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

RECEIVED
MAY 21 2009
HOBBSOCD

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 OXY USA	Contact Kelton Beaird
Address 102 S Main Carlsbad, NM 88220	Telephone No. (O) 505-887-8337 C) 575-390-1903
Facility Name Antelope Ridge #4 SWD	Facility Type Disposal

Surface Owner FED	Mineral Owner	Lease No. API 30-025-21037

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	4	24 ~~23S~~	34E					LEA

Well Site

Latitude 32° 15.526' N Longitude 103° 27.880'W RELEASE

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 800bbls	Volume Recovered 500bbls
Source of Release Tank Battery	Date and Hour of Occurrence N/A	Date and Hour of Discovery 3-9-09
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Larry Johnson-NMOCD (left message)	
By Whom? Kelton Beaird Oxy HES	Date and Hour See above	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Swedge at the bottom of tank broke causing fluid to leak out of tank. Vac-Truck was called to pick standing fluid up. Groundwater using SEO Data showed >100 bgs for a ranking of 0 points. Wellhead protection area has a ranking of 0 points. Surface Body of Water protection is 0 points. The ranking for the site is a total of 0 points. The RAL's is 5,000ppm TPH, 100ppm Vapor Headspace reading, and 250ppm Chloride. A vertical and horizontal delineation was completed of the spill area to the above RAL's.

Closest well to spill 30-025-34605

Describe Area Affected and Cleanup Action Taken.*
As per the approved remediation plan, the impacted soil was excavated 1' inside the battery, backfilled with clean native soil, a 4 oz. Geotextile liner then a 20 mil poly liner was installed and a layer of pea gravel spread over the battery. The area outside the berm was excavated 4' deep, then a 4 oz. Geotextile liner then a 20 mil poly liner, then another 4 oz. Geotextile liner was installed. The excavation was then backfilled with clean native soil and seeded with BLM Seed Mixture #2. Attached is the Final Closure Report for the project.

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:

Printed Name: Kelton Beaird

Title: HES Specialist

E-mail Address: kelton_beaird@oxy.com

Date: 5-11-2009 Phone : 575-887-8337

OIL CONSERVATION DIVISION

Approved by District Supervisor: ENVIRONMENTAL ENGINEER

Approval Date: 5.26.09 Expiration Date: —

Conditions of Approval: —

~~Attached~~ ☐

IRP 09.4.2153

* Attach Additional Sheets If Necessary

Closure Report

Prepared for
Oxy USA

RECEIVED
MAY 21 2009
HOBBSOCD

Antelope Ridge #4 SWD Facility
Lea County, NM

1RP-09-4-2153

Prepared by
Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768
Phone (432) 366-0043 Fax (432) 366-0884

Elke Environmental, Inc.

P.O. Box 14167 Odessa, TX 79768
Phone (432) 366-0043 Fax (432) 366-0884

May 11, 2009

RECEIVED
MAY 21 2009
HOBBSOCD

New Mexico Oil Conservation Division
Mr. Larry Johnson
1625 N French Drive
Hobbs, New Mexico 88240

Re: Closure Report for Oxy USA – Antelope Ridge #4 SWD Facility
UL 'L' Sec. 34 T23S R34E Lea County
1RP-09-4-2153

Mr. Larry Johnson,

Elke Environmental was contracted by Oxy USA to complete the remediation of the impacted soil at the Antelope Ridge #4 SWD Facility. A vertical and horizontal delineation of the site was completed with a backhoe. The ranking criteria for this site is as follows: Surface Body of Water – 0 points; Wellhead Protection Area – 0 points; Groundwater Depth – 0 points (GW > 100'). The total ranking for the site is 0 points. Attached is a plat map, field analytical and lab confirmation of the delineation of the site.

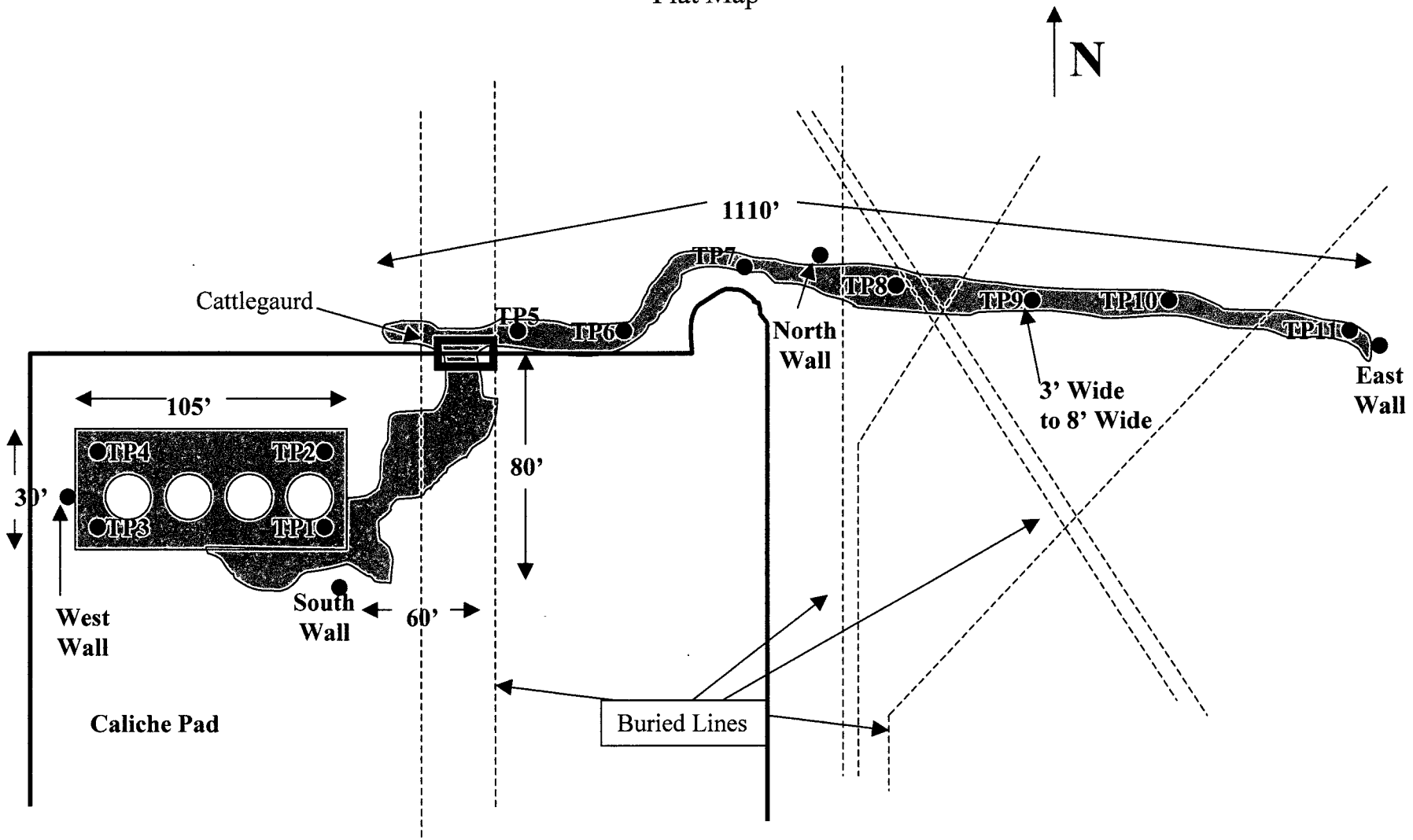
As per the approved workplan 1' of impacted soil was excavated, a 4 oz Geotextile liner was installed then a 20 mil poly liner. The battery area was covered with a layer of pea gravel. The area of impacted soil outside the berm was excavated 4' then a 20 mil poly liner was installed at 4' bgs with 4 oz geo-textile liner above and below the poly liner. Clean native soil was backfilled and contoured to the surrounding area. The site was seeded with BLM Seed Mixture #2. All impacted soil was hauled to Sundance Disposal. Enclosed is the final report of the remediation project including pictures, disposal tickets and a Final C-141. If you have any questions about the enclosed report please contact me at the office.

Sincerely,

Logan Anderson

Oxy USA
Antelope Ridge Unit #4 SWD Facility

Plat Map



Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

Client Oxy USA **Analyst** Jason Jessup/ Bobby Steadham

Site Antelope Ridge Unit #4 SWD Facility

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
TP1	3-17-09	2'		2,738		32° 15.526' N 103° 27.880' W
TP1	3-19-09	4'		3,551		32° 15.526' N 103° 27.880' W
TP1	3-19-09	6'		1,677		32° 15.526' N 103° 27.880' W
TP1	3-19-09	8'		2,699		32° 15.526' N 103° 27.880' W
TP1	3-19-09	9'		1,720		32° 15.526' N 103° 27.880' W
TP1	3-27-09	15'		3,898		32° 15.526' N 103° 27.880' W
TP1	3-27-09	20'		2,129		32° 15.526' N 103° 27.880' W
TP1	3-27-09	25'		1,679		32° 15.526' N 103° 27.880' W
TP1	3-27-09	30'		1,199		32° 15.526' N 103° 27.880' W
TP1	3-27-09	35'		1,049		32° 15.526' N 103° 27.880' W
TP1	3-27-09	40'		959		32° 15.526' N 103° 27.880' W
TP1	3-27-09	45'		359		32° 15.526' N 103° 27.880' W
TP1	3-27-09	50'	595	315	68.8	32° 15.526' N 103° 27.880' W
TP2	3-19-09	2'		2,738		32° 15.530' N 103° 27.881' W
TP2	3-19-09	4'		3,551		32° 15.530' N 103° 27.881' W
TP2	3-19-09	6'		1,677		32° 15.530' N 103° 27.881' W
TP2	3-19-09	8'		2,699		32° 15.530' N 103° 27.881' W

Analyst Notes

Elke Environmental, Inc.

