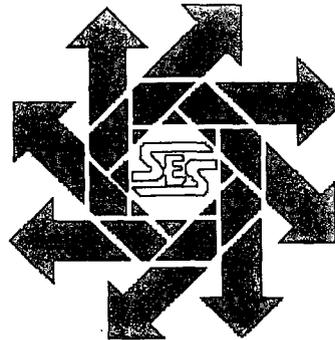


MAY - 7 2009

**Oxy USA Corporation  
McKittrick Hills Central Tank Battery  
Work Plan  
Section 14, Township 22S, Range 24E  
Eddy County, New Mexico**

**May 28, 2008**



**Prepared for:**

***Oxy USA WTP LP  
P.O. Box 1988  
Carlsbad, New Mexico 88221***

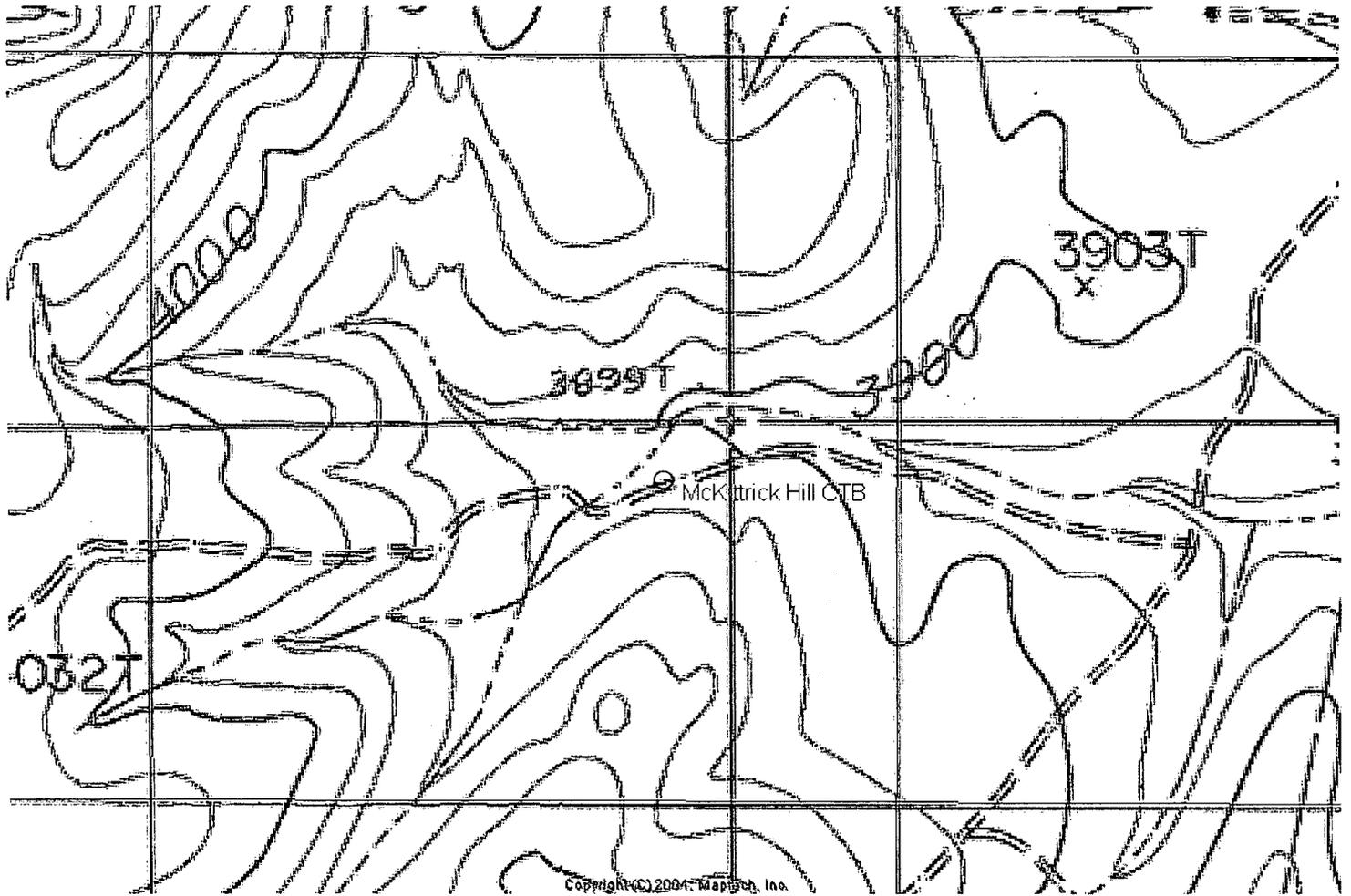
**By:**

***Safety & Environmental Solutions, Inc.  
703 E. Clinton  
Hobbs, New Mexico 88240  
(575) 397-0510***

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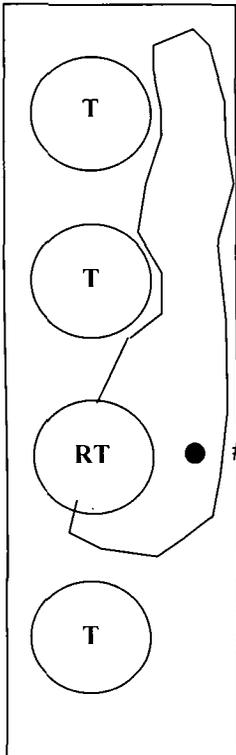
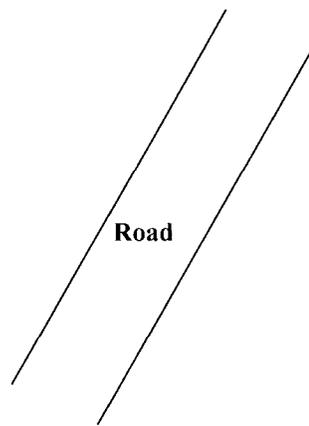
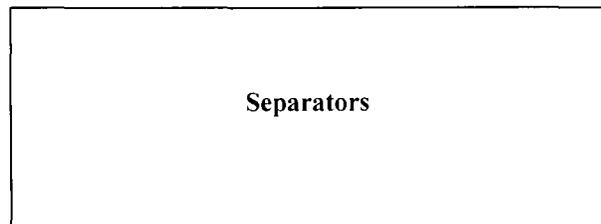
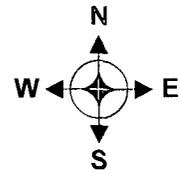
<b>I. COMPANY CONTACTS .....</b>	<b>1</b>
<b>II. BACKGROUND .....</b>	<b>1</b>
<b>III. SURFACE AND GROUND WATER.....</b>	<b>1</b>
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**Figure 1**  
**Vicinity Map**



