1R - 412

REPORTS

DATE:

12/8/2001

E.O.T.T. ENERGY CORPORATION

SITE INVESTIGATION

CLAY OSBORN JALMAT #1
Ref. # 2000-10606

SW¼ SW¼ UL-M Section 7 T25S R37E
~½ mile Northwest of Jal
Lea County, New Mexico
Latitude: 32°08'25"N Longitude: 103°12'38"W

December 8, 2001

Prepared by

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Table of Contents

1.0 INTRODUCTION

This site is located in Unit Letter M, in the SW of the SW of Section 7 T25S R37E, approximately mile northwest of Jal, Lea County New Mexico at Latitude 32°08'25"N and Longitude 103°12'38"W. The property is owned by Clay and Gerry Osborn who live in the ranch headquarters approximately 1 mile southeast of the site. A topographical map is included in Attachment I. The leak is historical and the crude oil release and recovery volumes unknown. Photographs are included as Attachment IV.

2.0 ENVIRONMENTAL MEDIA CHARACTERIZATION

Chemical parameters of the soil and ground water were characterized consistent with the characterization and remediation/abatement goals and objectives set forth in the New Mexico Oil Conservation Division (NMOCD) approved **"General Work Plan for Remediation of E.O.T.T. Pipeline Spills, Leaks and Releases in New Mexico, July 2000"** and the NMOCD guidelines published in the following documents;

- Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993)
- Unlined Surface Impoundment Closure Guidelines (February 1993)

Acceptable thresholds for **contaminants/constituents of concern** (CoCs), i.e., TPH, Benzene, and the sum of Benzene, Toluene, Ethyl Benzene, and total Xylene (BTEX), will be determined based on the NMOCD Ranking Criteria as follows;

- Depth to Ground water, i.e., distance from the lower most acceptable concentration to the ground water.
- Wellhead Protection Area, i.e., distance from fresh water supply wells.
- Distance to Surface Water Body, i.e., horizontal distance to all down gradient surface water bodies.

2.1 GEOLOGICAL DESCRIPTION

The United States Geological Survey (USGS) Ground-Water Report 6, "Geology and Ground-Water Conditions in Southern Lea County, New Mexico," A. Nicholson and A. Clebsch, 1961, describes the near surface geology of southern Lea County as an intergrade of the Quaternary Alluvium (QA) sediments, i.e., fine to medium sand, with the mostly eroded Cenozoic Ogallala (CO) formation. During the investigation a yellowish to tan silty clay interbed was identified at ~55 feet below ground surface ('bgs) and supports a 3-foot thick zone of saturation. Typically, the QA and CO formations in the area are capped by a thick interbed of caliche and was encountered at 5-7'bgs.

2.2 ECOLOGICAL DESCRIPTION

The area is typical of the Upper Chihuahuan Desert Biome consisting primarily of hummocky sand hills covered with Harvard Shin Oak (Querqus harvardi) interspersed with Honey Mesquite (Prosopis glandulosa) along with typical desert grasses and weeds. Mammals represented, include Orrd's and Merriam's Kangaroo

Rat, Deer Mouse, White Throated Wood Rat, Cottontail Rabbit, Black Tailed Jackrabbit, and the Mule Deer. Reptiles, Amphibians, and Birds are numerous and typical of area. A survey of Listed, Threatened, or Endangered species was not conducted.

2.3 AREA GROUND WATER

A temporary monitor well was installed at the Borehole #5 location to delineate ground water level and possible contamination. The unconfined ground water aquifer occurs at the site at 52.4'bgs and is consistent with information provided by the New Mexico Tech Geoinformation website, (www.geoinfo.nmt.edu/.esrimap), the New Mexico Office of the State Engineer, and other information available for the site. Copies of the State Engineer's Average Depth to Ground Water Reports for Range 36E and 37E in Township 25 are included in Attachment II. According to the USGS, the ground water elevation decreases generally to the southeast.

2.4 AREA WATER WELLS

The only water well within 1000 feet of the site is a windmill well bore currently not in use located 872 horizontal feet northeast of the site and is transverse gradient to the site.

2.5 AREA SURFACE WATER BODIES

There are no permanent or intermittent surface water bodies within 1000 horizontal feet of the site.

3.0 NMOCD SITE RANKING

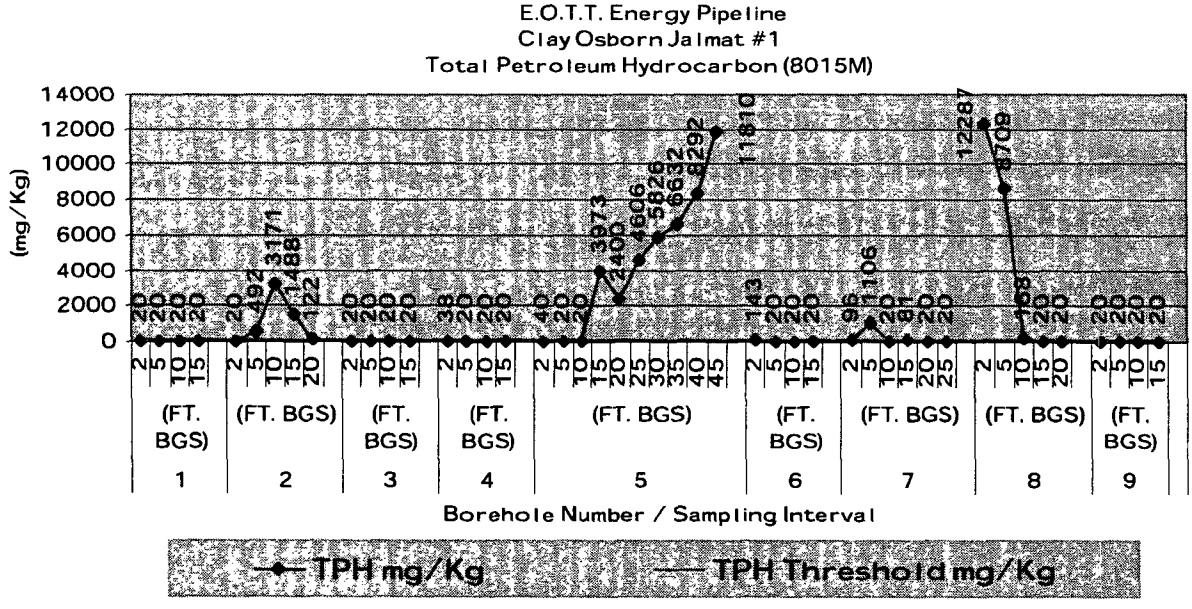
Based on the proximity of the site to protectable area water wells, surface water bodies, and depth to ground water, the site has an NMOCD ranking score of 40 points with the soil remedial goals highlighted below in the Site Ranking Matrix.

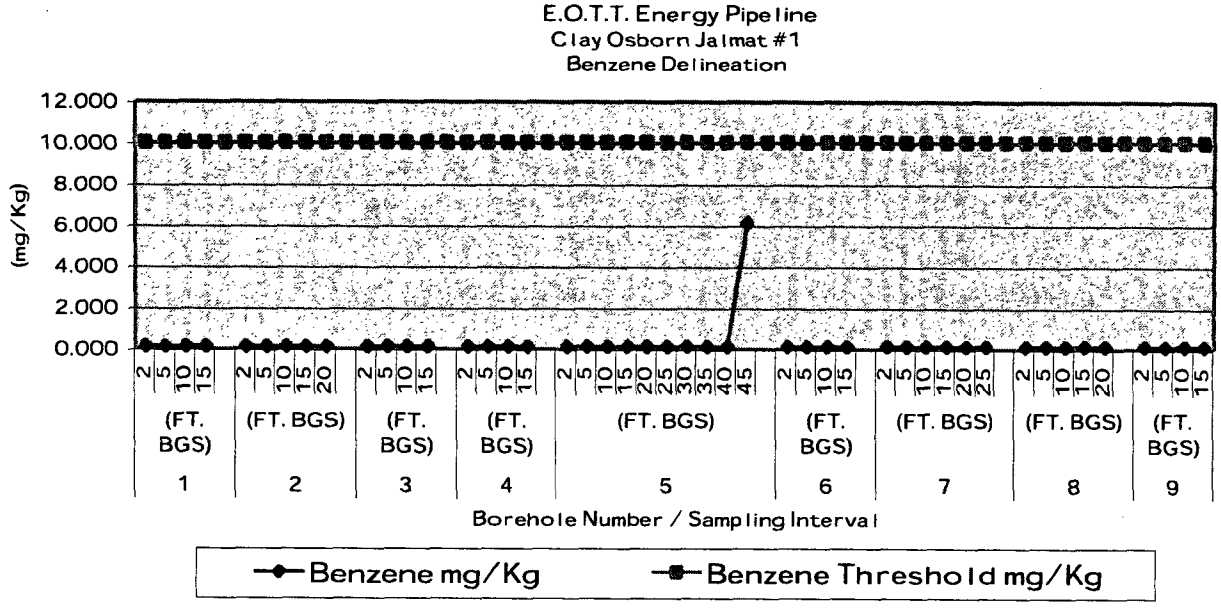
1. Ground Water	2. Wellhead Protection Area	3. Distance to Surface Water Body
If Depth to GW <50 feet: *20 points*	If <1000' from water source, or;<200' from private domestic water source: *20 points*	<200 horizontal feet: *20 points*
If Depth to GW 50 to 99 feet: *10 points*		200-100 horizontal feet: *10 points*
If Depth to GW >100 feet: *0 points*	If >1000' from water source, or; >200' from private domestic water source: *0 points*	>1000 horizontal feet: *0 points*
Ground water Score = 20	*Wellhead Protection Area Score= 20*	*Surface Water Score= 0*
Site Rank (1+2+3) = 20 + 20 + 0 = 40 points		

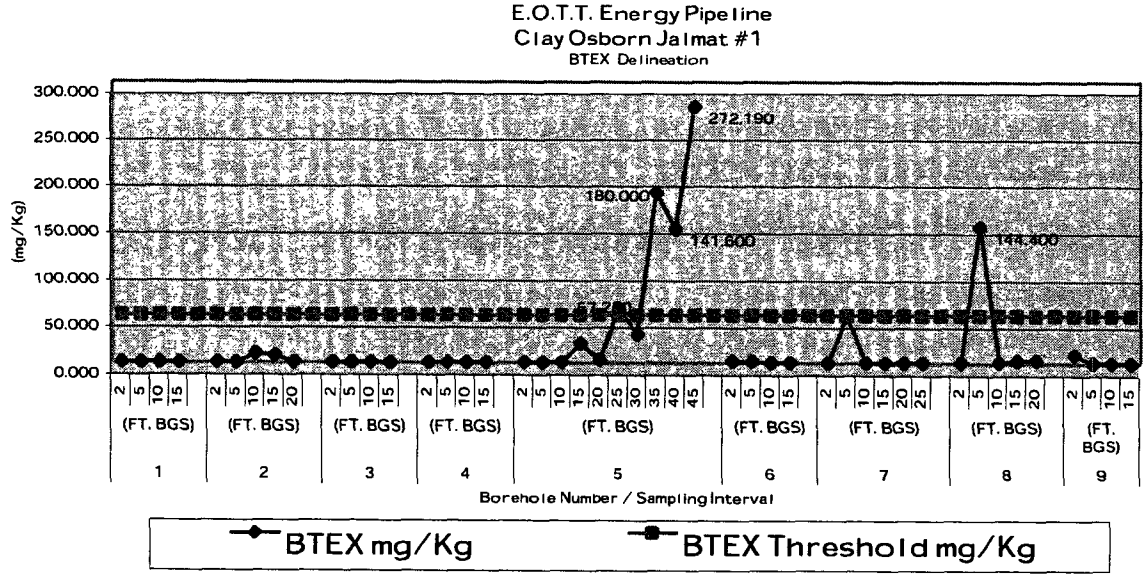
Total Site Ranking Score and Acceptable Remedial Goal Concentrations			
Parameter	**>19**	10-19	0-9
Benzene[1]	**10 ppm**	10 ppm	10 ppm
BTEX[1]	**50 ppm**	50 ppm	50 ppm
TPH	**100 ppm**	1000 ppm	5000 ppm

4.0 SUBSURFACE SOIL INVESTIGATION

Strategically located boreholes were sampled discretely at 5' vertical intervals using a hollow stem auger and stainless steel sample probe with a vinyl sleeve. All samples were jarred immediately and then decanted into a zip lock bag for Volatile Organic Constituent (VOC) Headspace analysis using a calibrated Photoionization Detector (PID). Sampling equipment was decontaminated routinely between sampling iterations. The site sample location map is included in Attachment I. The spill area perimeter defines the horizontal extent of CoC contamination. Vertical contamination persists to 45'bgs at BH5, 20'bgs at BH2, 10'bgs at BH8, and 5'bgs at BH7. Estimated contaminated volume is 1,479 yd^3. The original analytical reports are provided and summarized in Attachment III. The data is illustrated below.





