5') BEB (7C21014-23) Soil									
Chloride	95.7	40.0	mg/kg Wet	2	EC72809	03/28/07	03/28/07	SW 846 9253	
AH-4 (4.0'-4.5') BEB (7C21014-24) Soil									
Chloride	106	40.0	mg/kg Wet	2	EC72809	03/28/07	03/28/07	SW 846 9253	
AH-5 (0-1.0') BEB (7C21014-25) Soil									
Chloride	2130	40.0	mg/kg Wet	2	EC72809	03/28/07	03/28/07	SW 846 9253	
% Moisture	17.7	0.1	%	1	EC72303	03/22/07	03/22/07	% calculation	
AH-5 (1.0'-1.5') BEB (7C21014-26) Soil									
Chloride	851	40.0	mg/kg Wet	2	EC72809	03/28/07	03/28/07	SW 846 9253	
AH-6 (0-1.0') BEB (7C21014-27) Soil									
Chloride	3080	40.0	mg/kg Wet	2	EC72809	03/28/07	03/28/07	SW 846 9253	
% Moisture	13.4	0.1	%	1	EC72303	03/22/07	03/22/07	% calculation	
AH-6 (1.0'-1.5') BEB (7C21014-28) Soil									
Chloride	553	40.0	mg/kg Wet	2	EC72809	03/28/07	03/28/07	SW 846 9253	

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Project COG/ Jalmat #12 Well
Project Number 2968
Project Manager Ike Tavarez

Fax (432) 682-3946

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
Batch EC72209 - Solvent Extraction (GC)										
Blank (EC72209-BLK1)										
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	48.4		mg/kg	50.0		96.8		70-130		
Surrogate 1-Chlorooctadecane	54.2		"	50.0		108		70-130		
LCS (EC72209-BS1)										
Carbon Ranges C6-C12	605	10.0	mg/kg wet	500		121		75-125		
Carbon Ranges C12-C28	488	10.0	"	500		97.6		75-125		
Carbon Ranges C28-C35	ND	10.0	"	0.00				75-125		
Total Hydrocarbons	1090	10.0	"	1000		109		75-125		
Surrogate: 1-Chlorooctane	58.1		mg/kg	50.0		116		70-130		
Surrogate 1-Chlorooctadecane	60.0		"	50.0		120		70-130		
Calibration Check (EC72209-CCV1)										
Carbon Ranges C6-C12	215		mg/kg	250		86.0		80-120		
Carbon Ranges C12-C28	207		"	250		82.8		80-120		
Total Hydrocarbons	422		"	500		84.4		80-120		
Surrogate: 1-Chlorooctane	62.3		"	50.0		125		70-130		
Surrogate 1-Chlorooctadecane	64.9		"	50.0		130		70-130		
Matrix Spike (EC72209-MS1)										
	Source: 7C21014-13				Prepared	03/22/07	Analyzed	03/27/07		
Carbon Ranges C6-C12	667	10.0	mg/kg dry	568	ND	117		75-125		
Carbon Ranges C12-C28	554	10.0	"	568	ND	97.5		75-125		
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND			75-125		
Total Hydrocarbons	1220	10.0	"	1140	ND	107		75-125		
Surrogate: 1-Chlorooctane	63.2		mg/kg	50.0		126		70-130		
Surrogate 1-Chlorooctadecane	61.4		"	50.0		123		70-130		

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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Batch EC72209 - Solvent Extraction (GC)

Matrix Spike Dup (EC72209-MSD1)	Source: 7C21014-13		Prepared	03/22/07	Analyzed	03/27/07			
Carbon Ranges C6-C12	648	10.0	mg/kg dry	568	ND	114	75-125	2.60	20
Carbon Ranges C12-C28	555	10.0	"	568	ND	97.7	75-125	0.205	20
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20
Total Hydrocarbons	1200	10.0	"	1140	ND	105	75-125	1.89	20
Surrogate: 1-Chlorooctane	64.6		mg/kg	50.0		129	70-130		
Surrogate: 1-Chlorooctadecane	63.8		"	50.0		128	70-130		

Batch EC72907 - EPA 5030C (GC)

Blank (EC72907-BLK1)	Prepared & Analyzed 03/29/07				
Benzene	ND	0.00100	mg/kg wet		
Toluene	ND	0.00100	"		
Ethylbenzene	ND	0.00100	"		
Xylene (p/m)	ND	0.00100	"		
Xylene (o)	ND	0.00100	"		
Surrogate: a,a,a-Trifluorotoluene	50.4		ug/kg	50.0	101
Surrogate: 4-Bromo fluoro benzene	42.4		"	50.0	84.8
LCS (EC72907-BS1)	Prepared & Analyzed 03/29/07				
Benzene	0.0538	0.00100	mg/kg wet	0.0500	108
Toluene	0.0511	0.00100	"	0.0500	102
Ethylbenzene	0.0518	0.00100	"	0.0500	104
Xylene (p/m)	0.0952	0.00100	"	0.100	95.2
Xylene (o)	0.0536	0.00100	"	0.0500	107
Surrogate: a,a,a-Trifluorotoluene	52.0		ug/kg	50.0	104
Surrogate: 4-Bromo fluoro benzene	44.6		"	50.0	89.2

