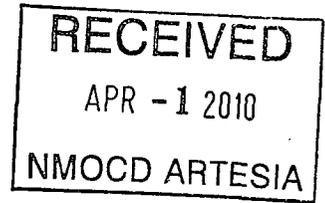


# Remediation Plan

Prepared for  
Oxy USA



## Winston Gas Com Battery Eddy County, NM

RP# \_\_\_\_\_

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

March 10, 2010

New Mexico Oil Conservation Division  
Mr. Mike Bratcher  
1301 West Grand Ave.  
Artesia, New Mexico 88210

Re: Remediation Plan for Spill  
Oxy USA – Winston Gas Com Battery  
UL'B' Sec. 31 T21S R24E Eddy County  
2RP-\_\_\_\_\_

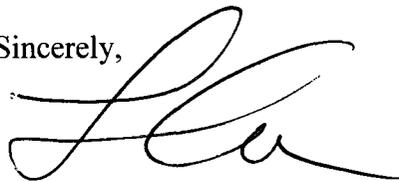
Mr. Mike Bratcher,

Elke Environmental was contracted by Oxy USA to complete the delineation of the spill at the Winston Gas Com Battery. A borehole was drilled at the Winston #4 SWD (UL 'N' Sec. 30 T21S R24E) to confirm groundwater. The borehole was drilled to 124' bgs. After 72 hours the borehole was gauged and water was shown at 120' bgs to 124' bgs. 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 = 120'). The total ranking for the site is 0 points. RAL's for the site are Chloride – 250 ppm, TPH – 5,000 ppm and BTEX – 100 ppm (using field vapor headspace measurement). Enclosed is a description of delineation activities including a plat map, field samples and laboratory confirmations.

Site was delineated using a hand auger. Due to impenetrable rock and TP4 being inside of numerous lines, the delineation was stopped at 1.5' bgs at TP4.

Oxy USA proposes to excavate 3" bgs at TP1, 1.5' bgs at TP2, TP3 and TP4, and 2.5' bgs at TP5. The impacted soil will be hauled to a NMOCD Approved disposal. A liner will be installed at the area around TP4 and attached the existing liner. Clean native soil will be backfilled into the excavation. A final report will be submitted at the completion of the project. If you have any questions about the enclosed report please contact me at the office.

Sincerely,



Logan Anderson

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1502 W. Brazos Road, Aztec, NM 87410  
District IV  
1420 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised 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 Beard
Address - 1502 W. Commerce Carlsbad, NM 88220	Telephone No. - (O) 575-628-4100
Facility Name - Winston Gas Com Battery	Facility Type - Central Facility

Surface Owner - BLM	Mineral Owner - BLM	Lease No. - 30-015-28633
---------------------	---------------------	--------------------------

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	31	21S	24E					EDDY

Latitude 32°26.423' N Longitude 104°32.217' W

**NATURE OF RELEASE**

Type of Release - Crude Oil	Volume of Release - 30bbls	Volume Recovered - 15bbls
Source of Release - Tank Battery	Date and Hour of Occurrence	Date and Hour of Discovery 1-8-10 4:15pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher-NMOCD	
By Whom? Kelton Beard - HES Specialist - Oxy	Date and Hour See above	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

Tank corroded, causing oil to leak from the bottom of the tank. Affected area was inside the dikes. Site was delineated using a hand auger.  
**Due to impenetrable rock and TP4 being inside of numerous lines, the delineation was stopped at 1.5' bgs at TP4.**

Describe Area Affected and Cleanup Action Taken.\* Site ranking is 0 points. Oxy USA proposes to excavate 2' bgs at TP2, 1.5' bgs at TP3 and TP4, and 2.5' bgs at TP5. The impacted soil will be hauled to a NMOCD Approved disposal. Impenetrable rock was encountered at 18" bgs at TP4, therefore a liner will be installed at the area around TP4 and attached the existing liner. Clean native soil will be backfilled into the excavation. A final 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.