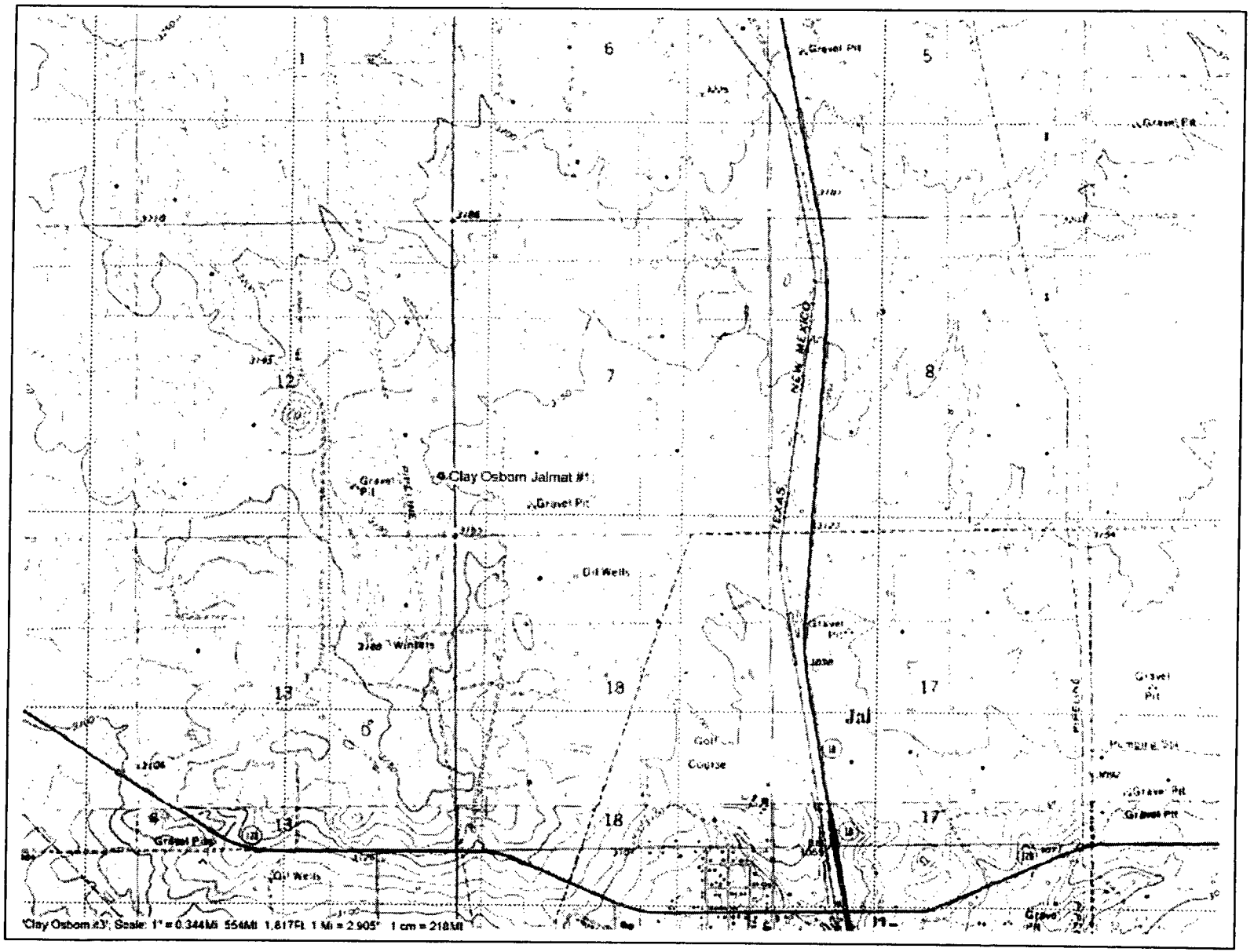


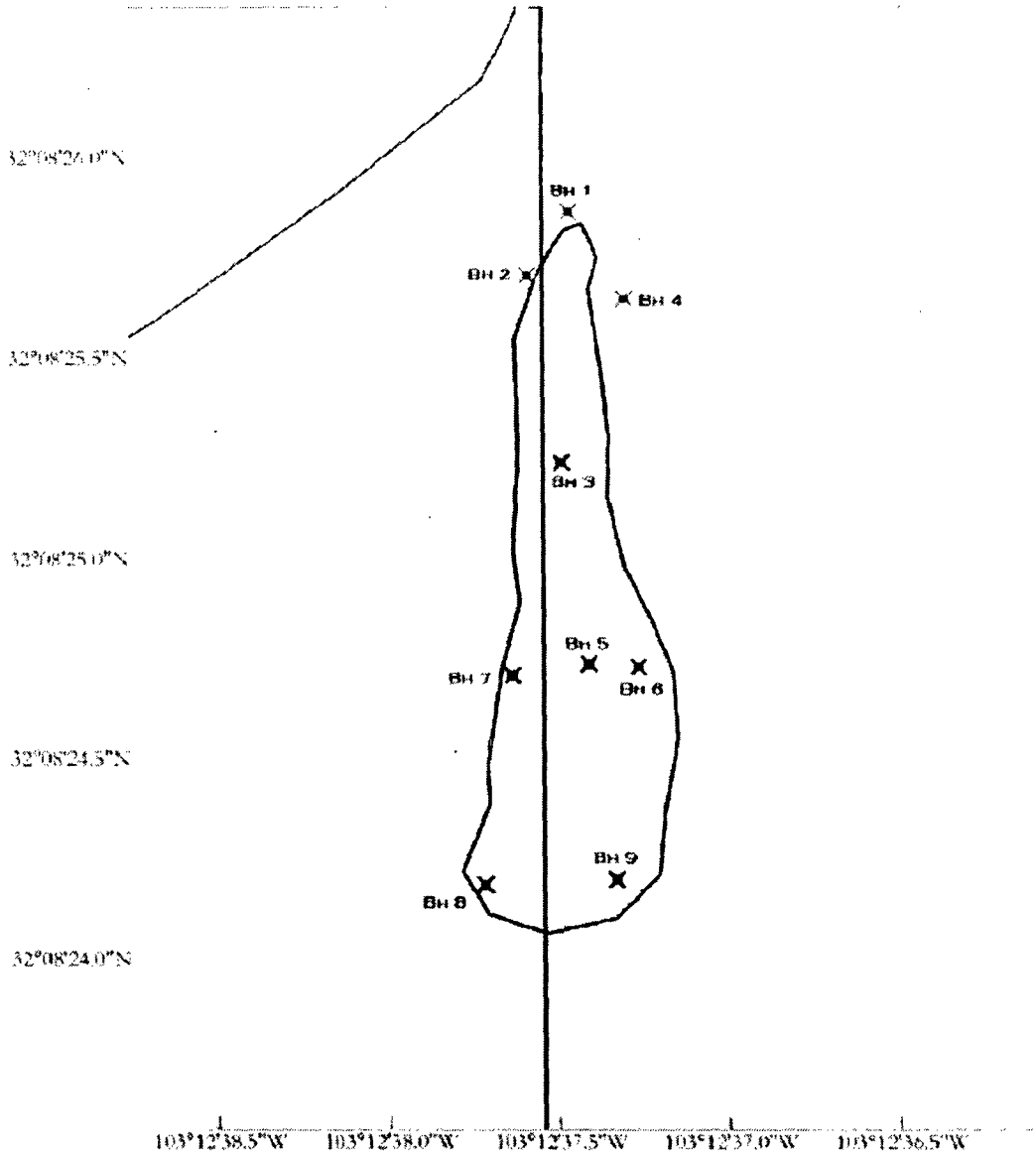
5.0 GROUND WATER INVESTIGATION

Soil data from BH5 indicated an increasing CoC gradient and justified the ground water investigation. A temporary monitor well was advance, installed, developed, and sampled in the area of BH5. Concentrations of Benzene, Toluene, and m,p,&o-Xylene were detected above the instrument detection limit of 1-µg/L but an order of magnitude below the New Mexico Water Quality Control Commission

(WQCC) standard for Benzene and 2 orders of magnitude below the Toluene and Xylene WQCC standard. Elevated concentrations of Arsenic, Chromium, Lead, and Mercury were also detected with Mercury in excess of the WQCC standard of 0.002 mg/L at 0.0120 mg/L. Samples were collected and analyzed from the Clay Osborn Pond Well located approximately 800 feet southeast of the Jalmat 22A and 22B sites and is considered an "unimpacted reference" with non-detections of the above metals. The pH of the reference Pond Well is 7.0 SU while the Jalmat #1 monitor well is 6.8 SU. The lower pH could be due to the carbon dioxide (CO_2) released during the natural attenuation of the soluble hydrocarbon source term in the ground water. Trace amounts of the detected metals occur naturally in the subsurface and tend to adsorb onto the surface of the iron coated clay interbed granules at pH =7.0. When the pH is <7.0, the tendency is for the adsorbed trace metals to desorb into solution and therefore become detectable. Also, the total metals analyses were performed on unfiltered samples. The Chloride and Total Dissolved Solids (TDS) parameters are also elevated above the levels found in the reference Pond Well and suggests a ground water impact from oil and gas production, handling, and transportation activities occurring up-gradient of the site. It should be acknowledged that the EOTT waste stream does not include detectable metals, chloride, or constituents that contribute to TDS.

Attachment I: Site Maps


Clay Osborn Jalmat #1
Gravel Pit
Oil Wells
Golf Course
Jal
NEW MEXICO
TEXAS
PIPELINE
Clay Osborn #3', Scale: 1" = 0.344Mi 554Mi 1.817Ft 1 Mi = 2.905" 1 cm = 218Mi