P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

Client Oxy USA **Analyst** Jason Jessup/ Bobby Steadham

Site Antelope Ridge Unit #4 SWD Facility

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
TP2	3-19-09	9'		1,720		32° 15.530' N 103° 27.881' W
TP2	3-27-09	15'		1,649		32° 15.530' N 103° 27.881' W
TP2	3-27-09	20'		2,510		32° 15.530' N 103° 27.881' W
TP2	3-27-09	25'		2,459		32° 15.530' N 103° 27.881' W
TP2	3-27-09	30'		1,805		32° 15.530' N 103° 27.881' W
TP2	3-27-09	35'		1,972		32° 15.530' N 103° 27.881' W
TP2	3-27-09	40'		1,149		32° 15.530' N 103° 27.881' W
TP2	3-27-09	45'		368		32° 15.530' N 103° 27.881' W
TP2	3-27-09	50'	630	299	71.1	32° 15.530' N 103° 27.881' W
TP3	3-19-09	2'		2,389		32° 15.528' N 103° 27.896' W
TP3	3-19-09	4'		884		32° 15.528' N 103° 27.896' W
TP3	3-19-09	6'		1,280		32° 15.528' N 103° 27.896' W
TP3	3-19-09	8'		1,622		32° 15.528' N 103° 27.896' W
TP3	3-19-09	10'		1,690		32° 15.528' N 103° 27.896' W
TP3	3-27-09	15'		1,448		32° 15.528' N 103° 27.896' W
TP3	3-27-09	20'		1,404		32° 15.528' N 103° 27.896' W
TP3	3-27-09	25'		1,179		32° 15.528' N 103° 27.896' W

Analyst Notes

Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

Client Oxy USA **Analyst** Jason Jessup/ Bobby Steadham

Site Antelope Ridge Unit #4 SWD Facility

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
TP3	3-27-09	30'		1,139		32° 15.528' N 103° 27.896' W
TP3	3-27-09	35'		959		32° 15.528' N 103° 27.896' W
TP3	3-27-09	40'		809		32° 15.528' N 103° 27.896' W
TP3	3-27-09	45'		655		32° 15.528' N 103° 27.896' W
TP3	3-27-09	50'	114	449	56.8	32° 15.528' N 103° 27.896' W
TP4	3-19-09	2'		2,738		32° 15.532' N 103° 27.893' W
TP4	3-19-09	4'		3,551		32° 15.532' N 103° 27.893' W
TP4	3-19-09	6'		1,677		32° 15.532' N 103° 27.893' W
TP4	3-19-09	8'		2,699		32° 15.532' N 103° 27.893' W
TP4	3-19-09	9'		1,720		32° 15.532' N 103° 27.893' W
TP4	3-27-09	15'		2,129		32° 15.532' N 103° 27.893' W
TP4	3-27-09	20'		5,047		32° 15.532' N 103° 27.893' W
TP4	3-27-09	25'		2,136		32° 15.532' N 103° 27.893' W
TP4	3-27-09	30'		1,679		32° 15.532' N 103° 27.893' W
TP4	3-27-09	35'		2,241		32° 15.532' N 103° 27.893' W
TP4	3-27-09	40'		1,871		32° 15.532' N 103° 27.893' W
TP4	3-27-09	45'		478		32° 15.532' N 103° 27.893' W

Analyst Notes

Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

Client Oxy USA **Analyst** Jason Jessup/ Bobby Steadham

Site Antelope Ridge Unit #4 SWD Facility

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
TP4	3-27-09	50'	157	269	69.2	32° 15.532' N 103° 27.893' W
TP5	3-23-09	2'		3,568		32° 15.537' N 103° 27.860' W
TP5	3-23-09	4'		699		32° 15.537' N 103° 27.860' W
TP5	3-23-09	6'		752		32° 15.537' N 103° 27.860' W
TP5	3-23-09	8'		1,159		32° 15.537' N 103° 27.860' W
TP5	3-24-09	9'		441		32° 15.537' N 103° 27.860' W
TP5	3-24-09	10'		1,056		32° 15.537' N 103° 27.860' W
TP5	3-26-09	11'		953		32° 15.537' N 103° 27.860' W
TP5	3-26-09	12'		899		32° 15.537' N 103° 27.860' W
TP5	3-26-09	14'		362		32° 15.537' N 103° 27.860' W
TP5	3-26-09	16'	24	341	0.1	32° 15.537' N 103° 27.860' W
TP6	3-23-09	2'		3,714		32° 15.542' N 103° 27.828' W
TP6	3-23-09	4'		5,258		32° 15.542' N 103° 27.828' W
TP6	3-23-09	6'		1,733		32° 15.542' N 103° 27.828' W
TP6	3-23-09	8'		3,039		32° 15.542' N 103° 27.828' W
TP6	3-24-09	9'		1,950		32° 15.542' N 103° 27.828' W
TP6	3-24-09	10'		722		32° 15.542' N 103° 27.828' W

Analyst Notes

Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

Client Oxy USA **Analyst** Jason Jessup/ Bobby Steadham

Site Antelope Ridge Unit #4 SWD Facility

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
TP6	3-24-09	11'		700		32° 15.542' N 103° 27.828' W
TP6	3-26-09	12'		689		32° 15.542' N 103° 27.828' W
TP6	3-26-09	14'		371		32° 15.542' N 103° 27.828' W
TP6	3-26-09	16'	23	355	0.0	32° 15.542' N 103° 27.828' W
TP7	3-23-09	2'		2,605		32° 15.551' N 103° 27.798' W
TP7	3-23-09	4'		2,374		32° 15.551' N 103° 27.798' W
TP7	3-23-09	6'		2,469		32° 15.551' N 103° 27.798' W
TP7	3-24-09	8'		856		32° 15.551' N 103° 27.798' W
TP7	3-24-09	10'		759		32° 15.551' N 103° 27.798' W
TP7	3-24-09	11'		742		32° 15.551' N 103° 27.798' W
TP7	3-25-09	12'		855		32° 15.551' N 103° 27.798' W
TP7	3-25-09	13'		449		32° 15.551' N 103° 27.798' W
TP7	3-25-09	14'	51	509	0.1	32° 15.551' N 103° 27.798' W
TP8	3-23-09	2'		885		32° 15.553' N 103° 27.764' W
TP8	3-23-09	4'		2,669		32° 15.553' N 103° 27.764' W
TP8	3-23-09	6'		3,551		32° 15.553' N 103° 27.764' W
TP8	3-23-09	8'		295		32° 15.553' N 103° 27.764' W

Analyst Notes

Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

Client Oxy USA **Analyst** Jason Jessup/ Bobby Steadham

Site Antelope Ridge Unit #4 SWD Facility

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
TP8	3-24-09	9'	38	264	0.0	32° 15.553' N 103° 27.764' W
TP9	3-23-09	2'		849		32° 15.556' N 103° 27.739' W
TP9	3-23-09	4'		2,377		32° 15.556' N 103° 27.739' W
TP9	3-23-09	6'		2,626		32° 15.556' N 103° 27.739' W
TP9	3-24-09	8'		1,306		32° 15.556' N 103° 27.739' W
TP9	3-24-09	10'		1,211		32° 15.556' N 103° 27.739' W
TP9	3-24-09	11'		1,220		32° 15.556' N 103° 27.739' W
TP9	3-25-09	12'		947		32° 15.556' N 103° 27.739' W
TP9	3-25-09	13'		979		32° 15.556' N 103° 27.739' W
TP9	3-25-09	14'		419		32° 15.556' N 103° 27.739' W
TP9	3-25-09	15'		295		32° 15.556' N 103° 27.739' W
TP9	3-25-09	16'	30	275	0.0	32° 15.556' N 103° 27.739' W
TP10	3-23-09	2'		1,986		32° 15.556' N 103° 27.715' W
TP10	3-23-09	4'		989		32° 15.556' N 103° 27.715' W
TP10	3-23-09	6'		323		32° 15.556' N 103° 27.715' W
TP10	3-24-09	9'	46	293	0.0	32° 15.556' N 103° 27.715' W
TP11	3-23-09	2'		619		32° 15.550' N 103° 27.698' W

Analyst Notes

Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

Client Oxy USA **Analyst** Jason Jessup/ Bobby Steadham

Site Antelope Ridge Unit #4 SWD Facility

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
TP11	3-23-09	4'		578		32° 15.550' N 103° 27.698' W
TP11	3-23-09	6'		446		32° 15.550' N 103° 27.698' W
TP11	3-24-09	8'		575		32° 15.550' N 103° 27.698' W
TP11	3-24-09	10'		567		32° 15.550' N 103° 27.698' W
TP11	3-24-09	12'		556		32° 15.550' N 103° 27.698' W
TP11	3-25-09	14'	78	685	0.0	32° 15.550' N 103° 27.698' W
North Wall	3-26-09	2'	45	313	0.0	32° 15.555' N 103° 27.775' W
South Wall	3-26-09	2'	24	344	0.0	32° 15.524' N 103° 27.880' W
East Wall	3-26-09	2'	67	322	0.0	32° 15.550' N 103° 27.695' W
West Wall	3-26-09	2'	55	310	0.0	32° 15.530' N 103° 27.897' W
Background 1	3-24-09	Surface		264		
Background 2	3-24-09	5'		395		
Background 3	3-24-09	10'		300		
Background 4	3-24-09	14'		349		