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Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
Batch EC72907 - EPA 5030C (GC)										
Calibration Check (EC72907-CCV1)										
Prepared 03/29/07 Analyzed 03/30/07										
Benzene	50.0		ug/kg	50.0		100	80-120			
Toluene	47.5		"	50.0		95.0	80-120			
Ethylbenzene	46.7		"	50.0		93.4	80-120			
Xylene (p/m)	87.0		"	100		87.0	80-120			
Xylene (o)	49.0		"	50.0		98.0	80-120			
Surrogate <i>a,a,a</i> -Trifluorotoluene	47.2		"	50.0		94.4	75-125			
Surrogate <i>4</i> -Bromofluorobenzene	41.8		"	50.0		83.6	75-125			
Matrix Spike (EC72907-MS1)										
Source: 7C21014-27 Prepared 03/29/07 Analyzed 03/30/07										
Benzene	0.107	0.00200	mg/kg dry	0.115	ND	93.0	80-120			
Toluene	0.101	0.00200	"	0.115	ND	87.8	80-120			
Ethylbenzene	0.104	0.00200	"	0.115	ND	90.4	80-120			
Xylene (p/m)	0.189	0.00200	"	0.231	ND	81.8	80-120			
Xylene (o)	0.105	0.00200	"	0.115	ND	91.3	80-120			
Surrogate <i>a,a,a</i> -Trifluorotoluene	44.5		ug/kg	50.0		89.0	75-125			
Surrogate <i>4</i> -Bromofluorobenzene	42.5		"	50.0		85.0	75-125			
Matrix Spike Dup (EC72907-MSD1)										
Source: 7C21014-27 Prepared 03/29/07 Analyzed 03/30/07										
Benzene	0.109	0.00200	mg/kg dry	0.115	ND	94.8	80-120	1.92	20	
Toluene	0.104	0.00200	"	0.115	ND	90.4	80-120	2.92	20	
Ethylbenzene	0.107	0.00200	"	0.115	ND	93.0	80-120	2.84	20	
Xylene (p/m)	0.194	0.00200	"	0.231	ND	84.0	80-120	2.65	20	
Xylene (o)	0.108	0.00200	"	0.115	ND	93.9	80-120	2.81	20	
Surrogate <i>a,a,a</i> -Trifluorotoluene	46.4		ug/kg	50.0		92.8	75-125			
Surrogate <i>4</i> -Bromofluorobenzene	41.5		"	50.0		83.0	75-125			

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Project Manager Ike Tavarez

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General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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Batch EC72303 - General Preparation (Prep)

Blank (EC72303-BLK1)					Prepared & Analyzed	03/22/06				
% Solids	0 0		%							
Duplicate (EC72303-DUP1)		Source: 7C21004-61			Prepared & Analyzed	03/22/06				
% Sohds	97 0		%		97 5			0.514	20	

Batch EC72805 - General Preparation (WetChem)

Blank (EC72805-BLK1)					Prepared & Analyzed	03/28/07				
Chloride	ND	20 0	mg/kg Wet							
LCS (EC72805-BS1)					Prepared & Analyzed.	03/28/07				
Chloride	95 7	20 0	mg/kg Wet	100	95 7	80-120				
Matrix Spike (EC72805-MS1)		Source: 7C21008-01			Prepared & Analyzed	03/28/07				
Chloride	1280	40 0	mg/kg Wet	500	723	111	80-120			
Matrix Spike Dup (EC72805-MSD1)		Source: 7C21008-01			Prepared & Analyzed	03/28/07				
Chloride	1320	40 0	mg/kg Wet	500	723	119	80-120	3 08	20	
Reference (EC72805-SRM1)					Prepared & Analyzed	03/28/07				
Chloride	51 0	20 0	mg/kg Wet	50 0	102	80-120				

Batch EC72809 - General Preparation (WetChem)

Blank (EC72809-BLK1)					Prepared & Analyzed	03/28/07				
Chloride	ND	20 0	mg/kg Wet							