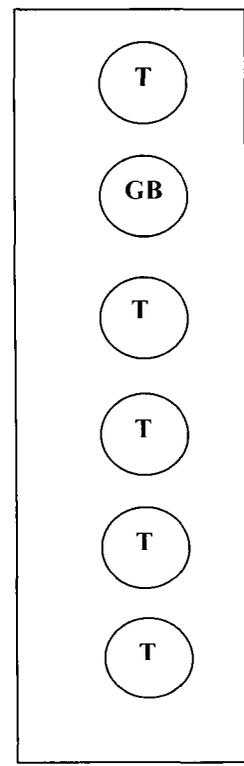
**Figure 2  
Site Plan**

**Figure 2**  
**Site Plan**



● #3

● #2



●--Borehole Sample

T--Tank

RT--Receiving Tank

GB--Gun Barrel

\*\*Not to Scale\*\*

OXY USA

McKittrick Hills Central Battery

**Safety & Environmental  
Solutions, Inc.**



# **Appendix A**

## **C-141**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised October 10, 2003

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

**Release Notification and Corrective Action**

**OPERATOR**

X  Initial Report     Final Report

Name of Company OXY USA WTP LP	Contact Rick Kerby
Address PO Box 1988 102 S Main Carlsbad NM 88220	Telephone No. (O) 505-887-8337 (C) 505-631-4972
Facility Name Mckittrick Hill CTB	Facility Type Indian Basin

Surface Owner	Mineral Owner	Lease No.
---------------	---------------	-----------

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	14	22 S	24 E					EDDY

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

**NATURE OF RELEASE**

Type of Release Oil	Volume of Release 132.48	Volume Recovered 0
Source of Release Oil Leak	Date and Hour of Occurrence 10:00 AM	Date and Hour of Discovery 10:30 AM
Was Immediate Notice Given? Required	If YES, To Whom? Mike Bratcher NMOCD Jim Amos BLM	
By Whom? Rick Kerby	Date and Hour 1:40 PM 5-1-2008	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

Hole in the bottom of the tank allowed fluid to leak out on the ground. All fluid contained inside secondary containment.

Describe Area Affected and Cleanup Action Taken.\*

All fluid contained inside berm and work plan will be formulated and forwarded to appropriate government agencies

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Rick Kerby	Approved by District Supervisor:	
Title: HES Tech	Approval Date:	Expiration Date:
E-mail Address: rick_kerby@oxy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 4-11-08	Phone: 631-4972	