Analyst Notes

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	County	Q Q Q 6416 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
CP 00556	Lea	4 4 3	08	23S	34E	641846	3576102	497	255	242
CP 00580	Lea	3 4 3	23	23S	34E	646524	3572948	220		
CP 00606	Lea	4 1	23	23S	34E	646613	3573854	650	265	385
CP 00637 (1)	Lea	3 3 4	15	23S	34E	645293	3574541	430	430	0
CP 00872	Lea	1 1 1	08	23S	34E	641225	3577504	500	305	195

Record Count: 5

Average Depth to Water: 313 feet
Minimum Depth: 255 feet
Maximum Depth: 430 feet

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

POD NUMBER (WELL NUMBER)	OSE FILE NUMBER(S)
OXY ANTELOPE RIDGE UNIT #4 SB-1	
WELL OWNER NAME(S)	PHONE (OPTIONAL)
OXY USA	
WELL OWNER MAILING ADDRESS	CITY / STATE / ZIP
P.O. BOX 1988	CARLSBAD / NM / 88221

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	15	30.00	N
	LONGITUDE	103	27	52.00	W

* ACCURACY REQUIRED ONE TENTH OF A SECOND

* DATUM REQUIRED WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS

FROM JAL GO W ON 128 TO DELAWARE BASIN RD GO N TO HWY 21-B GO E TO DEAD END

2. OPTIONAL

(2 5 ACRE)	(10 ACRE)	(40 ACRE)	(160 ACRE)	SECTION	TOWNSHIP	RANGE
¼	¼	¼	¼		☐ NORTH ☐ SOUTH	☐ EAST ☐ WEST

SUBDIVISION NAME	LOT NUMBER	BLOCK NUMBER	UNIT/TRACT

HYDROGRAPHIC SURVEY	MAP NUMBER	TRACT NUMBER

3. DRILLING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD1478	EDWARD BRYAN	STRAUB CORPORATION

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
3-27-09	3-27-09	0	50	

COMPLETED WELL IS ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): N/A

DRILLING FLUID ☑ AIR ☐ MUD ☐ ADDITIVES – SPECIFY

DRILLING METHOD ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY

DEPTH (FT) FROM	DEPTH (FT) TO	BORE HOLE DIA (IN)	CASING MATERIAL	CONNECTION TYPE (CASING)	INSIDE DIA. CASING (IN)	CASING WALL THICKNESS (IN)	SLOT SIZE (IN)
0	50	5	N/A	N/A	N/A	N/A	N/A

4. WATER BEARING STRATA

DEPTH (FT) FROM	DEPTH (FT) TO	THICKNESS (FT)	FORMATION DESCRIPTION OF PRINCIPAL WATER-BEARING STRATA (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	YIELD (GPM)

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA	TOTAL ESTIMATED WELL YIELD (GPM)

FOR OSE INTERNAL USE

WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 1 OF 2

5. SEAL AND PU

TYPE OF PUMP: ☐ SUBMERSIBLE ☐ JET ☐ NO PUMP – WELL NOT EQUIPPED ☐ TURBINE ☐ CYLINDER ☐ OTHER – SPECIFY

ANNULAR SEAL AND GRAVEL PACK	DEPTH (FT) FROM	DEPTH (FT) TO	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT
	0	2	5	.5 BAGS OF CEMENT		TOPLOAD
	2	50	5	10 BAGS OF 3/8 PLUG		TOPLOAD

6. GEOLOGIC LOG OF WELL

DEPTH (FT) FROM	DEPTH (FT) TO	THICKNESS (FT)	COLOR AND TYPE OF MATERIAL ENCOUNTERED (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	WATER BEARING?
0	5	5	BROWN FINE SAND - CALICHE WITH CLAY	☐ YES ☑ NO
5	8	3	TAN FINE SAND - SANDSTONE - CALICHE	☐ YES ☑ NO
8	16	8	RED FINE SAND - SANDSTONE	☐ YES ☑ NO
16	50	34	TAN FINE SAND - SANDSTONE	☐ YES ☑ NO
TD	50			☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO

ATTACH ADDITIONAL PAGES AS NEEDED TO FULLY DESCRIBE THE GEOLOGIC LOG OF THE WELL

7. TEST & ADDITIONAL INFO

WELL TEST: METHOD ☐ BAILER ☐ PUMP ☐ AIR LIFT ☐ OTHER – SPECIFY

TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

ADDITIONAL STATEMENTS OR EXPLANATIONS

SOIL BORING ONLY- SOIL BORING WAS PLUGGED AND ABANDONED UPON COMPLETION OF SAMPLING

8. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING.

SIGNATURE OF DRILLER — DATE: 4/2/09

FOR OSE INTERNAL USE — WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

POD NUMBER (WELL NUMBER)	OSE FILE NUMBER(S)
OXY ANTELOPE RIDGE UNIT #4 SB-2	
WELL OWNER NAME(S)	**PHONE (OPTIONAL)**
OXY USA	
WELL OWNER MAILING ADDRESS	**CITY / STATE / ZIP**
P.O. BOX 1988	CARLSBAD / NM / 88221

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	15	30.00	N
	LONGITUDE	103	27	52.00	W

* ACCURACY REQUIRED ONE TENTH OF A SECOND
* DATUM REQUIRED WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS
FROM JAL GO W ON 128 TO DELAWARE BASIN RD GO N TO HWY 21-B GO E TO DEAD END

2. OPTIONAL

(2 5 ACRE)	(10 ACRE)	(40 ACRE)	(160 ACRE)	SECTION	TOWNSHIP	RANGE
¼	¼	¼	¼		☐ NORTH ☐ SOUTH	☐ EAST ☐ WEST

SUBDIVISION NAME	LOT NUMBER	BLOCK NUMBER	UNIT/TRACT

HYDROGRAPHIC SURVEY	MAP NUMBER	TRACT NUMBER

3. DRILLING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD1478	EDWARD BRYAN	STRAUB CORPORATION

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
3-27-09	3-27-09	0	50	

COMPLETED WELL IS ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): N/A

DRILLING FLUID ☑ AIR ☐ MUD ☐ ADDITIVES – SPECIFY

DRILLING METHOD ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY

DEPTH (FT) FROM	DEPTH (FT) TO	BORE HOLE DIA (IN)	CASING MATERIAL	CONNECTION TYPE (CASING)	INSIDE DIA. CASING (IN)	CASING WALL THICKNESS (IN)	SLOT SIZE (IN)
0	50	5	N/A	N/A	N/A	N/A	N/A

4. WATER BEARING STRATA

DEPTH (FT) FROM	DEPTH (FT) TO	THICKNESS (FT)	FORMATION DESCRIPTION OF PRINCIPAL WATER-BEARING STRATA (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	YIELD (GPM)

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA	TOTAL ESTIMATED WELL YIELD (GPM)

FOR OSE INTERNAL USE — WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 1 OF 2

5. SEAL AND PUMP

TYPE OF PUMP: ☐ SUBMERSIBLE ☐ JET ☐ NO PUMP – WELL NOT EQUIPPED ☐ TURBINE ☐ CYLINDER ☐ OTHER – SPECIFY:

ANNULAR SEAL AND GRAVEL PACK	DEPTH (FT) FROM	DEPTH (FT) TO	BORE HOLE DIA (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT
	0	2	5	.5 BAGS OF CEMENT		TOPLOAD
	2	50	5	10 BAGS OF 3/8 PLUG		TOPLOAD

6. GEOLOGIC LOG OF WELL

DEPTH (FT) FROM	DEPTH (FT) TO	THICKNESS (FT)	COLOR AND TYPE OF MATERIAL ENCOUNTERED (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	WATER BEARING?
0	3	3	BROWN FINE SAND - SANDSTONE - CALICHE	☐ YES ☑ NO
3	47	44	TAN FINE SAND - SANDSTONE - CALICHE	☐ YES ☑ NO
47	50	3	RED MEDIUM FINE SAND WITH CLAY	☐ YES ☑ NO
TD	50			☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO

ATTACH ADDITIONAL PAGES AS NEEDED TO FULLY DESCRIBE THE GEOLOGIC LOG OF THE WELL

7. TEST & ADDITIONAL INFO

WELL TEST: METHOD ☐ BAILER ☐ PUMP ☐ AIR LIFT ☐ OTHER – SPECIFY:

TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD

ADDITIONAL STATEMENTS OR EXPLANATIONS

SOIL BORING ONLY- SOIL BORING WAS PLUGGED AND ABANDONED UPON COMPLETION OF SAMPLING

8. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING.