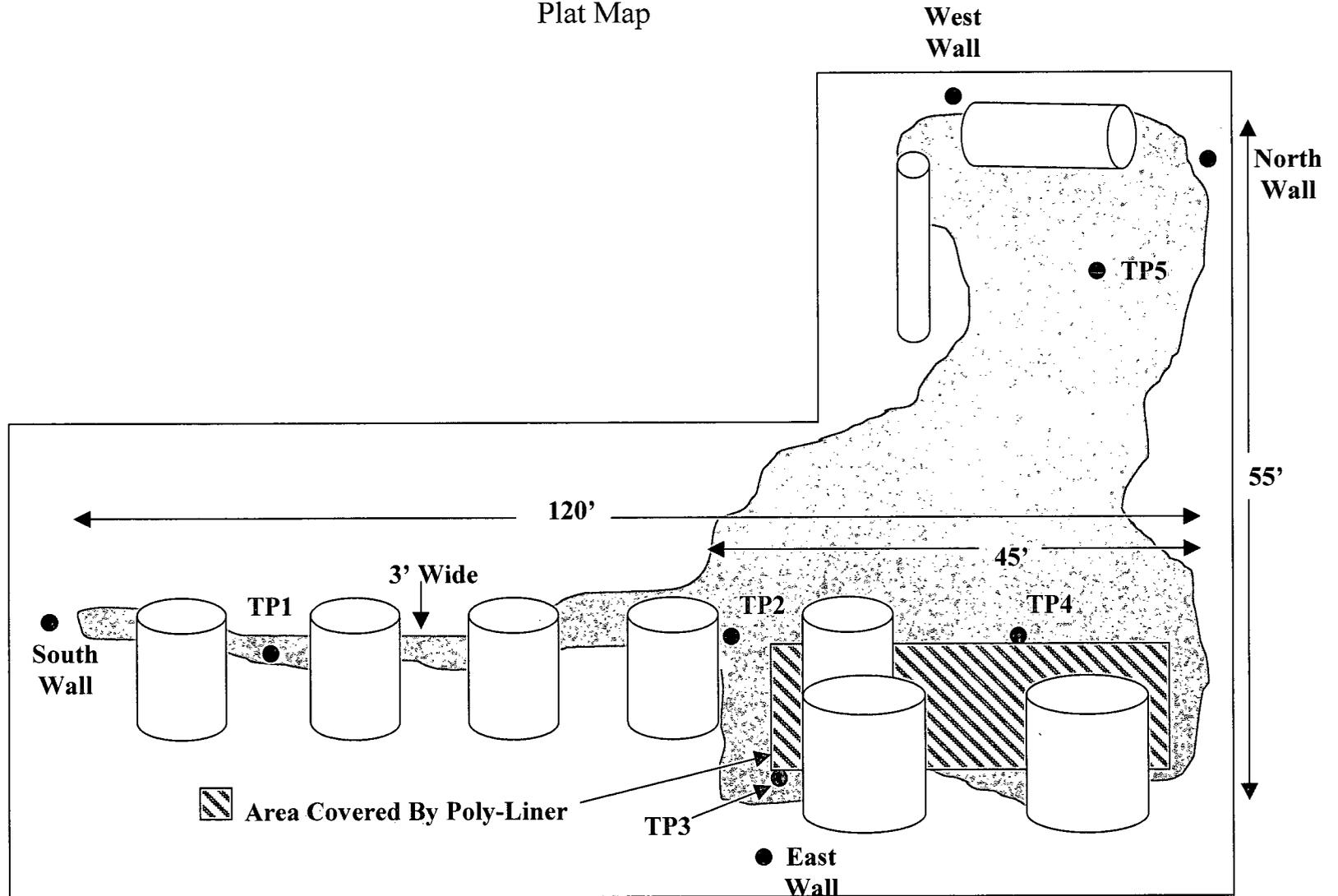
Signature:	<u>OIL CONSERVATION DIVISION</u>		
	Approved by District Supervisor:		
Printed Name: Kelton Beard	Approval Date:	Expiration Date:	
Title: HES Specialist	Conditions of Approval:		
ail Address: kelton_beaird@oxy.com			Attached <input type="checkbox"/>
Date: 3-24-10			

