ENVIRONMENTAL PLUS, INC. Micro-Blaze Micro-Blaze Out™
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

November 21, 2001

Mr. Paul Sheeley
Environmental Engineer
New Mexico Oil Conservation Division (NMOCD)
1625 North French Drive
Hobbs, New Mexico 88240

Subject: EOTT E.M. Elliott Federal B-6 Final OCD form C-141 and Closure Documentation

EOTT ref.# 2000-10609

Dear Mr. Sheeley,

Enclosed herewith, please find the final NMOCD form C-141 for the referenced site and two copies of the report titled, **"E.O.T.T. Energy Corporation, Final NMOCD form C-141 and Closure Documentation for the E.M. Elliott Federal B-6, ref.#2000-10609, November 20, 2001.** Environmental Plus, Inc. (EPI) of Eunice, New Mexico, on behalf of E.O.T.T. Energy Corporation (EOTT), Midland, Texas, submits for your review and consideration, this report to document implementation of the NMOCD approve closure plan proposed in the original report titled **"E.O.T.T. Energy Corporation, Work Plan Supplement: Site Investigation, Risk Assessment, and Remediation Proposal, E.M. Elliott Federal B-6, Ref.#2000-10609, May 2001."** The final NMOCD form C-141 is attached. EPI on behalf of EOTT Energy Pipeline therefore requests that the NMOCD require "no further action" at this site.

All official communication should be directed to;

Mr. Wayne Brunette, D.E.S.
E.O.T.T. Energy Corporation
P.O. Box 1660
Midland, Texas 79703
Telephone 915.684.3479 FAX 915.684.3456

If there are any questions please call Mr. Ben Miller or myself at the office or at 505.390.0288 and 505.390.7864, respectively.

Sincerely,

Pat McCasland
EPI Technical Services Manager

cc: Cutty Cunningham, ENRON, w/enclosure
Wayne Brunette, EOTT w/enclosure
Ben Miller, EPI Vice President and General Manager
Sherry Miller, EPI President
file

ENVIRONMENTAL PLUS, INC.

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

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Form C-141
Revised March 17, 1999

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: EOTT ENERGY PIPELINE	Contact: FRANK [redacted] Hernandez
Address: 5805 East Hiway 80, Midland, Tx 79701	Telephone No.: 915-638-3799
Facility Name: E.M. Elliott Tank Battery B-6	Facility Type: Tank Battery

Surface Owner	Mineral Owner	Lease No.
State of New Mexico		

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	8	T21S	38E					Lea

NATURE OF RELEASE

Type of Release: Crude Oil	Volume of Release: ~25 bbl	Volume Recovered: 0
Source of Release: Tank	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given? ☑ Yes ☐ No ☐ Not Required	If YES, To Whom? Refer to initial Report	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☑ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Tank overflowed due to system problems.
Sand spread over affected area.

Describe Area Affected and Cleanup Action Taken.*
~2110 ft², i.e. 45'x110' Refer to attached closure report dated 11-20-01
Soil was excavated, blended, & Treated. Risk Assesment w/ Clay Barrier installed

Describe General Conditions Prevailing (Temperature, Precipitation, etc.)*

I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature: [signature]

Printed Name: Frank Hernandez

Title: Tech

Date: 11-26-01 Phone: 915-638-3799

OIL CONSERVATION DIVISION

Approved by District Supervisor:

Approval Date: Expiration Date:

Conditions of Approval: Attached ☐

* Attach Additional Sheets If Necessary

December 12, 2001

Chevron U. S. A.
Attn: Rick Massey
POB 1949
Eunice, NM 88231

Re: Spill Site Closure Approval
EMSU Flowline Spill Remediation
Site Location UL-_, Sec. 15-T21S-R36E
Submitted: December 7, 2001

Dear Mr. Massey,

The Spill Site Remediation Report referenced above and submitted to the New Mexico Oil Conservation Division (OCD) for Chevron U. S. A. is **hereby approved.** According to the information provided no further action is required at this time.

Please be advised that OCD approval of this plan does not relieve Chevron U. S. A. of liability should their operations fail to adequately investigate and remediate contaminants that threaten ground water, surface water, human health or the environment. In addition, OCD approval does not relieve Chevron U. S. A. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

If you have any questions or need assistance please feel free to write or call me at (505) 393-6161, x113 or email psheeeley@state.nm.us

Sincerely,

Paul Sheeley-Environmental Engineer
Cc: Roger Anderson - Environmental Bureau Chief
Chris Williams - District I Supervisor
Bill Olson - Hydrologist
Larry Johnson - Environmental Engr.

E.O.T.T. ENERGY CORPORATION

IRP-84
10.11.05

WORK PLAN SUPPLEMENT IMPLEMENTATION AND CLOSURE DOCUMENTATION

E.M. ELLIOTT FEDERAL B-6
Ref.# 2000-10609

UL-B NW¼ NE¼ of Sec8, T21S, R38E,
~7 miles northeast of Eunice
Lea County, New Mexico

November 20, 2001

Contract #

Prepared by

Environmental Plus, Inc.
2100 Avenue O
P.O. Box 1558
Eunice, New Mexico 88231
Tele 505•394•3481 FAX 505•394•2601

Table of Contents

EXECUTIVE SUMMARY

The investigation of the E.O.T.T. Energy Corporation Elliott Federal B-6 Battery identified subsurface crude oil contamination above the New Mexico Oil Conservation Division (NMOCD) guidelines, i.e., Total Petroleum Hydrocarbon (TPH)-1,000 mg/Kg, Benzene-10 mg/Kg, and BTEX (sum of Benzene, Toluene, Ethyl Benzene, and Xylenes)-50 mg/Kg in the visible spill area and the overspray area. The deeper borings also revealed a naturally occurring red bed clay barrier present at the site from 30' to 35' below ground surface (bgs). Due to this naturally occurring lithologic characteristic, the NMOCD was petitioned to allow for an increase in the TPH threshold to levels deemed acceptable by a conservative risk/exposure assessment (RA). An exposure assessment using the American Petroleum Institute vadose computer modeling software, VADSAT, was submitted to support the increased levels. The NMOCD subsequently approved the proposed RA supported by the installation of a 2' thick impermeable compacted and tested clay barrier. Surface restoration consisted of blending and treating of the ~4' thick soil lift (root zone) overlaying the barrier to acceptable levels amenable to revegetation. The site will be reseeded with the a seed mix recommended by the New Mexico State Land Office and, with adequate precipitation, should be agriculturally productive within one year.

1.0 INTRODUCTION

Environmental Plus, Inc. (EPI) conducted the site investigation and implemented the remediation plan as submitted and was consistent with the New Mexico Oil Conservation Division (NMOCD) approved "E.O.T.T. Energy Corp. (EOTT) General Work Plan for Remediation of EOTT Pipeline Spills, Leaks, and Releases in New Mexico." The regulatory basis for both the General Work Plan and Site Specific Work Plan Supplement is the August 1993 NMOCD Guidelines for Remediation of Leaks, Spills, and Releases. A failure in the EOTT Energy Pipeline gathering system caused an estimated 25 barrels of crude oil from the storage tank at the Elliott Federal B-6 battery to overflow and inundate an area north and west of the battery. The oil also sprayed the pasture to the north.