SIGNATURE OF DRILLER — DATE: 4-2-09

FOR OSE INTERNAL USE — WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

POD NUMBER (WELL NUMBER)	OSE FILE NUMBER(S)
OXY ANTELOPE RIDGE UNIT #4 SB-3	
WELL OWNER NAME(S)	**PHONE (OPTIONAL)**
OXY USA	
WELL OWNER MAILING ADDRESS	**CITY / STATE / ZIP**
P.O. BOX 1988	CARLSBAD / NM / 88221

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32	15	30.00	N
LONGITUDE	103	27	52.00	W

* ACCURACY REQUIRED ONE TENTH OF A SECOND

* DATUM REQUIRED WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS

FROM JAL GO W ON 128 TO DELAWARE BASIN RD GO N TO HWY 21-B GO E TO DEAD END

2. OPTIONAL

(2 5 ACRE)	(10 ACRE)	(40 ACRE)	(160 ACRE)	SECTION	TOWNSHIP	RANGE
¼	¼	¼	¼		☐ NORTH ☐ SOUTH	☐ EAST ☐ WEST

SUBDIVISION NAME	LOT NUMBER	BLOCK NUMBER	UNIT/TRACT

HYDROGRAPHIC SURVEY	MAP NUMBER	TRACT NUMBER

3. DRILLING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD1478	EDWARD BRYAN	STRAUB CORPORATION

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
3-27-09	3-27-09	0	50	

COMPLETED WELL IS ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): N/A

DRILLING FLUID ☑ AIR ☐ MUD ☐ ADDITIVES – SPECIFY

DRILLING METHOD ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY

DEPTH (FT) FROM	DEPTH (FT) TO	BORE HOLE DIA. (IN)	CASING MATERIAL	CONNECTION TYPE (CASING)	INSIDE DIA. CASING (IN)	CASING WALL THICKNESS (IN)	SLOT SIZE (IN)
0	50	5	N/A	N/A	N/A	N/A	N/A

4. WATER BEARING STRATA

DEPTH (FT) FROM	DEPTH (FT) TO	THICKNESS (FT)	FORMATION DESCRIPTION OF PRINCIPAL WATER-BEARING STRATA (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	YIELD (GPM)

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA	TOTAL ESTIMATED WELL YIELD (GPM)

FOR OSE INTERNAL USE — WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 1 OF 2

5. SEAL AND PUMP

TYPE OF PUMP: ☐ SUBMERSIBLE ☐ JET ☐ NO PUMP – WELL NOT EQUIPPED
☐ TURBINE ☐ CYLINDER ☐ OTHER – SPECIFY:

ANNULAR SEAL AND GRAVEL PACK	DEPTH (FT) FROM	DEPTH (FT) TO	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT
	0	2	5	.5 BAGS OF CEMENT		TOPLOAD
	2	50	5	10 BAGS OF 3/8 PLUG		TOPLOAD

6. GEOLOGIC LOG OF WELL

DEPTH (FT) FROM	DEPTH (FT) TO	THICKNESS (FT)	COLOR AND TYPE OF MATERIAL ENCOUNTERED (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	WATER BEARING?
0	3	3	BROWN FINE SAND - CALICHE	☐ YES ☑ NO
3	48	45	TAN FINE SAND - SANDSTONE - CALICHE	☐ YES ☑ NO
48	50	2	RED MEDIUM FINE SAND	☐ YES ☑ NO
TD	50			☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO

ATTACH ADDITIONAL PAGES AS NEEDED TO FULLY DESCRIBE THE GEOLOGIC LOG OF THE WELL

7. TEST & ADDITIONAL INFO

WELL TEST — METHOD: ☐ BAILER ☐ PUMP ☐ AIR LIFT ☐ OTHER – SPECIFY

TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD

ADDITIONAL STATEMENTS OR EXPLANATIONS

SOIL BORING ONLY- SOIL BORING WAS PLUGGED AND ABANDONED UPON COMPLETION OF SAMPLING

8. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

SIGNATURE OF DRILLER — DATE: 4/2/09

FOR OSE INTERNAL USE — WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

POD NUMBER (WELL NUMBER)	OSE FILE NUMBER(S)
OXY ANTELOPE RIDGE UNIT #4 SB-4	
WELL OWNER NAME(S)	**PHONE (OPTIONAL)**
OXY USA	
WELL OWNER MAILING ADDRESS	**CITY / STATE / ZIP**
P.O. BOX 1988	CARLSBAD / NM / 88221

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	15	30.00	N
	LONGITUDE	103	27	52.00	W

* ACCURACY REQUIRED ONE TENTH OF A SECOND

* DATUM REQUIRED WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS

FROM JAL GO W ON 128 TO DELAWARE BASIN RD GO N TO HWY 21-B GO E TO DEAD END

2. OPTIONAL

(2 5 ACRE)	(10 ACRE)	(40 ACRE)	(160 ACRE)	SECTION	TOWNSHIP ☐ NORTH ☐ SOUTH	RANGE ☐ EAST ☐ WEST
¼	¼	¼	¼			

SUBDIVISION NAME	LOT NUMBER	BLOCK NUMBER	UNIT/TRACT

HYDROGRAPHIC SURVEY	MAP NUMBER	TRACT NUMBER

3. DRILLING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD1478	EDWARD BRYAN	STRAUB CORPORATION

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
3-27-09	3-27-09	0	50	

COMPLETED WELL IS ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): N/A

DRILLING FLUID ☑ AIR ☐ MUD ☐ ADDITIVES – SPECIFY

DRILLING METHOD ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY

DEPTH (FT) FROM	DEPTH (FT) TO	BORE HOLE DIA (IN)	CASING MATERIAL	CONNECTION TYPE (CASING)	INSIDE DIA CASING (IN)	CASING WALL THICKNESS (IN)	SLOT SIZE (IN)
0	50	5	N/A	N/A	N/A	N/A	N/A

4. WATER BEARING STRATA

DEPTH (FT) FROM	DEPTH (FT) TO	THICKNESS (FT)	FORMATION DESCRIPTION OF PRINCIPAL WATER-BEARING STRATA (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	YIELD (GPM)

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA	TOTAL ESTIMATED WELL YIELD (GPM)

FOR OSE INTERNAL USE

WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 1 OF 2

5. SEAL AND PU

TYPE OF PUMP: ☐ SUBMERSIBLE ☐ JET ☐ NO PUMP – WELL NOT EQUIPPED
☐ TURBINE ☐ CYLINDER ☐ OTHER – SPECIFY.

ANNULAR SEAL AND GRAVEL PACK	DEPTH (FT) FROM	DEPTH (FT) TO	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT
	0	2	5	.5 BAGS OF CEMENT		TOPLOAD
	2	50	5	10 BAGS OF 3/8 PLUG		TOPLOAD

6. GEOLOGIC LOG OF WELL

DEPTH (FT) FROM	DEPTH (FT) TO	THICKNESS (FT)	COLOR AND TYPE OF MATERIAL ENCOUNTERED (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	WATER BEARING?
0	2	2	BROWN FINE SAND - CALICHE	☐ YES ☑ NO
2	50	48	TAN FINE SAND - SANDSTONE - CALICHE	☐ YES ☑ NO
TD	50			☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO

ATTACH ADDITIONAL PAGES AS NEEDED TO FULLY DESCRIBE THE GEOLOGIC LOG OF THE WELL

7. TEST & ADDITIONAL INFO

WELL TEST
METHOD ☐ BAILER ☐ PUMP ☐ AIR LIFT ☐ OTHER – SPECIFY
TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD

ADDITIONAL STATEMENTS OR EXPLANATIONS
SOIL BORING ONLY- SOIL BORING WAS PLUGGED AND ABANDONED UPON COMPLETION OF SAMPLING

8. SIGNATURE

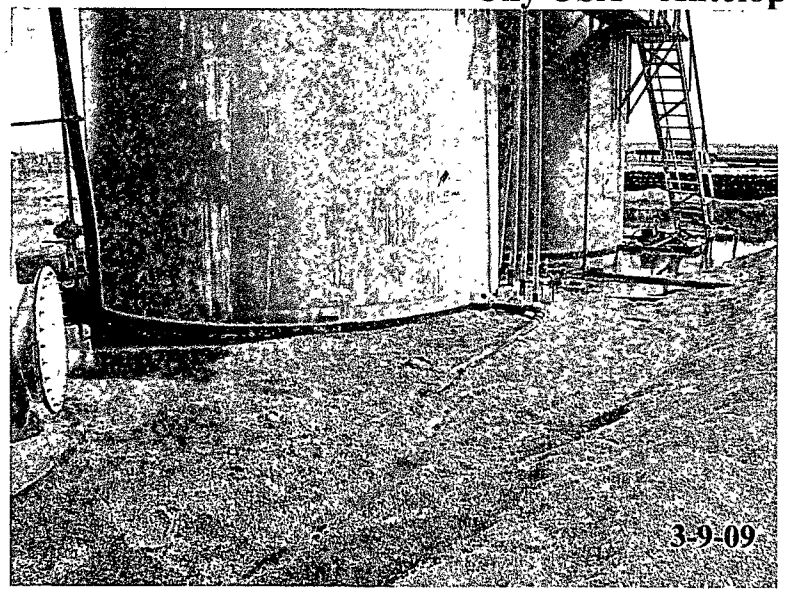
THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING

SIGNATURE OF DRILLER — DATE 4/2/09

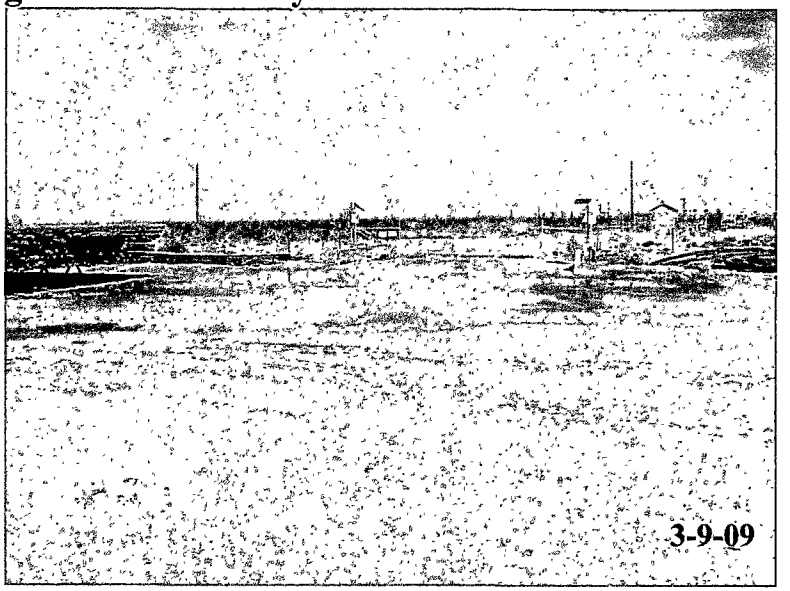
FOR OSE INTERNAL USE — WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 2 OF 2