\* Attach Additional Sheets If Necessary

**Oxy USA**  
Winston Gas Com Battery



Plat Map



# Elke Environmental, Inc.

P.O. Box 14167 Odessa, TX 79768

## Field Analytical Report Form

Client Oxy USA Analyst Bobby Steadham

Site Winston Gas Com Battery

Sample ID	Date	Depth	418.1 TPH / PPM	CI / PPM	PID / PPM	GPS
TP1	2/24/10	3"	1,841	149	7.3	32° 26.423' N 32.4904 104° 32.217' W 104.5370
TP2	2/19/10	3"	7,680	137	7.1	32° 26.424' N 104° 32.208' W
TP2	2/22/10	1'	811	119	1,013	32° 26.424' N 104° 32.208' W
TP2	2/22/10	1.5'	635		917	32° 26.424' N 104° 32.208' W
TP2	2/24/10	2'	160	107	36.8	32° 26.424' N 104° 32.208' W
TP3	2/19/10	3"	3,719	349	4.1	32° 26.421' N 104° 32.206' W
TP3	2/22/10	6"	689	209	1,716	32° 26.421' N 104° 32.206' W
TP3	2/24/10	1'	2,629		684	32° 26.421' N 104° 32.206' W
TP3	2/24/10	1.5'	3,148	219	88.9	32° 26.421' N 104° 32.206' W
TP4	2/19/10	3"	6,190	299	8.1	32° 26.421' N 104° 32.206' W
TP4	2/22/10	6"	5,230	201	1,327	32° 26.426' N 104° 32.202' W
TP4	2/24/10	1'	13,520	239	1,164	32° 26.426' N 104° 32.202' W
TP4	2/24/10	1.5'	19,300	201	1,207	32° 26.426' N 104° 32.202' W
TP5	2/19/10	3"	1,174	237	780	32° 26.427' N 104° 32.201' W
TP5	2/22/10	1'	12,110	199	890	32° 26.427' N 104° 32.201' W
TP5	2/22/10	1.5'	10,470		1,619	32° 26.427' N 104° 32.201' W
TP5	2/24/10	2'	6,790		1,557	32° 26.427' N 104° 32.201' W

Analyst Notes Impenetrable rock encountered at TP4 @ 1.5'





# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

[www.ose.state.nm.us](http://www.ose.state.nm.us)

<b>1. GENERAL AND WELL LOCATION</b>	POD NUMBER (WELL NUMBER) SB-1				OSE FILE NUMBER(S)			
	WELL OWNER NAME(S) OXY Permian				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 1017 W. Stanolind Rd.				CITY Hobbs	STATE NM	ZIP 88240	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 26	SECONDS 18.70 N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND			
	LONGITUDE 104	32	41.00 W	* DATUM REQUIRED: WGS 84				
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS Winston #4 SWD								
<b>2. OPTIONAL</b>	(2.5 ACRE) ¼	(10 ACRE) ¼	(40 ACRE) ¼	(160 ACRE) ¼	SECTION 30	TOWNSHIP 21 <input type="checkbox"/> NORTH <input checked="" type="checkbox"/> SOUTH	RANGE 24 <input checked="" type="checkbox"/> EAST <input type="checkbox"/> WEST	
	SUBDIVISION NAME				LOT NUMBER	BLOCK NUMBER	UNIT/TRACT N	
	HYDROGRAPHIC SURVEY					MAP NUMBER	TRACT NUMBER	
<b>3. DRILLING INFORMATION</b>	LICENSE NUMBER WD-1456	NAME OF LICENSED DRILLER John W. White			NAME OF WELL DRILLING COMPANY White Drilling Company, Inc.			
	DRILLING STARTED 12/21/09	DRILLING ENDED 12/21/09	DEPTH OF COMPLETED WELL (FT) 120.0	BORE HOLE DEPTH (FT) 120.0	DEPTH WATER FIRST ENCOUNTERED (FT) Dry			
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) Dry			
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD <input type="checkbox"/> ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY:							
	DEPTH (FT) FROM TO		BORE HOLE DIA. (IN)	CASING MATERIAL	CONNECTION TYPE (CASING)	INSIDE DIA. CASING (IN)	CASING WALL THICKNESS (IN)	SLOT SIZE (IN)
<b>4. WATER BEARING STRATA</b>	DEPTH (FT) FROM 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	

