<u>District I</u> 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

tt IV
5. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources CCIVED

MAY 21 2009

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

Form C-141 Revised October 10, 2003

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

ı	Kelease Notilic	atioi	n and Co	rrective A	ction			_	
			OPERA	TOR	[Initia	al Report	(X)	Final Repor
Name of Company OXY USA			Contact Kelton Beaird						
Address 102 S Main Carlsbad, NM 88	220				-8337	C) 575-3	90-1903		
Facility Name Antelope Ridge #4 SW	/D	Contact Kelton Beaird Telephone No. (O) 505-887-8337 C) 575-390-1903 Facility Type Disposal Cowner Lease No. 36.025.210 ATION OF RELEASE North/South Line Feet from the East/West Line County LEA 526' N Longitude 103° 27.880'W Volume of Release 800bbls Date and Hour of Occurrence N/A If YES, To Whom? Larry Johnson-NMOCD (left message)							
Surface Owner	Mineral O	wner				Initial Report Final To C) 575-390-1903 Lease No. 30.025.21 TWest Line County LEA Volume Recovered 500bbls Date and Hour of Discovery 3-9-09 on-NMOCD (left message) attercourse. Date and horizontal of Water protection is 0 points. The rate of Water protection is 0 points. The rate of Chloride. A vertical and horizontal of Water protection is 0 points. The rate of Chloride of Water protection is 0 points. The rate of Chloride of Water protection is 0 points. The rate of Chloride of Water protection is 0 points. The rate of Chloride of Water protection is 0 points. The rate of Chloride of Water protection is 0 points. The rate of Chloride of Water protection is 0 points. The rate of Chloride of Water protection is 0 points. The rate of Chloride of Water protection is 0 points. The rate of Chloride of Water protection is 0 points. The rate of Chloride of Water protection is 0 points. The rate of Chloride of Water protection is 0 points. The rate of Chloride of Water protection is 0 points. The rate of Chloride of Water protection is 0 points. The rate of Chloride		5.71037	
Surface Owner (2)	······································				Initial Report			<u> </u>	
Unit Letter Section Township Ra	nge Feet from the	North/	South Line	Feet from the	East/W	est Line	County		
238 34	E	_					LĚA		
	Latitude 32° 15 °	526' N	Longitude	e 103° 27 880'\	W	Recei			
•					<u>vv</u> _ '	· · CCEA	SE)	
	NAT	<u>URE</u>		· · · · · · · · · · · · · · · · · · ·					
Type of Release Produced Water									
Source of Release Tank Battery				iour of Occurrenc			Hour of Di	scovery	
Was Immediate Notice Given?				Whom? Larry Jo			eft messag	e)	
⊠ Yes	□ No □ Not Rec	quired		-					
By Whom? Kelton Beaird Oxy HES									
Was a Watercourse Reached?	es 🛛 No		If YES, Vo	olume Impacting t	he Water	course.			
Watercourse was Impacted, Describe F	ully.*								
			•						
Describe Cause of Problem and Remedial	Action Taken *								
		ık. Vac	-Truck was ca	lled to pick stand	ing fluid	up. Grou	ndwater us	ing SEC) Data
showed >100 bgs for a ranking of 0 points.	Wellhead protection a	rea has	a ranking of (points. Surface	Body of	Water pro	tection is 0	points.	The ranking
		0ppm V	apor Headsp	ace reading, and 2	250ppm (Chloride. A	A vertical a	nd horiz	zontal
delineation was completed of the spill area	to the above RAL's.	Cine	LOT NOW!	30.026	. 340	65			
Describe Area Affected and Cleanup Action	n Taken.*	7B 9	SPILL	<i>30</i> 3C.	J. J. (
As per the approved remediation plan, the	impacted soil was excav	vated 1'	inside the ba	ttery, backfilled w	vith clean	native so	il, a 4 oz. (Geotextil	le liner then a
20 mil poly liner was installed and a layer	of pea gravel spread ove 4 oz Geoteytile liner w	er the ba	attery. The ar	ea outside the ber	rm was ex	cavated 4	l' deep, the	na4oz	. Geotextile
BLM Seed Mixture #2. Attached is the Fin				avacion was then	Dackinio	a with oic	an native s	on and s	ccaca with
	,								<u> </u>
regulations all operators are required to ren	above is true and compliant and/or file certain re	lete to ti	he best of my	knowledge and u	nderstand	I that purs	uant to NN	10CD n	ules and
public health or the environment. The acce	eptance of a C-141 report	rt by the	e NMOCD ma	arked as "Final Re	eport" do	es not reli	eve the ope	erator of	liability
should their operations have failed to adequ	nately investigate and re	emediat	e contaminati	on that pose a thre	eat to gro	und water	, surface w	ater, hu	man health
or the environment. In addition, NMOCD federal, state, or local laws and/or regulation		report d	oes not reliev	e the operator of r	responsib	ility for co	ompliance	with any	other
rederal, state, or local laws and/or regulation	7/2	/ /	<i></i>	OIL COM	SEDV	TION	DIVICI	ONI	
	\mathcal{A} \mathcal{A}			OIL COIN				<u>OIN</u>	
Signature:									
Printed Name: Kelton Beaird			Approved by	District Superviso	PINMEN	ITAL E	VGINEE	R	····
Title: HES Specialist			Approval Dat	e: 5.26.0	9 E	xpiration l	Date: -		
			Conditions of	Approval:			Attachet	d 🗆	
Date: 5-11-2009	Phone : 575-887-83	337					_		7.153
Attach Additional Sheets If Necessary		 . L .	······································				111/4	<u>- 1· T`</u>	

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

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

May 11, 2009

RECEIVED

MAY 21 2009

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

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,

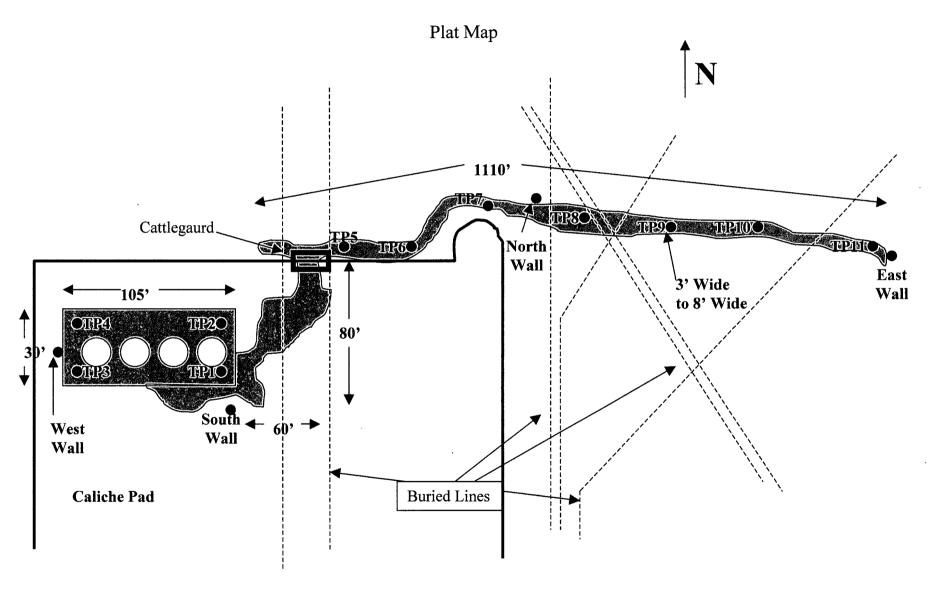
Elke Environmental was contracted by Oxy USA to complete the remediation of the impacted soil at the Antelope Ridge #4 SWD Facility. A vertical and horizontal delineation of the site was completed with a backhoe. The ranking criteria for this site is as follows: Surface Body of Water -0 points; Wellhead 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