Clay Osborn Jalmat #1

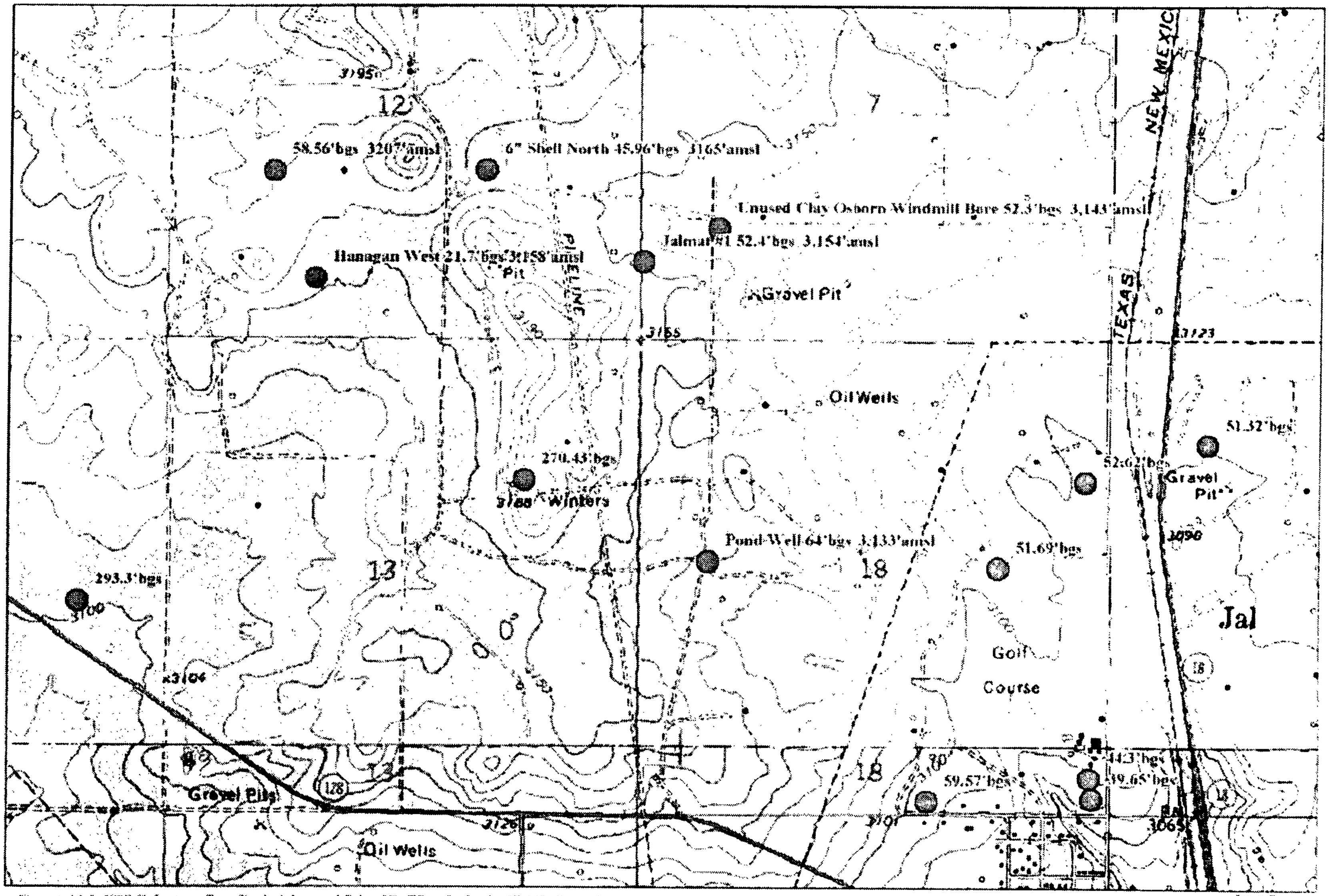
Lat/Long
WGS 1984

N

Scale 1:500
0 0.010
Miles

Multiple Files
11/9/2001
GPS Pathfinder® Office
Trimble.

Attachment II: Average Depth to Ground Water Reports and Well Map



Copyright © 2000 DeLorme. TopoTools Advanced Print Kit TE. Scale: 1 : 17,600 Zoom Level: 13-0 Datum: WGS84

New Mexico Office of the State Engineer
Well Reports and Downloads

Township: 25S Range: 36E Sections: 12,13,1,2,11,14,23,24

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

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

Well / Surface Data Report | Avg Depth to Water Report | Water Column Report | Clear Form | WATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 12/29/2001

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

No Records found, try again

New Mexico Office of the State Engineer

New Mexico Office of the State Engineer
Well Reports and Downloads

Township: 25S Range: 37E Sections: 7,6,5,8,18,17,20,19

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

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

Well / Surface Data Report | Avg Depth to Water Report | Water Column Report | Clear Form | WATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 12/29/2001

								(Depth Water in Feet)		
Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	Min	Max	Avg
CP	25S	37E	19				9	27	63	44
CP	25S	37E	20				6	28	60	44

Record Count: 15

Attachment III: Original Analytical Reports And Summaries

E.O.T.T. Energy Pipeline Jalmat 1
Jalmat #1 Delineation Data

Borehole	Sampling Interval (FT. BGS[1])	SAMPLE ID#	Date Taken	Lithology	HEADSPACE VOC[2] (ppm)	GRO[3] mg/Kg	DRO[4] mg/Kg	TPH[5] mg/Kg	BTEX mg/Kg	Benzene mg/Kg	Toluene mg/Kg	Ehtyl Benzene mg/Kg	m,p-Xylene mg/Kg	o-Xylene mg/Kg
1	2	EJMGP1-02	6/21/2000	Blow Sand	1.7	10	10	*20*	*0.5*	0.100	0.100	0.100	0.100	0.100
	5	EJMGP1-05	6/21/2000	Blow Sand	1.2	10	10	*20*	*0.5*	0.100	0.100	0.100	0.100	0.100
	10	EJMGP1-10	6/21/2000	Blow Sand	0.1	10	10	*20*	*0.5*	0.100	0.100	0.100	0.100	0.100
	15	EJMGP1-15	6/21/2000	Blow Sand	1.3	10	10	*20*	*0.5*	0.100	0.100	0.100	0.100	0.100
2	2	EJMGP2-02	6/21/2000	Blow Sand	1.3	10	10	*20*	0.639	0.100	0.161	0.178	0.100	0.100
	5	EJMGP2-05	6/21/2000	Blow Sand	34.0	10	482	492	0.74	0.100	0.100	0.151	0.255	0.134
	10	EJMGP2-10	6/21/2000	Blow Sand	170.0	249	2922	**3171**	9.497	0.100	1.470	0.797	4.000	3.130
	15	EJMGP2-15	6/21/2000	Blow Sand	127.0	93	1395	**1488**	7.799	0.100	1.160	0.619	3.720	2.200
	20	EJMGP2-20	6/21/2000	Blow Sand	21.9	10	112	122	0.52	0.100	0.120	0.100	0.100	0.100
3	2	EJMGP3-02	6/21/2000	Blow Sand	20.4	10	10	*20*	0.549	0.100	0.149	0.100	0.100	0.100
	5	EJMGP3-05	6/21/2000	Blow Sand	0.0	10	10	*20*	*0.5*	0.100	0.100	0.100	0.100	0.100
	10	EJMGP3-10	6/21/2000	Blow Sand	0.0	10	10	*20*	0.569	0.100	0.169	0.100	0.100	0.100
	15	EJMGP3-15	6/21/2000	Blow Sand	0.0	10	10	*20*	*0.5*	0.100	0.100	0.100	0.100	0.100
4	2	EJMGP4-02	6/21/2000	Blow Sand	0.0	10	28	38	*0.5*	0.100	0.100	0.100	0.100	0.100
	5	EJMGP4-05	6/21/2000	Blow Sand	0.0	10	10	*20*	*0.5*	0.100	0.100	0.100	0.100	0.100
	10	EJMGP4-10	6/21/2000	Blow Sand	0.0	10	10	*20*	0.56	0.100	0.160	0.100	0.100	0.100
	15	EJMGP4-15	6/21/2000	Blow Sand	0.0	10	10	*20*	*0.5*	0.100	0.100	0.100	0.100	0.100

100 ppm Isobutylene calibration gas = 101 ppm

[1]bgs – below ground surface

[2]VOC–Volatile Organic Contaminants/Constituents

[3]GRO-Gasoline Range Organics

[4]DRO-Diesel Range Organics

[5]TPH-Total Petroleum Hydrocarbon = GRO+DRO.

[6]Bolded values are in excess of the New Mexico Oil Conservation Division guideline threshold for the parameter

[7]Italicized values are < the instrument detection limit.

[8]N/A Not Analyzed

Reported detection limits are considered "de minimus" values and are included in the GRO/DRO and BTEX summations.

E.O.T.T. Energy Pipeline Jalmat 1

Borehole	Sampling Interval (FT. BGS[1])	SAMPLE ID#	Date Taken	Lithology	HEADSPACE VOC[2] (ppm)	GRO[3] mg/Kg	DRO[4] mg/Kg	TPH[5] mg/Kg	BTEX mg/Kg	Benzene mg/Kg	Toluene mg/Kg	Ehtyl Benzene mg/Kg	m,p-Xylene mg/Kg	o-Xylene mg/Kg
5	2	EJMGP5-02		Sand	0.0	20	20	40	*0.5*	0.100	0.100	0.100	0.100	0.100
	5	EJMGP5-05		Sand	0.0	10	10	*20*	*0.5*	0.100	0.100	0.100	0.100	0.100
	10	EJMGP5-10		Sand	1.7	10	10	*20*	*0.5*	0.100	0.100	0.100	0.100	0.100
	15	EJMGP5-15		Sand	600.0	1032	2941	3973	20.92	0.100	4.340	3.000	9.080	4.400
	20	EJMGP5-20		Sand	418.0	104	2296	2400	3.493	0.100	0.245	0.452	1.700	0.996
	25	EJMGP5-25		Sand	500.0	1123	3483	4606	57.25	0.100	12.300	10.200	25.800	8.850
	30	EJMGP5-30		Sand	400.0	1171	4655	5826	30.45	0.100	5.040	5.490	14.100	5.720
	35	EJMGP5-35		Sand	400.0	1813	4819	6632	180	0.100	35.100	37.900	80.400	26.500
	40	EJMGP5-40		Sand	200.0	2183	6109	8292	141.6	0.100	18.300	29.500	70.900	22.800
	45	EJMGP5-45		Sand	500.0	4489	7321	11810	272.19	6.090	88.100	56.600	86.600	34.800
6	2	EJMGP6-02		Sand	0.0	50	93	143	2.486	0.100	0.979	0.390	0.735	0.282
	5	EJMGP6-05		Sand	0.0	10	10	*20*	1.895	0.100	0.100	0.134	1.110	0.451
	10	EJMGP6-10		Sand	0.0	10	10	*20*	0.553	0.100	0.100	0.100	0.153	0.100
	15	EJMGP6-15		Sand	0.0	10	10	*20*	*0.5*	0.100	0.100	0.100	0.100	0.100
7	2	EJMGP7-02		Sand	51.0	10	86	96	*0.5*	0.100	0.100	0.100	0.100	0.100
	5	EJMGP7-05		Sand	600.0	302	804	1106	48.7	0.100	3.280	4.520	28.700	12.100
	10	EJMG7-10		Sand	10.0	10	10	*20*	*0.5*	0.100	0.100	0.100	0.100	0.100
	15	EJMGP7-15		Sand	300.0	10	71	81	0.536	0.100	0.136	0.100	0.100	0.100
	20	EJMGP7-20		Sand	0.0	10	10	*20*	*0.5*	0.100	0.100	0.100	0.100	0.100
	25	EJMGP7-25		Sand	0.0	10	10	*20*	0.829	0.100	0.100	0.100	0.383	0.146
8	2	EJMGP8-02		Sand	100.0	741	11546	12287	0.682	0.100	0.100	0.100	0.134	0.248
	5	EJMGP8-05		Sand	800.0	2411	6298	8709	144.4	0.100	13.100	18.800	88.700	23.700
	10	EJMGP8-10		Sand	40.0	10	158	168	1.075	0.100	0.100	0.137	0.528	0.210
	15	EJMGP8-15		Sand	7.3	10	10	*20*	3.073	0.100	0.381	0.306	1.390	0.896
	20	EJMGP8-20		Sand	5.0	10	10	*20*	3.645	0.100	0.456	0.379	1.690	1.020
9	2	EJMGP9-02		Sand	0.0	10	10	*20*	8.716	0.100	2.440	0.866	3.350	1.960
	5	EJMGP9-05		Sand	0.0	10	10	*20*	0.51	0.100	0.110	0.100	0.100	0.100
	10	EJMGP9-10		Sand	0.0	10	10	*20*	*0.5*	0.100	0.100	0.100	0.100	0.100
	15	EJMGP9-15		Sand	0.0	10	10	*20*	*0.5*	0.100	0.100	0.100	0.100	0.100

100 ppm Isobutylene calibration gas = 101 ppm
[1]bgs – below ground surface
[2]VOC–Volatile Organic Contaminants/Constituents
[3]GRO-Gasoline Range Organics
[4]DRO-Diesel Range Organics
[5]TPH-Total Petroleum Hydrocarbon = GRO+DRO.
[6]Bolded values are in excess of the New Mexico Oil Conservation Division guideline threshold for the parameter
[7]Italicized values are < the instrument detection limit.
[8]N/A Not Analyzed
Reported detection limits are considered "de minimus" values and are included in the GRO/DRO and BTEX summations.