2.0 BACKGROUND

Environmental Plus, Inc., Eunice, New Mexico (EPI) conducted the field investigation with ENTRIX providing technical oversight and EOTT personnel operational support and coordination. The Environmental Lab of Texas, Inc., Odessa, Texas and Analysys, Inc. of Austin, Texas performed the laboratory analyses and provided analytical reports. The site is associated with the E.M. Elliott Federal B-6 Tank Battery and is on New Mexico State Land leased by the Will Terry Trust. Gross crude oil contamination occured in the low area west of the battery (~70' x 35') and surfically in the overspray area (~25' x 50') to the north. The area has been used historically for livestock grazing and access to oil and gas production facilities. The site is located ~7 miles northeast of Eunice, Lea County, New Mexico in the NW¼ of the NE¼ of Sec8, T21S, R38E at latitude is 32°29'46"N and longitude is 103°04'49"W.

3.0 CLOSURE PLAN IMPLEMENTATION

The first phase of the closure plan consisted of excavating, shredding, treating, and blending the contaminated soil. The second phase installed the compacted clay barrier and tested to 95% of the clay Proctor density. The third phase was to backfill the excavation with the remediated soil and monitor to closure.

3.1 Excavation, Shredding, Treating, and Blending

Consistent with the approved proposal, the affected soil was excavated down to ~6'bgs. Cylinders of contaminated soil in the areas surrounding GP15 and GP16 were excavated to ~10'bgs. The soil was shredded, treated with MicroBlaze Spill Control, and blended with local clean soil in the area north of the spill and stockpiled. Approximately 500 yd^3 of soil was remediated. A map of the site excavation and blending/bio-cell area is included as Attachment I.

3.2 Clay Barrier Installation

Approximately 210 yd^3 of clastic red clay was purchased from Wallach Concrete in Eunice, New Mexico and installed in 2 successive compacted lifts, each 1' thick. The engineering firm of Pettigrew and Associates, Hobbs, New Mexico performed compaction tests on the first lift in two distinct areas on June 15, 2001 and on June 18, 2001 on the second lift. All compaction tests achieved 95% of the Proctor criteria. Copies of the Density tests are included as Attachment II.

3.3 Backfilling and Contouring

Subsequent to successful barrier installation, the excavation was backfilled with the treated soil and contoured. Photographs are included as Attachment III.

3.4 Bio-Cell Monitoring

On July 9, 2001, the bio-cell was sampled to determine attenuation. To provide for representative samples, the bio-cell was divided into quadrants and samples from 5 equally spaced points within each quadrant were collected from the 1-4'bgs interval and composited. The 4 composite samples were sent to Analysy, Inc., Austin, Texas for analysis.

4.0 Discussion of Bio-Cell Attenuation Data

The initial Total Petroleum Hydrocarbon, EPA 8015M (TPH^{8015m}) concentrations in the area of GP15 and GP16 were 23,148 mg/Kg and 39,334 mg/Kg, respectively. Analytical reports from the July 9, 2001 sampling are included in Attachment IV along with a summary table. The bio-cell soil had attenuated to acceptable levels of the Constituents of Concern (CoCs), i.e., TPH^{8015m}, Benzene, and BTEX (Benzene, Toluene, Ethyl Benzene, and Xylenes).

4.1 TPH^{8015M} Attenuation

The table below summarizes the TPH^{8015m} data.

Quadrant Sample ID	Diesel Range Organics mg/Kg	Gasoline Range Organics mg/Kg	TPH^{8015m} mg/Kg
EE7901NE (Northeast)	1030	21.4	1051.4
EE7901NW (Northwest)	671	<5	671
EE7901SE (Southeast)	1950	77	2027
EE7901SW (Southwest)	2720	27.5	2747.5
Averages	*1592.75*	*42.0*	*1624.2*

The prescriptive NMOCD TPH^{8015m} threshold for the site, based on site rank is 1000 mg/Kg. The Southeast and Southwest quadrant composite data exceeds this threshold but overlays the installed clay barrier and should have no impact on ground water and will continue to attenuate. The north quadrants are conservatively acceptable.

4.2 Benzene and BTEX Attenuation

A review of the Benzene and BTEX data shows that none were detected above the 20 µg/Kg instrument detection limit and are acceptable.

5.0 Closure Justification

This report documents successful implementation of the RA and Remediation Plan approved by the NMOCD. The data collected from the bio-cell sampling indicates that the remediation processes have been effective in achieving acceptable levels of CoCs and precludes extended quarterly monitoring of the bio-cell as provided for in the Plan. Based on the information provided in this report, EPI, on behalf of E.O.T.T. Energy Pipeline, requests that the NMOCD require "no further action" at this site.