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	PPM C1/PPM PID/PPM		GPS
TP1	3-17-09	2,		2,738		32° 15.526' N
11 1	3-17-07			2,730		103° 27.880° W
TP1	3-19-09	4'		3,551		32° 15.526' N
11 1	3 17 07	· · · · · · · · · · · · · · · · · · ·		3,331		103° 27.880° W
TP1	3-19-09	6,		1,677		32° 15.526' N
111	3 17 07			1,077		103° 27.880° W
TP1	3-19-09	8,		2,699		32° 15.526' N
	3 17 07	·····		2,000		103° 27.880' W
TP1	3-19-09	9,		1,720		32° 15.526' N
111	1 3 17 07			1,720		103° 27.880' W
TP1	3-27-09	15'		3,898		32° 15.526' N
	32,00			3,070		103° 27.880' W
TP1	3-27-09	20'		2,129		32° 15.526' N
	32.09			2,12	-	103° 27.880' W
TP1	3-27-09	25'		1,679		32° 15.526' N
	32,00			1,0//		103° 27.880° W
TP1	3-27-09	30'		1,199		32° 15.526' N
	32,00			1,177		103° 27.880° W
TP1	3-27-09	35'		1,049		32° 15.526' N
	32,05	55		1,015		103° 27.880' W
TP1	3-27-09	40'		959	-	32° 15.526' N
	2.05			707		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
	ļ					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
		· · · · · · · · · · · · · · · · · · ·		<u> </u>		103° 27.881' W
TP2	3-19-09	· 8'		2,699		32° 15.530' N
	<u> </u>		<u> </u>	L		103° 27.881' W

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
112	3-17-07	, ,		1,720		103° 27.881' W
TP2	3-27-09	15'		1,649		32° 15.530° N
112	3 27 07	1.0		1,015		103° 27.881' W
TP2	3-27-09	20,		2,510		32° 15.530' N
	1 2. 03			_,-,-		103° 27.881' W
TP2	3-27-09	25'		2,459		32° 15.530' N
	1			_,		103° 27.881' W
TP2	3-27-09	30'		1,805		32° 15.530' N
	1			1,000		103° 27.881' W
TP2	3-27-09	35'		1,972		32° 15.530° N
				1,5		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	1	32° 15.528' N
					· · · · · · · · · · · · · · · · · · ·	103° 27.896' W
TP3	3-19-09	8'		1,622		32° 15.528' N
	<u>- </u>					103° 27.896' W 32° 15.528' N
TP3	3-19-09	10'		1,690		103° 27.896' W
						32° 15.528' N
TP3	3-27-09	15'		1,448		103° 27.896' W
						32° 15.528' N
TP3	3-27-09	20'		1,404		103° 27.896' W
	_					32° 15.528' N
TP3	3-27-09	25'		1,179		103° 27.896' W
	<u> </u>					103 27.890 W

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	PPM C1/PPM PID/PPM		GPS
TP3	3-27-09	30'		1,139		32° 15.528' N
11 3	3-21-07			1,137		103° 27.896' W
TP3	3-27-09	35'		959		32° 15.528' N
113	3-27-07	33		737		103° 27.896' W
TP3	3-27-09	40'		809		32° 15.528' N
	3 2, 0,			007		103° 27.896' W
TP3	3-27-09	45'		655	:	32° 15.528' N
	102.09			000		103° 27.896' W
TP3	3-27-09	50'	114	449	56.8	32° 15.528' N
	3 2. 03				20.0	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
·			1	-,		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
	<u> </u>					103° 27.893' W

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
	32,05		107	209	07.2	103° 27.893' W
TP5	3-23-09	2,		3,568		32° 15.537' N
			· · · · · · · · · · · · · · · · · · ·	- 9	:	103° 27.860' W
TP5	3-23-09	4'		699		32° 15.537' N
						103° 27.860' W 32° 15.537' N
TP5	3-23-09	6'		752		103° 27.860' W
						32° 15.537' N
TP5	3-23-09	8'		1,159		103° 27.860° W
	22400					32° 15.537' N
TP5	3-24-09	9'		441		103° 27.860' W
TP5	2 24 00	10'		1.056		32° 15.537' N
173	3-24-09	10		1,056		103° 27.860° W
TP5	3-26-09	11'		953		32° 15.537' N
11.3	3-20-09	11		933		103° 27.860' W
TP5	3-26-09	12'		899		32° 15.537' N
110	3 20 0>					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 32° 15.542' N
TP6	3-23-09	2'		3,714		32 13.342 N 103° 27.828' W
						32° 15.542' N
TP6	3-23-09	4'		5,258		103° 27.828' W
TDC	2 22 00			1 500		32° 15.542' N
TP6	3-23-09	6'		1,733		103° 27.828' W
TP6	3-23-09	8'		3,039		32° 15.542' N
110	3-23-09			3,039		103° 27.828' W
TP6	3-24-09	9,		1,950		32° 15.542' N
110	3210)	,		1,730		103° 27.828' W
TP6	3-24-09	10'		722		32° 15.542' N
	. L		L			103° 27.828' W

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
110	3-24-09	11		700		103° 27.828' W
TP6	3-26-09	12'		689		32° 15.542' N
110	3-20-07	12		007		103° 27.828' W
.TP6	3-26-09	14'		371		32° 15.542' N
,110	3-20-07	1 T		371		103° 27.828' W
TP6	3-26-09	16'	23	355	0.0	32° 15.542' N
110	3 20 07	10	23	333	0.0	103° 27.828' W
TP7	3-23-09	2'		2,605		32° 15.551' N
11 /	3 23 07		<u> </u>	2,003		103° 27.798' W
TP7	3-23-09	4'		2,374		32° 15.551' N
	3 23 0)			2,5 / 1		103° 27.798' W
TP7	3-23-09	6,		2,469	}	32° 15.551' N
11 /	3.23.07	V		2,10)		103° 27.798' W
TP7	3-24-09	8'		856		32° 15.551' N
** /	3210)			050		103° 27.798' W
TP7	3-24-09	10'		759		32° 15.551' N
117	32107	10		737		103° 27.798' W
TP7	3-24-09	11'		742		32° 15.551' N
11,	32107	* *		772		103° 27.798' W
TP7	3-25-09	12'		855		32° 15.551' N
11,	3 23 07	12	,			103° 27.798' W
TP7	3-25-09	13'		449		32° 15.551' N
11 /	3 23 07			777		103° 27.798' W
TP7	3-25-09	14'	51	509	0.1	32° 15.551' N
11,	3 23 03	1	J.1	307	0.1	103° 27.798' W
TP8	3-23-09	2'		885		32° 15.553' N
	3 23 09	—				103° 27.764' W
TP8	3-23-09	4'		2,669		32° 15.553' N
	3 20 03	•		2,007		103° 27.764' W
TP8	3-23-09	6'		3,551		32° 15.553' N
				5,551		103° 27.764' W
TP8	3-23-09	8'		295		32° 15.553' N
				2490		103° 27.764' W

Analyst Notes_

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
110	3-24-09	9	36	204	0.0	103° 27.764' W
TP9	3-23-09	2,		849		32° 15.556' N
117	3-23-07			077		103° 27.739' W
TP9	3-23-09	4'		2,377		32° 15.556' N
	3 23 07	*		2,577		103° 27.739' W
TP9	3-23-09	6'		2,626		32° 15.556' N
	3 2 3 03			2,020		103° 27.739' W
TP9	3-24-09	8,		1,306		32° 15.556' N
	1 2 . 33			1,000		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 32° 15.556' N
TP9	3-25-09	15'		295		32 13.336 N 103° 27.739' W
						32° 15.556' N
TP9	3-25-09	16'	30	275	0.0	103° 27.739' W
						32° 15.556' N
TP10	3-23-09	2'		1,986		103° 27.715' W
TTD 4.0						32° 15.556' N
TP10	3-23-09	4'		989		103° 27.715' W
TD10	2 22 00	<i>C</i> 3				32° 15.556' N
TP10	3-23-09	6'		323		103° 27.715' W
TD10	2 24 00	02	4.0	202	0.0	32° 15.556' N
TP10	3-24-09	9'	46	293	0.0	103° 27.715' W
TP11	3-23-09	2'		610		32° 15.550' N
1111	3-23-09			619		103° 27.698' W