Attach Additional Sheets If Necessary

# **Appendix B**

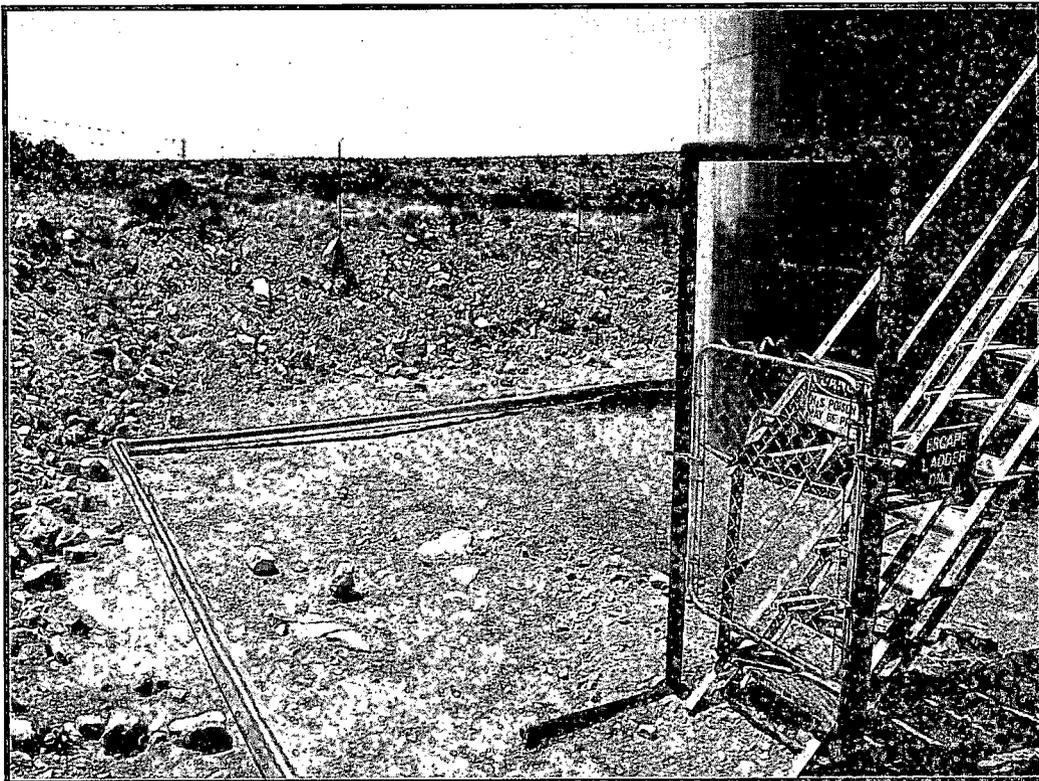
## **Analytical Results**

# **Appendix C**

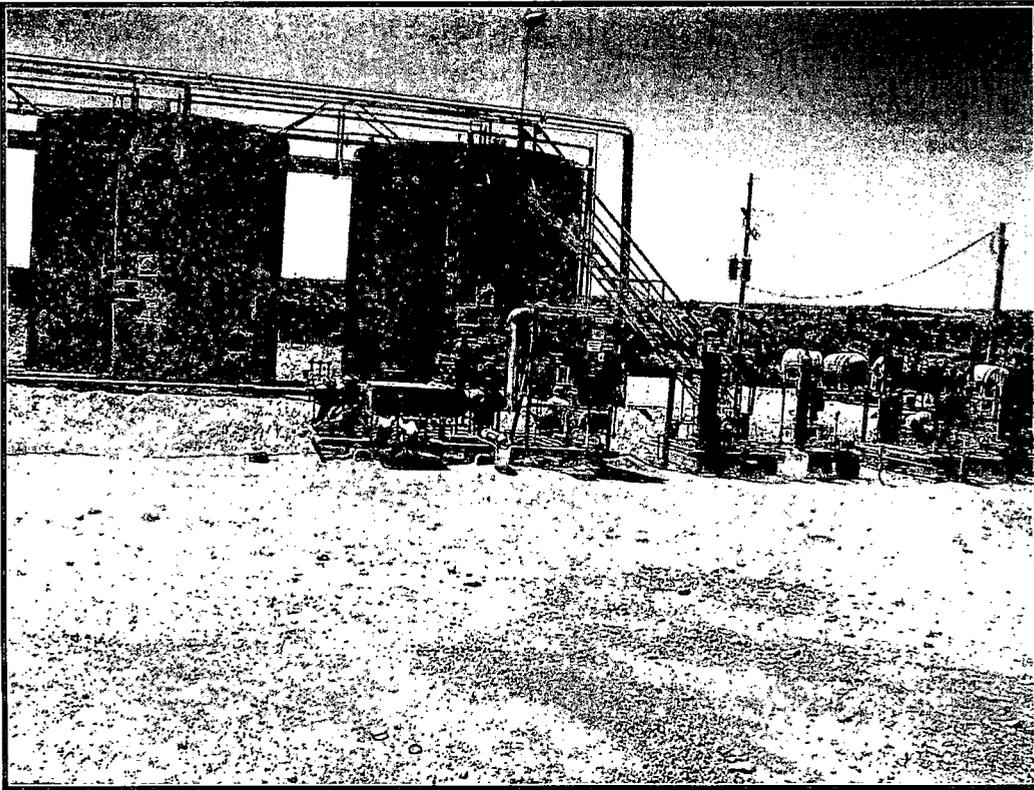
## **Site Photos**



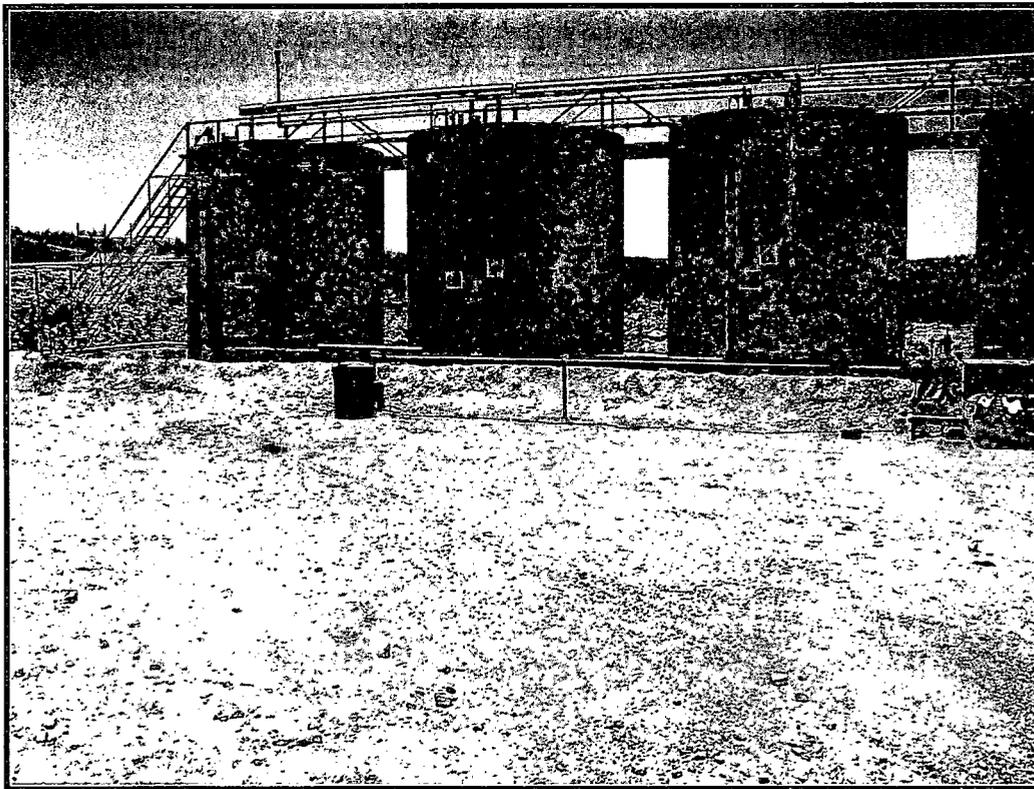