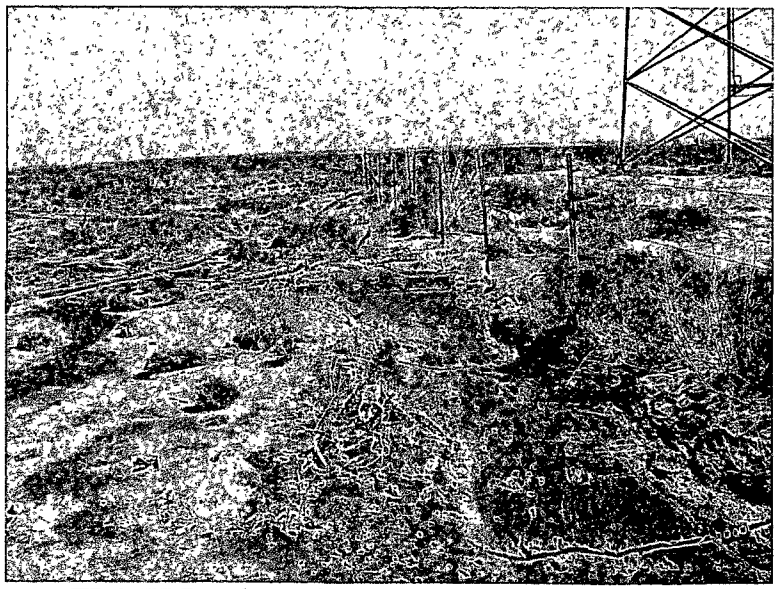
Oxy USA – Antelope Ridge #4 SWD Facility



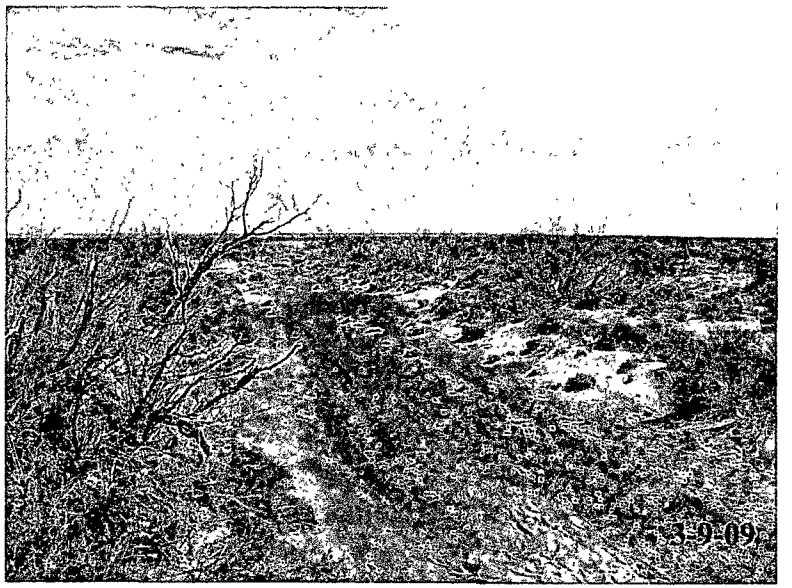
TP1, TP2, TP3 and TP4 before remediation of spill.



TP5 before remediation of spill.

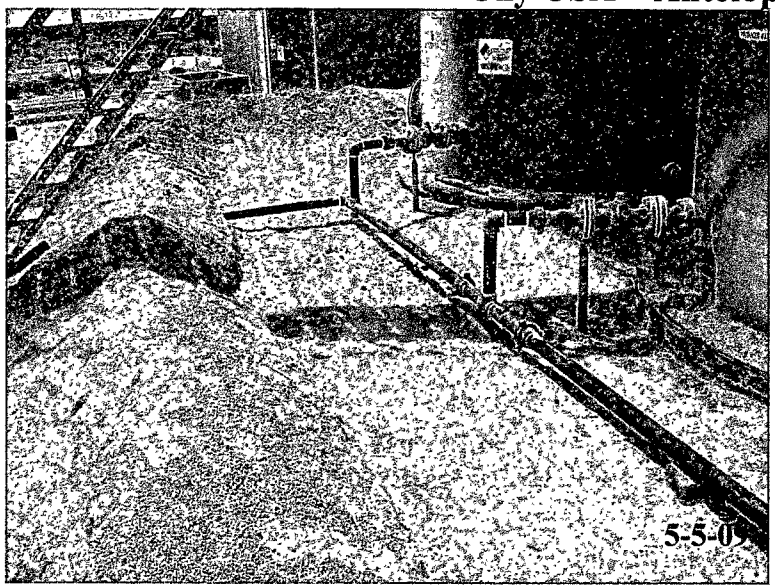


TP6, TP7 and TP8 before remediation of spill.

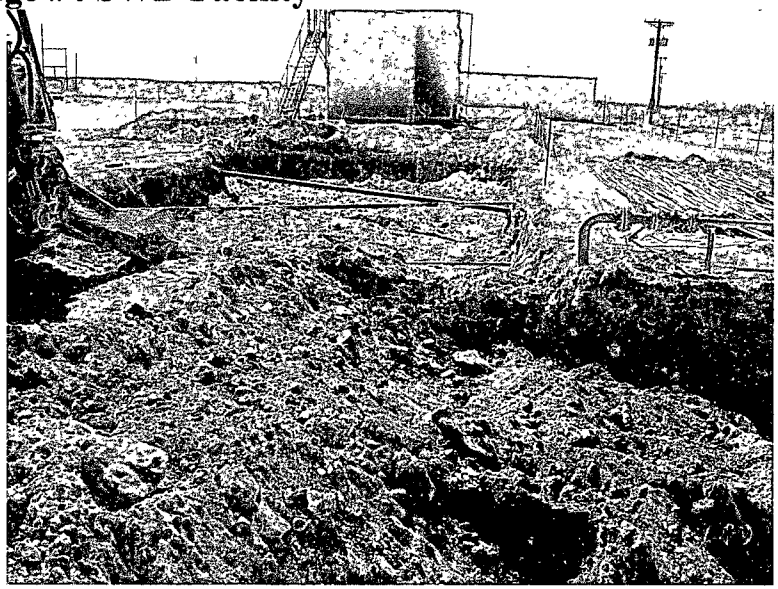


TP9, TP10 and TP11 before remediation of spill.

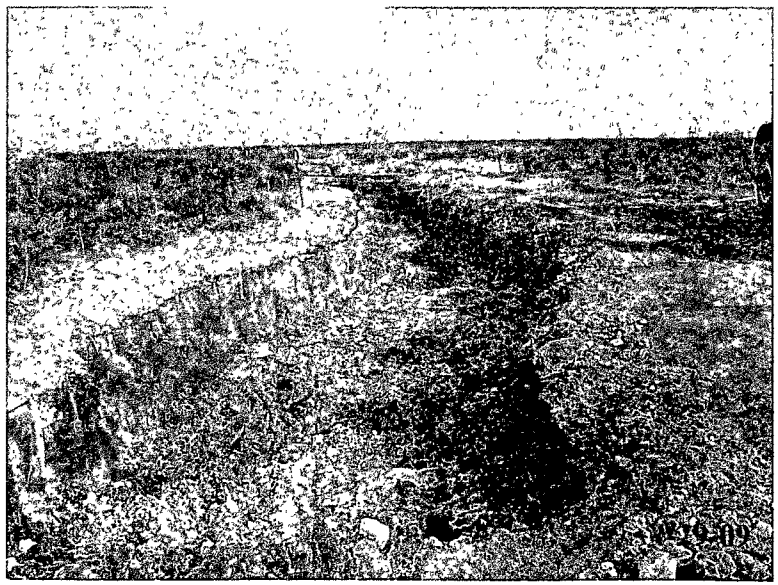
Oxy USA – Antelope Ridge #4 SWD Facility



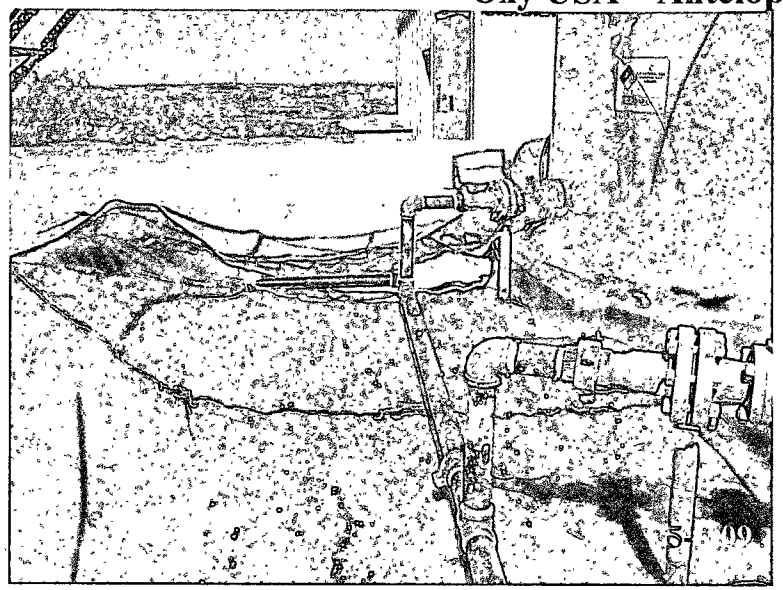
Inside battery after excavation of 1' of impacted soil.