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 32° 15.550' N
TP11	3-23-09	6'		446		32 15.550° N 103° 27.698° W
TD11	2 24 00	8,		575		32° 15.550' N
TP11	3-24-09	8		575		103° 27.698' W
TP11	3-24-09	10'		567		32° 15.550' N
1111	32109	10		307		103° 27.698' W
TP11	3-24-09	12'		556		32° 15.550' N
						103° 27.698' W 32° 15.550' N
TP11	3-25-09	14'	78	685	0.0	103° 27.698' W
N 1 XXX 11	2.26.00	21	4.5	4.5	0.0	32° 15.555' N
North Wall	3-26-09	2'	45	313	0.0	103° 27.775' W
South Wall	3-26-09	2,	24	344	0.0	32° 15.524' N
South wan	3-20-09		24	J 44	0.0	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
				*****		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		
Dackground 5	3-24-07	10		300		
Background 4	3-24-09	14'		349		
						
					· · · · · · · · · · · · · · · · · · ·	4.0
	.1					

Analyst Notes	
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Record Count:5

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

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

	(quarte	ers are sr	nallest	to larges	st)	(NAD83 UT	M in meters)		(In feet)
POD Number	County	Q Q 6416	Mary .	: Tws	Rng	The state of the s			, · ·	Water Column
CP 00556	Lea	4 4	3 08	23\$	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

Average Depth to Water: 313 feet

Minimum Depth: 255 feet

Maximum Depth: 430 feet

FOR OSE INTERNAL USE

FILE NUMBER

LOCATION

z		OD NUMBER (WELL NUMBER) OXY ANTELOPE RIDGE UNIT #4 SB-1									OSE FILE NUMBER(S)					
T10	WELL OWN										PHONE (OP	TIO	NAI)			
GENERAL AND WELL LOCATION	OXY US		. 2(0)								THONE (OF	1101				
1	WELL OWN	IER MAI	LING	ADDRESS							CITY			STATE		ZIP
WEI	P.O. BO	X 19	38								CARLSBAD NM 8822				221	
QN)	WELL				DE	GREES	М	INUTES	SECO							
AL.	LOCATIO		LAT	TUDE		32		15		0.00 _N	j		REQUIRED ONE TEN	TH OF A SEC	COND	
NER	(FROM G	PS)	LON	GITUDE		103		27	5	2.00 W	* DATUM R	REQU	JIRED WGS 84			
1. GE	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 5 ACR	E)	((10 ACRE)		(40 ACRE)	Γ	(160 ACRE)	SECTION		T	TOWNSHIP	NORIII	RANGE	□ LASI
VAL	<i>'</i>			1/4		1/4		1/4				_		Soun		□ wisi
OPTIONAL	SUBDIVISIO	ON NAN	1E							LOT NUM	/BER		BLOCK NUMBER		UNIT/TRAC	TT
2. OP	HYDROGR	APHIC S	URVE	Y						.l		\dashv	MAP NUMBER		TRACT NU	MBER
							_									
	LICENSE NUMBER NAME OF LICENSED DRILLER									T	NAME OF WELL DR					
No		1478		EDWARD						1			STRAUB COI			
	DRILLING 3-2	starti 7-09	ΞD	3-27-09	- 1	DEPTH OF COM		TED WELL (F O	Γ)	BORE HO	осе DEPTH (F1 50	Γ)	DEPTH WATER FIR	ST ENCOUN	ITERED (FT)	
ATIO	COMPLETED WELL IS ARTESIAN DRY HOLE SHALLOW (UNCONFINED)							ONEINED			STATIC WATER LE			L (FT)		
3. DRILLING INFORMATION	DRILLING FLUID ART MUD ADDITIVES - SPECIFY									N/A	\					
N	DRILLING		D G	✓ ROTARY		HAMMER		CABLET		$\overline{}$	ER – SPECIFY					
Ž	DEPT	H (FT)	·	BORE HOI	Æ		CAS	SING		CON	NECTION		INSIDE DIA.	CASIN	G WALL	SLOT
DRIL	FROM	TO)	DIA (IN)	N	TAN	ERIAL		1	(CASING)		CASING (IN)		NESS (IN)	SIZE (IN)
<u>س</u>	0	5	0	5				I/A		-	N/A	_	N/A	1	J/A	N/A
										 						
						V.W.										
	DEPT	TH (FT))	THICKNE	ss		FOR	MATION DI	ESCRIE	PTION OF	PRINCIPAL	W	ATER-BEARING S	TRATA		YIELD
4TA	FROM	To	3	(FT)			(INCLUDE V	VATER	R-BEARING	CAVITIES	OF	R FRACTURE ZON	NES)	-,-, <u></u> ,	(GPM)
STRATA																
BEARING		 														
SR BI																
WATER	METHOD	USED T	O ESTI	MATE YIELD OF	WAT	ER-BEARING STI	RATA	\					TOTAL ESTIMATE	D WELL YIE	LD (GPM)	
4.																

POD NUMBER

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

PAGE 1 OF 2

TRN NUMBER

	ГҮРЕ ОҒ РИМР		PE OF PUMP SUBMERSIBLE TURBINE DEPTH (FT)	☐ JET ☐ CYLINDER	☐ NO PUMP – WELL NOT EQUIPPED ☐ OTHER – SPECIFY				
SEAL AND PU	ANNU	II AR	DEPTH FROM	(FT)	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHO PLACEI	
EA1.	SEAL.	AND	0	2	5	.5 BAGS OF CEMENT		TOPL	OAD
S. S.	GRAVEI	PACK	2	50	5	10 BAGS OF 3/8 PLUG		TOPL	OAD
	DEPTI	1 (FT)	THICK	NESS		COLOR AND TYPE OF MATERIAL ENCOUNT	ERED	WAT	ER
Ī	FROM	то	(F)	Γ)	(INCL)	JRE ZONES)	BEARING?		
Ī	0	5	5		BI	☐ YES	☑ NO		
Ī	5	8	3		` T.	LICHE	☐ YES	☑ NO	
	8	16	8			RED FINE SAND - SANDSTONE		YES	Ø NO
	16	50	3.	4		TAN FINE SAND - SANDSTONE		☐ YES	☑ NO
٠	TD	50						☐ YES	□NO
VEL								☐ YES	□NO
OF								☐ YES	□NO
90				····				☐ YES	□ NO
GEOLOGIC LOG OF WELL								☐ YES	□ NO
907								☐ YES	□NO
EO								YES	□NO
6. (☐ YES	□NO
								YES	□NO
								☐ YES	□NO
								☐ YES	□NO
								☐ YES	□NO
								☐ YES	□NO
		. <u>L</u>	ATTACI	ADDITION	NAL PAGES AS N	EEDED TO FULLY DESCRIBE THE GEOLOGIC	LOG OF THE WELL		
			METHOD	BAIL	ER PUMP	☐ AIR LIFT ☐ OTHER SPECIFY			
AL INFO	WELI	LTEST				DATA COLLECTED DURING WELL TESTING, AND DRAWDOWN OVER THE TESTING PERI		TIME, END T	IME,
	ADDITIO	NAL STATE	MENTS OR EXP	LANATIONS					
TEST & ADDITION					NG WAS PLUC	GGED AND ABANDONED UPON CO	MPLETION OF S	AMPLING	
& AE									
ST									
7. TI									!
==	<u> </u>								
RE						EST OF HIS OR HER KNOWLEDGE AND BELI ID THAT HE OR SHE WILL FILE THIS WELL R			
ATT.	THE PE	RMIT HOI	DER WITHI	N 20 DAYS	AFTER COMPLET	TION OF WELL DRILLING			
SIGNATURE		-50	18		•	4/2/09			
». S.	-		SIGNATU	RE OF DRIL	LER	DATE			
<u> </u>						/	The state of the s		