Attachment I: Figures and Maps

E.O.T.T. Energy Pipeline
E.M. Elliott Federal B-6

sw/4 ne/4 Sec8 T21S R38E

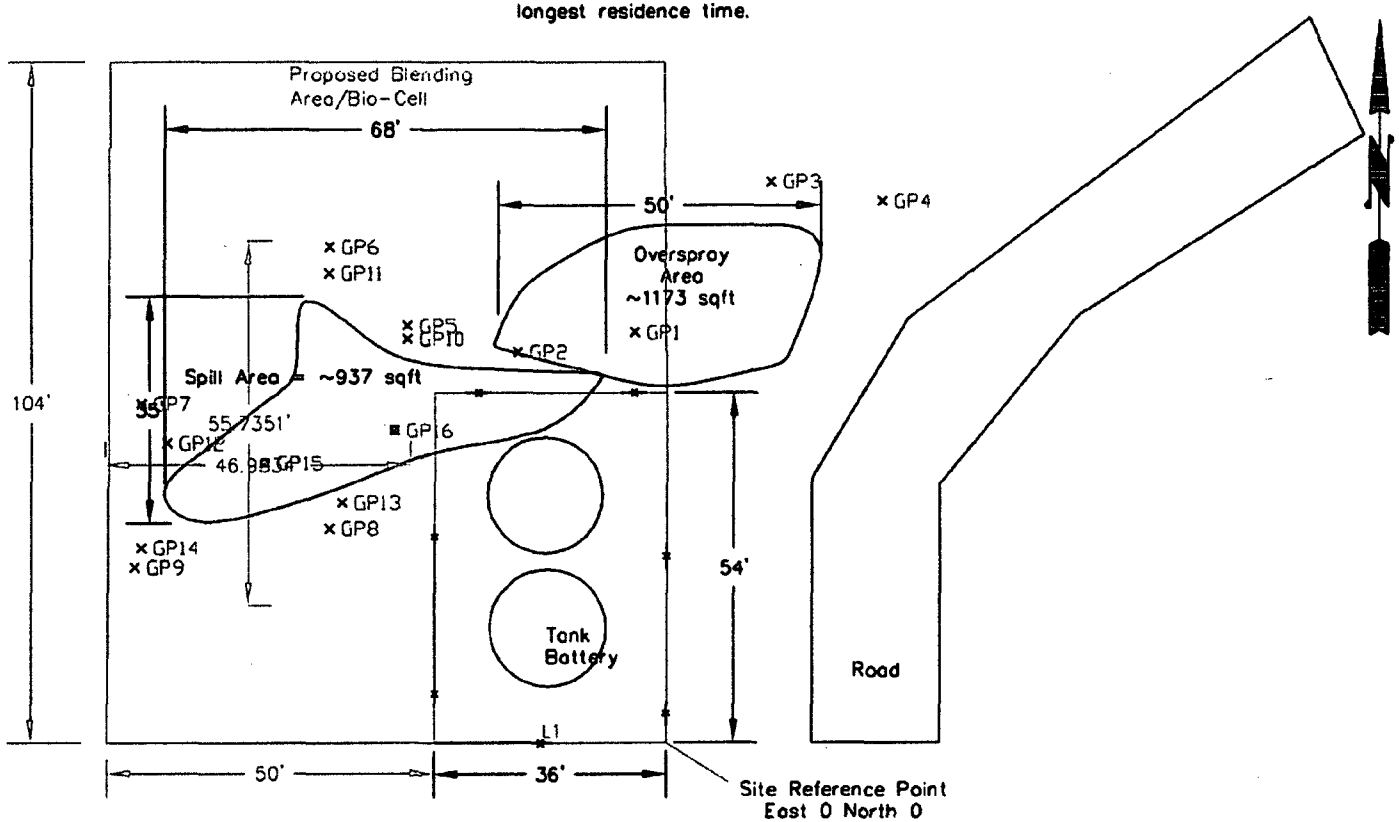
Lat. 32°29-46N Long. 103°04-49W

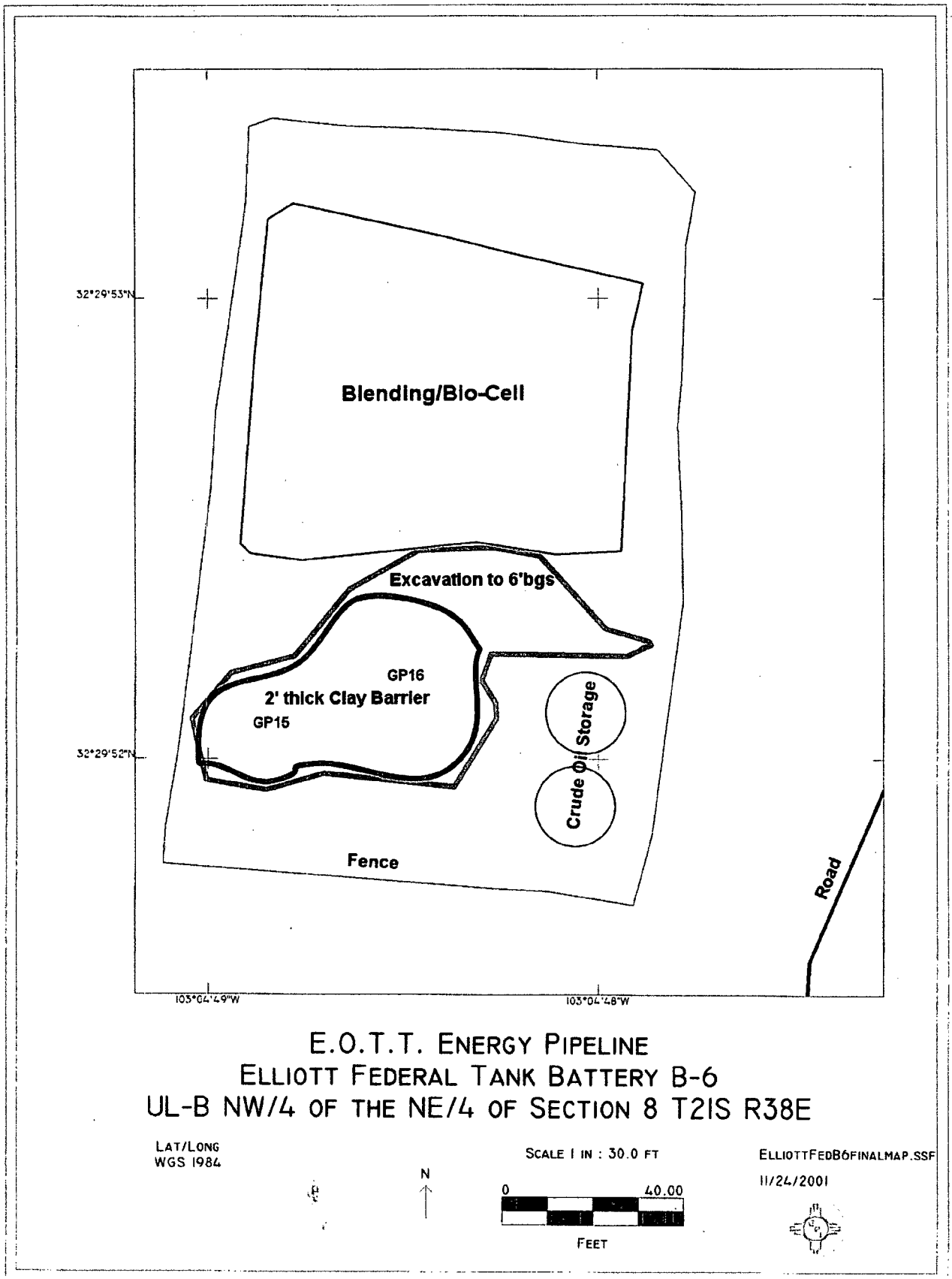
Area Ground Water Level

Water Well Info.-sec6,T21S,R38E = 79.4'bgs

Water Well (1991) ~1 mile NE = 83.3'bgs

BH15 & BH16 are in the center of the spill area and were considered to have the longest residence time.





E.O.T.T. Energy Pipeline
Elliott Federal Tank Battery B-6
UL-B NW/4 of the NE/4 of Section 8 T21S R38E