E.O.T.T. Energy Pipeline

Clay Osborn Jalmat #1 Monitor Well & Pond Well Ground Water Data

Parameter	Units	Clay Osborn Jalmat #1 Monitor Well		New Mexico Water Quality Control Commission Standards 20 NMAC 6.2.3103	Background Concentrations Clay Osborn Pond Monitor Reference Well	
		EJM171001MW 7/10/2001	EJM1102401MW1 10/24/2001		7/10/2001	ETNMMW102401 10/24/2001
TPH[1] (GRO)[2]	mg/L	<0.25		no standard	<0.25	
TPH (DRO)[3]	mg/L	<0.02		no standard	<0.02	
TPH (DRO+GRO)	mg/L	<0.25		no standard	<0.25	
Benzene	µg/L	1.1	<1	10.0	<1.00	<1
Toluene	µg/L	1.3	<1	750.0	<1.00	<1
Ethyl Benzene	µg/L	<1	<1	750.0	<1.00	<1
m, p-XYLENE	µg/L	2.2	<1		<1.00	<1
o-XYLENE	µg/L	1.6	<1		<1.00	<1
Total Xylene[4]	µg/L	3.88	<1	620.00	<1.00	<1
Naphthalene	µg/L	0.061			<0.05	
Acenaphthylene	µg/L	<0.05			<0.05	
Acenaphthene	µg/L	<0.05			<0.05	
Fluorene	µg/L	<0.05			<0.05	
Phenanthrene	µg/L	<0.05			<0.05	
Anthracene	µg/L	<0.05			<0.05	
Fluoranthene	µg/L	<0.05			<0.05	
Pyrene	µg/L	<0.05			<0.05	
Benzo[a]anthracene	µg/L	<0.05			<0.05	
Chrysene	µg/L	<0.05			<0.05	
Benzo[b]fluoranthene	µg/L	<0.05			<0.05	
Benzo[j,k]fluoranthene	µg/L	<0.05			<0.05	
Benzo[a]pyrene	µg/L	<0.05		0.700	<0.05	
Indeno[1,2,3,-cd]pyrene	µg/L	<0.05			<0.05	
Dibenzo[a,h]anthracene	µg/L	<0.05			<0.05	
Benzo[g,h,I]perylene	µg/L	<0.05			<0.05	
PAH's: Total naphthalene plus monomethylnaphthalenes	µg/L	0.061		30.000	<0.05	
Aluminum (Al)	mg/L	16.20		5.0	7.6	
Antimony (Sb)	mg/L		0.013	0.0		0.0
Arsenic (As)	mg/L	0.01	<0.02	0.1	<0.05	<0.02
Barium (Ba)	mg/L	0.259	0.033	1.0	0.2	0.1
Beryllium (Be)	mg/L		<0.001	0.0		<0.001
Boron (B)	mg/L	1.370		0.8	0.4	
Cadmium (Cd)	mg/L	<0.005	<0.002	0.0	<0.005	<0.002
Chromium (Cr)	mg/L	0.015	<0.005	0.1	<0.01	<0.005
Cobalt (Co)	mg/L	<0.02		0.1	<0.02	
Copper (Cu)	mg/L	<0.02		1.0	<0.02	
Iron (Fe)	mg/L	9.84		1.0	5.1	
Lead (Pb)	mg/L	0.002	<0.01	0.1	<0.02	<0.01
Magnesium (Mg)	mg/L	145.00			61.7	
Manganese (Mn)	mg/L	0.544		0.2	0.1	
Mercury (Hg)	mg/L	0.01	<0.0002	0.0	<0.0002	<0.0002
Molybdenum (Mo)	mg/L	<0.02		1.0	<0.02	
Nickel (Ni)	mg/L	<0.02	<0.01	0.2	<0.02	<0.01
Potassium (K)	mg/L	14.200			7.5	
Selenium (Sn)	mg/L	<0.002	<0.02	0.1	<0.05	<0.02
Silver (Ag)	mg/L	<0.002		0.1	0.0	
Thallium (Tl)			<0.002	0.0		<0.002
Zinc (Zn)	mg/L	0.033		10.0	<0.01	
Calcium (Ca)	mg/L	379.00			188.0	
Sodium (Na)	mg/L	949.000			83.1	
Nitrate/Nitrite - N	mg/L	0.11		10.0	0.7	
Fluoride (F)	mg/L	1.900		1.6	1.7	
Chloride (Cl)	mg/L	2040.00	1940.00	250.0	239.0	4.26 (? decimal)
Sulfate (SO_4)	mg/L	638.000		600.0	325.0	
Total Alkalinity	mg/L	280.00			290.0	
Total Dissolved Solids (TDS)	mg/L	4590.000	4790.000	1000.0	1280.0	297.0
Conductivity (micromhos/cm)	µmhos/cm	5500.00	6500.00		1500.0	610.0
pH	SU	6.800	6.800	6.0 - 9.0	7.0	7.0

[1] TPH - Total Petroleum Hydrocarbon

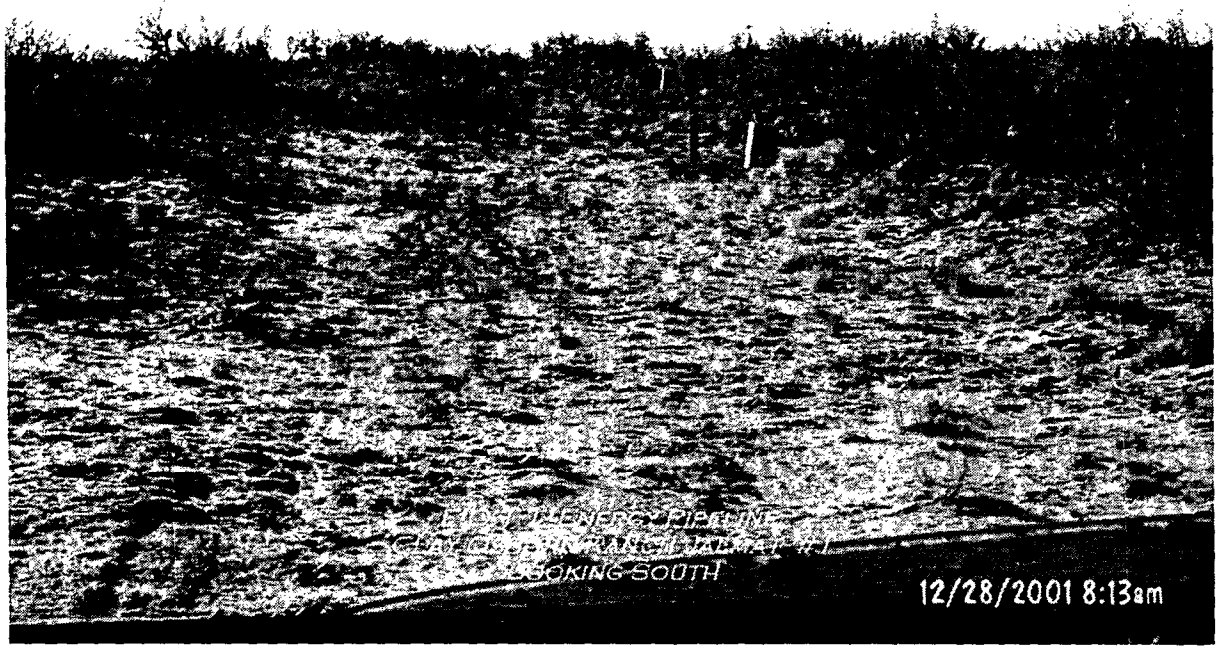
[2] GRO - Gasoline Range Organics C_6-C_{10}

[3] DRO - Diesel Range Organics C_{10}-C_{28}

[4] Total Xylene - Sum of the m, p, and o - Xylene values.

[5] NA - Not Analyzed

Attachment IV: Photographs


LOOKING SOUTH
12/28/2001 8:13am

Attachment V: Site Information and Metrics Form

Site Information and Metrics

SITE: Clay Osborn Jalmat #1	Assigned Site Reference # 2000-10606
Company: EOTT Energy Pipeline	
Company Street Address: 5805 E. Highway 80, Midland, Texas 79701	
Company Mailing Address: P.O. Box 1660	
Company City, State, Zip: Midland, Texas 79702	
Company Representative: Wayne Brunette	
Company Representative Telephone: 915.553.7557	
Company Telephone: 915.684.3479 Fax: 915.684.3456	
Fluid volume released (bbls) =?	
>25 bbls: Notify NMOCD verbally within 24 hrs and submit form C-141 within 15 days.	
(Also applies to unauthorized releases >500 mcf Natural Gas)	
5-25 bbls: Submit form C-141 within 15 days (Also applies to unauthorized releases of 50-500 mcf Natural Gas)	
Leak, Spill, or Pit (LSP) Name: Clay Osborn Jalmat #1	
Source of contamination: Pipe Line	
Land Owner, i.e., BLM, ST, Fee, Other: Clay and Gerry Osborn	
LSP Dimensions: affected area = 177' X 65'	
LSP Area = 5,553 ft^2	
Latitude: 32° 08 ' 25 "N	
Longitude: 103° 12 ' 38"W	
Elevation above mean sea level: ~3,152'amsl	
Location- Unit or : SW of SW UL-M	
Location- Section = 7	
Location- Township = 25S	
Location- Range = 37E	
Surface water body within 1000 ' radius of site: None	
Domestic water wells within 1000' radius of site: None	
Agricultural water wells within 1000' radius of site: 872' northeast Old windmill bore not in use.	
Public water supply wells within 1000' radius of site: None	
Depth from land surface to ground water (DG): ~52.4	
Depth of contamination (DC): 45'bgs	
Depth to ground water (DG – DC = DtGW) 7.4 ' bgs	

1. Ground Water	2. Wellhead Protection Area	3. Distance to Surface Water Body
If Depth to GW <50 feet: *20 points*	If <1000' from water source, or;<200' from private domestic water source: *20 points*	<200 horizontal feet: *20 points*
If Depth to GW 50 to 99 feet: *10 points*		200-100 horizontal feet: *10 points*
If Depth to GW >100 feet: *0 points*	If >1000' from water source, or; >200' from private domestic water source: *0 points*	>1000 horizontal feet: *0 points*
Ground water Score = 20	*Wellhead Protection Area Score= 20*	*Surface Water Score= 0*
Site Rank (1+2+3) = 20 + 20 + 0 = 40 points		

Total Site Ranking Score and Acceptable Concentrations

Parameter	>19	10-19	0-9
Benzene[1]	**10 ppm**	10 ppm	10 ppm
BTEX[1]	**50 ppm**	50 ppm	50 ppm
TPH	**100 ppm**	1000 ppm	5000 ppm

[1]100 ppm field VOC headspace measurement may be substituted for lab analysis

2000-1066

LinkEnergy

Link Energy Limited Partnership
P.O. Box 4666
Houston, Texas 77210-4666
www.linkenergy.com

March 30, 2004

Mr. William Olson
Mr. Ed Martin
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Link Energy – Annual Monitoring Data
15 Sites in Lea County, New Mexico

Dear Mr. Olson and Mr. Martin:

Link Energy, LP is an operator of crude oil pipelines and terminal facilities in the state of New Mexico. Link Energy actively monitors certain historical release sites exhibiting groundwater impacts, consistent with assessments and work plans developed in consultation with the New Mexico Oil Conservation Division (NMOCD). Our environmental consultant is in the process of completing the Annual Monitoring Reports for the sites listed below. We anticipate submitting the Annual Monitoring Reports by the end of April. In lieu of the final reports, Link Energy hereby submits annual monitoring data for the following sites:

Clay Osborn 6" Shell North	Section 12, Township 25 South, Range 37 East, Lea County
Clay Osborn #1 Jalmat	Section 7, Township 25 South, Range 37 East, Lea County
Clay Osborn #22A Jalmat	Section 18, Township 25 South, Range 37 East, Lea County
CS Cayler Gathering	Section 6, Township 17 South, Range 37 East, Lea County
Hobbs Jct Mainline	Section 26, Township 18 South, Range 37 East, Lea County
Hugh Gathering	Section 11/12, Township 21 South, Range 37 East, Lea County
Junction 34 Line to Lea	Section 21, Township 20 South, Range 37 East, Lea County
Kimbrough Sweet 8" Line	Section 3, Township 18 South, Range 37 East, Lea County
Lamunyon Sump	Section 28, Township 23 South, Range 37 East, Lea County
Livingston Ridge to Hugh	Section 3, Township 21 South, Range 37 East, Lea County
Lovington Deep 6"	Section 6, Township 17 South, Range 36 East, Lea County
Mescalero Ridge Station	Section 17, Township 19 South, Range 37 East, Lea County
Monument 6"	Section 5, Township 20 South, Range 37 East, Lea County
South Mattix Sump	Section 15, Township 24 South, Range 37 East, Lea County
Vacuum 10" to Jal	Section 20, Township 19 South, Range 37 East, Lea County

EPI prepared these documents and has vouched for their accuracy and completeness, and on behalf of Link Energy, I have personally reviewed the documents and interviewed EPI in order to verify the accuracy and completeness of these documents. It is based upon these inquiries

LinkEnergy

and reviews that Link Energy submits the enclosed annual monitoring data for the above 15 facilities.