FOR OSE INTERNAL USE		WELL RECORD & LOG (Version 6/9/08)				
FILE NUMBER	POD NUMBER	TRN NUMBER				
LOCATION		PAGE 2 OF 2				



N.	POD NUMBE	. ,	NUMBER) PE RIDGE UN	IIT #4 SB-2				OSE FILE NUM	BER(S)			
OCA TR	WELL OWNE		S)					PHONE (OPTIC	NAL)			
GENERAL AND WELL LOCATION	P.O. BOX		NG ADDRESS					CARLSBA				ZIP 221
9	WELL			DEGREES	MINUTES	S SECO	NDS			· · · · · · · · · · · · · · · · · · ·		
ALA	LOCATIO	_ <u>_</u> _	ATITUDE	32	15		0.00 _N		REQUIRED ONE TENT	TH OF A SEC	COND	
NER	(FROM GE	'S) L	ONGITUDE	103	27	7 52	2.00 W	DATOM REC	OIRED WGS 84			
I. GE	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 5 ACR	E)	(10 ACRE)	(40 ACRE)	(160	ACRE)	SECTION	····	TOWNSHIP	NORIU	RANGE	
AL.	1/2	,	1/4	1/4		1/4				Somi		
OPTIONAL	SUBDIVISIO	N NAME					LOT NUN	1BER	BLOCK NUMBER		UNIT/TRAC	CT .
2.0									MAP NUMBER		TRACT NU	MBER
	LICENSE NI	JMBER	NAME OF LICE	ENSED DRILLER			NAME OF WELL DR	ILLING COM	APANY			
	WD1	1478	EDWARD	BRYAN					STRAUB COF	RPORA	TION	
	DRILLING S		DRILLING EN		PLETED WI	ELL (FT)	BORE HO	LE DEPTH (FT)	DEPTH WATER FIR	ST ENCOUN	ITERED (FI)	
Z	3-27	7-09	3-27-09	9	0			50				
DRILLING INFORMATION	COMPLETED WELL IS ARTESIAN TO DRY HOLE SHALLOW (UNCONFINED)								STATIC WATER LEV	VEL IN COM N/A		.L (FT)
FOR	DRILLING	FLUID	✓ AIR	MUD	AI	DDITIVES – SPE	CIFY			-		
SC IN	DRILLING	METHOD	✓ ROTARY	☐ HAMMER	c	ABLE TOOL	Отн	ER - SPECIFY				
ILLIN		H (FT)	BORE HOL		CASING		I I	NECTION	INSIDE DIA.	1	G WALL	SLOT
	FROM	TO	DIA (IN)) M	ATERIAL		TYPE	(CASING)	CASING (IN)		NESS (IN)	SIZE (IN)
ω,	0	50	5		N/A			N/A	N/A		N/A	N/A
							<u> </u>					
							<u> </u>		<u> </u>			
F	DEPT	H (FT)	THICKNE	SS F	ORMATI	ON DESCRIP	TION OF	PRINCIPAL W	ATER-BEARING S	TRATA		YIELD
TA	FROM	то	(FT)		(INCL	UDE WATER	-BEARING	G CAVITIES O	R FRACTURE ZON	(ES)		(GPM)
TR.										·		
NGS												
ARI										<u> </u>		
R BE												
TEF	METHOD	ISED TO F	STIMATE VIELD OF	WATER-BEARING STR	ATA		···		TOTAL ESTIMATE	D WELL YIF	LD (GPM)	
4. WATER BEARING STRATA	, siction	,3ED TO E	S. IIIII TEED OF	DEMINIO OTN					, o do i i i i i i		(0.111)	
<u> </u>												

FOR OSE INTERNAL USE	WELL RECORD & LOG (Version 6/9/08)				
FILE NUMBER	POD NUMBER	TRN NUMBER			
LOCATION		PA	GE 1 OF 2		

MP	TYPE OF PUMP SUBMERSIBLE TURBINE				☐ JET ☐ CYLINDER	☐ NO PUMP – WELL NOT EQUIPPED ☐ OTHER – SPECIFY:					
SEAL AND PUMP	ANNL	II AR	DEPTH FROM	TO	BORE HOLE DIA (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHO PLACE			
(AL	SEAL	AND	0	2	5	.5 BAGS OF CEMENT		TOPL	OAD		
5. SF	GRAVE	L PACK	2	50	5	10 BAGS OF 3/8 PLUG		TOPL	.OAD		
-,,											
	DEPTI	H (FT)	THICK	NESS		COLOR AND TYPE OF MATERIAL ENCOUNT	ERED	WAT	res		
	FROM	то	(FT		(INCL	UDE WATER-BEARING CAVITIES OR FRACTU	JRE ZONES)	BEAR			
	0	3	. 3	}	BR	OWN FINE SAND - SANDSTONE - C	ALICHE	☐ YES	☑ NO		
	3	47	44	4	Т	AN FINE SAND - SANDSTONE - CAI	LICHE	☐ YES	☑ NO		
	47	50	3	}		RED MEDIUM FINE SAND WITH CLAY					
	TD 50							YES	□NO		
۲,								☐ YES	□NO		
WEL								☐ YES	□NO		
GEOLOGIC LOG OF WELL								☐ YES	□NO		
00,								☐ YES	□ NO		
101								☐ YES	□NO		
100								☐ YES	□NO		
GEO								☐ YES	□ NO		
ف ا								☐ YES	□ NO		
								☐ YES	□ NO		
								☐ YES	□ NO		
								☐ YES	□ NO		
								☐ YES	□ NO		
								☐ YES	□ NO		
Ì			ATTACI	ADDITION	NAL PAGES AS N	EEDED TO FULLY DESCRIBE THE GEOLOGIC	LOG OF THE WELL				
			METHOD	BAILE	ER PUMP	☐ AIR LIFT ☐ OTHER – SPECIFY					
ADDITIONAL INFO	WELI	L TEST				DATA COLLECTED DURING WELL TESTING, AND DRAWDOWN OVER THE TESTING PERI		IME, END T	IME,		
NO.	ADDITIO	NAL STATE	MENTS OR EXP	LANATIONS							
) II					NG WAS PLU	GGED AND ABANDONED UPON CO	MPLETION OF S	AMPLING	;		
S L											
TEST											
7.											
H						SEST OF HIS OR HER KNOWLEDGE AND BELI					
SIGNATURE	THE PE	RMIT H	DER WITHE	20 DAYS	AFTER COMPLET	ID THAT HE OR SHE WILL FILE THIS WELL R. TON OF WELL DRILLING.	ECOKD WITH THE ST	ALEENGIN	EEK AND		
N Y		40	04	2		1/2/29					
		da-	a d	γ		<u> </u>					
86			SIGNATU	RE OF DRIL	LER	/ DATE					
											