TP5 after excavation of 4' of impacted soil.

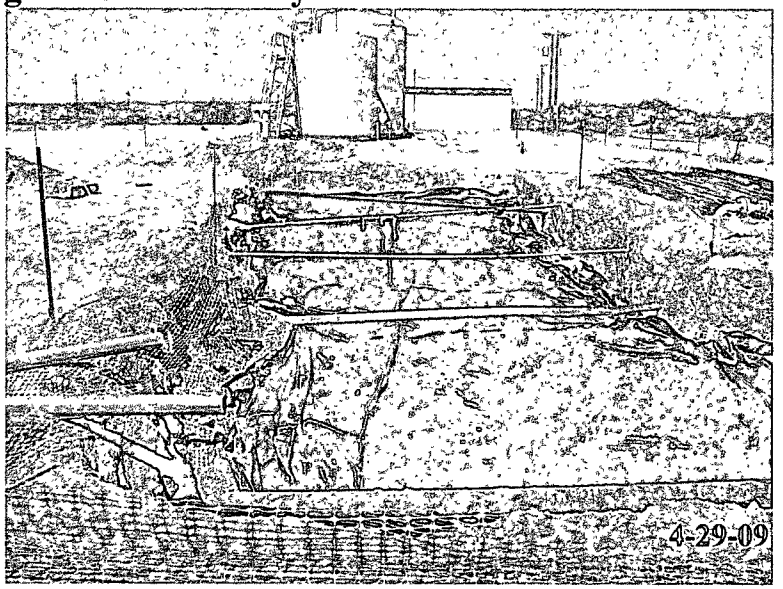
TP6, TP7, TP8 and TP9 after excavation of 4' of impacted soil.


TP10 and TP11 after excavation of 4' of impacted soil.

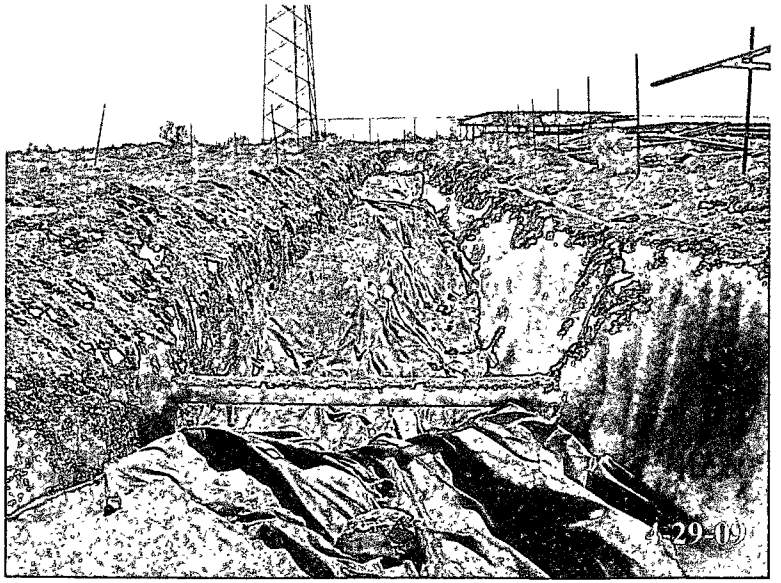
Oxy USA – Antelope Ridge #4 SWD Facility

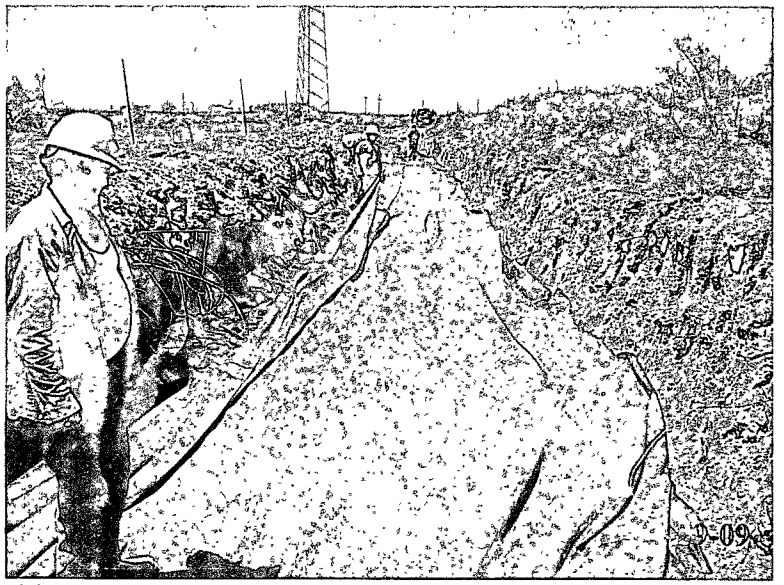


Battery during installation of 20 mil poly and Geotextile liner.



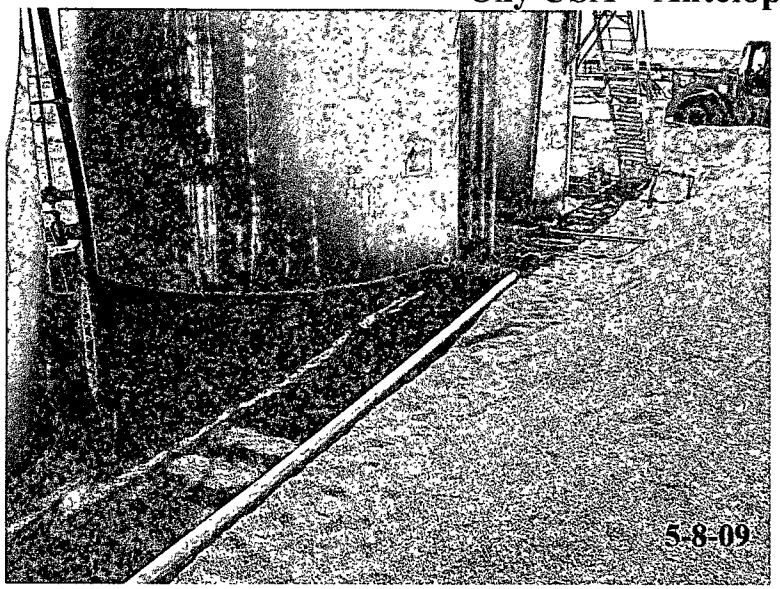
TP5 during installation of 20 mil poly and Geotextile liners.





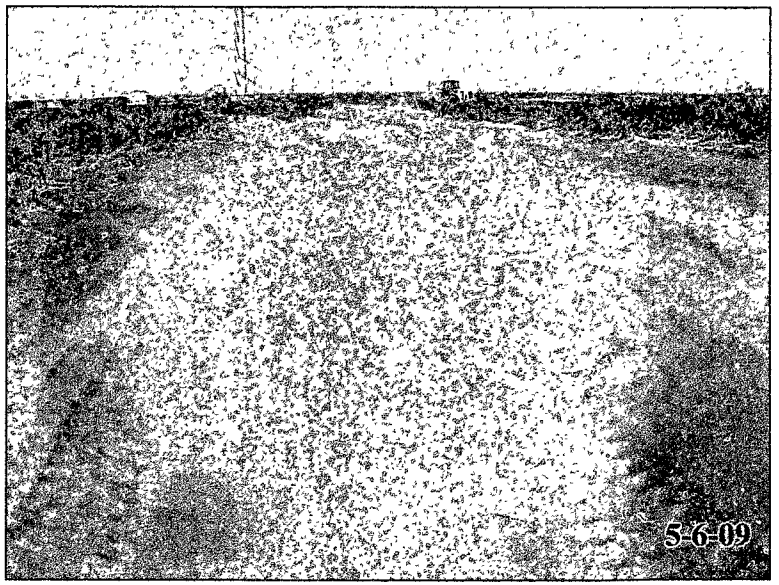
TP6, TP7, TP8 and TP9 after installation of 20 mil poly liner with a 4 oz. Geotextile liner above and below the poly.

Oxy USA – Antelope Ridge #4 SWD Facility

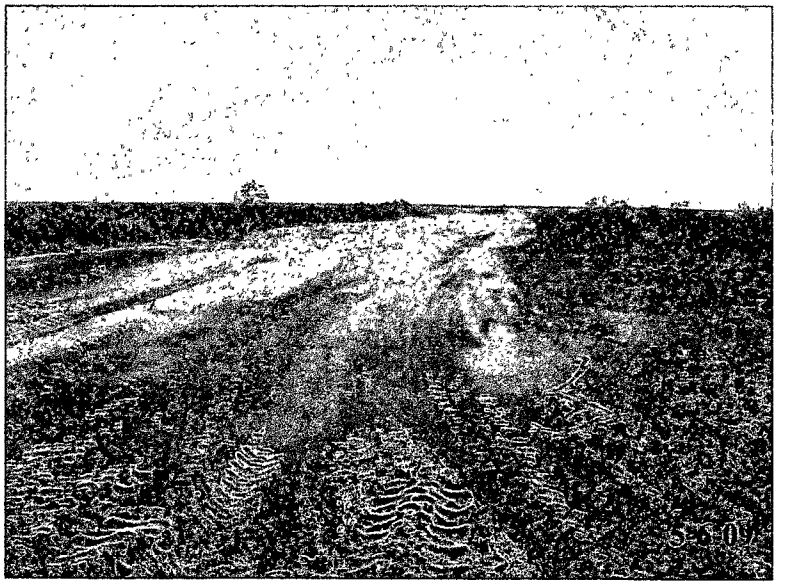


Battery after remediation of spill.

TP5 and TP6 after backfill of clean soil and seeding.