If you have any questions or require further information, please contact me at (713) 993-5352.

Sincerely,

Pam Reeves for Jeffrey P. Dann

Jeffrey P. Dann, C.P.G.
Environmental Specialist
Link Energy

CC: Frank Hernandez, Link Energy
Chris Williams, NMOCD, Hobbs, NM

Enclosures

File: c/jeff files/NMOCD-AnnMonitReptCovLtr-03

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

28 April 2004

MAY 0 6 2004

Mr. Ed Martin
NM Energy, Minerals, and Natural Resources Department
New Mexico Oil Conservation Division – Environmental Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Annual Monitoring Report Link Energy Clay Osborn Jalmat #1 #2000-10606
UL-P Section 7 T25S R36E, Lea County, New Mexico
Landowner: Clay and Gerry Osborn

Dear Mr. Martin,

Environmental Plus, Inc. (EPI), on behalf of Mr. Frank Hernandez, Link Energy, submits for your consideration this *Annual Monitoring Report* for the above-referenced site. Based on data collected during the past year, Link Energy recommends that the groundwater monitoring well network be sealed and the groundwater investigation at this site be terminated. In addition, Link Energy is recommending that a remediation plan be developed to address the impacted soils identified during site delineation activities.

Should you have any questions or comments please call Mr. Ben Miller or myself at EPI's offices, or at 505-390-2088 or 505-390-7306 respectively. Mr. Hernandez may be contacted through Link's Midland office at 915-638-3799 or 505-631-3095.

All official correspondence should be addressed to:

Mr. Frank Hernandez
Link Energy
P.O. Box 1660
5805 East Highway 80
Midland, Texas 79703

Sincerely,

ENVIRONMENTAL PLUS, INC.

Iain Olness, P.G.
Hydrogeologist

cc: Larry W. Johnson, NMOCD – Hobbs District Office
Frank Hernandez, Link Energy – Midland
Jeff Dann, Link Energy – Houston
Sherry Miller, EPI President
Ben Miller, EPI Vice President and General Manager

ENVIRONMENTAL PLUS, INC.

P.O. BOX 1558 ••• 2100 AVENUE O ••• EUNICE, NEW MEXICO 88231
TELEPHONE 505•394•3481 ••• FAX 505•394•2601

LinkEnergy

ANNUAL MONITORING REPORT

CLAY OSBORN JALMAT #1

LINK REF: 2000-10606

SW¼ OF THE SW¼ OF SECTION 7, TOWNSHIP 25 SOUTH, RANGE 36 EAST
LEA COUNTY, NEW MEXICO

~1.88 MILES NORTHWEST (309°) OF
JAL, LEA COUNTY, NEW MEXICO
LATITUDE: N32° 08' 25" LONGITUDE: W103° 12' 38"

APRIL 21, 2004

PREPARED BY:

Environmental Plus, Inc.

2100 Avenue O
P.O. Box 1558
Eunice, NM 88231
Phone: (505)394-3481
FAX: (505)394-2601

TABLE OF CONTENTS

FIGURES

TABLES

APPENDIX

I. Background

The "Clay Osborn Jalmat #1" (2000-10606) release site is located approximately 1.9 miles northwest of Jal in Lea County, New Mexico, at an elevation of approximately 3,145 feet above mean sea level (reference Figures 1 and 2). The site is located in the southwest quarter of the southwest quarter of section 7, range 37 east, township 25 south. There are no residences or surface water bodies within a 1,000-foot radius of the leak site. The release is historical with no information available regarding the volume released or recovered. The release covered approximately 5,550 square feet of pipeline right-of-way and pasture land owned by Clay and Gerry Osborn (reference Figure 3).

Initial investigative activities, completed between June 21 and 26, 2000, consisted of advancing 9 soil borings to depths ranging from 15 to 45 feet below ground surface (BGS). During the advancement of the soil borings, samples were collected at five foot intervals. The samples were split with a portion being immediately placed in laboratory provided containers and placed on ice in a cooler for later transport to an independent laboratory. The remainder of the sample was placed in zip lock bag for field analysis of organic vapors utilizing an Ultra Rae photoionization detector (PID) equipped with a 10.6 electron volt (eV) lamp. The investigation delineated subsurface contamination present above the New Mexico Oil Conservation Division (NMOCD) remedial thresholds (*Site Investigation and Remediation Proposal* dated December 8, 2001).

Soil boring SB-5 was advanced until groundwater was encountered and completed as a temporary groundwater monitoring well. Analytical results indicated the presence of low levels of hydrocarbons and elevated levels of chloride and total dissolved solids (TDS) present in the groundwater. In addition, elevated concentrations of arsenic, chromium, lead and mercury were detected, with mercury concentrations reported in excess of the New Mexico Water Quality Control Commission (NMWQCC) Groundwater Standards of 0.002 milligrams per liter.

Based on this information, a permanent groundwater monitoring well was installed and monitored on a quarterly basis. Analytical results for the samples collected from the groundwater monitoring well were below the laboratory method detection limits (MDL) for all analytes for all sampling events, including mercury, arsenic and chromium. The only exception was the presence of chlorides and TDS, which were reported above the NMWQCC Groundwater Standards of 250 milligrams per liter (mg/L) and 1,000 mg/L, respectively.

II. Field Activities

The groundwater monitoring well was sampled on February 19, September 2 and October 6, 2003. The samples were submitted to an independent laboratory for the quantification of benzene, toluene, ethylbenzene and total xylenes (BTEX). In addition, the groundwater samples collected on September 2, 2003 were submitted for quantification of total petroleum hydrocarbons as gasoline (TPH as gasoline), total petroleum hydrocarbons as diesel (TPH as diesel), chlorides and TDS.

III. Groundwater Elevation and PSH Thickness

The groundwater monitoring well was gauged prior to bailing to determine the depth to groundwater and the thickness of any PSH. Measurements of groundwater levels during this phase of the investigation indicate that water levels have increased slightly. PSH have not been detected in the groundwater monitoring well since it was installed. A summary of groundwater elevations is included in Table 1.

IV. PSH Recovery

PSH have not been detected in the groundwater monitoring well since it was installed.

V. Groundwater Sampling

The groundwater monitoring well network was sampled on February 19, September 2 and October 6, 2003. The samples were submitted to an independent laboratory for the quantification BTEX via EPA Method 8260b. In addition, the groundwater samples collected on September 2, 2003 were submitted for quantification of TPH as gasoline and TPH as diesel via EPA Method 8015 modified, chlorides via EPA Method 325.2 & 9251 and TDS via EPA Method 160.1. The wells were purged a minimum of three well volumes or dry and samples collected utilizing dedicated or disposable sample bailers. Samples were then placed on ice and shipped to an independent laboratory under chain-of-custody for analyses.

VI. Groundwater Analytical Results

Analytical results for the samples collected on February 19, September 2 and October 6, 2003, were below the laboratory method detection limits (MDL) for BTEX and TPH.

A summary of groundwater analytical results is included as Table 2 and copies of the analytical results for samples collected on February 19, September 2 and October 6, 2003, are included as Appendix A.

VII. Recommendations

Based on field monitoring and analytical results collected during the past year and analyzed in conjunction with data collected during the initial investigation, the following recommendations are made:

1) Due to the fact that no contaminants have been detected in the on-site groundwater monitoring well since July 2001, it is recommended that the groundwater monitoring well be sealed and the groundwater investigation at this site be terminated. Link Energy requests that the NMOCD issue a "*No Further Action*" letter regarding the groundwater conditions at the site based on the groundwater monitoring results.

2) It is recommended that a remedial action plan be developed to address the impacted soils identified during site delineation activities.

FIGURES

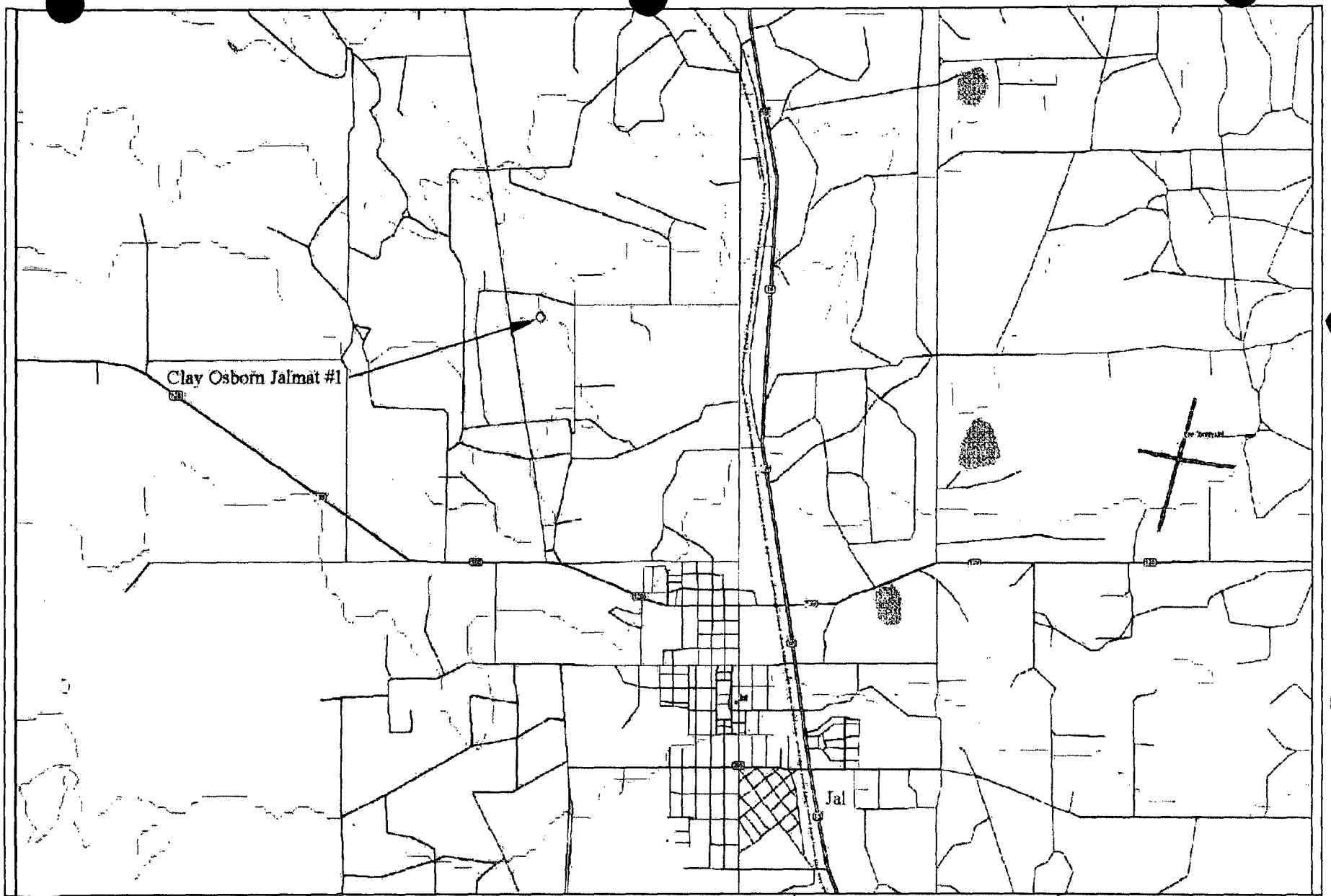


Figure 1 Area Map Link Energy, LLC Clay Osborn Jalmat #1	Lea County, New Mexico SW 1/4 of the SW 1/4, Sec. 7, T25S, R37E N 32°08' 25.0" W 103°12' 38.0" Elevation: 3,145 feet amsl	DWG By: Iain Olness April 2004 0 3,500 7,000 Feet	REVISED: SHEET 1 of 1