FOR OSE INTERNAL USE	WELL RECORD & LOG	(Version 6/9/08)	
FILE NUMBER	POD NUMBER	TRN NUMBER	
LOCATION			PAGE 2 OF 2

z.	POD NUMBE			MBER) RIDGE UN	IIT #4	SB-3					OSE FILE NUMBER(S)				
LOCATION	WELL OWN										PHONE (OPTIC	NAL)			
,OC,	OXY US	Α													
LL I	WELL OWN			ADDRESS							CITY		STATE		ZIP
WE	P.O. BO	X 198	38								CARLSBA	.D	NM	88	221
AND	WELL	1			DEGR		N	INUTES	SECO						
AL.	LOCATIO	L	LAT	ITUDE		32		15	30	0.00 N		•	EQUIRED ONE TENTH OF A SECOND		
GENERAL AND WELL	(FROM GI	PS)	LON	GITUDE		103		27	52	2.00 W	* DATUM REQ	UIRED WGS 84			
1. GE	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 5 ACRE) (10 ACRE) (40 ACRE)				ACRE)	T	(160 ACR	(E)	SECTION		TOWNSHIP	NORTH	RANGE		
AL	2 1/4 1/4 1/4 1/4							Sooni		□ wisi					
OPTIONAL	SUBDIVISIO	ON NAM	1E							LOT NUM	1BER	BLOCK NUMBER		UNIT/TRA	CT
2. OP	HYDROGR/	APHIC S	URVE	Υ		· · · · · · · · · · · · · · · · · · ·						MAP NUMBER		TRACT NU	IMBER
	\														
	LICENSE N	7164	:	NAME OF LIC	ENSED DI	RILLER						NAME OF WELL DR	ILLING CO	MPANY	
	WD	1478		EDWARD								STRAUB COF	RPORA	TION	
	DRILLING STARTED DRILLING ENDED 3-27-09 3-27-09					EPTH OF CO		•	FT)	BORE HO	LE DEPTH (FT)	DEPTH WATER FIR	ST ENCOUN	TERED (FT)	
NO	3-2	7-09		3-27-08				0		<u> </u>	50	STATIC WATER LEV	JEL IN COM	IDI ETED WEI	L (ET)
DRILLING INFORMATION	COMPLETED.WELL IS ARTESIAN TO DRY HOLE SHALLOW (UNCONFINED						ONFINED)		STATIC WATER LEV	N/A		CE (FT)			
FO	DRILLING	FLUÏD		√ AlR	[MUD		ADDIT	VES - SPE	CIFY					
C D	DRILLING	метно	D	✓ ROTARY		HAMMER		CABLE	TOOL	ОТН	ER - SPECIFY	·····			
LLI	DEPT	H (FT)		BORE HO	LE	CASING CO				NECTION	INSIDE DIA.		G WALL	SLOT	
DRI	FROM	TO		DIA. (IN)			ERIAL		TYPE	(CASING)	CASING (IN)	 	NESS (IN)	SIZE (IN)
3.	0	50	0	5				1/A		 	N/A	N/A	<u> </u>	N/A	N/A
										\ <u></u>					
				 			-			 			 		
	DEPT	TH (FT))	THICKNE	ss		FOR	MATION I	DESCRIP	TION OF	PRINCIPAL W	ATER-BEARING S	TRATA		YIELD
TA	FROM	TO		(FT)								R FRACTURE ZON			(GPM)
TRA															
AG S.															
\RIN											····				ļ
BE.					-+										
WATER BEARING STRATA	METHOR	UCED T	O FOT	MATE VIELD C	ENVATES	DEADING OT	D A T					TOTAL PRIMARY	ANEL L MIT	TD (CD)	<u> </u>
	METHOD	USED TO) EST	IMATE YIELD OI	r WATER	BEAKING ST	KAT	4				TOTAL ESTIMATED	WELL YIE	:LD (GPM)	
															

FOR OSE INTERNAL USE		WELL RECORD & LOG (Version 6/9/08)			
FILE NUMBER	POD NUMBER	TRN NUMBER			
LOCATION			PAGE 1 OF 2		

	TYPE OF	PUMP.	☐ SUBMER		☐ JET ☐ CYLINDER	☐ NO PUMP – WELL NOT EQUIPPED ☐ OTHER – SPECIFY		3 	
					LICILINDER	OTHER - SPECIFY			
SEAL AND PI	ANNU	II.AR	DEPTH FROM	(FT) TO	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHO PLACEI	
AL.	SEAL	I	0	2	5	.5 BAGS OF CEMENT		TOPL	OAD
5. SE	GRAVEI	_PACK	2	50	5	10 BAGS OF 3/8 PLUG		TOPL	OAD
*									
	DEPT	1 (FT)	THICK	NESS		COLOR AND TYPE OF MATERIAL ENCOUNT	ERED	WAT	TER
	FROM	ТО	(F7	Γ)	(INCLI	UDE WATER-BEARING CAVITIES OR FRACTI	JRE ZONES)	BEAR	ING?
	0	_ 3	3			☐ YES	Ø NO		
}	3	48	45		Т	AN FINE SAND - SANDSTONE - CA	LICHE	YES	☑ NO
	48	50	2			RED MEDIUM FINE SAND		☐ YES	ON 🖸
	TD	50			 			YES	□ NO
J.L.								YES	□ NO
F W.		-						YES	ON 🔲
G 01								YES	□ NO
GEOLOGIC LOG OF WELL								YES	□ NO
)55								YES	□ NO
)70°								YES	□ NO
6. GE								YES	□ NO
9								YES	□ NO
		 	<u> </u>					YES	□ NO
								YES	□ NO
		ļ	 -					YES	□ NO
					 			YES	□ NO
	<u> </u>	<u> </u>	1.77.4.61	LABBITION	111 51 050 10 10	FEDERA TO THE LY DESCRIPTION OF SHAPE O		YES	□ NO
			ATTACE			EEDED TO FULLY DESCRIBE THE GEOLOGIC	LOG OF THE WELL		
6	, we i	TreT	METHOD:	BAILE		☐ AIR LIFT ☐ OTHER – SPECIFY			
AL INFO	WELI	L TEST				DATA COLLECTED DURING WELL TESTING, AND DRAWDOWN OVER THE TESTING PERI		IME, END T	IME,
NO			MENTS OR EXPL						
& ADDITIONA	SOIL B	ORING	ONLY- SO	IL BORIN	IG WAS PLUC	GGED AND ABANDONED UPON CO	MPLETION OF SA	AMPLING	
A D									
STS									
7. TEST									
	<u></u>								
Œ						EST OF HIS OR HER KNOWLEDGE AND BELI ID THAT HE OR SHE WILL FILE THIS WELL R			
SIGNATURE						TION OF WELL DRILLING:	ECOND WITH THE ST	A LE ENGIN	LEK AND
GNA		10	0 \$			1/2/00			
8. S10	-	24-	-A On	DE OF DRU	1.50	4/0/0/			
		<u>'</u>	SIGNATU	RE OF DRIL	LEK	/ DATE			

FOR OSE INTERNAL USE		WELL RECORD & LOG	(Version 6/9/08)
ΓΊLE NUMBER	POD NUMBER	TRN NUMBER	
LOCATION			PAGE 2 OF 2



z	POD NUMBER	•	NUMBER) E RIDGE UN	IIT #4 SR-4				OSE FILE NUM	BER(S)			
GENERAL AND WELL LOCATION	WELL OWNER							PHONE (OPTIC	DNAL)			
707	OXY USA									·		
ELL	P.O. BOX						i	CARLSBA	'D	STATE NM	88:	ZIP 221
ID W				DEGREES	MINUTES	SECON	IDS					
LAN	WELL LOCATION	, L	ATITUDE	32	15		.00 N	* ACCURACY	REQUIRED ONE TEN	TH OF A SEC	COND	
ERA	(FROM GPS	s)	ONGITUDE	103	27	52	.00 W	* DATUM REC	UIRED WGS 84			
GE				ON TO STREET ADDRE					-			
-	FROM JA	L GO	W ON 128 T	O DELAWARE	BASIN RD (GO N	TO HW	Y 21-B GO	E TO DEAD EI	ND		
	(2 5 ACRE))	(10 ACRE)	(40 ACRE)	(160 ACRE	E)	SECTION		TOWNSHIP	NORIII	RANGE	
N.A.L.	1/4	12/12/05	1/4	1/4	1/4	4	LOT NUM	4050		Soun		□ wisi
OPTIONAL	SUBDIVISION	NAME					LOT NON	ИВЕК	BLOCK NUMBER		UNIT/TRAC	J
2. OF	HYDROGRAF	PHIC SUR	VEY						MAP NUMBER		TRACT NU	MBER
												