Well sign



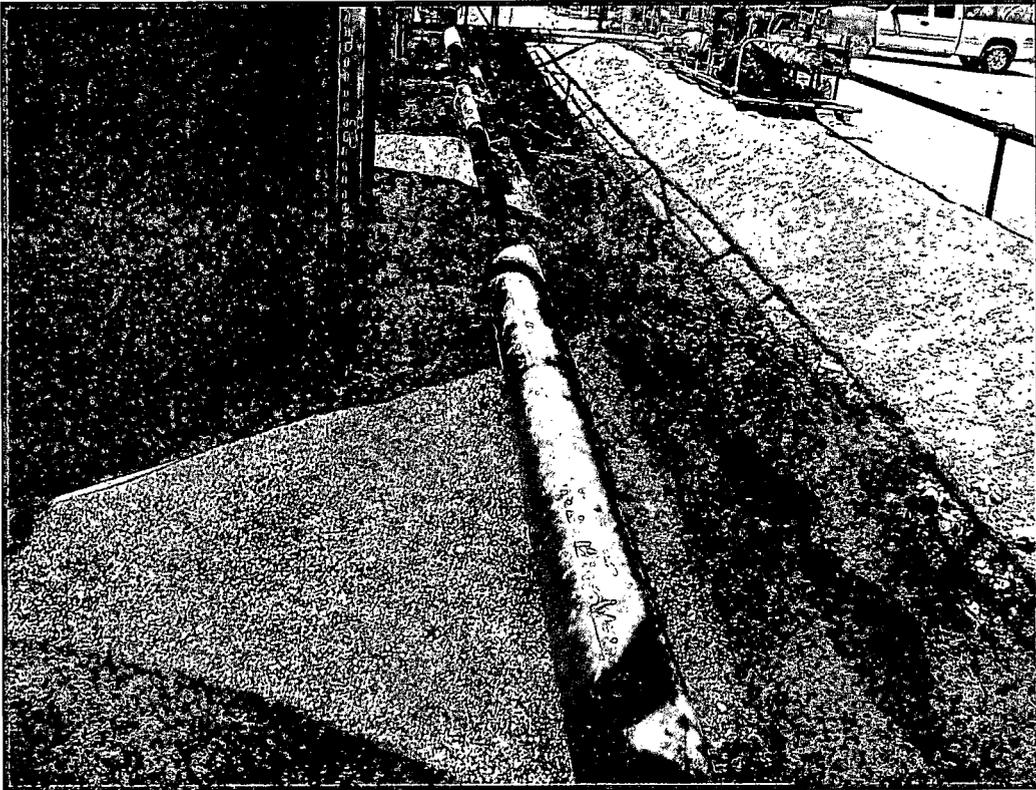
Southside of berm area



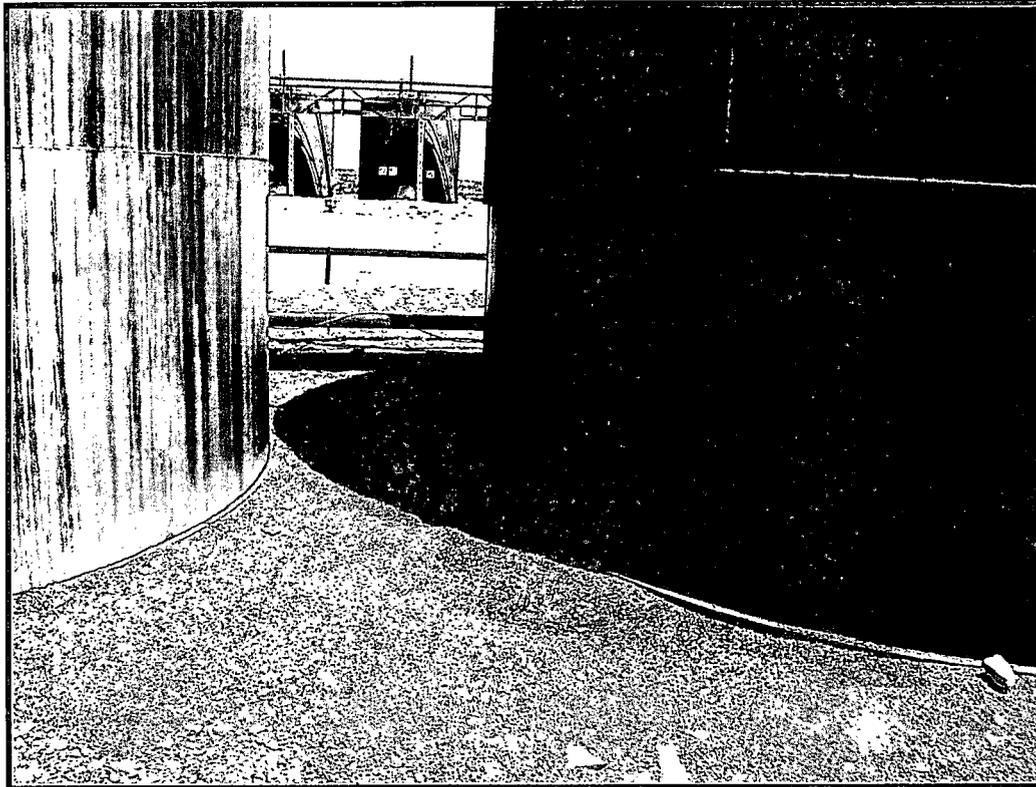
West side tanks facing west



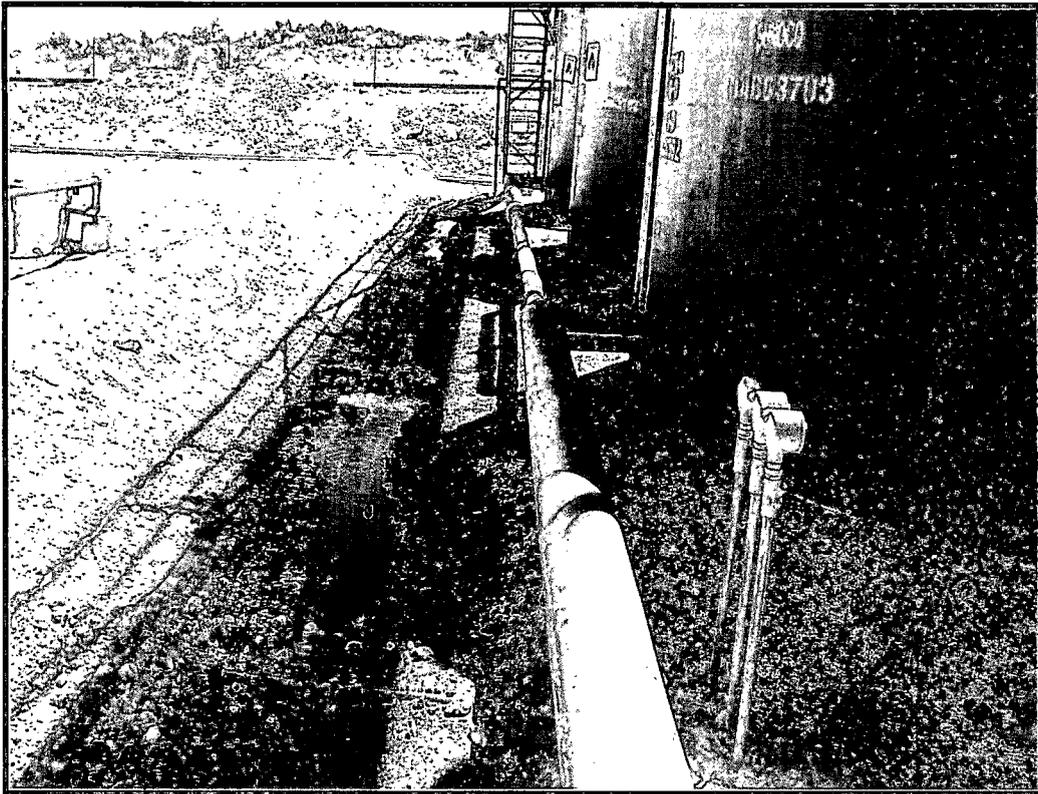
West side tank and location pad facing west