LAT/LONG
WGS 1984

N

SCALE 1 IN : 30.0 FT

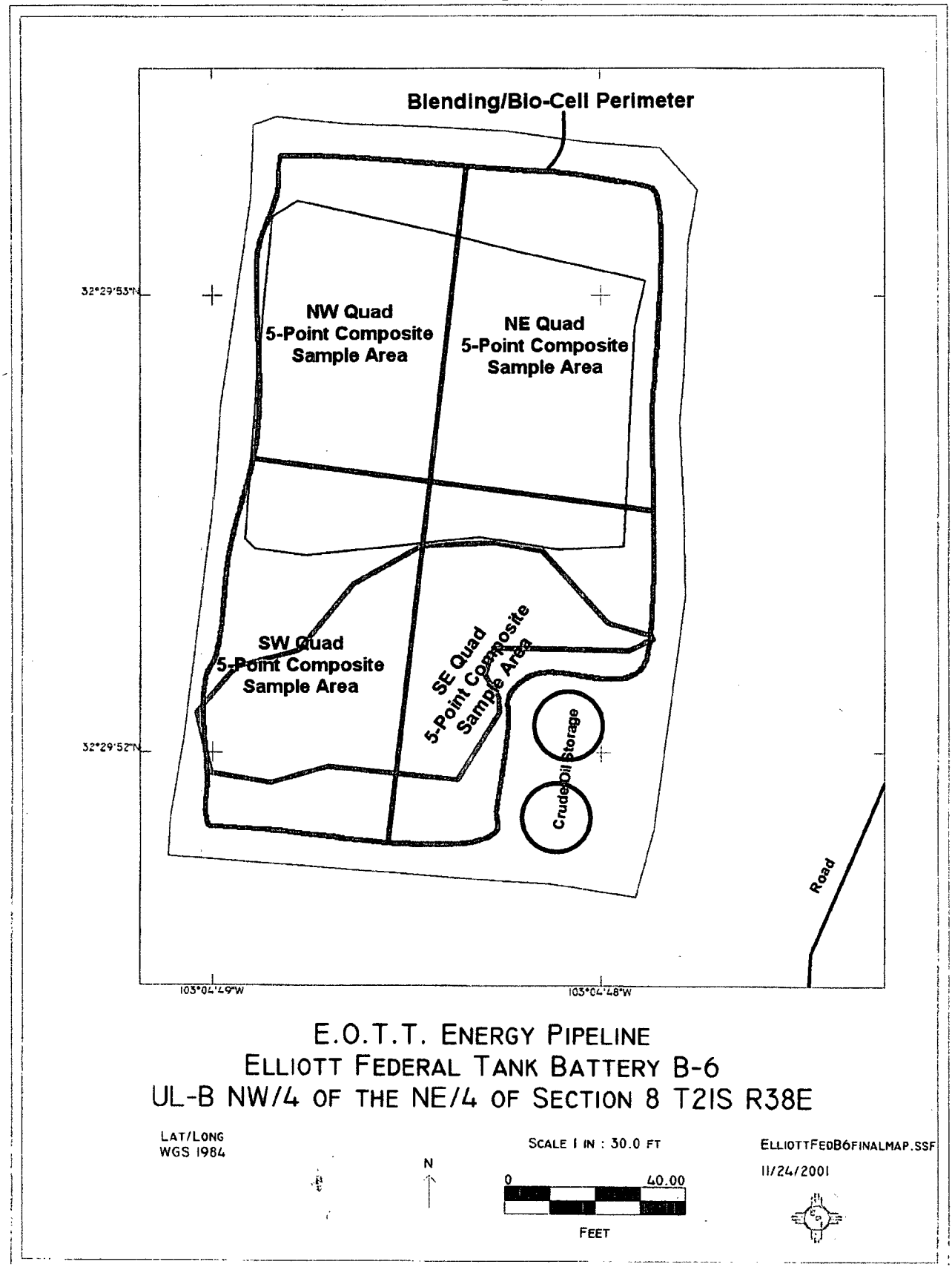
0 40.00

FEET

ELLIOTTFEDB6FINALMAP.SSF

11/24/2001

Quadrant Sampling Map



Attachment II: Density Test Reports

LABORATORY TEST REPORT
PETTIGREW and ASSOCIATES
1110 N. GRIMES
HOBBS, NM 88240
(505) 393-9827

DEBRA P. HICKS P.E./ L.S.I.
WILLIAM M. HICKS, III, P.E./P.S.

TO: Environmental Plus, Inc.
P.O. Box 1558
Eunice, NM 88231
Attn: Roger Boone

MATERIAL: Red Clay

PROJECT: Elliot Federal B6

TEST METHOD: ASTM D 2922

DATE OF TEST: June 15, 2001

DEPTH: 4' Below Finished Grade

TEST NO.	LOCATION	DRY DENSITY % Maximum	% MOISTURE	DEPTH
SG-1	N.W. of Tank	105.1	10.21	
SG-2	S.E. of Tank	102.0	11.05	

CONTROL DENSITY: 107.2
ASTM D 698

OPTIMUM MOISTURE: 18.0%

REQUIRED COMPACTION: 95%

LAB NO.: 01 1453-1455

COPIES TO: Environmental Plus

PETTIGREW and ASSOCIATES

BY: Jeremy Baker E.I.

LABORATORY TEST REPORT
PETTIGREW and ASSOCIATES
1110 N. GRIMES
HOBBS, NM 88240
(505) 392-9827

DEBRA P. HICKS, P.E./L.S.I.
WILLIAM M. HICKS, III, P.E./P.S.

TO: Environmental Plus, Inc.
P.O. Box 1558
Eunice, NM 88231
Attn: Roger Boone

MATERIAL: Red Clay

PROJECT: Elliot Federal B6

TEST METHOD: ASTM D 2922

DATE OF TEST: June 18, 2001

DEPTH: 4' Below Finished Grade

TEST NO.	LOCATION	DRY DENSITY % Maximum	% MOISTURE	DEPTH
SG-3	N.W. of Tank	105.0	8.6	
SG-4	S.E. of Tank	103.4	8.8	

CONTROL DENSITY: 107.2
ASTM D 698

OPTIMUM MOISTURE: 18.0%

REQUIRED COMPACTION: 95%

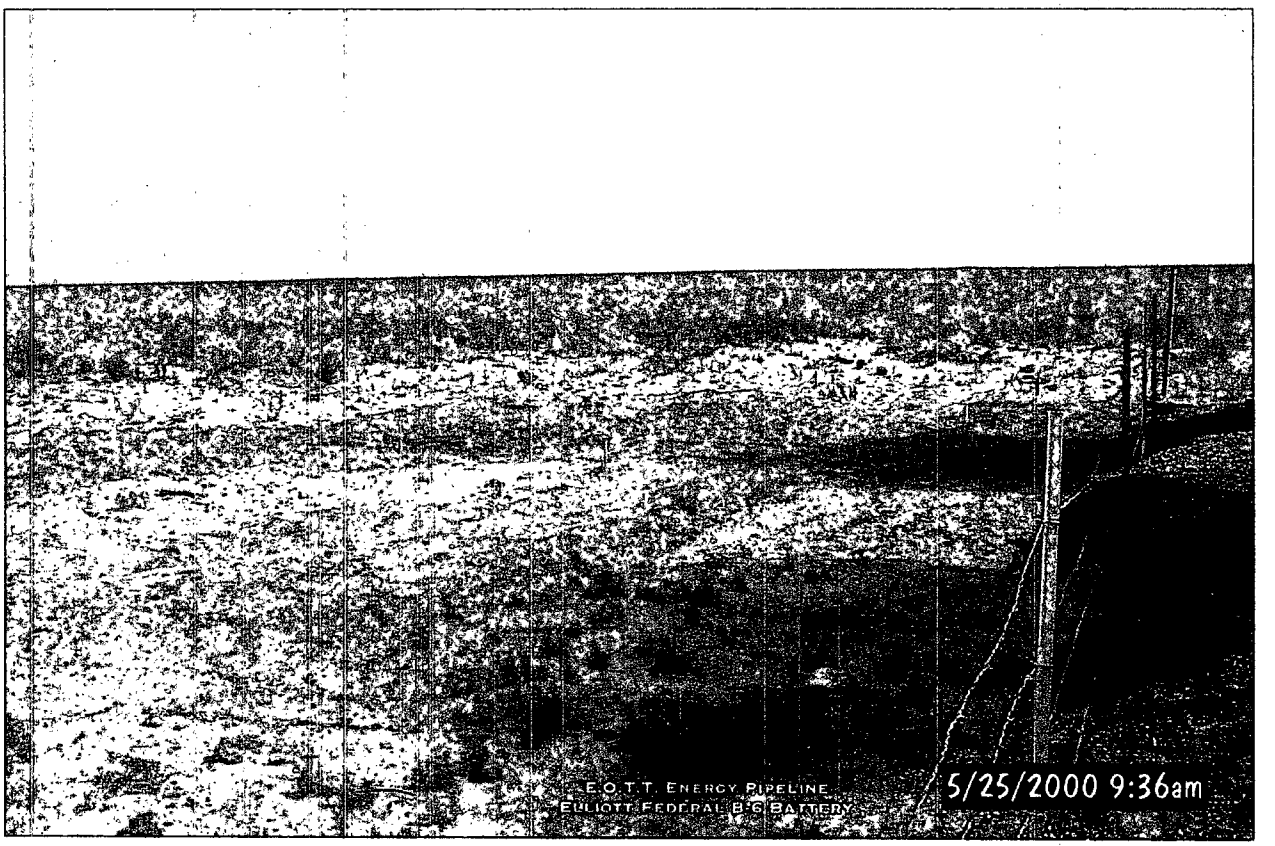
LAB NO.: 01 1456-1458

COPIES TO: Environmental Plus

PETTIGREW and ASSOCIATES

BY: Jeremy Baker E.I.