<b>5. SEAL AND PUMP</b>	TYPE OF PUMP: <input type="checkbox"/> SUBMERSIBLE <input type="checkbox"/> JET <input type="checkbox"/> NO PUMP - WELL NOT EQUIPPED <input type="checkbox"/> TURBINE <input type="checkbox"/> CYLINDER <input type="checkbox"/> OTHER - SPECIFY:						
	ANNULAR SEAL AND GRAVEL PACK	DEPTH (FT)		BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT
		FROM	TO				
		120.0	10.0	6 1/8	Bentonite Pellets	20 sacks	Hand Mix
10.0	0.0	6 1/8	Cement	1.997	Hand Mix		

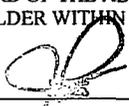
  

<b>6. GEOLOGIC LOG OF WELL</b>	DEPTH (FT)		THICKNESS (FT)	COLOR AND TYPE OF MATERIAL ENCOUNTERED (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	WATER BEARING?
	FROM	TO			
	0.0	14.0	14.0	Tan silty sand.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
	14.0	120.0	106.0	Tan limestone.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO

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

<b>7. TEST &amp; ADDITIONAL INFO</b>	WELL TEST	METHOD: <input type="checkbox"/> BAILER <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> 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:	

<b>8. SIGNATURE</b>	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	1/5/10 _____ DATE

# Analytical Report 363815

for

**Elke Environmental, Inc.**

**Project Manager: Logan Anderson**

**Oxy USA**

**Winston Gas Com Battery**

**09-MAR-10**



**12600 West I-20 East Odessa, Texas 79765**

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)  
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)  
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)  
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)  
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)

North Carolina(444), Texas(T104704468-TX), Illinois(002295)



09-MAR-10

Project Manager: **Logan Anderson**  
**Elke Environmental, Inc.**  
P.O. Box 14167  
Odessa, TX 79768

Reference: XENCO Report No: **363815**  
**Oxy USA**  
Project Address: Winston Gas Com Battery

**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 363815. 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. 363815 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 363815**



**Elke Environmental, Inc., Odessa, TX**

Oxy USA

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
TP1 @ 3"	S	Feb-23-10 13:00	3 In	363815-001
TP2 @ 2'	S	Feb-23-10 13:30	2 ft	363815-002
TP3 @ 1.5'	S	Feb-23-10 11:00	1.5 ft	363815-003
TP4 @ 1.5'	S	Feb-23-10 12:00	1.5 ft	363815-004
TP5 @ 3'	S	Feb-23-10 15:00	3 ft	363815-005



## CASE NARRATIVE

*Client Name: Elke Environmental, Inc.*

*Project Name: Oxy USA*



*Project ID: Winston Gas Com Battery*  
*Work Order Number: 363815*

*Report Date: 09-MAR-10*  
*Date Received: 03/01/2010*

---

**Sample receipt non conformances and Comments:**

None

---

**Sample receipt Non Conformances and Comments per Sample:**

None

**Analytical Non Conformances and Comments:**

Batch: LBA-796264 Percent Moisture

None

Batch: LBA-796497 Inorganic Anions by EPA 300

None

Batch: LBA-796818 TPH By SW8015 Mod  
SW8015MOD\_NM

Batch 796818, 1-Chlorooctane, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis  
Samples affected are: 363815-004.