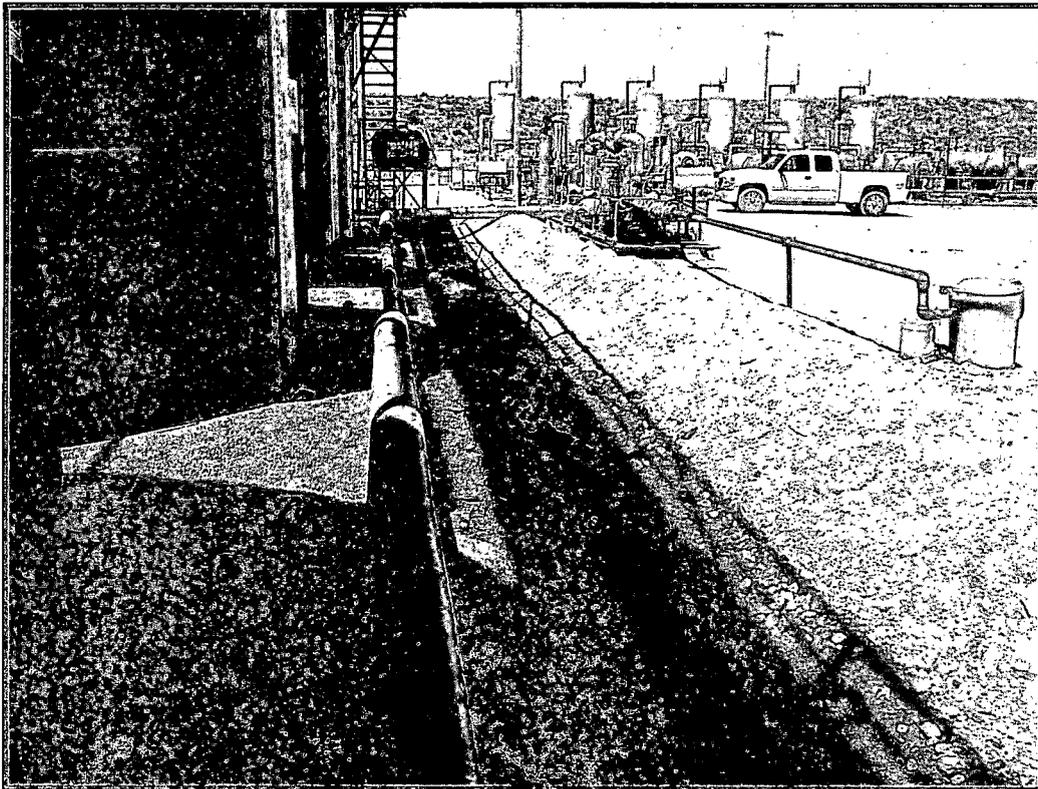
Release area facing north



West side of release tank facing east



East side of release area facing south



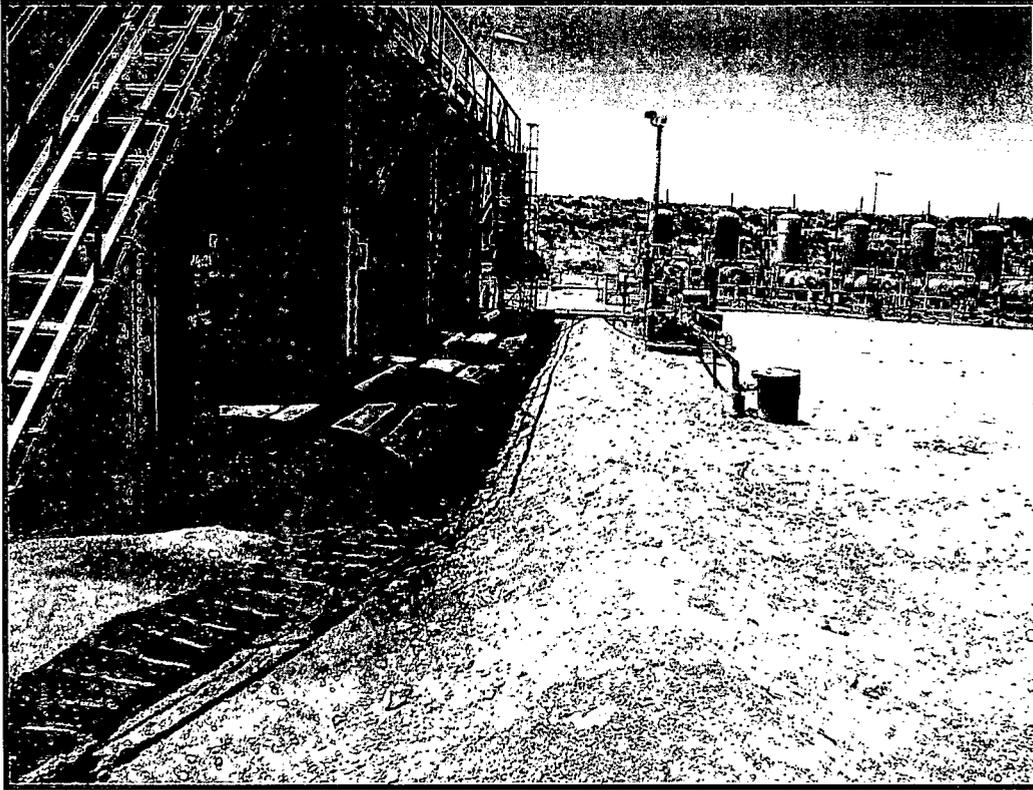
East side of release area facing north



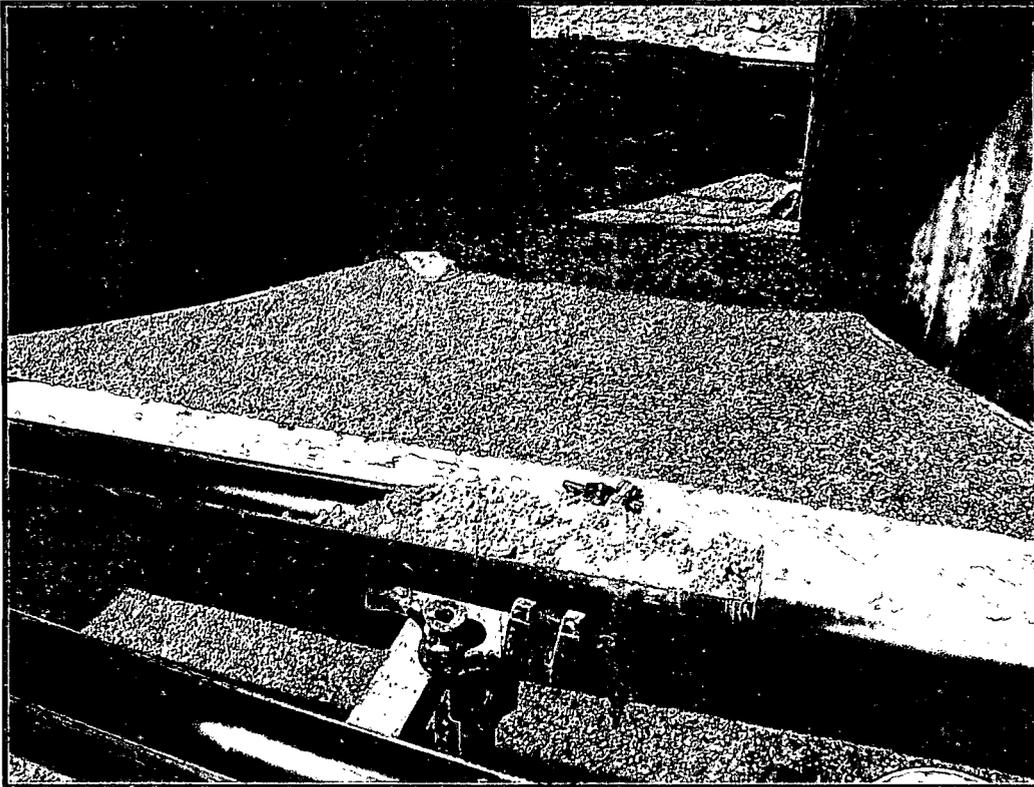
East side of release area facing north west