Attachment III: Photographs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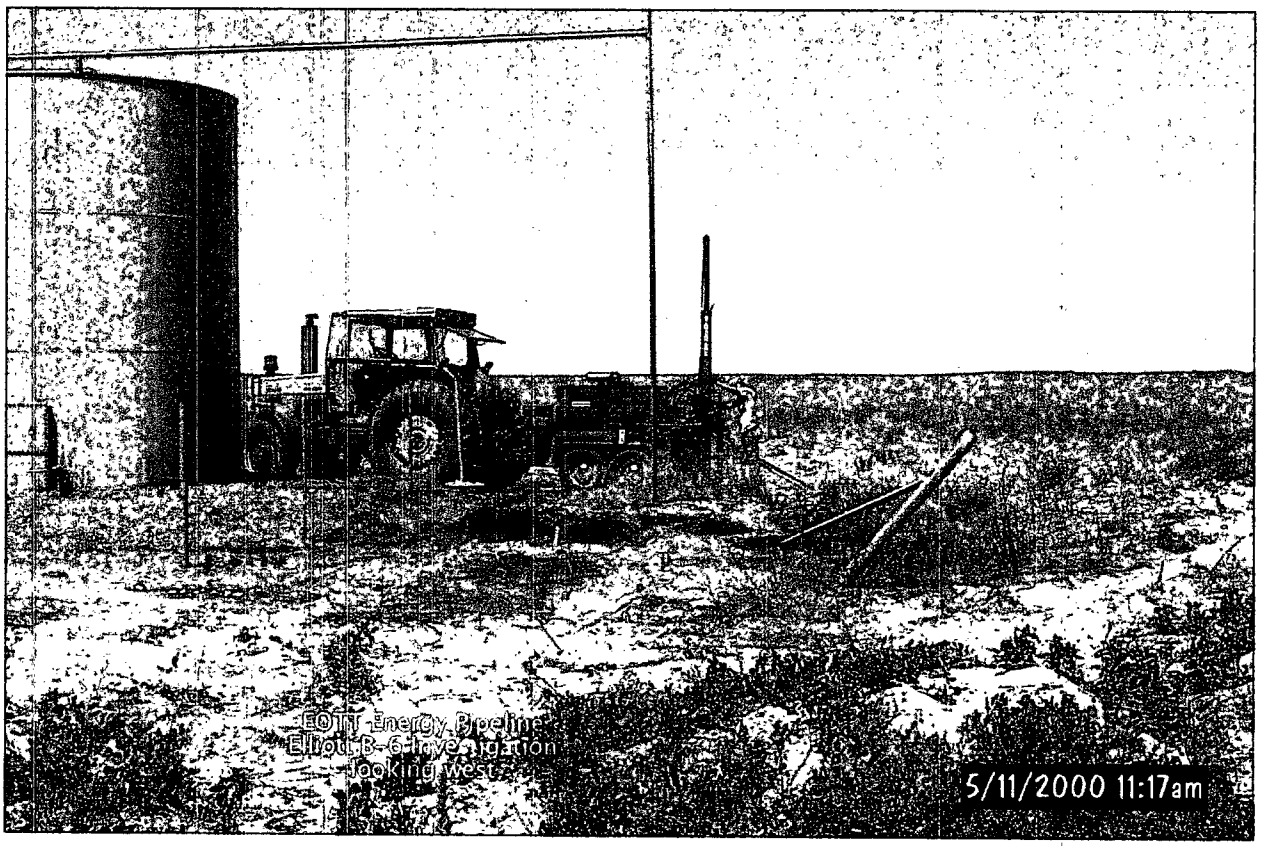
Elliott Federal B-6 Battery
5/25/2000 9:36am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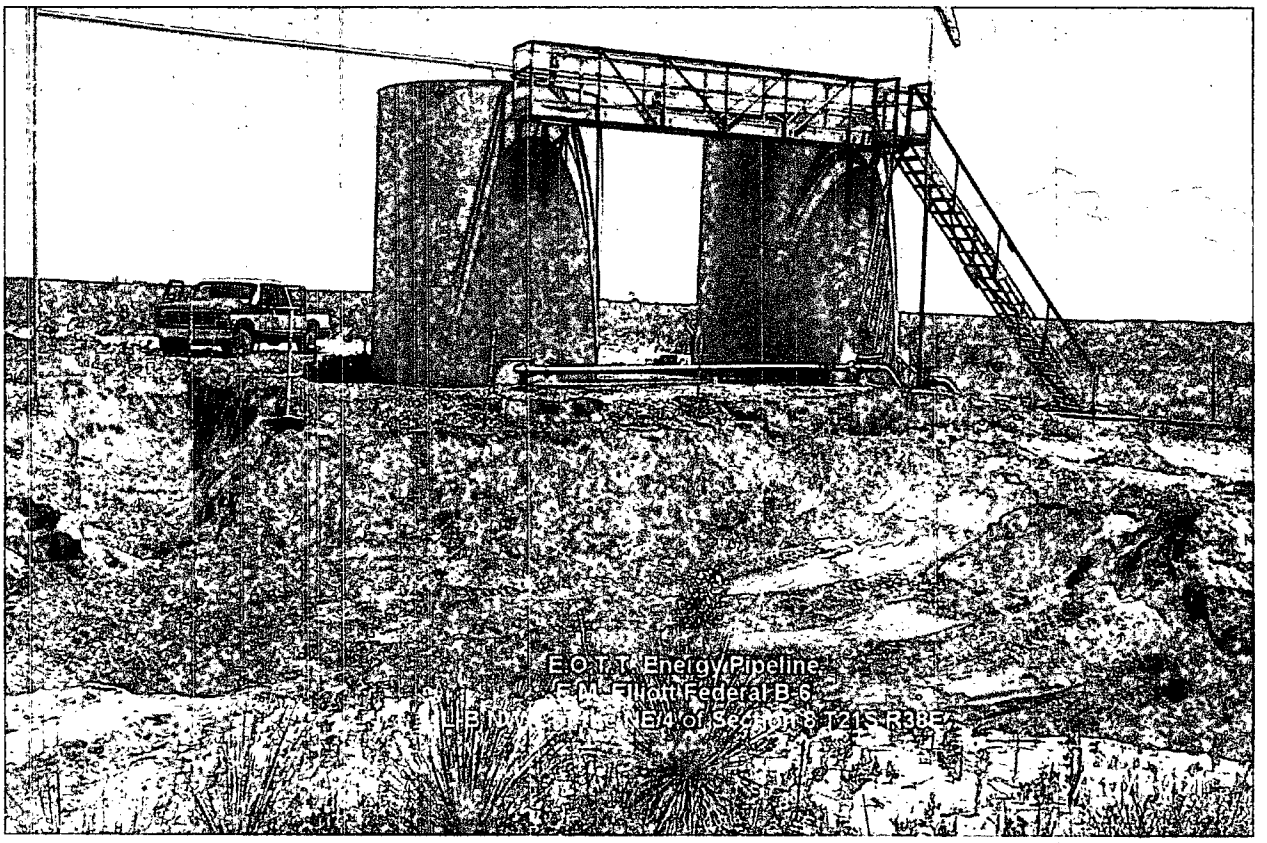
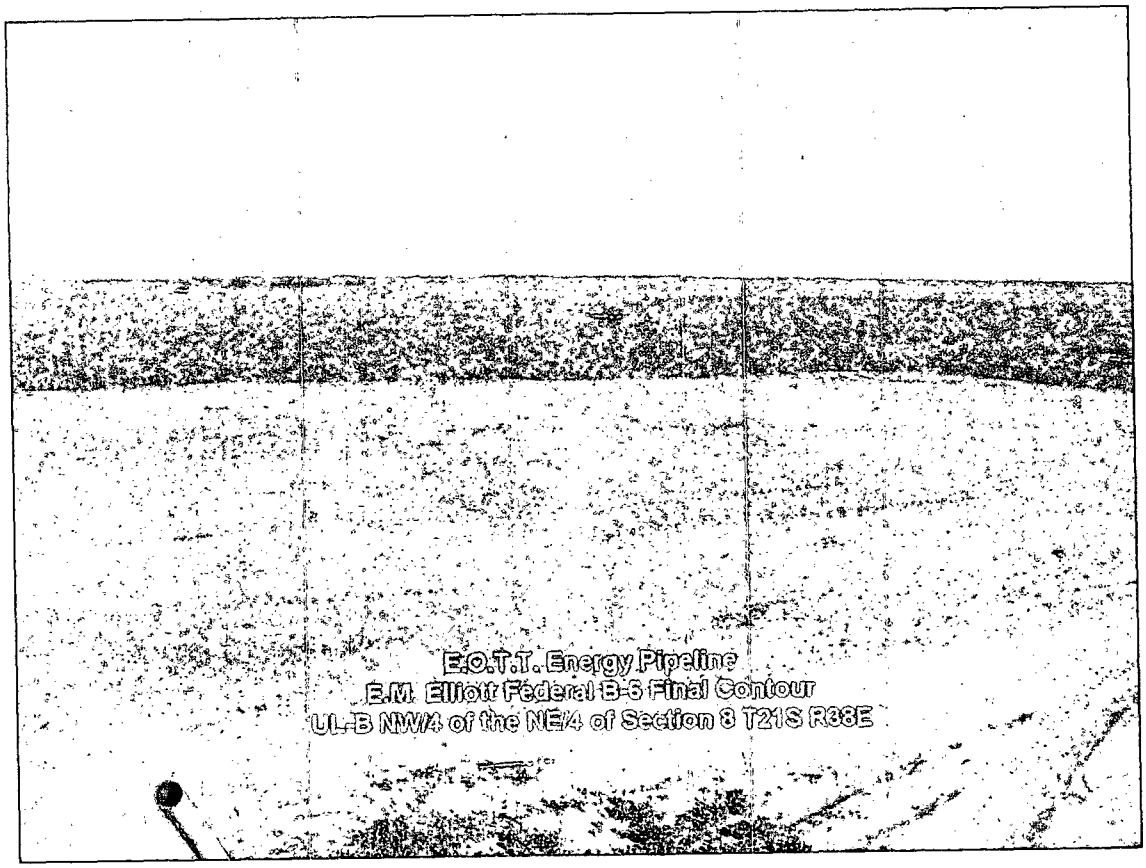
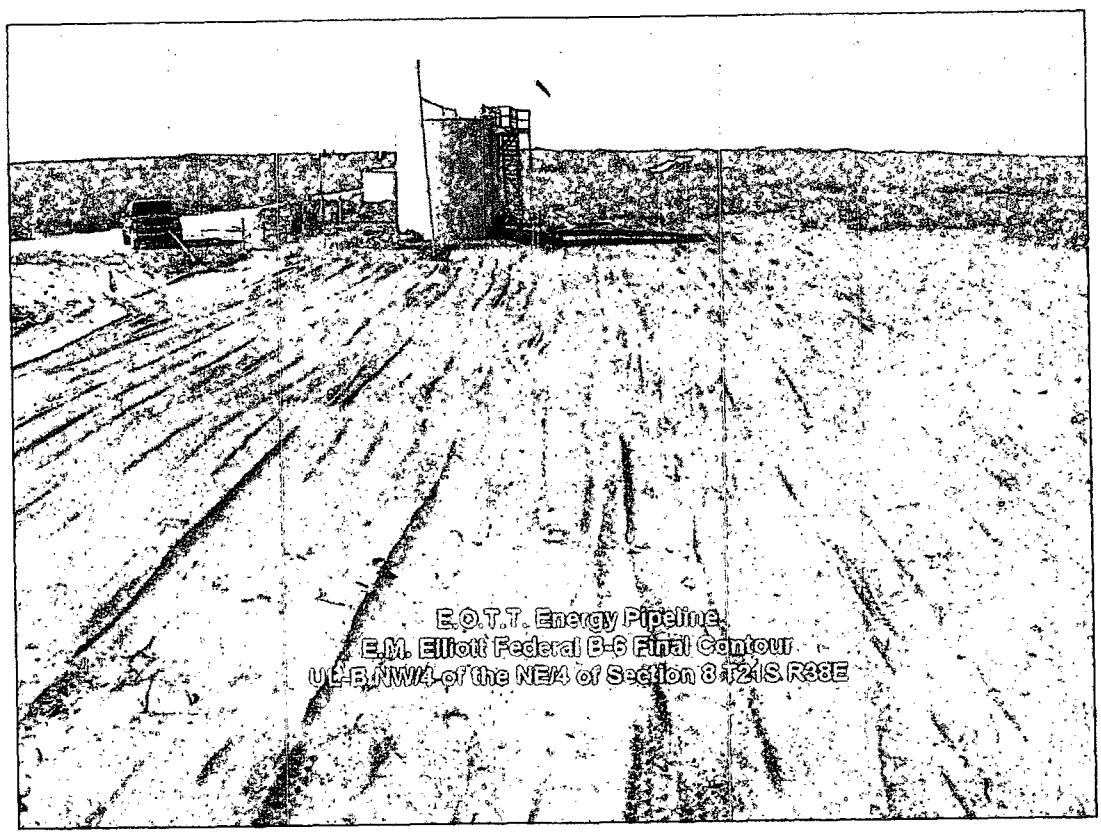
Elliot B-6 Investigation
looking west
5/11/2000 11:17am