Environmental Lab of Texas

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Page 10 of 12

Highlander Environmental Corp
1910 N Big Spring St
Midland TX, 79705

Project COG/ Jalmat #12 Well
Project Number 2968
Project Manager Ike Tavarez

Fax (432) 682-3946

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Notes
Batch EC72809 - General Preparation (WetChem)									
LCS (EC72809-BS1) Prepared & Analyzed 03/28/07									
Chloride	95.7	20.0	mg/kg Wet	100	95.7	80-120			
Matrix Spike (EC72809-MS1) Source: 7C21014-12 Prepared & Analyzed 03/28/07									
Chloride	723	40.0	mg/kg Wet	500	191	106	80-120		
Matrix Spike Dup (EC72809-MSD1) Source: 7C21014-12 Prepared & Analyzed 03/28/07									
Chloride	702	40.0	mg/kg Wet	500	191	102	80-120	2.95	20
Reference (EC72809-SRM1) Prepared & Analyzed 03/28/07									
Chloride	51.0	20.0	mg/kg Wet	50.0	102	80-120			

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Page 11 of 12

Highlander Environmental Corp
1910 N Big Spring St
Midland TX, 79705

Project: COG/Jalmat #12 Well
Project Number: 2968
Project Manager: Ike Tavarez

Fax: (432) 682-3946

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect
I	Detected but below the Reporting Limit therefore, result is an estimated concentration (CLP I-Flag)
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By

Date: 1/15/96

Brent Barron, Laboratory Director/Copp Technical Director
Celey D. Keene, Org. Tech Director
Raland K. Tuttle, Laboratory Consultant

James Mathis, QA QC Officer
Jeanne Mc Murray, Inorg. Tech Director

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Environmental Lab of Texas
A Xenco Laboratories Company

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Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559

Fax (432) 682-3946

ANALYSIS REQUEST (Circle or Specify Method No.)							
CLIENT NAME		SITE MANAGER		PRESERVATIVE METHOD			
COG		TKE Tavares		NONE			
PROJECT NO.		PROJECT NAME:					
2968		CC6 / Limat #17 Well					
LAB I.D.	DATE	TIME	COLUMN				
TC21014			CRAIB				
-C1	3/24/97	5	XAH-1 (5-10')	BEB	X	X	X
-C2			XAH-1 (11-215')	BEB	X	X	X
-C3			XAH-1 (20-25')	BEB	X	X	X
-C4			XAH-1 (3.5-3.5')	BEB	X	X	X
-C5			XAH-1 (40-45')	BEB	X	X	X
-C6			XAH-1 (60-6.5')	BEB	X	X	X
-C7			XAH-2 (0-10')	BEB	X	X	X
-C8			XAH-2 (10-15')	BEB	X	X	X
-C9			XAH-2 (20-2.5')	BEB	X	X	X
-C10	1		XAH-2 (30-3.5')	BEB	X	X	X
RELINQUISHED BY: <u>Signature</u>		Date: <u>3/21/97</u>	RECEIVED BY: <u>Signature</u>	Date: <u>3/20/97</u>	SAMPLED BY: <u>Print & Sign</u>		
RELINQUISHED BY: <u>Signature</u>		Date: <u>3/20/97</u>	RECEIVED BY: <u>Signature</u>	Date: <u>3/20/97</u>	RUSH LABS / <u>Print & Sign</u> Date: <u>3/20/97</u>		
RELINQUISHED BY: <u>Signature</u>		Date: <u>3/20/97</u>	RECEIVED BY: <u>Signature</u>	Date: <u>3/20/97</u>	SAMPLE SHIPPED BY: <u>Circle</u>		
RECEIVING LABORATORY ADDRESS		STATE: <u>TX</u>	ZIP: <u>79705</u>	PHONE: <u>4-6082</u>	FEDEX	EUPS	AIRMAIL #
CITY: <u>Midland</u>					HAND DELIVERED	OTHER	
REMARKS: <u>Run 3BTEX on highest TPH for oilfield</u>							
SAMPLE CONDITION WHEN RECEIVED:				LATRIX: <u>H-Bitter</u> <u>(9-5all)</u>	SD-Salt	SL-Sludge	2.0
				o-Air	o-Other		No

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Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.