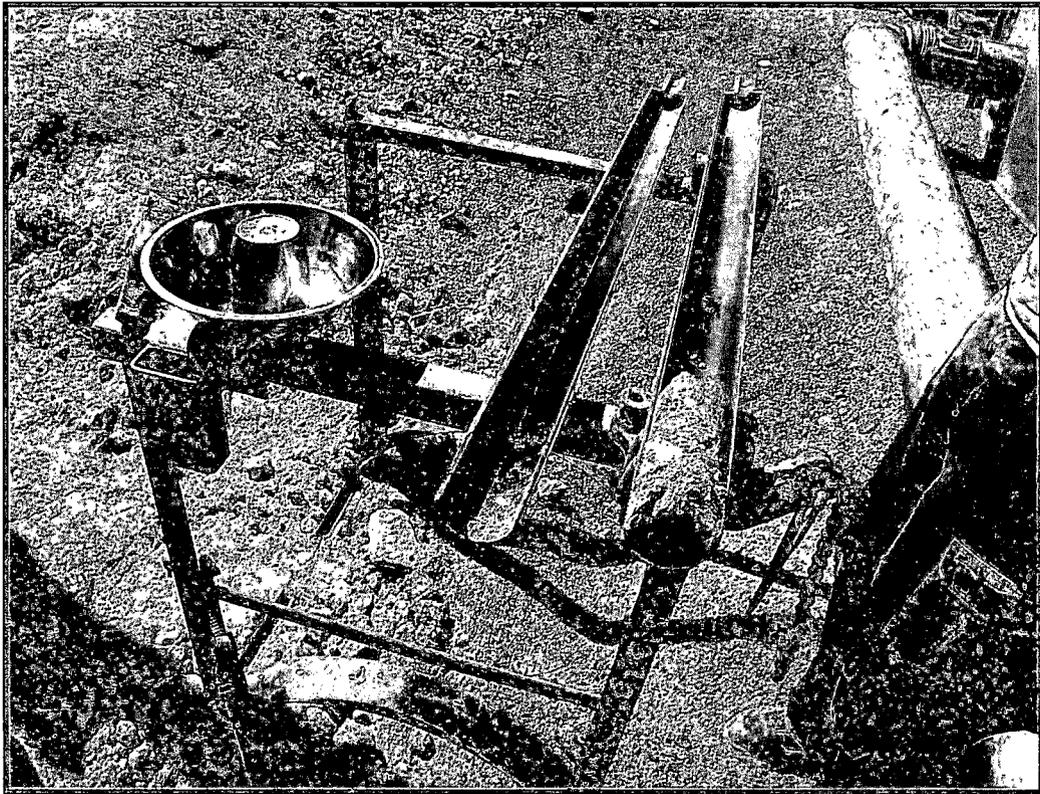
West side of release area facing north



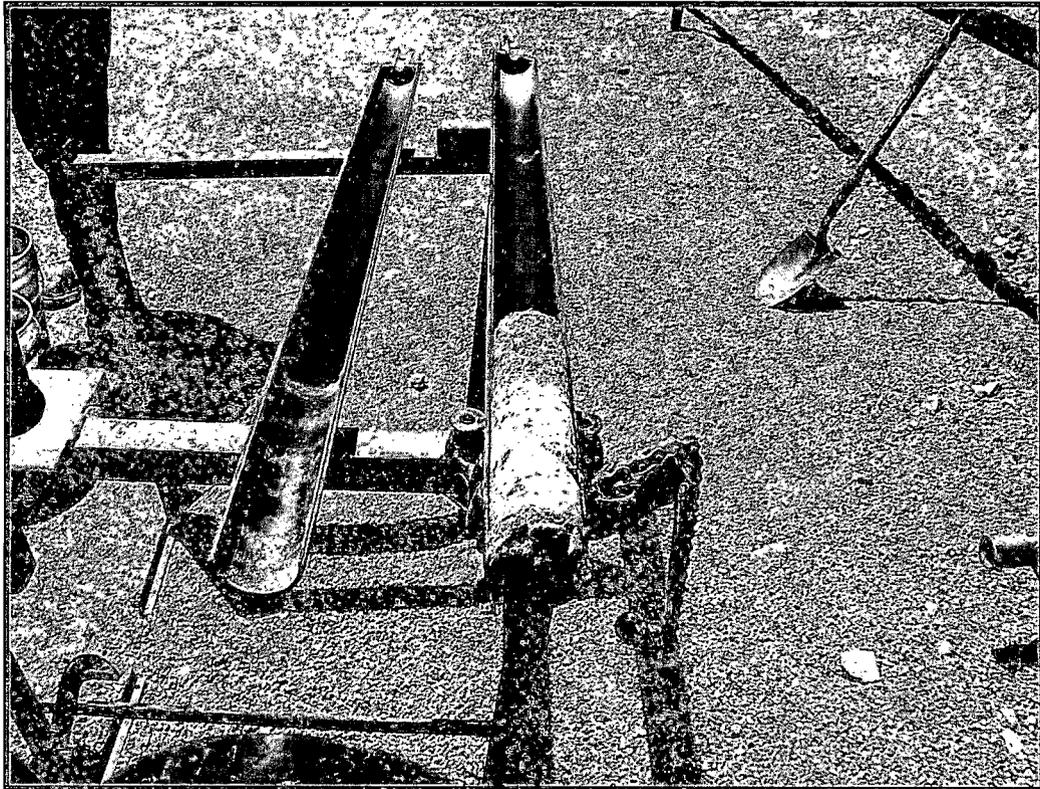