	LICENSE NUMBER NAME OF LICENSED DRILLER NAME OF WELL DRILLING COMPANY WD1478 EDWARD BRYAN STRAUB CORPORATION											
) :	1						BORE UO	LE DEPTH (FT)	<u> </u>		<u> </u>	
z	3-27		3-27-09	ı	0	1)	BOKE HO	50	DEPTH WATER FIR	ST ENCOUP	NIEKED (FI)	
DRILLING INFORMATION	COMPLETED WELL IS ARTESIAN DRY HOLE SHALLOW (UNCONFINED								STATIC WATER LE	VEL IN COM		L(FT)
FOR	DRILLING FI	LUID	✓ AIR	MUD	ADDITIV	/ES – SPE	CIFY					
NG IN	DRILLING M	ETHOD	ROTARY	HAMMER	CABLE 1	rool	ОТН	ER - SPECIFY				1
ILLI	DEPTH		BORE HOL		CASING			NECTION (CASING)	INSIDE DIA CASING (IN)		G WALL NESS (IN)	SLOT SIZE (IN)
3. DR	FROM 0	TO 50	DIA (IN) (V	N/A		1172	N/A	N/A	<u> </u>	V/A	N/A
	DENS	LICET			000445					1		
7	FROM	TO	THICKNE (FT)	SS F					'ATER-BEARING S R FRACTURE ZON			YIELD (GPM)
TRA												
S S												
ARIF												
R BE	 								 			
4. WATER BEARING STRATA	METHOD US	SED TO ES	STIMATE YIELD O	F WATER-BEARING STR	RATA				TOTAL ESTIMATE	D WELL YIE	LD (GPM)	L
4.18.												
	FOR OSE	INTERN	NAL LISE						WELL RECO)RD & LO	G (Version 6	/9/08)

POD NUMBER

TRN NUMBER

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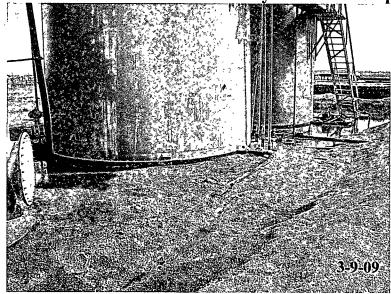
FILE NUMBER

LOCATION

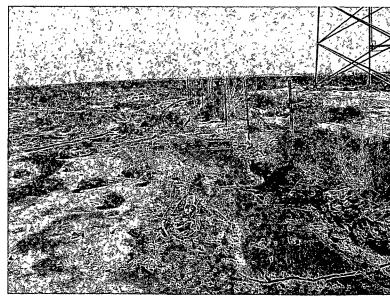
	TYPE OF	PUMP:	☐ SUBMER		☐ JET ☐ CYLINDER	☐ NO PUMP – WELL NOT EQUIPPED ☐ OTHER – SPECIFY.			
SEAL AND PU	ANNU	JLAR	DEPTH FROM	I (FT)	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT	
EAL	SEAL	AND	0	2	5	.5 BAGS OF CEMENT		TOPLOAD	
5.5	GRAVE	PACK	2	50	5	10 BAGS OF 3/8 PLUG		TOPL	OAD
					<u> </u>				
	DEPTI	l (FT)	THICK	NESS		COLOR AND TYPE OF MATERIAL ENCOUNT	ERED	WAT	ER
	FROM	ТО	(F1	Γ)	(INCL	UDE WATER-BEARING CAVITIES OR FRACTI	JRE ZONES)	BEAR	
	0	2	2	 :		BROWN FINE SAND - CALICHE		☐ YES	☑ NO
	2	50	48	8	Т	AN FINE SAND - SANDSTONE - CA	LICHE	YES	☑ NO
]	TD	50						☐ YES	□NO
								☐ YES	□NO
	-							YES	□NO
VEL					 			☐ YES	□NO
OF WELL								☐ YES	□NO
90			 					☐ YES	□ NO
CL								☐ YES	□NO
GEOLOGIC LOG		ļ	ļ <u></u>					YES	□ NO
103								☐ YES	_ NO
6.6								☐ YES	□ NO
								☐ YES	□ NO
		 		-, ,				☐ YES	□NO
								☐ YES	□ NO
		 						YES	□NO
	-		J. J					☐ YES	 □ NO
	ļ	<u></u>	ATTACI	H ADDITIO	NAL PAGES AS N	EEDED TO FULLY DESCRIBE THE GEOLOGIC	LOG OF THE WELL	1	
	1								
P. O.	WELL	LTEST	METHOD	BAIL		☐ AIR LIFT ☐ OTHER – SPECIFY			
AL INFO	WEL					DATA COLLECTED DURING WELL TESTING, AND DRAWDOWN OVER THE TESTING PER		TME, END T	ime,
7. TEST & ADDITION	ĺ		MENTS OR EXP		NG WAS PLU	GGED AND ABANDONED UPON CC	MPLETION OF S	AMPLING	3
(2)						BEST OF HIS OR HER KNOWLEDGE AND BELI			
LUR						ND THAT HE OR SHE WILL FILE THIS WELL R FION OF WELL DRILLING	ECORD WITH THE ST	ATE ENGIN	EER AND
SIGNATURE		/1	1/1			4/2/2			
		21-	A Dy			<u>4/4/07</u>			
œ		(SIGNATU	RE OF DRII	LLER	/ / DATE			
L			V-						

FOR OSE INTERNAL USE		WELL RECORD & LOG (Version 6/9/08)					
FILE NUMBER	POD NUMBER	TRN NUMBER					
LOCATION			PAGE 2 OF 2				

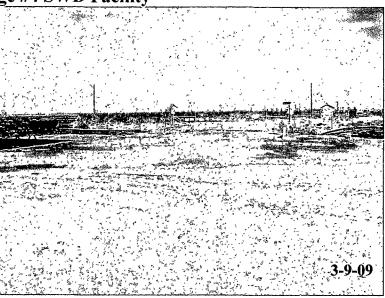
ţ



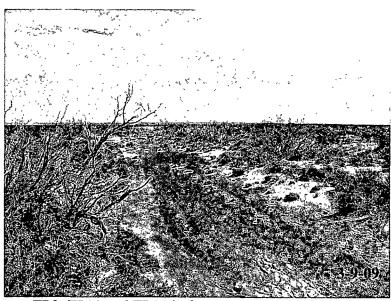
TP1, TP2, TP3 and TP4 before remediation of spill.



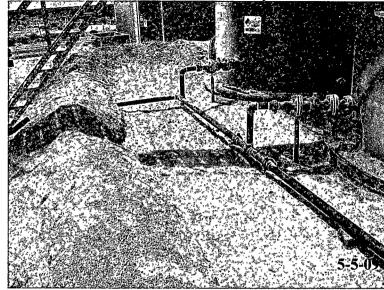
TP6, TP7 and TP8 before remediation of spill.



TP5 before remediation of spill.



TP9, TP10 and TP11 before remediation of spill.



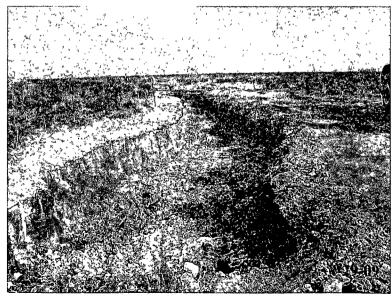
Inside battery after excavation of 1' of impacted soil.



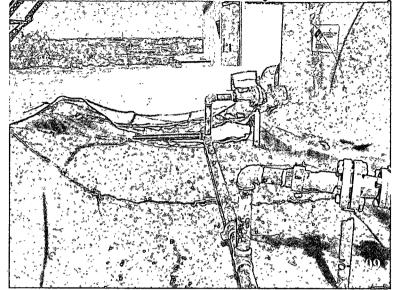
TP6, TP7, TP8 and TP9 after excavation of 4' of impacted soil.