Midland, Texas 79705

(432) 682-4559

Fax (432) 682-3946

CLIENT NAME:		SITE MANAGER:		PROJECT NAME:		MATRIX		DATE		TIME		PRESERVATIVE METHOD		NUMBER OF CONTAINERS		FILTERED (Y/N)		RCI		NONE		PCB's		PCBs Spec		Gamma Beta (Alt)		PLA (Abbeles)		PPD, TES, PH, TES, Chloride			
C06		T. Le Javelle		C06 / 11 Mat # 11 Well		GCRP		3/26/97		5		X AH - 3 (40'-4.5') BEB		1		X		X		X		X		X		X		X		X		X	
C06				Lia County, TX		GCRP		3/26/97		5		X AH - 2 (6.0'-6.5') BEB		1		X		X		X		X		X		X		X		X		X	
C06				SAMPLE IDENTIFICATION		GCRP		3/26/97		5		X AH - 3 (10'-10') BEB		1		X		X		X		X		X		X		X		X		X	
C06						GCRP		3/26/97		5		X AH - 3 (1.0'-1.5') BEB		1		X		X		X		X		X		X		X		X		X	
C06						GCRP		3/26/97		5		X AH - 3 (2.0'-2.5') BEB		1		X		X		X		X		X		X		X		X		X	
C06						GCRP		3/26/97		5		X AH - 3 (3.0'-3.5') BEB		1		X		X		X		X		X		X		X		X		X	
C06						GCRP		3/26/97		5		X AH - 3 (4.0'-4.5') BEB		1		X		X		X		X		X		X		X		X		X	
C06						GCRP		3/26/97		5		X AH - 3 (6.0'-6.5') BEB		1		X		X		X		X		X		X		X		X		X	
C06						GCRP		3/26/97		5		X AH - 3 (8.0'-8.5') BEB		1		X		X		X		X		X		X		X		X		X	
C06						GCRP		3/26/97		5		X AH - 4 (10'-10') BEB		1		X		X		X		X		X		X		X		X		X	
RELINQUISHED BY: (Signature) <i>[Signature]</i>		Date: 3/26/97		Time: 4:00		RECEIVED BY: (Signature)		Date: _____		Time: _____		RELINQUISHED BY: (Signature) <i>[Signature]</i>		Date: _____		Time: _____		RECEIVED BY: (Signature) <i>[Signature]</i>		Date: _____		Time: _____		RELINQUISHED BY: (Signature) <i>[Signature]</i>		Date: _____		Time: _____		RECEIVING LABORATORY: _____			
RELINQUISHED BY: (Signature) <i>[Signature]</i>		Date: 3/26/97		Time: 4:00		RECEIVED BY: (Signature)		Date: _____		Time: _____		RELINQUISHED BY: (Signature) <i>[Signature]</i>		Date: _____		Time: _____		RECEIVED BY: (Signature) <i>[Signature]</i>		Date: _____		Time: _____		RELINQUISHED BY: (Signature) <i>[Signature]</i>		Date: _____		Time: _____		RECEIVING LABORATORY: _____			
RELINQUISHED BY: (Signature) <i>[Signature]</i>		Date: 3/26/97		Time: 4:00		RECEIVED BY: (Signature)		Date: _____		Time: _____		RELINQUISHED BY: (Signature) <i>[Signature]</i>		Date: _____		Time: _____		RECEIVED BY: (Signature) <i>[Signature]</i>		Date: _____		Time: _____		RELINQUISHED BY: (Signature) <i>[Signature]</i>		Date: _____		Time: _____		RECEIVING LABORATORY: _____			
SAMPLE CONDITION WHEN RECEIVED:		STATE: _____		ZIP: _____		PHONE: _____		DATE: 3/26/97		TIME: 4:00		MATRIX: P-Water S-Egg		SD-Solid SL-Sludge O-Other		REMARKS: <i>[Signature]</i> 2:00 AM		RELINQUISHED BY: (Signature) <i>[Signature]</i>		Date: 3/26/97		Time: 4:00		RELINQUISHED BY: (Signature) <i>[Signature]</i>		Date: 3/26/97		Time: 4:00		RELINQUISHED BY: (Signature) <i>[Signature]</i>			

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Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682 4559

SITE MANAGER:

Mike Luecke

PROJECT NAME:

COB / Wall

SAMPLE IDENTIFICATION

LAB ID NUMBER	DATE	TIME	CONE CONE	HCL HNO3	ICE NONE	NUMBER OF CONTAINERS FILTERED (Y/N)	PRESERVATIVE METHOD	
							RCI	TCP Volatiles TCP Semivolatiles
-21	3/22/01	5	XAH -4 (10'-15')	BEB	X	X		
-22	1	5	XAH -4 (10'-15')	BEB	X	X		
-23		5	XAH -4 (30'-35')	BEB	X	X		
-24		5	XAH -4 (40'-45')	BEB	X	X		
-25		5	XAH -5 (0-10')	BEB	X	X		
-26		5	XAH -5 (10'-15')	BEB	X	X		
-27		5	XAH -6 (0-10')	BEB	X	X		
-28		5	XAH -6 (10'-15')	BEB	X	X		