TP7, TP8 and TP9 after backfill of clean soil and seeding.



TP10 and TP11 after backfill of clean soil and seeding.

Analytical Report 328761

for

Elke Environmental, Inc.

Project Manager: Logan Anderson

Oxy

Antelope Ridge Unit # 4

03-APR-09

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:
Houston, TX T104704215-08B-TX - Odessa/Midland, TX T104704400-08-TX

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675
Miramar, FL E86349
Norcross(Atlanta), GA E87429

South Carolina certification numbers:
Norcross(Atlanta), GA 98015

North Carolina certification numbers:
Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Tampa - Miami - Latin America
Midland - Corpus Christi - Atlanta

03-APR-09

Project Manager: **Logan Anderson**
Elke Environmental, Inc.
4817 Andrews Hwy
P.O. Box 14167 Odessa, tx 79768
Odessa, TX 79762

Reference: XENCO Report No: **328761**
Oxy
Project Address:

Logan Anderson:

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 328761. 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. 328761 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, II
Odessa Laboratory Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY
Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America

Sample Cross Reference 328761

Elke Environmental, Inc., Odessa, TX

Oxy

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB 1	S	Mar-27-09 12:30	50 ft	328761-001
SB 2	S	Mar-27-09 13:15	50 ft	328761-002
SB 3	S	Mar-27-09 11:15	50 ft	328761-003
SB 4	S	Mar-27-09 14:30	50 ft	328761-004
TP 5 @ 16'	S	Mar-25-09 15:45	16 ft	328761-005
TP 6 @ 16'	S	Mar-25-09 16:15	16 ft	328761-006
TP 7 @ 14'	S	Mar-27-09 14:00	14 ft	328761-007
TP 8 @ 9'	S	Mar-24-09 13:00	9 ft	328761-008
TP 9 @ 16'	S	Mar-25-09 15:00	16 ft	328761-009
TP 10 @ 9'	S	Mar-24-09 13:15	9 ft	328761-010
TP 11 @ 14'	S	Mar-27-09 10:45	14 ft	328761-011

Certificate of Analysis Summary 328761

Elke Environmental, Inc., Odessa, TX

Project Name: Oxy

Project Id: Antelope Ridge Unit # 4
Contact: Logan Anderson
Project Location:

Date Received in Lab: Mon Mar-30-09 08:40 am
Report Date: 03-APR-09
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	328761-001		328761-002		328761-003		328761-004		328761-005		328761-006	
	Field Id:	SB 1		SB 2		SB 3		SB 4		TP 5 @ 16'		TP 6 @ 16'	
	Depth:	50 ft		50 ft		50 ft		50 ft		16 ft		16 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-27-09 12:30		Mar-27-09 13:15		Mar-27-09 11:15		Mar-27-09 14:30		Mar-25-09 15:45		Mar-25-09 16:15	
Anions by EPA 300	*Extracted:*												
	Analyzed:	Mar-30-09 14.43		Mar-30-09 14.43		Mar-30-09 14:43		Mar-30-09 14:43		Mar-30-09 14:43		Mar-30-09 14:43	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		409	10.5	352	10.5	503	10.6	486	10.7	436	11.0	215	11.2
Percent Moisture	*Extracted:*												
	Analyzed:	Mar-30-09 16:40		Mar-30-09 16.40		Mar-30-09 16:40		Mar-30-09 16.40		Mar-30-09 16:40		Mar-30-09 16.40	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		4.56	1.00	5.21	1.00	5 40	1.00	6 27	1.00	9 14	1.00	10.85	1 00
TPH By SW8015 Mod	*Extracted:*	Apr-01-09 21.34		Apr-01-09 21.34		Apr-01-09 21:34		Apr-01-09 21:34		Apr-01-09 21:34		Apr-01-09 21:34	
	Analyzed:	Apr-02-09 00:21		Apr-02-09 00:44		Apr-02-09 01:07		Apr-02-09 01:32		Apr-02-09 12:02		Apr-02-09 12:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		358	15.7	358	15.8	19 0	15 9	23 4	16 0	ND	16 5	19.0	16.8
C12-C28 Diesel Range Hydrocarbons		2200	15.7	2370	15.8	248	15.9	239	16.0	114	16 5	61 2	16.8
C28-C35 Oil Range Hydrocarbons		101	15 7	113	15.8	ND	15 9	ND	16.0	ND	16.5	ND	16.8
Total TPH		2659	15 7	2841	15.8	267	15 9	262 4	16 0	114	16 5	80.2	16.8

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

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 328761

Elke Environmental, Inc., Odessa, TX

Project Name: Oxy

Project Id: Antelope Ridge Unit # 4
Contact: Logan Anderson
Project Location:

Date Received in Lab: Mon Mar-30-09 08:40 am
Report Date: 03-APR-09
Project Manager: Brent Barron, II

Analysis Requested											
	Lab Id:	328761-007		328761-008		328761-009		328761-010		328761-011	
	Field Id:	TP 7 @ 14'		TP 8 @ 9'		TP 9 @ 16'		TP 10 @ 9'		TP 11 @ 14'	
	Depth:	14 ft		9 ft		16 ft		9 ft		14 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-27-09 14:00		Mar-24-09 13:00		Mar-25-09 15:00		Mar-24-09 13:15		Mar-27-09 10:45	
Anions by EPA 300	*Extracted:*										
	Analyzed:	Mar-30-09 14.43		Mar-30-09 14:43		Mar-30-09 14 43		Mar-30-09 14:43		Mar-30-09 14.43	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		165	10.6	16.3	5.45	274	10.5	165	10.8	396	10.6
Percent Moisture	*Extracted:*										
	Analyzed:	Mar-30-09 16:40		Mar-30-09 16.40		Mar-30-09 16:40		Mar-30-09 16:40		Mar-30-09 16:40	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		6.04	1.00	8.30	1.00	4.41	1.00	7 71	1.00	6.08	1.00
TPH By SW8015 Mod	*Extracted:*	Apr-01-09 21:34		Apr-01-09 21.34		Apr-01-09 21:34		Apr-01-09 21.34		Apr-01-09 21.34	
	Analyzed:	Apr-02-09 12:49		Apr-02-09 13:12		Apr-02-09 13·36		Apr-02-09 13:59		Apr-02-09 14·22	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	16.0	ND	16.4	ND	15 7	ND	16.3	ND	16.0
C12-C28 Diesel Range Hydrocarbons		ND	16.0	ND	16 4	ND	15.7	ND	16 3	30.4	16 0
C28-C35 Oil Range Hydrocarbons		ND	16.0	ND	16.4	ND	15 7	ND	16.3	ND	16.0
Total TPH		ND	16.0	ND	16.4	ND	15 7	ND	16 3	30.4	16.0

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

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America - Atlanta - Corpus Christi

Brent Barron
Odessa Laboratory Director

Flagging Criteria

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.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Outside XENCO's scope of NELAC Accreditation.

Form 2 - Surrogate Recoveries

Project Name: Oxy

Work Orders : 328761,

Project ID: Antelope Ridge Unit # 4

Lab Batch #: 754742 **Sample:** 527661-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/01/09 12:47

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-135	
o-Terphenyl	57.1	50.0	114	70-135	

Lab Batch #: 754742 **Sample:** 527661-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/01/09 13:11

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	58.9	50.0	118	70-135	

Lab Batch #: 754742 **Sample:** 527661-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/01/09 13:34

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	100	104	70-135	
o-Terphenyl	51.8	50.0	104	70-135	

Lab Batch #: 754742 **Sample:** 328761-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/02/09 00:21

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	55.7	50.0	111	70-135	

Lab Batch #: 754742 **Sample:** 328761-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/02/09 00:44

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	58.8	50.0	118	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Oxy

Work Orders : 328761,

Project ID: Antelope Ridge Unit # 4

Lab Batch #: 754742 **Sample:** 328761-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/02/09 01:07

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	52.9	50.0	106	70-135	

Lab Batch #: 754742 **Sample:** 328761-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/02/09 01:32

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	52.6	50.0	105	70-135	

Lab Batch #: 754742 **Sample:** 328761-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/02/09 12:02

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	51.7	50.0	103	70-135	

Lab Batch #: 754742 **Sample:** 328761-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/02/09 12:25

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	52.2	50.0	104	70-135	

Lab Batch #: 754742 **Sample:** 328761-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/02/09 12:49

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	100	104	70-135	
o-Terphenyl	51.2	50.0	102	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Oxy

Work Orders : 328761,

Project ID: Antelope Ridge Unit # 4

Lab Batch #: 754742 **Sample:** 328761-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/02/09 13:12

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	53.6	50.0	107	70-135	

Lab Batch #: 754742 **Sample:** 328761-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/02/09 13:36

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	51.8	50.0	104	70-135	

Lab Batch #: 754742 **Sample:** 328761-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/02/09 13:59

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	52.5	50.0	105	70-135	

Lab Batch #: 754742 **Sample:** 328761-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/02/09 14:22

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	100	104	70-135	
o-Terphenyl	51.2	50.0	102	70-135	

Lab Batch #: 754742 **Sample:** 328703-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/02/09 15:55

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	100	117	70-135	
o-Terphenyl	55.3	50.0	111	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Oxy

Work Orders : 328761,

Project ID: Antelope Ridge Unit # 4

Lab Batch #: 754742 **Sample:** 328703-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/02/09 16:18

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	100	117	70-135	
o-Terphenyl	56.2	50.0	112	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Oxy