N

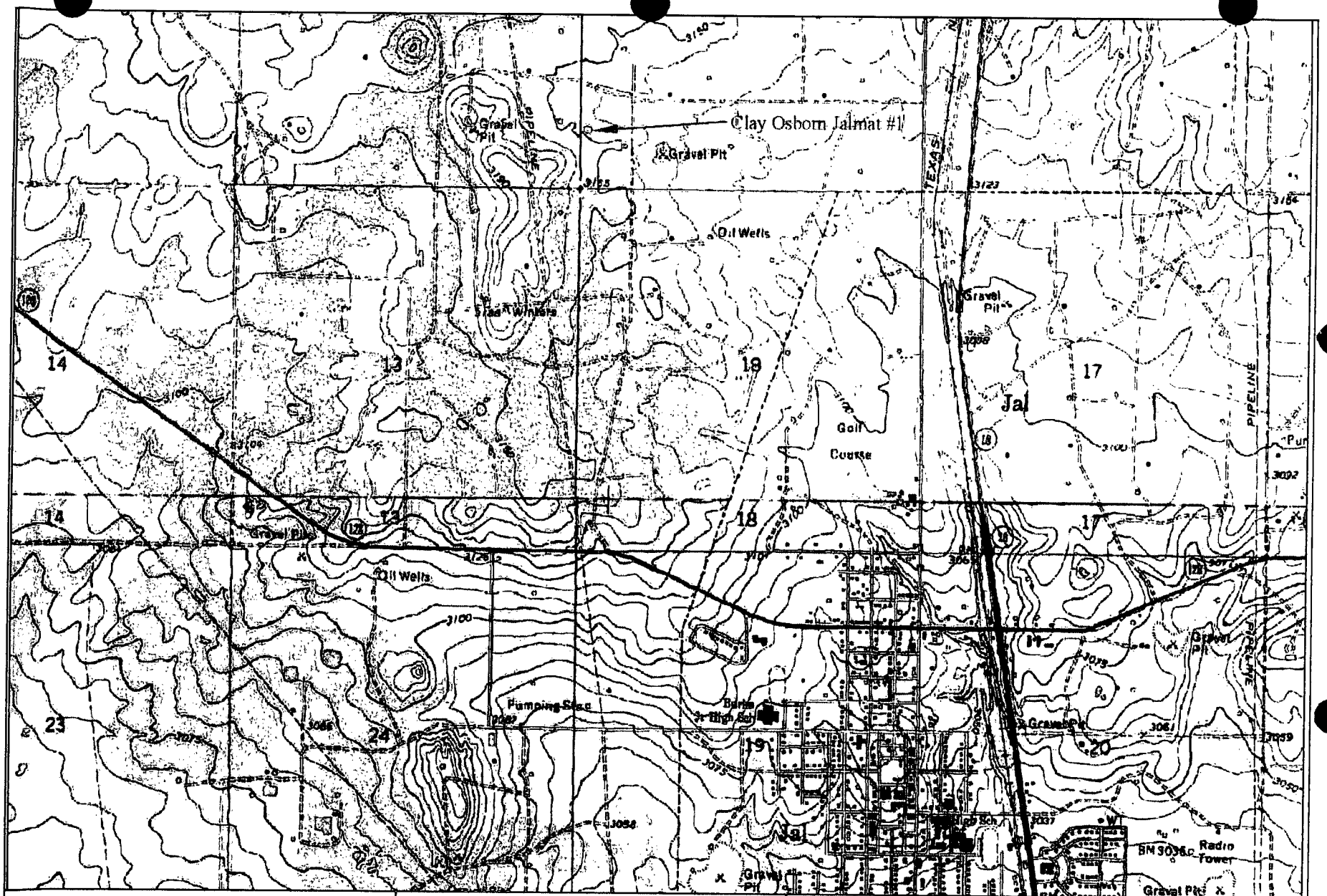


Figure 2 Site Location Map Link Energy, LLC Clay Osborn Jalmat #1	Lea County, New Mexico SW 1/4 of the SW 1/4, Sec. 7, T25S, R37E N 32°08' 25.0" W 103°12' 38.0" Elevation: 3,145 feet amsl	DWG By: Iain Olness April 2004 0 2,000 4,000 Feet	REVISED: SHEET 1 of 1 N

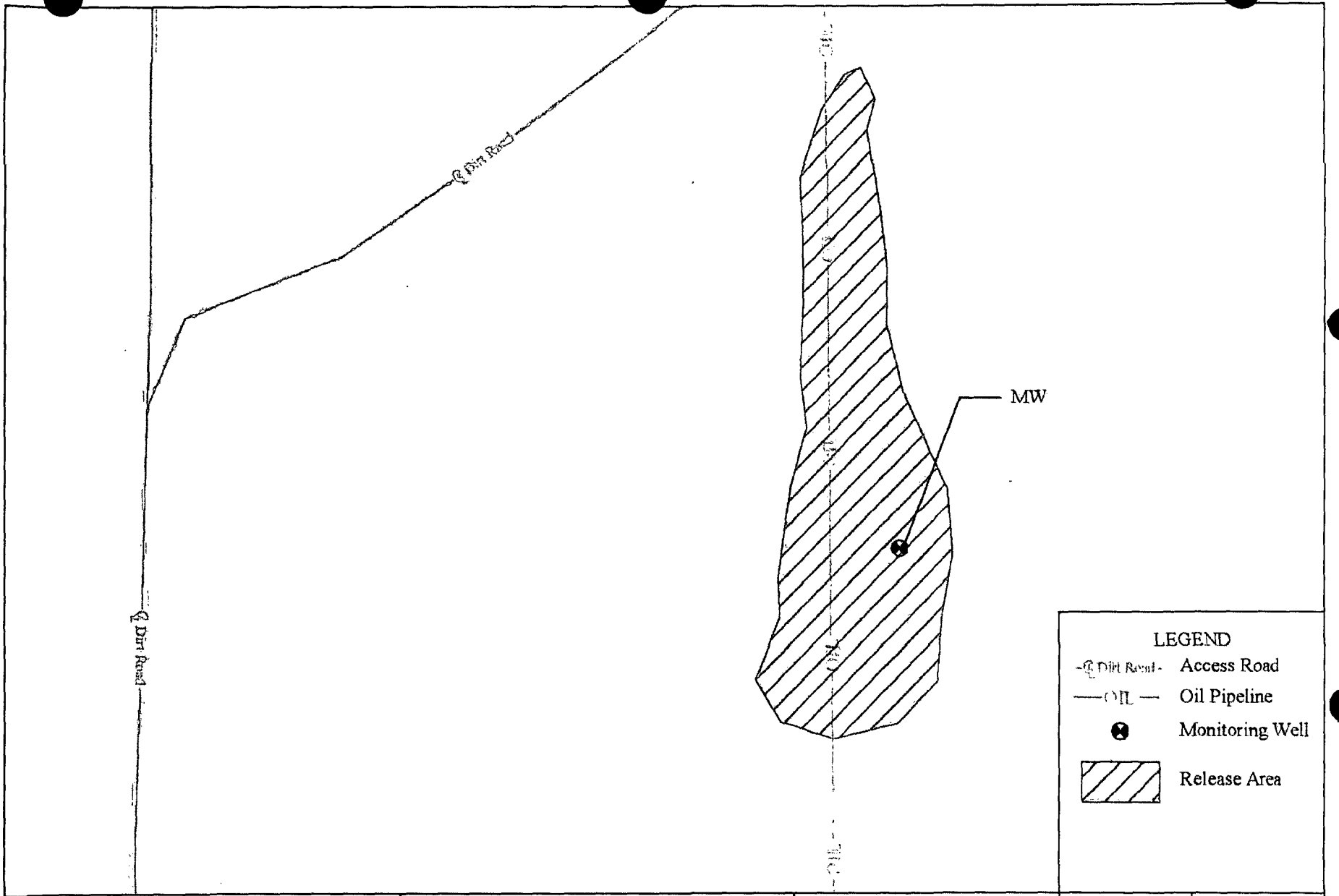


Figure 3 Site Map Link Energy, LLC Clay Osbom Jalmat #1	Lea County, New Mexico SW 1/4 of the SW 1/4, Sec. 7, T25S, R37E N 32° 08' 25.0" W 103 °12' 38.0" Elevation: 3,145 feet amsl	DWG By: Iain Olness April 2004 0 100 200 Feet	REVISED: SHEET 1 of 1	N

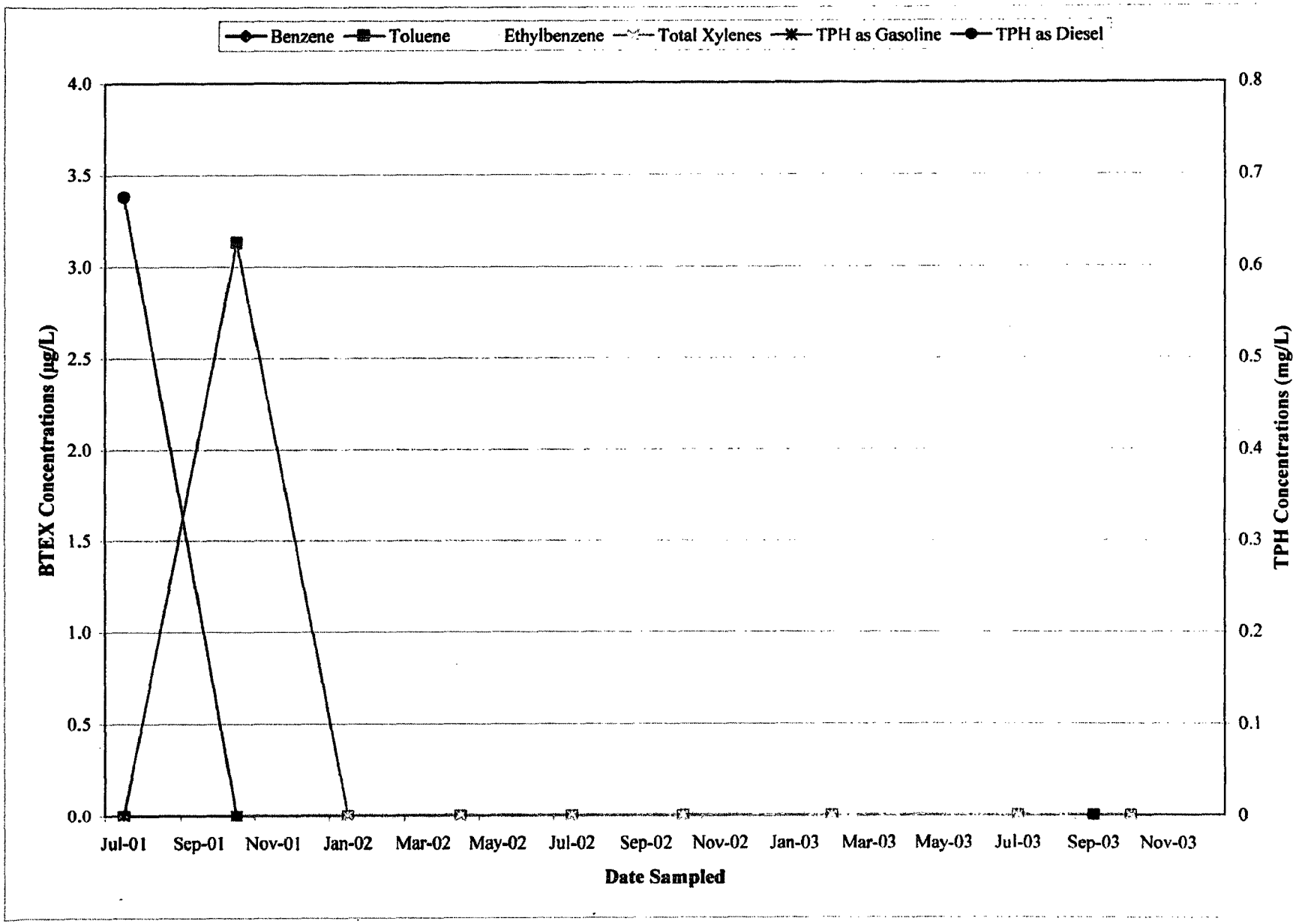


Figure 4: TPH and BTEX Concentrations in Groundwater Monitoring Well SMW from 07/03/01 through 10/06/03, Link Energy Clay Osborn 6" Shell North, Lea County, New Mexico.