RELINQUISHED BY: (Signature)	DATUM: 3/22/01	RECEIVED BY: (Signature)	DATUM: 3/22/01	SAMPLED BY: (Print & Sign)	DATUM: 3/22/01
<i>Mike Luecke</i>				Mike Taylor	3/22/01
RELINQUISHED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	SAMPLE SHIPPED BY: (Circle)	Time: _____
				STANDARD	
RELINQUISHED BY: (Signature)	Date: _____	RECEIVED BY: (Signature)	Date: _____	SHIPPING	AIRBILL # _____
RECEIVING LABORATORY ADDRESS:	STATE: _____	ZIP: _____	TIME: _____	OTHER: _____	OTHER: _____
CONTACT: _____	PHONE: _____	DATE: 3/22/01	TIME: 11:00 AM	HIGHLANDER CONTACT PERSON: _____	FAX# by: _____
SAMPLE CONDITION WHEN RECEIVED:	MATRIX: <input checked="" type="checkbox"/> Water <input type="checkbox"/> Air <input type="checkbox"/> Soil-Sediment <input type="checkbox"/> Other	SD-Status: <input checked="" type="checkbox"/> Sl-Shaque <input type="checkbox"/> Other	REMARKS: <i>Like Failure 2.0</i>	RUSH Charge: <input type="checkbox"/>	Authored: <input type="checkbox"/>

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Analytical Report 284669

for

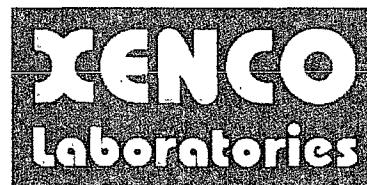
Highlander Environmental Corp.

Project Manager: Ike Tavarez

COG/ Jal Mat # 12 Well

2968

29-JUN-07



12600 West I-20 East Odessa, Texas 79765

NELAC certification numbers:

Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America



29-JUN-07

Project Manager: **Ike Tavarez**
Highlander Environmental Corp.
1910 N. Big Spring Street
Midland, TX 79705

Reference: XENCO Report No: 284669
COG/ Jal Mat # 12 Well
Project Address: Lea County, NM

Ike Tavarez:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 284669. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 284669 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron

Odessa Laboratory Director

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Sample Cross Reference 284669



Highlander Environmental Corp., Midland, TX
COG/ Jal Mat # 12 Well

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP # 1 0-1.0' BEB (2.5')	S	Jun-20-07 00:00		284669-001
SP # 1 1-1.5' BEB (2.5')	S	Jun-20-07 00:00		284669-002
SP # 1 2-2.5' BEB (2.5')	S	Jun-20-07 00:00		284669-003
SP # 2 0-1.0' BEB (6.0')	S	Jun-20-07 00:00		284669-004
SP # 2 1-1.5' BEB (6.0')	S	Jun-20-07 00:00		284669-005
SP # 2 2-2.5' BEB (6.0')	S	Jun-20-07 00:00		284669-006
SP # 2 3-3.5' BEB (6.0')	S	Jun-20-07 00:00		284669-007



Certificate of Analysis Summary 284669

Highlander Environmental Corp., Midland, TX



Project Name: COG/ Jal Mat # 12 Well

Project Id: 2968

Date Received in Lab: Jun-21-07 11:10 am

Contact: Ike Tavarez

Report Date: 29-JUN-07

Project Location: Lea County, NM

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i> 284669-001	<i>Lab Id:</i> 284669-002	<i>Lab Id:</i> 284669-003	<i>Lab Id:</i> 284669-004
	<i>Field Id:</i> SP # 1 0-1 0' BEB (2 5')	<i>Field Id:</i> SP # 1 1-1 5' BEB (2 5')	<i>Field Id:</i> SP # 1 2-2 5' BEB (2 5')	<i>Field Id:</i> SP # 2 0-1 0' BEB (6 0')
	<i>Depth:</i> SOIL	<i>Depth:</i> SOIL	<i>Depth:</i> SOIL	<i>Depth:</i> SOIL
	<i>Matrix:</i> Jun-20-07 00:00	<i>Matrix:</i> Jun-20-07 00:00	<i>Matrix:</i> Jun-20-07 00:00	<i>Matrix:</i> Jun-20-07 00:00
Inorganic Anions by EPA 300	<i>Extracted:</i> Jun-26-07 16:32	<i>Analyzed:</i> Jun-26-07 16:51	<i>Extracted:</i> Jun-26-07 17:10	<i>Analyzed:</i> Jun-26-07 17:29
	<i>Units/RL:</i> mg/kg RL	<i>Units/RL:</i> mg/kg RL	<i>Units/RL:</i> mg/kg RL	<i>Units/RL:</i> mg/kg RL
Chloride	46.8 0.500	28.5 0.500	29.1 0.500	1210 0.500

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron
Odessa Laboratory Director