E.O.T.T. Energy Pipeline
E.M. Elliott Federal B-6
NE/4 of Section 8, T21S, R38E


E.O.T.T. Energy Pipeline
E.M. Elliott Federal B-6 Final Contour
UL-B NW/4 of the NE/4 of Section 8 T21S R38E


E.O.T.T. Energy Pipeline
E.M. Elliott Federal B-6 Final Contour
UL-B NW/4 of the NE/4 of Section 8 T21S R38E

Attachment III: Results Summary and Original Analytical Reports

E.O.T.T. Energy Pipeline

E.M. Elliott Federal B-6 Blended and Treated Bio-Cell Analytical Result Summary

SAMPLE ID#	Date	Sampling Location	LITHOLOGY	GRO[1] mg/Kg	DRO[2] mg/Kg	GRO+DRO TPH[7] - mg/Kg	BTEX[3] mg/Kg	Benzene mg/Kg	Toluene mg/Kg	Ehtyl Benzene mg/Kg	m,p-Xylene mg/Kg	o-Xylene mg/Kg
				[5] *Detection Limit is <20 mg/Kg*								
EE7901SW	7/9/2001	Southwest Quadrant	Tan Sand (Back Fill)	27.5	2720	**2747.5**	100	20	20	20	20	20
EE7901SE		Southeast Quadrant	Tan Sand (Back Fill)	77	1950	**2027**	100	20	20	20	20	20
EE7901NW		Northwest Quadrant	Tan Sand (Back Fill)	5	671	676	100	20	20	20	20	20
EE7901NWE		Northeast Quadrant	Tan Sand (Back Fill)	21.4	1030	**1051.4**	100	20	20	20	20	20

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

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

[3] BTEX - The sum of Benzene, Toluene, Ethyl Benzene, and m,p, &o Xylene

[4] na - not analyzed

[5] **Bolded values** are in excess of the New Mexico Oil Conservation Division Guideline Threshold for the parameter