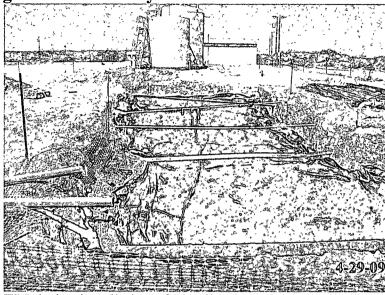
TP5 after excavation of 4' of impacted soil.



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

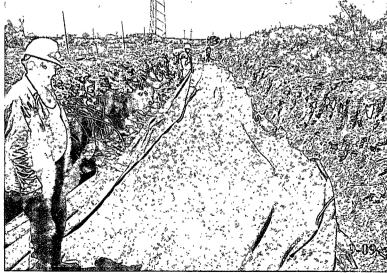


Battery during installation of 20 mil poly and Geotextile liner.

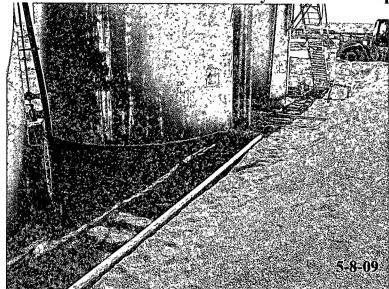


TP5 during installation of 20 mil poly and Geotextile liners.

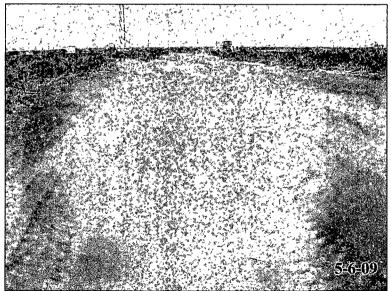




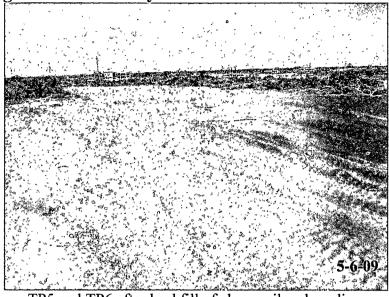
TP6, TP7, TP8 and TP9 after installation of 20 mil poly liner with a 4 oz. Geotextile liner above and below the poly.



Battery after remediation of spill.



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



TP5 and TP6 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

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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

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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 1.1 @ 14'	S	Mar-27-09 10:45	14 ft	328761-011



Project Location:

Certificate of Analisis Summary 328761

Elke Environmental, Inc., Odessa, TX

Project Name: Oxy



Project Id: Antelope Ridge Unit #4

Contact: Logan Anderson

Date Received in Lab: Mon Mar-30-09 08:40 am

Report Date: 03-APR-09

								Project Mar	ager:	Brent Barron,	11		
	Lab Id:	328761-0	001	328761-0	102	328761-0	03	328761-0	04	328761-0	05	328761-00)6
Anglusis Daguestad	Field Id:	SB 1		SB 2		SB 3		SB 4		TP 5 @ 1	6'	TP 6 @ 10	6'
Analysis Requested	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 1	1:15	Mar-27-09 1	4:30	Mar-25-09 1	5:45	Mar-25-09 1	6:15
Anions by EPA 300	Extracted:												
1	Analyzed:	Mar-30-09	14.43	Mar-30-09	14.43	Mar-30-09 1	4.43	Mar-30-09 14:43		Mar-30-09 1	4.43	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 1	6:40	Mar-30-09 1	6.40	Mar-30-09 1	6:40	Mar-30-09 1	6.40
	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 2	1.34	Apr-01-09 2	1:34	Apr-01-09 2	1:34	Apr-01-09 2	1:34
1111	Analyzed:	Apr-02-09	00:21	Apr-02-09	00.44	Арг-02-09 (1:07	Apr-02-09 (1:32	Apr-02-09 1	2.02	Apr-02-09 1	2:25
	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	160	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	159	ND	16.0	ND	16.5	ND	16.8
Total TPH		2659	15 7	2841	15.8	267	159	262 4	160	114	165	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

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Brent Barron Odessa Laboratory Director



Certificate of Analis 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

ject Location:												
								Project Mar	ager:	Brent Barron,	II	
	Lab Id:	328761-0	07	328761-0	08	328761-0	09	328761-0	10	328761-0	11	
Analusta Daniaria	Field Id:	TP 7 @ 1	4'	TP 8 @ 9	9'	TP 9 @ 1	6'	TP 10@	9'	TP 11 @	14'	
Analysis Requested	Depth:	14 ft		9 ft		16 ft		9 ft		14 ft		
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	İ	
	Sampled:	Mar-27-09	14:00	Mar-24-09	13:00	Mar-25-09 1	5:00	Mar-24-09	13:15	Mar-27-09	10:45	
Anions by EPA 300	Extracted:											
inions by Elitzoo	Analyzed:	Mar-30-09	Mar-30-09 14.43		14.43	Mar-30-09 1	4 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:								i			
a credit ivioisture	Analyzed:	Mar-30-09 16:40		Mar-30-09 16.40		Mar-30-09 16:40 Mar-30-09 16:40		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 2	21.34	Арт-01-09 2	21:34	Apr-01-09	21.34	Apr-01-09	21.34	
III by 5 Wood5 Wood	Analyzed:	Apr-02-09	12:49	Apr-02-09	13:12	Apr-02-09 1	3.36	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	160	
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	163	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
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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.

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5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



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	SU	RROGATE RI	ECOVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
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 S	SURROGATE RECOVERY STUDY							
TPH By SW8015 Mod	Amount Found [A]	Found Amount Recovery							
Analytes			[D]						
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:

Matrix: Solid

Units: mg/kg	Date Analyzed: 04/01/09 13:34	SURROGATE RECOVERY STUDY							
ТРН І	3y SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
	Analytes	. ,	(,	[D]					
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	SURROGATE RECOVERY STUDY						
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
Analytes			[D]				
1-Chlorooctane	113	100	113	70-135			
o-Terphenyl	55.7	50.0	111	70-135	<u> </u>		

Lab Batch #: 754742

Sample: 328761-002 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 04/02/09 00:44	SU	RROGATE R	ECOVERY	STUDY	
ТРН	TPH By SW8015 Mod		True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes	[A]		[D]		
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

Surrogate Recovery [D] = 100 * A / B

^{***} Poor recoveries due to dilution



Project Name: Oxy

Work Orders: 328761,

Project ID: Antelope Ridge Unit # 4

Lab Batch #: 754742

Sample: 328761-003 / SMP

Batch: Matrix: Soil

Units: mg/kg	Date Analyzed: 04/02/09 01:07	SURROGATE RECOVERY STUDY							
ТРН В	y SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
	Analytes			[D]					
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

SURROGATE RECOVERY STUDY

Units: mg/kg Date Analyzed: 04/02/07 01.32	SCHROOME RECOVERT STOET							
TPH By SW8015 Mod	Amount Found [A]	True Amount . [B]	Recovery %R	Control Limits %R	Flags			
Analytes	11		[D]					
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

SURROGATE RECOVERY STUDY

Umits: mg/kg Date Amaryzeu. 04/02/09 12:02	SURROGATE RECOVERT STUDI							
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
Analytes	r-,	1 —1	[D]					
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	SURROGATE RECOVERY STUDY							
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
Analytes			[D]					
1-Chlorooctane	105	100	105	70-135	<u> </u>			
o-Terphenyl	52.2	50.0	104	70-135				

Lab Batch #: 754742

Sample: 328761-007 / SMP

Batch:

Matrix: Soil

Units: mg/kg	Date Analyzed: 04/02/09 12:49	SURROGATE RECOVERY STUDY							
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
	Analytes			[D]		-			
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

Surrogate Recovery [D] = 100 * A / B

^{***} Poor recoveries due to dilution



Project Name: Oxy

Work Orders: 328761,

Project ID: Antelope Ridge Unit #4

Lab Batch #: 754742

Sample: 328761-008 / SMP

Batch:

Matrix: Soil

Units: mg/kg	Date Analyzed: 04/02/09 13:12	SURROGATE RECOVERY STUDY							
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
	Analytes			[10]					
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	Units: mg/kg Date Analyzed: 04/02/09 13:36 SURROGATE RECOV						
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			[D]			
1-Chlorooctane		106	100	106	70-135		

51.8

Lab Batch #: 754742

o-Terphenyl

Sample: 328761-010 / SMP

Batch:

Matrix: Soil

104

50.0

70-135

Units: mg/kg	Date Analyzed: 04/02/09 13:59	SURROGATE RECOVERY STUDY							
ТРН 1	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1-Chlorooctane		106	100	106	70-135				
o-Terphenyl	The state of the s	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	1:22 SU	SURROGATE RECOVERY STUDY							
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
Analytes			[D]		:				
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	SURROGATE RECOVERY STUDY							
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
	Analytes			[D]					
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

Surrogate Recovery [D] = 100 * A / B

^{***} Poor recoveries due to dilution



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	SURROGATE RECOVERY STUDY							
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
	Analytes			[D]					
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



Blank Spike Recovery



Project Name: Oxy

Vork 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					IKE RECOVERY STUDY			
Anions by EPA 300	Blank Result	Spike Added [B]	Blank Spike Result	Blank Spike %R	Control Limits %R	Flags		
Analytes	[A]	[Đ]	[C]	[D]	70K			
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.







Project Name: Oxy

Work Order #: 328761

Analyst: BHW

Date Prepared: 04/01/2009

Project ID: Antelope Ridge Unit # 4

Date Analyzed: 04/01/2009

Lab Batch ID: 754742

Sample: 527661-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg	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

Date Prepared: 03/30/2009

Project ID: Antelope Ridge Unit # 4

Analyst: LATCOR

Batch #:

Matrix: Soil

Reporting Units: mg/kg	MATI	MATRIX / MATRIX SPIKE RECOVERY ST				
Inorganic Anions by EPA 300 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 - S / 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 #:

Matrix: Soil

Date Analyzed: 04/02/2009

Date Prepared: 04/01/2009

Analyst: BHW

Reporting Units: mg/kg	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY														
TPH By SW8015 Mod	Parent Sample Result	Spike	Spiked Sample Result	Sample		Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD	Control Limits %R	Control Limits %RPD	Flag				
Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [r]	% K [G]	70	70K	70KFD					
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					



Percent Moisture

Sample Duplicate Recovery



Project Name: Oxy

Work Order #: 328761

Lab Batch #: 754330

Project ID: Antelope Ridge Unit # 4

Date Prepared: 03/30/2009 Analyst: LATCOR

3.00

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Date Analyzed: 03/30/2009 Batch #: QC-Sample ID: 328761-001 D Matrix: Soil

Reporting Units: mg/kg	SAMPLE /	SAMPLE / SAMPLE DUPLICATE RECOVERY											
Anions by EPA 300 Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag								
Chloride	409	409		20	,								

Lab Batch #: 754344 Date Prepared: 03/30/2009 Analyst: BEV Date Analyzed: 03/30/2009 QC-Sample ID: 328746-001 D Batch #: Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY Reporting Units: % **Percent Moisture** Parent Sample Sample Control Duplicate RPD Limits Result Flag Result %RPD [A] [B] Analyte

2.71

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. Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: EIKO ENV.				
Date/ Time. 3:30.09 9:40				
ab ID#. 32876\				
nitials . aL			•	
Sample Receipt	Checklist			
,			ď	Client Initials
11 Temperature of container/ cooler?	(Yes	No	1.0 °C	1
#2 Shipping container in good condition?	(Yes)	No	7,0	
#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 Cháin 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?	·Ves'	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?	(Yés)	No	Not Applicable	
Variance Docu	mentation	-	Date/ Time.	
	,	•		
Regarding:				
Corrective Action Taken.				
·				
				
Check all that Apply. See attached e-mail/ fax Client understands and wou Cooling process had begun				
	soruj aitti	-company		

Andrea Lam

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

Subject:

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>

Tool: Additional Talli Saldiega. Annigated Composition of the Composit

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

hstrict I 625 N. French Dr., Hobbs, NM 88240 histrict II
301 W. Grand Avenue, Artesia, NM 88210 301 W. Grand Avenue, Artesia, NM 88210 <u>istrict III</u>
000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u>
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

Form C-141

MAY 21 2000 Submit 2 Copies to appropriate
HOBBSOCD District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

						OPERA	TOR		Initia	ıl Report		Final Report			
Name of Co	ompany O	XY USA				Contact Ke	lton Beaird								
		Carlsbad, NM	188220				No. (O) 505-887	-8337	C) 575-3	90-1903					
Facility Na	me Antelo	ope Ridge #4	SWD			Facility Typ	e Disposal								
Surface Ow	merprivat	37		Mineral O	wner				Lease No.						
				LOCA	TION	OF REI	LEASE	05457	ו שמני	- 30.02	5.34	605.00.			
Unit Letter	Section	Township	Range	Feet from the		South Line	Feet from the	East/W	est Line	County					
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,				atitude 32° 15.	526' N	Longitud	e 103° 27.880'	W							
				-		OF REL		_							
Type of Rele	ase Produc	ed Water					Release 800bbls		Volume I	Recovered 5	00bbls				
Source of Re							lour of Occurrence			Hour of Disc					
						N/A			3-9-09						
Was Immedi	ate Notice (Yes 🔲	No 🗌 Not Rec	quired	If YES, To	Whom? Larry J	ohnson-N	MOCD (left message)	•				
By Whom?	Kelton Bea	ird Oxy HES					lour See above								
Was a Water		hed?	Yes ⊠	1 NC.		If YES, Vo	olume Impacting	the Water	course.						
TP. 137						<u> </u>									
ii a Waterco	urse was im	pacted, Descr	ioe runy.	-			4W9	280	V						
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		em and Reme tank broke ca		n Taken.* d to leak out of tar	ık. Vac-	Truck was c	alled to pick stand	ling fluid	uo.						
							P		- F ·						
Describe Ar	ea Affected	and Cleanup	Action Ta	ken.*	•••										
A vertical ar soil install	id horizonta i 4 oz. Geote	l delineation i extile liner the	nas been c na 20 mi	ompleted of the sp I poly liner and a l	ill area. ever of a	. Kemediano nea gravel. T	n plan is to excav. The area outside th	ate l'insi ne herm v	ide the ba vill be exc	ttery, backtill avated 4° dec	l with c	lean native			
Geotextile li	ner then a 2	0 mil poly line	er, then at	other 4 oz. Geotes	tile line	er. The excar	vation will then be	e backfille	ed with cl	ean native so	il and s	eeded with			
an approved	seed mixtur	e. A final clo	sure repo	rt will be submitte	d at the	completion of	of the project.								
															
l hereby cert	ity that the	information g	iven abov	e is true and comp nd/or file certain r	lete to ti	he best of my	knowledge and t	ınderstan	d that pur	suant to NM(OCD ru	les and			
public health	or the envi	ronment. The	acceptan	ce of a C-141 repo	rt by th	e NMOCD n	narked as "Final F	cuve acua Renort" da	ous for te	ieve the oner	may en	uanger liahility			
should their	operations h	ave failed to	adequatel	y investigate and r	mediat	e contaminat	ion that pose a th	reat to gro	ound water	r, surface wa	ter, hun	nan health			
				ptance of a C-141	report d	loes not reher	ve the operator of	responsit	bility for c	compliance w	rith any	other			
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Tide: HES		beaird@oxy.	com				te:04 4 0 of Approval:≤UF	~		1		9			
Tide: HES	ess: kelton	beaird@oxy.		Phone : 575-887-8			f Approval: SUF	~		Attached					