East side of release area facing north



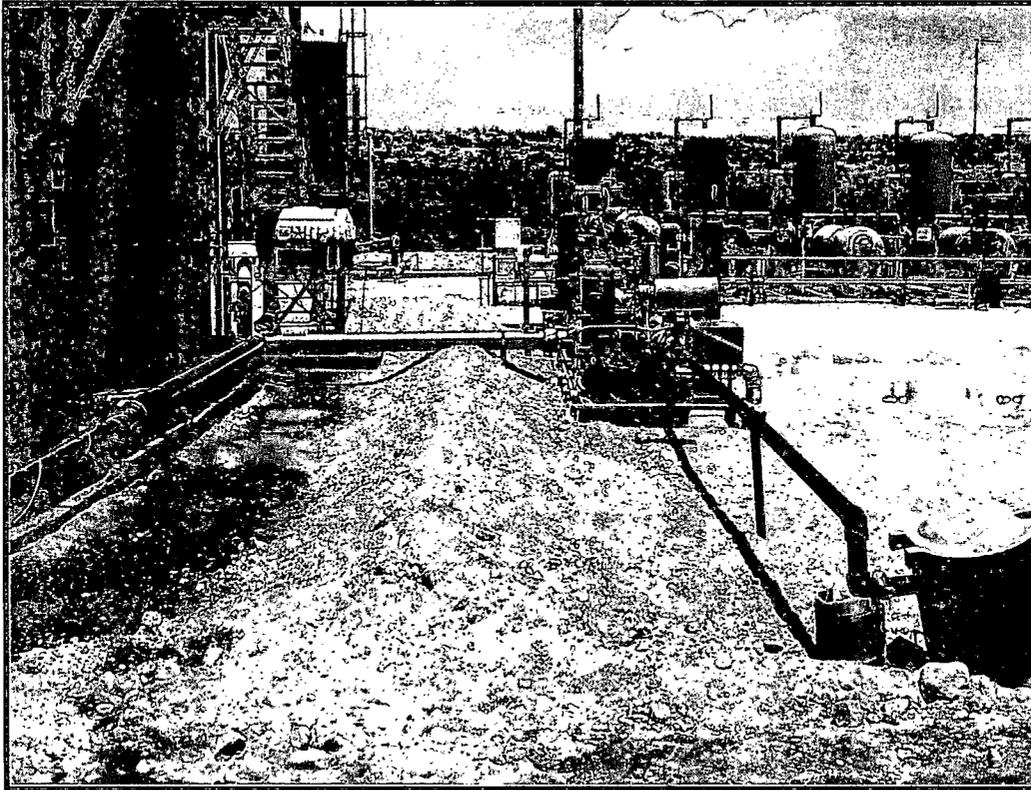
BH #2 at 5'



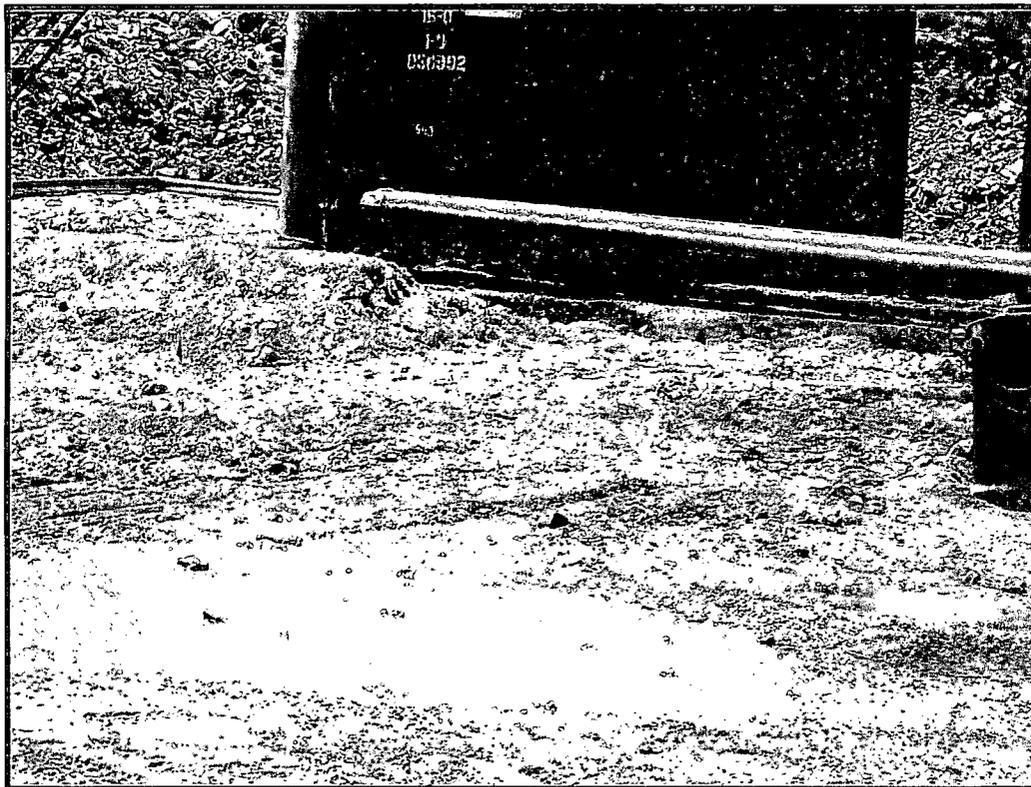
BH #1 at 5'