Certificate of Analysis Summary 284669

Highlander Environmental Corp., Midland, TX



Project Name: COG/ Jal Mat # 12 Well

Project Id: 2968

Date Received in Lab: Jun-21-07 11:10 am

Contact: Ike Tavarez

Report Date: 29-JUN-07

Project Location: Lea County, NM

Project Manager: Brent Barron, II

Analysis Requested		<i>Lab Id:</i>	284669-005	284669-006	284669-007	
		<i>Field Id:</i>	SP # 2 1-1.5' BEB (6 0')	SP # 2 2-2 5' BEB (6 0')	SP # 2 3-3 5' BEB (6.0')	
		<i>Depth:</i>	SOIL	SOIL	SOIL	
		<i>Sampled:</i>	Jun-20-07 00:00	Jun-20-07 00:00	Jun-20-07 00:00	
Inorganic Anions by EPA 300		<i>Extracted:</i>				
		<i>Analyzed:</i>	Jun-22-07 09:48	Jun-22-07 10:08	Jun-22-07 10:28	
		<i>Units/RL:</i>	mg/kg	RL	mg/kg	RL
Chloride			1200	50.0	615	50.0
					269	5.00

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Brent Barron

Odessa Laboratory Director

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL and above the SQL.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.

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3016 U.S HWY 301 North - Suite 900, Tampa, FL 33619
5757 NW 158th St, Miami Lakes, FL 33014

Phone	Fax
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(214) 902 0300	(214) 351-9139
(210) 509-3334	(201) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555



Blank Spike Recovery



Project Name: COG/ Jal Mat # 12 Well

Work Order #: 284669

Project ID:

2968

Lab Batch #: 698857

Sample: 698857-1-BKS

Matrix: Solid

Date Analyzed: 06/21/2007

Date Prepared: 06/21/2007

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	9.49	95	75-125	

Lab Batch #: 699205

Sample: 699205-1-BKS

Matrix: Solid

Date Analyzed: 06/26/2007

Date Prepared: 06/26/2007

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	11.4	114	75-125	

Blank Spike Recovery [D] = $100 * [C] / [B]$
All results are based on MDL and validated for QC purposes.



Form 3 - MS Recoveries



Project Name: COG/ Jal Mat # 12 Well

Work Order #: 284669

Lab Batch #: 698857

Date Analyzed: 06/21/2007

QC- Sample ID: 284593-001 S

Reporting Units: mg/kg

Project ID: 2968

Analyst: LATCOR

Date Prepared: 06/21/2007

Batch #: 1

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	3560	1000	4640	108	75-125	

Lab Batch #: 699205

Date Analyzed: 06/26/2007

QC- Sample ID: 284653-007 S

Reporting Units: mg/kg

Date Prepared: 06/26/2007

Analyst: LATCOR

Batch #: 1

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	2820	5.55	4000	*****	75-125	X

Matrix Spike Percent Recovery [D] = $100 * (C-A)/B$
Relative Percent Difference [E] = $200 * (C-A)/(C+B)$
All Results are based on MDL and Validated for QC Purposes



Sample Duplicate Recovery



Project Name: COG/ Jal Mat # 12 Well

Work Order #: 284669

Lab Batch #: 698857	Date Prepared: 06/21/2007	Project ID: 2968			
Date Analyzed: 06/21/2007	Batch #: 1	Analyst: LATCOR			
QC- Sample ID: 284593-001 D		Matrix: Soil			
Reporting Units: mg/kg	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Inorganic Anions by EPA 300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	3560	3550	0	20	

Lab Batch #: 699205	Date Prepared: 06/26/2007	Project ID: 2968			
Date Analyzed: 06/26/2007	Batch #: 1	Analyst: LATCOR			
QC- Sample ID: 284653-007 D		Matrix: Soil			
Reporting Units: mg/kg	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Inorganic Anions by EPA 300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	2820	2670	5	20	

Spike Relative Difference RPD 200 * |(B-A)/(B+A)|
All Results are based on MDL and validated for QC purposes

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559

Fax (432) 682-3946

CLIENT NAME:	COG Operating	SITE MANAGER:	Ike Tavarce
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PROJECT NO.:	2968	PROJECT NAME:	COG/JalMat #12 well
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LAB I.D. NUMBER	DATE	TIME	MATRIX	SAMPLE IDENTIFICATION		
			COAL GRAB	Lea County, NM 284669		

01	6/20/01		S	XSP#1 0 - 1.0' DEB (2.5')	1	X
02			S	XSP#1 1 - 1.5' DEB (2.5')	1	X
03			S	XSP#1 2 - 2.5' DEB (2.5')	1	X
04			S	XSP#2 0 - 1.0' DEB (6.0')	1	X
05			S	XSP#2 1 - 1.5' DEB (6.0')	1	X
06			S	XSP#2 2 - 2.5' DEB (6.0')	1	X
07	↓		S	XSP#2 3 - 3.5' DEB (6.0')	1	X