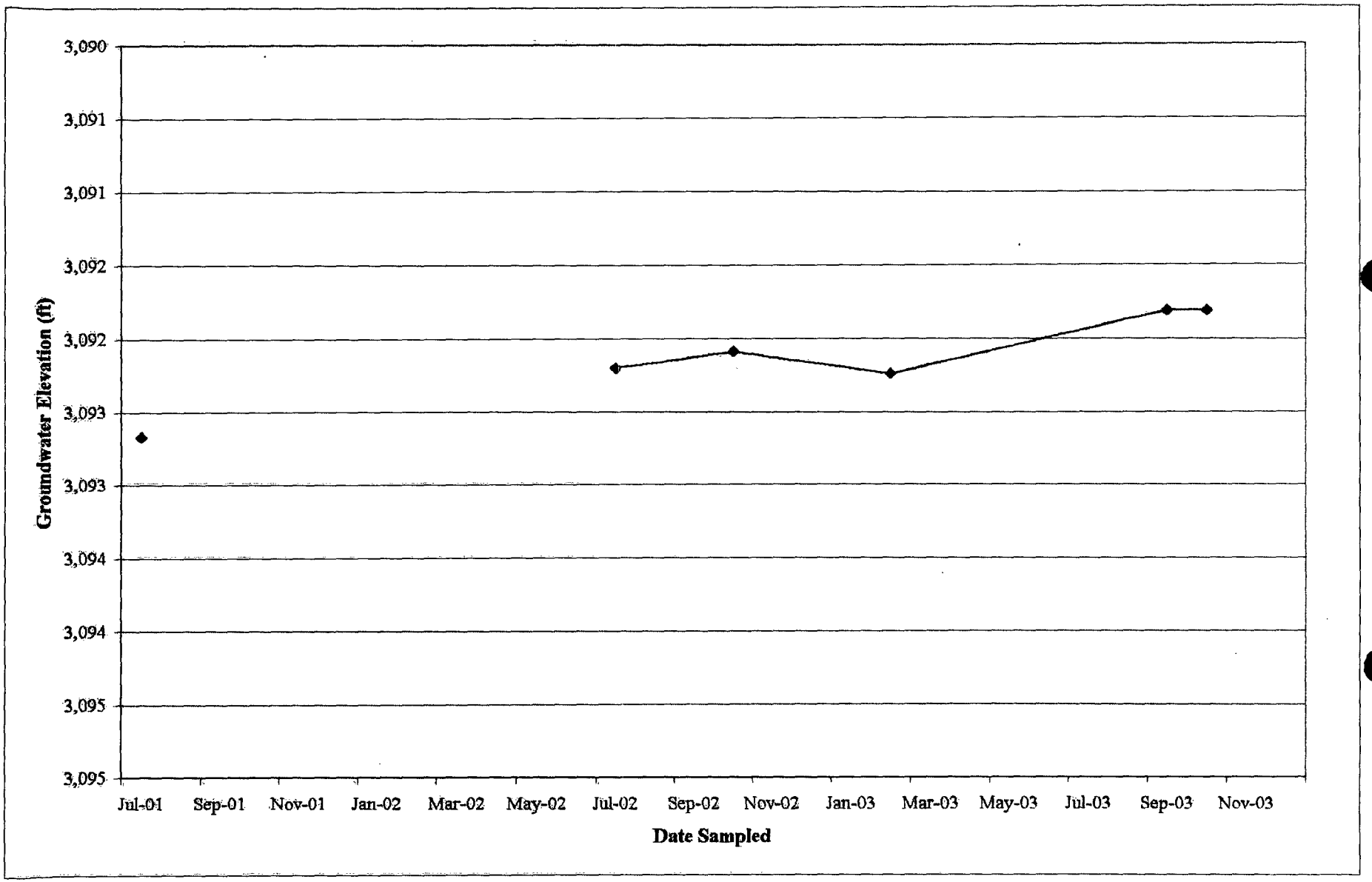


Figure 5: Hydrograph for Monitoring Well MW, Link Energy Clay Osborn Jalmat #1, Lea County, New Mexico from 07/10/01 through 10/06/03.

TABLES

TABLE 1

RELATIVE GROUNDWATER ELEVATIONS AND PHASE SEPARATED HYDROCARBON THICKNESSES

Clay Osborn Jalmat #1 - Ref #2000-10606

Monitor Well	Date Gauged	Relative Top of Casing Elevation (feet)*	Depth to PSH Below Top of Casing (feet)	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)**	Phase Separated Hydrocarbon Thickness (feet)
Temporary Well	10-Jul-01	3,145	--	52.33	3,092.67	--
MW	24-Oct-01	3,145				
	23-Jan-02					
	16-Apr-02					
	8-Jul-02		--	52.80	3,092.20	--
	5-Oct-02		--	52.91	3,092.09	--
	19-Feb-03		--	52.76	3,092.24	--
	2-Sep-03		--	53.19	3,091.81	--
	6-Oct-03		--	53.19	3,091.81	--

** = Top of casing elevation set from USGS Topographical map*

*** Corrected Groundwater Elevation = Top of Casing Elevation - (Depth to Water Below Top of Casing - (SG)(PSH Thickness)*

-- = Not detected

If cell is blank, the well was not gauged

TABLE 2

Summary of Groundwater Analytical Results

Clay Osborn #1 - Ref #2000-10606

Monitor Well Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	m,p-Xylenes (µg/L)	o-Xylene (µg/L)	Total Xylenes (µg/L)	Chloride (mg/L)	Total Dissolved Solids (mg/L)	TPH as Gasoline (mg/L)	TPH as Diesel (mg/L)	Total TPH (mg/L)	Mercury (mg/L)	Arsenic (mg/L)	Chromium (mg/L)
Temporary Well	10-Jul-01	1.13	1.28	<1	2.24	1.64	3.88	**2,040**	**4,590**	<0.25	<0.02	<0.27	**0.012**	0.0106	0.015
MW	24-Oct-01	<1	<1	<1	<1	<1	<2	**1,940**	**4,790**	<0.5	<0.5	<1.0	<0.0002	<0.02	<0.005
	23-Jan-02	<1	<1	<1	<1	<1	<2	**1,630**	**4,620**						
	16-Apr-02	<1	<1	<1	<1	<1	<2								
	8-Jul-02	<1	<1	<1	<1	<1	<2	**1,880**	**4,330**						
	5-Oct-02	<1	<1	<1	<1	<1	<2								
	19-Feb-03	<1	<1	<1	<1	<1	<2								
	2-Sep-03	<1	<1	<1	<1	<1	<2	**1,790**	**4,010**	<0.5	<0.5	<1.0			
	6-Oct-03	<1	<1	<1	<1	<1	<2								
NMOCD Remedial Thresholds		10	750	750			620	250	1,000				0.002	0.1	0.05

Bolded values are in excess of the NMOCD Remediation Thresholds or Other Standards for Domestic Water Supply.

If cell is blank, that parameter was not analyzed

APPENDICES

APPENDIX A

GROUNDWATER ANALYTICAL RESULTS

AND

CHAIN-OF-CUSTODY FORMS

AnalySys inc
3512 Montopolis Drive, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Pat McCasland
Address: 2100 Ave. O
Eunice NM 88231

Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#/Lab ID#: 139822 **Report Date:** 03/03/03
Project ID: 2000-10606
Sample Name: WEJM121903MW
Sample Matrix: water
Date Received: 02/26/2003 **Time:** 14:15
Date Sampled: 02/19/2003 **Time:** 03:00

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA[1]

Parameter	Result	Units	RQL[5]	Blank	Date	Method[6]	Data Qual[7]	Prec.[2]	Recov.[3]	CCV[4]	LCS[4]
Volatile organics-8260b/BTEX	---		---		02/28/03	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	02/28/03	8260b	---	2	71.1	87.5	70
Ethylbenzene	<1	µg/L	1	<1	02/28/03	8260b	---	2.8	98.6	101.9	107.5
m,p-Xylenes	<1	µg/L	1	<1	02/28/03	8260b	---	2.1	101.1	102.6	111.1
o-Xylene	<1	µg/L	1	<1	02/28/03	8260b	---	1.2	108.5	101.7	109
Toluene	<1	µg/L	1	<1	02/28/03	8260b	---	1	93.6	84.3	85.5

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program.

Respectfully Submitted,

Richard Laster

Richard Laster

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B =Analyte detected in associated method blank(s). S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

ANALYSYS INC.

3512 Montopolis Drive, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc. **Attn:** Pat McCasland	**Project ID:** 2000-10606 **Sample Name:** WEJM121903MW	**Report#/Lab ID#:** 139822 **Sample Matrix:** water

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	105	80-120	---
Toluene-d8	8260b	110	88-110	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

AIN-OF-CUSTODY

l Reports To:

pany Name Environmental Plus
ress 2100 Ave O
Eunice State NM Zip 88231
N: Pat McCasland
ne 505-394-3481 Fax 505-394-2601
n Status (must be confirmed with lab mgr.):
ect Name/PO#: 2000-10606 Sampler: Bradley Blum

Bill to (if different):

Company Name Xcel Energy
Address 5805 Hwy 80
City Midland State TX Zip 79701
ATTN: Frank Hernandez
Phone 915-638-3779 Fax

ANALYSIS
4221 Freidrich Lane, Suite 190, Austin, TX 78744
(512) 444-5896

Analyses Requested (1)
Please attach explanatory information as required

Client Sample No. escription/Identification	Date Sampled	Time Sampled	No. of Containers	Soil	Water	Waste	Lab I.D. # (Lab only)	BTEX 8021B	Comments
WESMW198MW	2-19-03	3:00	2		X		139822	X	

ess specifically requested otherwise on this Chain-of-custody and/or attached documentation, all analyses will be conducted using ASI's method of choice and all data will be reported to ASI's normal reporting (MDL/PQL). For GC/MS volatiles and extractables, unless specific analytical parameter lists are specified on this chain-of-custody or attached to this chain-of-custody, ASI will default to Priority Pollutants or SL list at ASI's option. Specific compound lists must be supplied for all GC procedures.

T=4.9°C

Sample Relinquished By				Sample Received By			
Name	Affiliation	Date	Time	Name	Affiliation	Date	Time
Bradley Blum	Environmental Plus			Melanie Humphrey	ASI	2/26/03	14:15

dering of above described samples to AnalySys, Inc. for analytical testing constitutes agreement by buyer/sampler to AnalySys, Inc.'s standard terms.]

AnalySys Inc.

3512 Montopolis Drive, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Pat McCasland
Address: 2100 Ave. O
Eunice NM 88231

Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#/Lab ID#: 146884 **Report Date:** 09/10/03
Project ID: 2000-10606
Sample Name: WECOJMI9203MW
Sample Matrix: water
Date Received: 09/04/2003 **Time:** 10:30
Date Sampled: 09/02/2003 **Time:** 10:32

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA[1]

Parameter	Result	Units	RQL[5]	Blank	Date	Method[6]	Data Qual[7]	Prec.[2]	Recov.[3]	CCV[4]	LCS[4]
Total dissolved solids	**4010**	mg/L	1	<1	09/08/03	160.1	---	1.17	-NA-	-NA-	-NA-
TPH by GC (as diesel)	<0.5	mg/L	0.5	<0.5	09/09/03	8015 mod.	---	4.1	98.7	122.9	98.7
TPH by GC (as diesel-ext)	---	---	---	---	09/09/03	3510	---	---	---	---	---
TPH by GC (as gasoline)	<0.5	mg/L	0.5	<0.5	09/09/03	8015 mod.	---	5.2	97.5	121.1	100.1
Chloride	**1790**	mg/L	25	<25	09/08/03	325.2&9251	---	2.44	81.96	107.27	97.39
Volatile organics-8260b/BTEX	---		---		09/09/03	8260b	---	---	---	---	---
Benzene	<1	µg/L	1	<1	09/09/03	8260b	---	3.8	89.6	100.3	91.2
Ethylbenzene	<1	µg/L	1	<1	09/09/03	8260b	---	3.4	113.4	115.5	118.4
m,p-Xylenes	<1	µg/L	1	<1	09/09/03	8260b	---	4.8	111.7	111.9	115.5
o-Xylene	<1	µg/L	1	<1	09/09/03	8260b	---	5.8	113	113.8	117.1
Toluene	<1	µg/L	1	<1	09/09/03	8260b	---	6.1	92.1	105.4	98.4

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program.