# Certificate of Analy. Summary 363815

Elke Environmental, Inc., Odessa, TX

Project Name: Oxy USA



**Project Id:** Winston Gas Com Battery

**Contact:** Logan Anderson

**Project Location:** Winston Gas Com Battery

**Date Received in Lab:** Mon Mar-01-10 08:37 am

**Report Date:** 09-MAR-10

**Project Manager:** Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	363815-001	363815-002	363815-003	363815-004	363815-005	
	<i>Field Id:</i>	TP1 @ 3"	TP2 @ 2'	TP3 @ 1.5'	TP4 @ 1.5'	TP5 @ 3'	
	<i>Depth:</i>	3 In	2 ft	1.5 ft	1.5 ft	3 ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Feb-23-10 13:00	Feb-23-10 13:30	Feb-23-10 11:00	Feb-23-10 12:00	Feb-23-10 15:00	
<b>Anions by E300</b>	<i>Extracted:</i>						
	<i>Analyzed:</i>	Mar-03-10 02:03					
	<i>Units/RL:</i>	mg/kg RL					
Chloride		7.14 4.94	6.11 4.41	7.26 4.92	15.8 9.98	12.0 4.59	
<b>Percent Moisture</b>	<i>Extracted:</i>						
	<i>Analyzed:</i>	Mar-02-10 17:00					
	<i>Units/RL:</i>	% RL					
Percent Moisture		15.0 1.00	4.77 1.00	14.6 1.00	15.9 1.00	8.42 1.00	
<b>TPH By SW8015 Mod</b>	<i>Extracted:</i>	Mar-02-10 11:00					
	<i>Analyzed:</i>	Mar-04-10 11:02	Mar-04-10 11:29	Mar-04-10 11:57	Mar-04-10 12:23	Mar-04-10 12:49	
	<i>Units/RL:</i>	mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons		208 17.7	ND 15.7	1250 17.6	3970 89.3	543 16.3	
C12-C28 Diesel Range Hydrocarbons		2820 17.7	37.2 15.7	2680 17.6	10600 89.3	1310 16.3	
C28-C35 Oil Range Hydrocarbons		295 17.7	ND -15.7	256 17.6	1130 89.3	143 16.3	
Total TPH		3323 17.7	37.2 15.7	4186 17.6	15700 89.3	1996 16.3	

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, II  
 Odessa Laboratory Manager



# 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.
- BRL** Below Reporting Limit.
- RL** Reporting Limit
- \* Outside XENCO's scope of NELAC Accreditation.

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*Certified and approved by numerous States and Agencies.*  
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	Phone	Fax
4143 Greenbriar Dr, Stafford, Tx 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
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



# Form 2 - Surrogate Recoveries

Project Name: Oxy USA

Vork Orders : 363815,

Project ID: Winston Gas Com Battery

Lab Batch #: 796818

Sample: 552206-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/04/10 07:25

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.7	99.5	86	70-135	
o-Terphenyl	50.4	49.8	101	70-135	

Lab Batch #: 796818

Sample: 552206-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/04/10 07:52

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.6	99.8	88	70-135	
o-Terphenyl	50.9	49.9	102	70-135	

Lab Batch #: 796818

Sample: 552206-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/04/10 08:19

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.9	99.7	86	70-135	
o-Terphenyl	53.2	49.9	107	70-135	

Lab Batch #: 796818

Sample: 363815-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/04/10 11:02

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.7	100	93	70-135	
o-Terphenyl	57.7	50.1	115	70-135	

Lab Batch #: 796818

Sample: 363815-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/04/10 11:29

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.1	99.8	87	70-135	
o-Terphenyl	54.1	49.9	108	70-135	

\* Surrogate outside of Laboratory QC limits  
 \*\* 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 USA

Work Orders : 363815,

Project ID: Winston Gas Com Battery

Lab Batch #: 796818

Sample: 363815-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/04/10 11:57

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	101	111	70-135	
o-Terphenyl	57.3	50.3	114	70-135	

Lab Batch #: 796818

Sample: 363815-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/04/10 12:23

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	202	100	202	70-135	*
o-Terphenyl	126	50.1	251	70-135	*

Lab Batch #: 796818

Sample: 363815-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/04/10 12:49

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	99.8	101	70-135	
o-Terphenyl	57.5	49.9	115	70-135	

Lab Batch #: 796818

Sample: 363812-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/04/10 13:16

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.1	100	97	70-135	
o-Terphenyl	57.4	50.1	115	70-135	

Lab Batch #: 796818

Sample: 363812-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/04/10 13:42

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.3	100	91	70-135	
o-Terphenyl	55.1	50.1	110	70-135	

\* Surrogate outside of Laboratory QC limits  
 \*\* 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 USA**