RELINQUISHED BY (Signature)	Date: 6/21/01	RECEIVED BY (Signature)	Date: 6/21/01	SAMPLED BY (Print & Sign)	Date: 6/21/01		
RELINQUISHED BY (Signature)	Date: 6/21/01	RECEIVED BY (Signature)	Date: 6/21/01	Time: _____	Time: _____		
RELINQUISHED BY (Signature)	Date: 6/21/01	RECEIVED BY (Signature)	Date: 6/21/01	SAMPLE SHIPPED BY (Circle)	Date: 6/21/01		
RECEIVING LABORATORY <u>ELT</u>	RECEIVED BY (Signature) <u>Andrew Forn</u>	FEDEX <u>HAND DELIVERED</u>		BUS	AIRBILL # _____		
ADDRESS: <u>100 S. Presse</u>	STATE: <u>TX</u>	ZIP: <u>79705</u>	CONTACT: <u>PHONE</u>	UPS	OTHER: _____		
DATE: <u>6/21/01</u>	TIME: <u>11:10</u>	REMARKS: <u>3.5" w/labels 402 4195</u>					
SAMPLE CONDITION WHEN RECEIVED:		MATRIX	Y-Water <u>C-Soil</u>	A-Air <u>SL-Studge</u>	SD-Solid <u>O-Other</u>		

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

Environmental Lab of Texas
Variance/ Corrective Action Report- Sample Log-In

Client Highlander
 Date/ Time 6/21/07 11:10
 Lab ID # 284669
 Initials AC

Sample Receipt Checklist

			Client Initials
#1 Temperature of container/ cooler?	<input checked="" type="checkbox"/> Yes	No	32.5 °C
#2 Shipping container in good condition?	<input checked="" type="checkbox"/> Yes	No	
#3 Custody Seals intact on shipping container/ cooler?	<input checked="" type="checkbox"/> Yes	No	Not Present
#4 Custody Seals intact on sample bottles/ container?	<input checked="" type="checkbox"/> Yes	No	Not Present
#5 Chain of Custody present?	<input checked="" type="checkbox"/> Yes	No	
#6 Sample instructions complete of Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
#7 Chain of Custody signed when relinquished/ received?	<input checked="" type="checkbox"/> Yes	No	
#8 Chain of Custody agrees with sample label(s)?	<input checked="" type="checkbox"/> Yes	No	ID written on Cont / Lid
#9 Container label(s) legible and intact?	<input checked="" type="checkbox"/> Yes	No	Not Applicable
#10 Sample matrix/ properties agree with Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
#11 Containers supplied by ELOT?	<input checked="" type="checkbox"/> Yes	No	
#12 Samples in proper container/ bottle?	<input checked="" type="checkbox"/> Yes	No	See Below
#13 Samples properly preserved?	<input checked="" type="checkbox"/> Yes	No	See Below
#14 Sample bottles intact?	<input checked="" type="checkbox"/> Yes	No	
#15 Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
#16 Containers documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
#17 Sufficient sample amount for indicated test(s)?	<input checked="" type="checkbox"/> Yes	No	See Below
#18 All samples received within sufficient hold time?	<input checked="" type="checkbox"/> Yes	No	See Below
#19 Subcontract of sample(s)?	<input checked="" type="checkbox"/> Yes	No	Not Applicable
#20 VOC samples have zero headspace?	<input checked="" type="checkbox"/> Yes	No	Not Applicable

Variance Documentation

Contact _____ Contacted by _____ Date/ Time. _____

Regarding _____

Corrective Action Taken

- Check all that Apply
- See attached e-mail/ fax
 - Client understands and would like to proceed with analysis
 - Cooling process had begun shortly after sampling event

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client:

Date/ Time:

Lab ID #:

Initials:

Highlander

3/29/03 4:00

IC21014

UK

Sample Receipt Checklist

Client Initials

			2.0	°C	
1 Temperature of container/ cooler?	Yes	No			
2 Shipping container in good condition?	Yes	No			
3 Custody Seals intact on shipping container/ cooler?	Yes	No	Net-Present		
4 Custody Seals intact on sample bottles/ container?	Yes	No	Net-Present		
5 Chain of Custody present?	Yes	No			
6 Sample instructions complete of Chain of Custody?	Yes	No			
7 Chain of Custody signed when relinquished/ received?	Yes	No			
8 Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid		
9 Container label(s) legible and intact?	Yes	No	Not Applicable		
10 Sample matrix/ properties agree with Chain of Custody?	Yes	No			
11 Containers supplied by ELOT?	Yes	No			
12 Samples in proper container/ bottle?	Yes	No	See Below		
13 Samples properly preserved?	Yes	No	See Below		
14 Sample bottles intact?	Yes	No			
15 Preservations documented on Chain of Custody?	Yes	No			
16 Containers documented on Chain of Custody?	Yes	No			
17 Sufficient sample amount for indicated test(s)?	Yes	No	See Below		
18 All samples received within sufficient hold time?	Yes	No	See Below		
19 Subcontract of sample(s)?	Yes	No	Not Applicable		
20 VOC samples have zero headspace?	Yes	No	Not Applicable		