Respectfully Submitted,

Richard Laster

Richard Laster

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B =Analyte detected in associated method blank(s). S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

ANALYSYS INC.

3512 Montopolis Drive, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc. **Attn:** Pat McCasland	**Project ID:** 2000-10606 **Sample Name:** WECOJMI9203MW	**Report#/Lab ID#:** 146884 **Sample Matrix:** water

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1-Chlorooctane	8015 mod.	76.7	50-150	---
p-Terphenyl	8015 mod.	87.5	50-150	---
1,2-Dichloroethane-d4	8260b	95.6	80-120	---
Toluene-d8	8260b	110	88-110	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Send Rep s To:
Company Name Environmental Plus
Address 2100 Ave O
City Eunice State N.M. Zip 88231
ATTN: Pat McCasland
Phone 505-394-3481 Fax 505-394-2600

Bill to (if dif ent):
Company Name Ecott Energy
Address 5805 Hwy 80
City Midland State Tx Zip 79701
ATTN: Frank Hernandez
Phone 915-638-3799 Fax

Rush Status (must be confirmed with lab mgr.): _____
Project Name/PO#: 2000-10606 Sampler: Bradley Blair

ASI Inc.
4221 Freidrich Lane, Suite 190, Austin, TX 7874
(512) 444-5896

Analyses Requested (1)
Please attach explanatory information as required

Client Sample No. Description/Identification	Date Sampled	Time Sampled	No. of Containers	Soil	Water	Waste	Lab I.D. # (Lab only)	TPH 8015M	BTEX 8021B	Chloride	TDS	Comments
WECo JM 9203 MW	9-2-03	10:30	4		X		146884	X	X			
WECo JM 9203 MW	9-2-03	10:32	1		X		↓			X	X	

(1)Unless specifically requested otherwise on this Chain-of-custody and/or attached documentation, all analyses will be conducted using ASI's method of choice and all data will be reported to ASI's normal reportin limits (MDL/PQL). For GC/MS volatiles and extractables, unless specific analytical parameter lists are specified on this chain-of-custody or attached to this chain-of-custody, ASI will default to Priority Pollutants ASI's HSL list at ASI's option. Specific compound lists must be supplied for all GC procedures.

T=2.5°C

Sample Relinquished By				Sample Received By			
Name	Affiliation	Date	Time	Name	Affiliation	Date	Time
Bradley Blair	Environmental Plus	9-2-03		Melonie Humphrey	ASI	9/4/03	10:30

[Tendering of above described samples to AnalySys, Inc. for analytical testing constitutes agreement by buyer/sampler to AnalySys, Inc.'s standard terms.]

AnalySys Inc.

3512 Montopolis Drive, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.
Attn: Pat McCasland
Address: 2100 Ave. O
Eunice NM 88231

Phone: (505) 394-3481 **FAX:** (505) 394-2601

Report#/Lab ID#: 147949 **Report Date:** 10/13/03
Project ID: 2000-10606
Sample Name: WLE10603JM1MW
Sample Matrix: water
Date Received: 10/09/2003 **Time:** 10:30
Date Sampled: 10/06/2003 **Time:** 09:00

REPORT OF ANALYSIS

QUALITY ASSURANCE DATA[1]

Parameter	Result	Units	RQL[5]	Blank	Date	Method[6]	Data Qual[7]	Prec.[2]	Recov.[3]	CCV[4]	LCS[4]
Volatile organics-8260b/BTEX	---		---		10/09/03	8260b(5030/5035)	---	---	---	---	---
Benzene	<1	µg/L	1	<1	10/09/03	8260b	---	3.5	87.8	90.3	86.9
Ethylbenzene	<1	µg/L	1	<1	10/09/03	8260b	---	0.2	108	111	110.9
m,p-Xylenes	<1	µg/L	1	<1	10/09/03	8260b	---	0.1	109.7	114.3	111.8
o-Xylene	<1	µg/L	1	<1	10/09/03	8260b	---	0	116	119.5	117.8
Toluene	<1	µg/L	1	<1	10/09/03	8260b	---	4.2	93.6	98.7	92.2

This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program.

Respectfully Submitted,

Richard Laster

Richard Laster

1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B =Analyte detected in associated method blank(s). S1 =MS and/or MSD recovery exceed advisory limits. S2 =Post digestion spike (PDS) recovery exceeds advisory limit. S3 =MS and/or MSD and PDS recoveries exceed advisory limits. P =Precision higher than advisory limit. M =Matrix interference.

ANALYSYS INC.

3512 Montopolis Drive, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 385-5886 • FAX (512) 385-7411

Client: Environmental Plus, Inc.	**Project ID:** 2000-10606	**Report#/Lab ID#:** 147949
Attn: Pat McCasland	**Sample Name:** WLE10603JM1MW	**Sample Matrix:** water

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	113	80-120	---
Toluene-d8	8260b	97.5	88-110	---

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

Send Report To:
Company Name Environmental Plus
Address 2100 Ave O
City Eunice State N.M Zip 88231
ATTN: Pat McCasland
Phone 505-394-3481 Fax 505-394-2601

Bill to (if different):
Company Name Link Energy
Address 5805 Hwy 80
City Midland State Tx Zip 79701
ATTN: Frank Hernandez
Phone 915-638-3999 Fax

4221 Freidrich Lane, Suite 190, Austin, TX 7874
(512) 444-5896

Rush Status (must be confirmed with lab mgr.):
Project Name/PO#: 2000-10606 Sampler:

Client Sample No. Description/Identification	Date Sampled	Time Sampled	No. of Containers	Soil	Water	Waste	Lab I.D. # (Lab only)	BTEX 8021	Comments
WLE10603JMIMW	10-6-03	9:00	2		X		147949	X	

Analyses Requested (1)
Please attach explanatory information as required

(1)Unless specifically requested otherwise on this Chain-of-custody and/or attached documentation, all analyses will be conducted using ASI's method of choice and all data will be reported to ASI's normal reporting limits (MDL/PQL). For GC/MS volatiles and extractables, unless specific analytical parameter lists are specified on this chain-of-custody or attached to this chain-of-custody, ASI will default to Priority Pollutants + ASI's HSL list at ASI's option. Specific compound lists must be supplied for all GC procedures.

Sample Relinquished By				Sample Received By T = 5.1°C			
Name	Affiliation	Date	Time	Name	Affiliation	Date	Time
	Environmental Plus			Melanie Humphrey	ASI	10/9/03	10:30

[Tendering of above described samples to AnalySys, Inc. for analytical testing constitutes agreement by buyer/sampler to AnalySys, Inc.'s standard terms.]

2000-10606

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

July 8, 2004

JUL 13 2004

Mr. Jimmy Bryant
Link Energy
P.O. Box 1660
Midland, TX 79703

Dear Mr. Bryant:

The New Mexico Oil Conservation Division has received Link's "Annual Monitoring Report Link Energy Clay Osborn Jalmat #1 #2000-10606" report dated April 28, 2004. The NMOCD file number for this site is 1R-0412.

Before we can act on your request for termination of groundwater monitoring, we need some additional information. Please send me the results of the soil sampling taken at the time of the original investigation at this site. The sampling would have taken place during your advancement of 9 soil borings between June 21, 2000 and June 26, 2000. Your report, noted above, says that soil samples were taken every 5 feet. NMOCD needs to see the laboratory results taken on these samples showing concentrations at each 5-foot depth.

If you have any questions, contact me at (505) 476-3492 or emartin@state.nm.us

NEW MEXICO OIL CONSERVATION DIVISION

Ed Martin

Edwin E. Martin, Environmental Bureau

cc: Larry W. Johnson, NMOCD, Hobbs
Jeff Dann, Link Energy, Houston
Pat McCasland, EPI

Micro-Blaze Micro-Blaze Out

COPY

04 May 2004

MAY 18 2004

Mr. Ed Martin
NM Energy, Minerals, and Natural Resources Department
New Mexico Oil Conservation Division – Environmental Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Plains All American (formerly Link Energy, LLC) Groundwater Monitoring Sites
Summary of Groundwater Sampling Recommendations

Dear Mr. Martin,

Environmental Plus, Inc. (EPI), on behalf of Plains All American (formerly Link Energy, LLC) is submitting the following list of Plains All American groundwater monitoring/remediation sites managed by EPI and the groundwater sampling frequency recommendations.

Site Name	Reference Number	Monitoring Wells	Sampling Frequency	PSH Recovery Frequency
Clay Osborn 6" Shell North	2000-10615	All Wells	Recommend sampling be terminated and monitoring well network be sealed	
Clay Osborn Jalmat #1	2000-10606	MW-1	Recommend sampling be terminated and monitoring well be sealed	
Clay Osborn #22A	2000-10614	MW-1	Recommend sampling be terminated and monitoring well be sealed	
CS Cayler Gathering	2002-10250	MW-1	Quarterly if no PSH detected	Automated
Denton Station	2003-00338	MW-2, MW-6, MW-10, MW-11, & MW-12	Quarterly	Semi-monthly (absorbent socks) and automated system
		MW-8, MW-9, MW-13, & MW-14	Annually	Not Applicable
		MW-15 & MW-16	Do not sample unless PSH detected in MW-12 and/or MW-14	Not Applicable
Hobbs Junction Mainline	2003-00017	MW-1, MW-2, MW-3, MW-4, MW-5, MW-6 and MW-12	Quarterly if no PSH detected	Automated
		MW-7, MW-8, MW-9, MW-10, MW-11 and MW-13 and irrigation well	Quarterly	Not Applicable
Hugh Gathering 090402	2002-10235	MW-1 thru MW-5	Quarterly if no PSH detected	Automated
Junction JC-T 34 Line to Lea	2002-10286	MW-1 thru MW-3	Quarterly	Semi-monthly (absorbent socks)

P.O. Box 1558 ••• 2100 Avenue O ••• Eunice, New Mexico 88231
Telephone 505•394•3481 ••• Fax 505•394•2601

Site Name	Reference Number	Monitoring Wells	Sampling Frequency	PSH Recovery Frequency
Kimbrough Sweet 8" Line	2000-10757	EMW, SMW and NWMW	Semi-annually	Not Applicable
		CMW	Quarterly if no PSH present	Automated
Lamunyon Sump	2000-10409	MW-1	Recommend sampling be terminated and monitoring well be sealed	
Lea Station	2003-00339	MW-1, MW-2, MW-3, MW-11 and MW-12	Quarterly if no PSH present	Semi-monthly
		MW-9, MW-10 and MW-13	Annually	Not Applicable
		MW-4 thru MW-8	Recommend sampling be terminated and monitoring wells be gauged quarterly	
		RW-1 and RW-2	Not Sampled	Absorbent socks
Livingston Ridge to Hugh – Bob McCasland	2001-11043	NMW, EMW, SMW, WMW, NWMW and CMW	Quarterly	Semi-monthly
Lovington Deep 6"	2002-10312	MW-1 thru MW-5	Quarterly if no PSH present	Weekly
Mescalero Ridge Station	2001-10971	MW-1	One additional sampling event. If analytical results indicate no impacts, recommend closure.	Not Applicable
South Mattix Sump	2000-10410	MW-1	Quarterly	Not Applicable
Vacuum 10" to Jal	2002-10248	MRW-1 thru MRW-5 and RW-1	Semi-annually	Monthly

EPI, on behalf of Plains All American would like to request formal approval of the sampling recommendations for the above-referenced sites. Should you have any questions or concerns regarding these recommendations, please feel free to contact EPI at (505) 394-3481.

Sincerely,

ENVIRONMENTAL PLUS, INC.

Iain Olness, P.G.
Hydrogeologist

cc: Larry W. Johnson, NMOCD – Hobbs District Office
Jimmy Bryant, Plains All American – Midland
Jeff Dann, Plains All American – Houston
Sherry Miller, EPI President
Ben Miller, EPI Vice President and General Manager