[6] *Italicized values are < the instrument detection limit.*

[7] GRO+DRO (TPH) - Total Petroleum Hydrocarbon EPA Method 8015M

[redacted] 1 F[redacted]ch L[redacted], Suite [redacted], Au[redacted], TX [redacted]4 &[redacted]
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Plus, Inc.
Attn: Pat McCasland
Address: 1324 M.St Po Box
Eunice, NM 88231

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

Report#/Lab ID#: 115969 **Report Date:** 08/02/01
Project ID: 2000-10609 / EM Elliot
Sample Name: EE7901NE
Sample Matrix: soil
Date Received: 07/11/2001 **Time:** 10:48
Date Sampled: 07/09/2001 **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]
TPH by GC (as diesel)	1030	mg/Kg	100	<100	08/01/01	8015 mod	---	6.92	100.6	96	116.6
TPH by GC (as diesel-ext)	---	---	---	---	07/22/01	3540	---	-NA-	-NA-	-NA-	-NA-
TPH by GC (as gasoline)	21.4	mg/Kg	5	<5	07/16/01	8015 mod.	---	1.18	93.1	119.7	116.87
Volatile organics-8260b/BTEX	---		---		07/23/01	8260b	---	---	---	---	---
Benzene	<20	µg/Kg	20	<20	07/23/01	8260b	---	0.2	80.9	98.3	87.3
Ethylbenzene	<20	µg/Kg	20	<20	07/23/01	8260b	---	1.4	101.3	97	102.1
m,p-Xylenes	<20	µg/Kg	20	<20	07/23/01	8260b	---	1.2	97.5	94.4	97.9
o-Xylene	<20	µg/Kg	20	<20	07/23/01	8260b	---	1.2	96.9	92.8	99.7
Toluene	<20	µg/Kg	20	<20	07/23/01	8260b	---	1.2	82	88.9	88.2

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.

4221 Fredrich Lane,Suite 190, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 7840408
(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Plus, Inc. **Attn:** Pat McCasland	**Project ID:** 2000-10609 / EM Elliot **Sample Name:** EE7901NE	**Report#/Lab ID#:** 115969 **Sample Matrix:** soil

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
p-Terphenyl	8015 mod	none/diluted	diluted @ 2X	D
Chlorobenzene-d5(Sur)	8015 mod.	98	50 - 150	---
1,2-Dichloroethane-d4	8260b	83	65-115	---
Toluene-d8	8260b	75.2	50-120	---

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

Report #/Lab ID#: 115969 **Matrix:** soil
Client: Environmental Plus, Inc. **Attn:** Pat McCasland
Project ID: 2000-10609 / EM Elliot
Sample Name: EE7901NE

Sample Temperature/Condition <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

Sample Bottles & Preservation

☒ Sample received in appropriate container(s) and appear to be appropriately preserved.
☐ Sample received in appropriate container(s). State of sample preservation unknown.
☐ Sample received in inappropriate container(s) and/or with unknown state of preservation.

J flag Discussion

A J flag data qualifier indicates (as required under TNRCC-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
p-Terphenyl	D	Sample diluted to assure quantitation within calibration range or due to Matrix interferences or other matrix effects (eg. high non-target organic
p-Terphenyl	D	levels). Surrogate recoveries not accurately quantifiable.

Notes:

AnalySys Inc.
[redacted] Austin, TX [redacted] &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Plus, Inc.
Attn: Pat McCasland
Address: 1324 M.St Po Box
Eunice, NM 88231

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

Report#/Lab ID#: 115968 **Report Date:** 08/02/01
Project ID: 2000-10609 / EM Elliot
Sample Name: EE7901NW
Sample Matrix: soil
Date Received: 07/11/2001 **Time:** 10:48
Date Sampled: 07/09/2001 **Time:** 08:50

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]
TPH by GC (as diesel)	671	mg/Kg	100	<100	08/01/01	8015 mod	---	6.92	100.6	96	116.6
TPH by GC (as diesel-ext)	---	---	---	---	07/22/01	3540	---	-NA-	-NA-	-NA-	-NA-
TPH by GC (as gasoline)	<5	mg/Kg	5	<5	07/16/01	8015 mod.	---	1.18	93.1	119.7	116.87
Volatile organics-8260b/BTEX	---		---		07/23/01	8260b	---	---	---	---	---
Benzene	<20	µg/Kg	20	<20	07/23/01	8260b	---	0.2	80.9	98.3	87.3
Ethylbenzene	<20	µg/Kg	20	<20	07/23/01	8260b	---	1.4	101.3	97	102.1
m,p-Xylenes	<20	µg/Kg	20	<20	07/23/01	8260b	---	1.2	97.5	94.4	97.9
o-Xylene	<20	µg/Kg	20	<20	07/23/01	8260b	---	1.2	96.9	92.8	99.7
Toluene	<20	µg/Kg	20	<20	07/23/01	8260b	---	1.2	82	88.9	88.2

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

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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.

[redacted] Inc.
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2209 N. Padre Island Dr., Corpus Christi, TX 7840408
(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Plus, Inc. **Attn:** Pat McCasland	**Project ID:** 2000-10609 / EM Elliot **Sample Name:** EE7901NW	**Report#/Lab ID#:** 115968 **Sample Matrix:** soil

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
p Terphenyl	8015 mod	none/diluted	diluted @ 2X	D
Chlorobenzene-d5(Sur)	8015 mod.	110.1	50 - 150	---
1,2-Dichloroethane-d4	8260b	82.3	65-115	---
Toluene-d8	8260b	71.7	50-120	---

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

Report #/Lab ID#: 115968 **Matrix:** soil
Client: Environmental Plus, Inc. **Attn:** Pat McCasland
Project ID: 2000-10609 / EM Elliot
Sample Name: EE7901NW

Sample Temperature/Condition <=6°C

The typical sample temperature criteria (except for metals by ICP, GFAA and AA and a very few other tests) is <= 6°C. Possible exceptions include samples submitted to laboratory within such a short time after sampling that cooling measures used in the field and during transport had insufficient time to achieve desired temperatures in the samples (see sample collection and sample receipt times) and samples where the temperature could not be measured due to sample submission in a manner precluding temperature measurement without impacting sample integrity (ex. in a bottle with no cooler).

Sample Bottles & Preservation

☒ Sample received in appropriate container(s) and appear to be appropriately preserved.
☐ Sample received in appropriate container(s). State of sample preservation unknown.
☐ Sample received in inappropriate container(s) and/or with unknown state of preservation.

J flag Discussion

A J flag data qualifier indicates (as required under TNRCC-TRRP reporting requirements) that the raw calculated analyte concentration in the sample (uncorrected for background levels/blanks and other potential sources of sampling and analytical contamination), though less than the Reported Quantitation Limit (RQL) is greater than the Detection Limit. Because the reported result is below the quantitation limit for this project/sample (or test procedure), GC/MS organics results may or MAY NOT have been verified as to the presence and relative ratio of target ions (eg. the material causing the J flag "hit" in such situations may be nothing more than background ion-fragment noise.)

Comments pertaining to Data Qualifiers and QC data:

Parameter	Qualif	Comment
o-Terphenyl	D	Sample diluted to assure quantitation within calibration range or due to Matrix interferences or other matrix effects (eg. high non-target organic
o-Terphenyl	D	levels). Surrogate recoveries not accurately quantifiable.