**Work Order #:** 363815

**Project ID:** Winston Gas Com Battery

**Lab Batch #:** 796497

**Sample:** 796497-1-BKS

**Matrix:** Solid

**Date Analyzed:** 03/03/2010

**Date Prepared:** 03/03/2010

**Analyst:** LATCOR

**Reporting Units:** mg/kg

**Batch #:** 1

**BLANK /BLANK SPIKE RECOVERY STUDY**

<b>Anions by E300</b>	<b>Blank Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Control Limits %R</b>	<b>Flags</b>
<b>Analytes</b>						
Chloride	ND	8.00	7.33	92	75-125	

Blank Spike Recovery [D] = 100\*[C]/[B]

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

BRL - Below Reporting Limit



# BS / BSD Recoveries



**Project Name: Oxy USA**

**Work Order #: 363815**

**Analyst: BEV**

**Date Prepared: 03/02/2010**

**Project ID: Winston Gas Com Battery**

**Date Analyzed: 03/04/2010**

**Lab Batch ID: 796818**

**Sample: 552206-1-BKS**

**Batch #: 1**

**Matrix: Solid**

**Units: mg/kg**

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

<b>TPH By SW8015 Mod</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
C6-C12 Gasoline Range Hydrocarbons	ND	995	903	91	998	922	92	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	995	924	93	998	747	75	21	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 USA

Work Order #: 363815

Lab Batch #: 796497

Date Analyzed: 03/03/2010

QC- Sample ID: 363810-027 S

Reporting Units: mg/kg

Date Prepared: 03/03/2010

Batch #: 1

Project ID: Winston Gas Com Battery

Analyst: LATCOR

Matrix: Soil

## MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300  Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
	Chloride	23.4	83.3	105	98	75-125

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

BRL - Below Reporting Limit



# Form 3 - N MSD Recoveries



Project Name: Oxy USA

Work Order #: 363815

Project ID: Winston Gas Com Battery

Lab Batch ID: 796818

QC- Sample ID: 363812-002 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/04/2010

Date Prepared: 03/02/2010

Analyst: BEV

Reporting Units: mg/kg

### MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	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	1140	1090	96	1140	1040	91	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1140	1110	97	1140	808	71	31	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 Applicable  
N = See Narrative, EQL = Estimated Quantitation Limit



# Sample Duplicate Recovery



**Project Name: Oxy USA**

**Work Order #: 363815**

**Lab Batch #: 796497**

**Project ID: Winston Gas Com Battery**

**Date Analyzed: 03/03/2010**

**Date Prepared: 03/03/2010**

**Analyst: LATCOR**

**QC- Sample ID: 363810-027 D**

**Batch #: 1**

**Matrix: Soil**

**Reporting Units: mg/kg**

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	23.4	21.8	7	20	

**Lab Batch #: 796264**

**Date Analyzed: 03/02/2010**

**Date Prepared: 03/02/2010**

**Analyst: LATCOR**

**QC- Sample ID: 363798-001 D**

**Batch #: 1**

**Matrix: Soil**

**Reporting Units: %**

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	8.80	10.4	17	20	

Spike Relative Difference  $RPD = 200 * |(B-A)/(B+A)|$

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

BRL - Below Reporting Limit



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

Client: EIKE Environmental  
 Date/ Time: 03-01-10 @0837  
 Lab ID #: 363815  
 Initials: JMF

**Sample Receipt Checklist**

Client Initials

#1	Temperature of container/ cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	-12.6 °C	
#2	Shipping container in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	(N/A)	
#3	Custody Seals intact on shipping container/ cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Not Present (N/A)	
#4	Custody Seals intact on sample bottles/ container?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Not Present	
#5	Chain of Custody present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
#6	Sample instructions complete of Chain of Custody?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
#7	Chain of Custody signed when relinquished/ received?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
#8	Chain of Custody agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
#11	Containers supplied by ELOT?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
#12	Samples in proper container/ bottle?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	See Below	
#13	Samples properly preserved?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	See Below	
#14	Sample bottles intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
#15	Preservations documented on Chain of Custody?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
#16	Containers documented on Chain of Custody?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
#17	Sufficient sample amount for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	See Below	
#18	All samples received within sufficient hold time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	See Below	
#19	Subcontract of sample(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Not Applicable	
#20	VOC samples have zero headspace?	<input checked="" type="radio"/> Yes	<input type="radio"/> 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