Variance Documentation

Contact _____

Contacted by: _____

Date/ Time: _____

regarding: _____

Corrective Action Taken:

Check all that Apply:

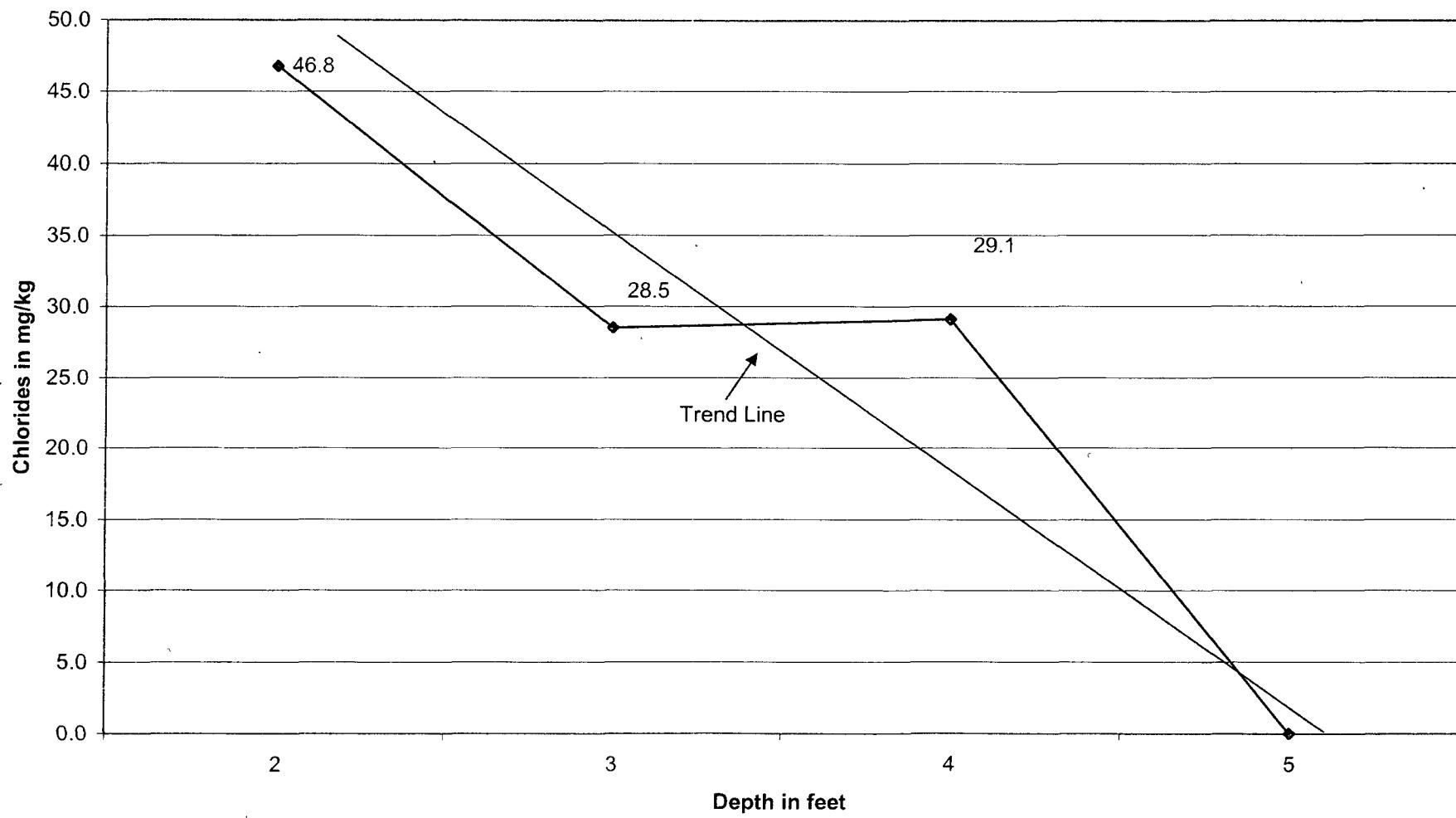
See attached e-mail/ fax

Client understands and would like to proceed with analysis

Cooling process had begun shortly after sampling event

APPENDIX D

SP #1
Chloride Concentrations vs Depth



SP #2
Chloride Concentrations vs Depth