Notes:

AnalySys Inc.
4221 Freidrich Lane, Suite 190, Austin, TX 78744 &
2209 N. Padre Island Dr., Corpus Christi, TX 78408
(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Plus, Inc.
Attn: Pat McCasland
Address: 1324 M.St Po Box
Eunice, NM 88231

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

Report#/Lab ID#: 115967 **Report Date:** 08/02/01
Project ID: 2000-10609 / EM Elliot
Sample Name: EE7901SE
Sample Matrix: soil
Date Received: 07/11/2001 **Time:** 10:48
Date Sampled: 07/09/2001 **Time:** 08:40

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]
TPH by GC (as diesel)	1950	mg/Kg	100	<100	08/01/01	8015 mod	---	6.92	100.6	96	116.6
TPH by GC (as diesel-ext)	---	---	---	---	07/22/01	3540	---	-NA-	-NA-	-NA-	-NA-
TPH by GC (as gasoline)	77	mg/Kg	5	<5	07/16/01	8015 mod.	---	1.18	93.1	119.7	116.87
Volatile organics-8260b/BTEX	---		---		07/23/01	8260b	---	---	---	---	---
Benzene	<20	µg/Kg	20	<20	07/23/01	8260b	---	0.2	80.9	98.3	87.3
Ethylbenzene	<20	µg/Kg	20	<20	07/23/01	8260b	---	1.4	101.3	97	102.1
m,p-Xylenes	<20	µg/Kg	20	<20	07/23/01	8260b	---	1.2	97.5	94.4	97.9
o-Xylene	<20	µg/Kg	20	<20	07/23/01	8260b	---	1.2	96.9	92.8	99.7
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(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Plus, Inc.
Attn: Pat McCasland

Project ID: 2000-10609 / EM Elliot
Sample Name: EE7901SE

Report#/Lab ID#: 115967
Sample Matrix: soil

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
p-Terphenyl	8015 mod	none/diluted	diluted @ 2X	D
Chlorobenzene-d5(Sur)	8015 mod.	108.7	50 - 150	---
1,2-Dichloroethane-d4	8260b	86.9	65-115	---
Toluene-d8	8260b	78.5	50-120	---

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

Exc[redacted]ons [redacted]por[redacted]

Report #/Lab ID#: 115967 **Matrix:** soil
Client: Environmental Plus, Inc. **Attn:** Pat McCasland
Project ID: 2000-10609 / EM Elliot
Sample Name: EE7901SE

Sample Temperature/Condition <=6°C

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o-Terphenyl	D	Sample diluted to assure quantitation within calibration range or due to Matrix interferences or other matrix effects (eg. high non-target organic
o-Terphenyl	D	levels). Surrogate recoveries not accurately quantifiable.

Notes:

[redacted] INC.
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Address: 1324 M.St Po Box
Eunice, NM 88231

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

Report#/Lab ID#: 115966 **Report Date:** 08/02/01
Project ID: 2000-10609 / EM Elliot
Sample Name: EE7901SW
Sample Matrix: soil
Date Received: 07/11/2001 **Time:** 10:48
Date Sampled: 07/09/2001 **Time:** 08:30

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]
TPH by GC (as diesel)	2720	mg/Kg	100	<100	08/01/01	8015 mod	---	6.92	100.6	96	116.6
TPH by GC (as diesel-ext)	---	---	---	---	07/22/01	3540	---	-NA-	-NA-	-NA-	-NA-
TPH by GC (as gasoline)	27.5	mg/Kg	5	<5	07/16/01	8015 mod.	---	1.18	93.1	119.7	116.87
Volatile organics-8260b/BTEX	---		---		07/23/01	8260b	---	---	---	---	---
Benzene	<20	µg/Kg	20	<20	07/23/01	8260b	---	0.2	80.9	98.3	87.3
Ethylbenzene	<20	µg/Kg	20	<20	07/23/01	8260b	---	1.4	101.3	97	102.1
m,p-Xylenes	<20	µg/Kg	20	<20	07/23/01	8260b	---	1.2	97.5	94.4	97.9
o-Xylene	<20	µg/Kg	20	<20	07/23/01	8260b	---	1.2	96.9	92.8	99.7
Toluene	<20	µg/Kg	20	<20	07/23/01	8260b	---	1.2	82	88.9	88.2

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(512) 444-5896 • FAX (512) 447-4766

Client: Environmental Plus, Inc.
Attn: Pat McCasland

Project ID: 2000-10609 / EM Elliot
Sample Name: EE7901SW

Report#/Lab ID#: 115966
Sample Matrix: soil

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
p-Terphenyl	8015 mod	none/diluted	diluted @ 2X	D
Chlorobenzene-d5(Sur)	8015 mod.	101.5	50 - 150	---
1,2-Dichloroethane-d4	8260b	78.6	65-115	---
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Sample Name: EE7901SW

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p-Terphenyl	D	levels). Surrogate recoveries not accurately quantifiable.

Notes:

CHAIN-OF-CUSTODY

AnalySys INC.

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

Send Reports to: EPI → **Bill to (if different,.**

Company Name: Environmental Plus Inc | Company Name: Eott
Address: 1324 N. Main St. Box 1558 | Address: 5805 East Highway 80
City: Eunice State: nm Zip: 88231 | City: Midland State: Tx Zip: 79701
ATTN: Pat McCasland | ATTN: Wayne Bruncttc
Phone: 394-3481 Fax: 394-2601 | Phone: 915-556-0190 Fax: 915-684-3479

Rush Status (must be confirmed with lab mgr.):
Project Name/PO#: 2000-10609 Sampler: Cody Miller
Em Elliot

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 80.15 mod	BTEX	Comments
EE7901SW	7-9-01	8:30	1	✓			115966	✓	✓	
EE7901SE	7-9-01	8:40	1	✓			115967	✓	✓	
EE7901NW	7-9-01	8:50	1	✓			115968	✓	✓	
EE7901NE	7-9-01	9:00	1	✓			115969	✓	✓	

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 mits (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 SI's HSL list at ASI's option. Specific compound lists must be supplied for all GC procedures.

T = 1.0 °C

Sample Relinquished By				Sample Received By			
Name	Affiliation	Date	Time	Name	Affiliation	Date	Time
Cody Miller	Environmental Plus	7-10-01	9:00	E. [illegible]	ASI	7-11-01	10:48

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

Attachment IV: Site Information and Metrics Form

Site Information and Metrics

SITE: Elliott Federal B-6	Assigned Site Reference # 2000-10609
Company: EOTT	
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	
>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: EOTT Elliott Federal B-6	
Source of contamination: Tank Battery overflow	
Land Owner, i.e., BLM, ST, Fee, Other: New Mexico State Land leased by the Will Terry Trust	
LSP Dimensions: affected area = 45' x 110'	
LSP Area = 2110 ft^2	
Location of Reference Point (RP): Southeast corner post of the battery fence.	
Location distance and direction from RP: 40' NW	
Latitude: 32° 29' 46N	
Longitude: 103° 04' 49W	
Elevation above mean sea level: ~ 3430 amsl	
Feet from South Section Line	
Feet from West Section Line	
Location- Unit or ¼¼ =NW¼ of the NE¼	
Location- Section = 8	
Location- Township = 21S	
Location- Range = 38E	
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: None	
Public water supply wells within 1000' radius of site: None	
Depth from land surface to ground water (DG): 77'bgs	
Depth of contamination (DC): The lower most contamination >1000 mg/Kg occurs at approximately 15' bgs	
Depth to ground water (DG – DC = DtGW) 62' 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 = 10	*Wellhead Protection Area Score= 0*	*Surface Water Score= 0*
Site Rank (1+2+3) = 10+0+0 = 10 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