Work Order #: 328761 **Project ID:** Antelope Ridge Unit # 4

Lab Batch #: 754330 **Sample:** 754330-1-BKS **Matrix:** Solid

Date Analyzed: 03/30/2009 **Date Prepared:** 03/30/2009 **Analyst:** LATCOR

Reporting Units: mg/kg **Batch #:** 1

BLANK /BLANK SPIKE RECOVERY STUDY

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	10.8	108	90-110	

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

BS / BSD Recoveries

Project Name: Oxy

Work Order #: 328761
Analyst: BHW
Lab Batch ID: 754742
Sample: 527661-1-BKS
Units: mg/kg

Date Prepared: 04/01/2009
Batch #: 1

Project ID: Antelope Ridge Unit # 4
Date Analyzed: 04/01/2009
Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	916	92	1000	904	90	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	950	95	1000	978	98	3	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS Recoveries

Project Name: Oxy

Work Order #: 328761
Lab Batch #: 754330
Date Analyzed: 03/30/2009
QC- Sample ID: 328761-001 S
Reporting Units: mg/kg

Date Prepared: 03/30/2009
Batch #: 1

Project ID: Antelope Ridge Unit # 4
Analyst: LATCOR
Matrix: Soil

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	409	210	611	96	80-120	

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

Form 3 - LCS / MSD Recoveries

Project Name: Oxy

Work Order # : 328761 **Project ID:** Antelope Ridge Unit # 4

Lab Batch ID: 754742 **QC- Sample ID:** 328703-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 04/02/2009 **Date Prepared:** 04/01/2009 **Analyst:** BHW

Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1090	986	90	1090	993	91	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1090	1050	96	1090	1050	96	0	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery

Project Name: Oxy

Work Order #: 328761

Lab Batch #: 754330 **Project ID:** Antelope Ridge Unit # 4

Date Analyzed: 03/30/2009 **Date Prepared:** 03/30/2009 **Analyst:** LATCOR

QC- Sample ID: 328761-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Anions by EPA 300	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	409	409	0	20	

Lab Batch #: 754344

Date Analyzed: 03/30/2009 **Date Prepared:** 03/30/2009 **Analyst:** BEV

QC- Sample ID: 328746-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	2.71	3.00	10	20	

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

1of2

Environmental Lab of Texas

A Xenco Laboratories Company

12600 West I-20 East
Odessa, Texas 79765

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Logan Anderson

Company Name: Elke Environmental

Company Address: P O Box 14167

City/State/Zip: Odessa, TX 79768

Telephone No: 432-366-0043

Fax No: 432-366-0884

Sampler Signature: [signature]

e-mail: la_elkeenv@yahoo.com

Project Name: Oxy

Project #: Antelope Ridge Unit #4

Project Loc:

PO #:

Report Format: ☑ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 328761

Preservation & # of Containers: Ice, HNO_3, HCl, H_2SO_4, NaOH, $Na_2S_2O_3$, None, Other (Specify)

Matrix: DW=Drinking Water SL=Sludge, GW = Groundwater S=Soil/Solid, NP=Non-Potable Specify Other

Analyze For: TCLP: / TOTAL:

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix	TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.				RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	SB 1		50'	3/27/09	12:30Pm		1	X								S	X			X					X							X
02	SB 2		50'	3/27/09	1:15Pm		1	X								S	X			X					X							X
03	SB 3		50'	3/27/09	11:15Am		1	X								S	X			X					X							X
04	SB 4		50'	3/27/09	2:30Pm		1	X								S	X			X					X							X
05	TP 5 @16'		16'	3/25/09	3:45Pm		1	X								S	X			X					X							X
06	TP 6 @16'		16'	3/25/09	4:15Pm		1	X								S	X			X					X							X
07	TP 7 @14'		14'	3/27/09	2:00Pm		1	X								S	X			X					X							X
08	TP 8 @9'		9'	3/24/09	1:00Pm		1	X								S	X			X					X							X
09	TP 9 @16'		16'	3/25/09	3:00Pm		1	X								S	X			X					X							X
10	TP 10 @9'		9'	3/24/09	1:15Pm		1	X								S	X			X					X							X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	3/30	8:40Am			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Andrea Leum	3/30/09	8:40

Laboratory Comments:

Sample Containers Intact?	(Y)	N
VOCs Free of Headspace?	(Y)	N
Labels on container(s)	(Y)	N
Custody seals on container(s)	(Y)	N
Custody seals on cooler(s)	Y	(N)
Sample Hand Delivered	(Y)	N
by Sampler/Client Rep. ?	(Y)	N
by Courier? UPS DHL FedEx Lone Star	407919355	
Temperature Upon Receipt:	1.0	°C

2 of 2

Environmental Lab of Texas

A Xenco Laboratories Company

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Logan Anderson

Company Name: Elke Environmental

Company Address: P O Box 14167

City/State/Zip: Odessa, TX 79768

Telephone No: 432-366-0043

Fax No: 432-366-0884

Sampler Signature: [signature]

e-mail: la_elkeenv@yahoo.com

Project Name: OXY

Project #: Antelope Ridge Unit #4

Project Loc:

PO #:

Report Format: ☑ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 328761

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	DW=Drinking Water SL=Sludge	GW = Groundwater S=Soil/Solid	NP=Non-Potable Specify Other	TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.				RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
11	TP 11 @ 14'		14'	3/27/09	10:45AM		1	X									S		X			X					X							X

Analyze For: TCLP: / TOTAL:

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	5/30	8:40AM			
Relinquished by: [signature]			Received by:		
Relinquished by:			Received by ELOT: [signature]	5/30/09	8:40

Laboratory Comments:

Sample Containers Intact?	(Y)	N
VOCs Free of Headspace?	(Y)	N
Labels on container(s)	(Y)	N
Custody seals on container(s)	(Y)	N
Custody seals on cooler(s)	Y	(N)
Sample Hand Delivered	(Y)	N
by Sampler/Client Rep. ?	(Y)	N
by Courier? UPS DHL FedEx Lone Star		
Temperature Upon Receipt:	1.0	°C

41029655

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Elke Env.

Date/ Time. 3.30.09 8:40

Lab ID #. 328761

Initials aL

Sample Receipt Checklist

				Client Initials
#1 Temperature of container/ cooler?	(Yes)	No	1.0 °C	
#2 Shipping container in good condition?	(Yes)	No		
#3 Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4 Custody Seals intact on sample bottles/ container?	(Yes)	No	Not 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

Andrea Lam

From: "Logan Anderson" <la_elkeenv@yahoo.com>
To: "Andrea Lam" <andrea.lam@xenco.com>
Sent: Monday, March 30, 2009 11:19 AM
Subject: Re. WO 328761/ Oxy

Andrea,

That is correct, cancel all TPH 418.1 and BTEX analysis on the samples. Could you email me a copy of the COC

Thanks,
Logan Anderson

--- On **Mon, 3/30/09, Andrea Lam** <*andrea.lam@xenco.com*> wrote:

> From: Andrea Lam <andrea.lam@xenco com>
> Subject: WO 328761/ Oxy
> To. "Logan Anderson" <la_elkeenv@yahoo.com>
> Date: Monday, March 30, 2009, 10:40 AM
>
> ***Logan-Please respond to this email confirming our conversation that you would like to cancel TPH 418.1 and BTEX 8021 on all eleven samples.***
>
> ***Thank You,***
> ***Andrea Lam***
> ***Sample Receiving / Project Assistant***
>
> ***Environmental Lab of Texas***
> ***A Xenco Company***
> ***12600 W I-20 E***
> ***Odessa, TX 79765***
> ***432-563-1800***

3/30/2009

District I
625 N. French Dr., Hobbs, NM 88240
District II
301 W. Grand Avenue, Artesia, NM 88210
District III
000 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

RECEIVED
MAY 21 2009
HOBBSOCD

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 OXY USA	Contact Kelton Beaird
Address 102 S Main Carlsbad, NM 88220	Telephone No. (O) 505-887-8337 C) 575-390-1903
Facility Name Antelope Ridge #4 SWD	Facility Type Disposal

Surface Owner PRIVATE	Mineral Owner	Lease No.

LOCATION OF RELEASE

CLOSEST WELL 30-025-34605-00-01

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	4	23S	34E					LEA

Latitude 32° 15.526' N **Longitude** 103° 27.880'W

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 800bbls	Volume Recovered 500bbls
Source of Release Tank Battery	Date and Hour of Occurrence N/A	Date and Hour of Discovery 3-9-09
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Larry Johnson-NMOCD (left message)	
By Whom? Kelton Beaird Oxy HES	Date and Hour See above	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

GW@280'

Describe Cause of Problem and Remedial Action Taken.*
Swedge at the bottom of tank broke causing fluid to leak out of tank. Vac-Truck was called to pick standing fluid up.

Describe Area Affected and Cleanup Action Taken.*
A vertical and horizontal delineation has been completed of the spill area. Remediation plan is to excavate 1' inside the battery, backfill with clean native soil, install a 4 oz. Geotextile liner then a 20 mil poly liner and a layer of pea gravel. The area outside the berm will be excavated 4' deep, then a 4 oz. Geotextile liner then a 20 mil poly liner, then another 4 oz. Geotextile liner. The excavation will then be backfilled with clean native soil and seeded with an approved seed mixture. A final closure report will be submitted at the completion of the project.

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:

Printed Name: Kelton Beaird

Title: HES Specialist

E-mail Address: kelton_beaird@oxy.com

Date: 4-3-2009 Phone : 575-887-8337

OIL CONSERVATION DIVISION

Approved by ~~District Supervisor~~ ENV ENGR Geoffrey Leking

Approval Date: 04/14/09 Expiration Date: 06/14/09

Conditions of Approval: SUBMIT FINAL C-141 BY

Attached ☐

IRP-09-4-2153

* Attach Additional Sheets If Necessary

fGRL0910356511