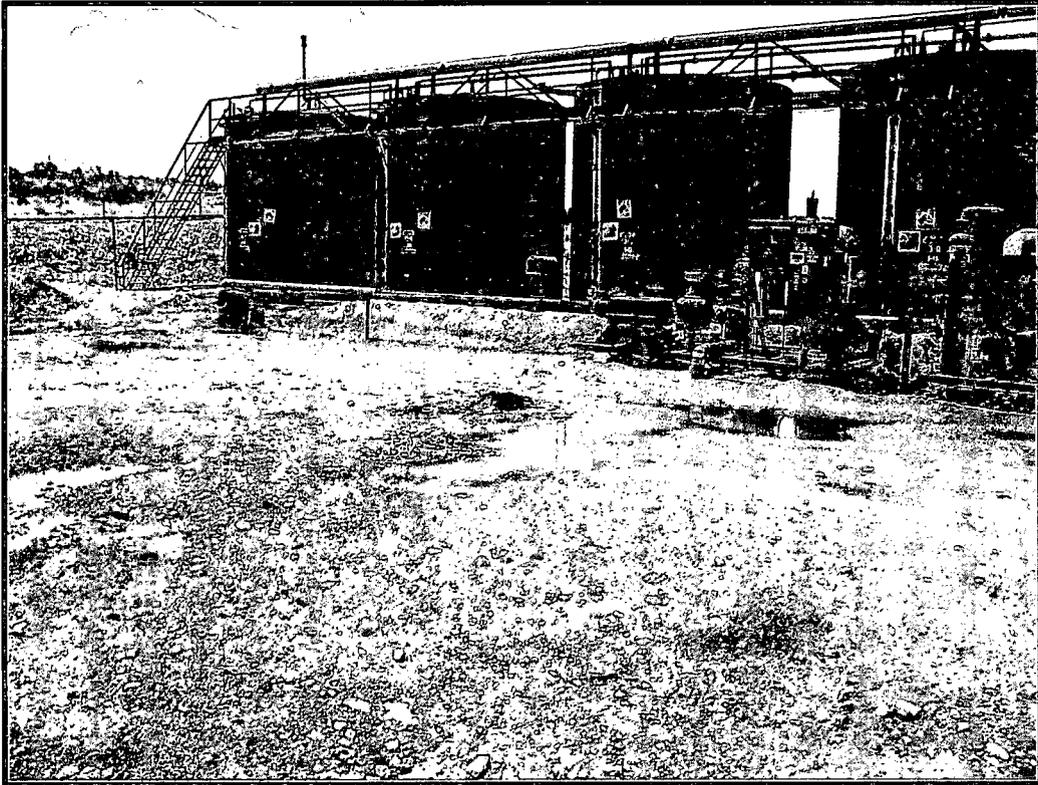
BH #3 at 5'



Release area inside berm facing north



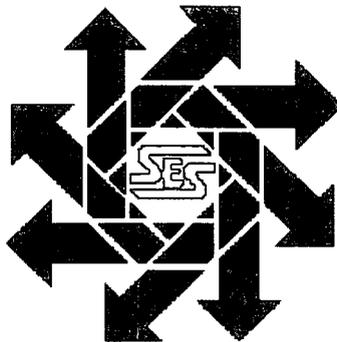
BH #1 and BH #2 facing west



BH #3 facing west

**Oxy USA Corporation  
McKittrick Hills Central Tank Battery  
Work Plan  
Section 14, Township 22S, Range 24E  
Eddy County, New Mexico**

**May 28, 2008**



**Prepared for:**

***Oxy USA WTP LP  
P.O. Box 1988  
Carlsbad, New Mexico 88221***

**By:**

***Safety & Environmental Solutions, Inc.  
703 E. Clinton  
Hobbs, New Mexico 88240  
(575) 397-0510***

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<b>IV. WORK PERFORMED.....</b>	<b>1</b>
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**I. Company Contacts**

NAME	Company	Telephone	E-mail
Rick Kerby	Oxy USA	575-390-8639	Rick_Kerby@oxy.com
Isaac Kincaid	SESI	575-390-8841	ikincaid@sesi-nm.com

**II. Background**

Safety and Environmental Solutions, Inc. (SESI) was engaged by Oxy USA Corporation to perform remediation services at the McKittrick Hills Central Tank Battery. On May 1, 2008 a release occurred due to a hole in the bottom of one of the tanks at the battery. Approximately 132 barrels of oil was released.

**III. Surface and Ground Water**

The closest groundwater of record with the New Mexico State Engineers Office is located in Section 12 of the same range and township. The depth of water in this well was 585' in November of 2003.

**IV. Work Performed**

On May 8, 2008 SESI was on site to delineate the spill area. Three boreholes were installed to a depth of 5'. Grab samples were retrieved at this depth and transported under Chain of Custody to Argon Laboratories in Hobbs, NM for analysis. The samples were analyzed for Chlorides (EPA method 300.0), Benzene, Toluene, Ethyl benzene, and Xylenes (BTEX) (EPA method 8021B), and Total Petroleum Hydrocarbons (TPH) (EPA method 418.1). The results of the analysis were as follows:

Sample Point	Chlorides	TPH	Benzene	Toluene	Ethyl Benzene	Xylenes
BH #1 5'	23	460	ND	ND	ND	ND
BH #2 5'	ND	8,000	ND	ND	ND	0.011
BH #3 5'	ND	2,000	ND	ND	ND	0.014

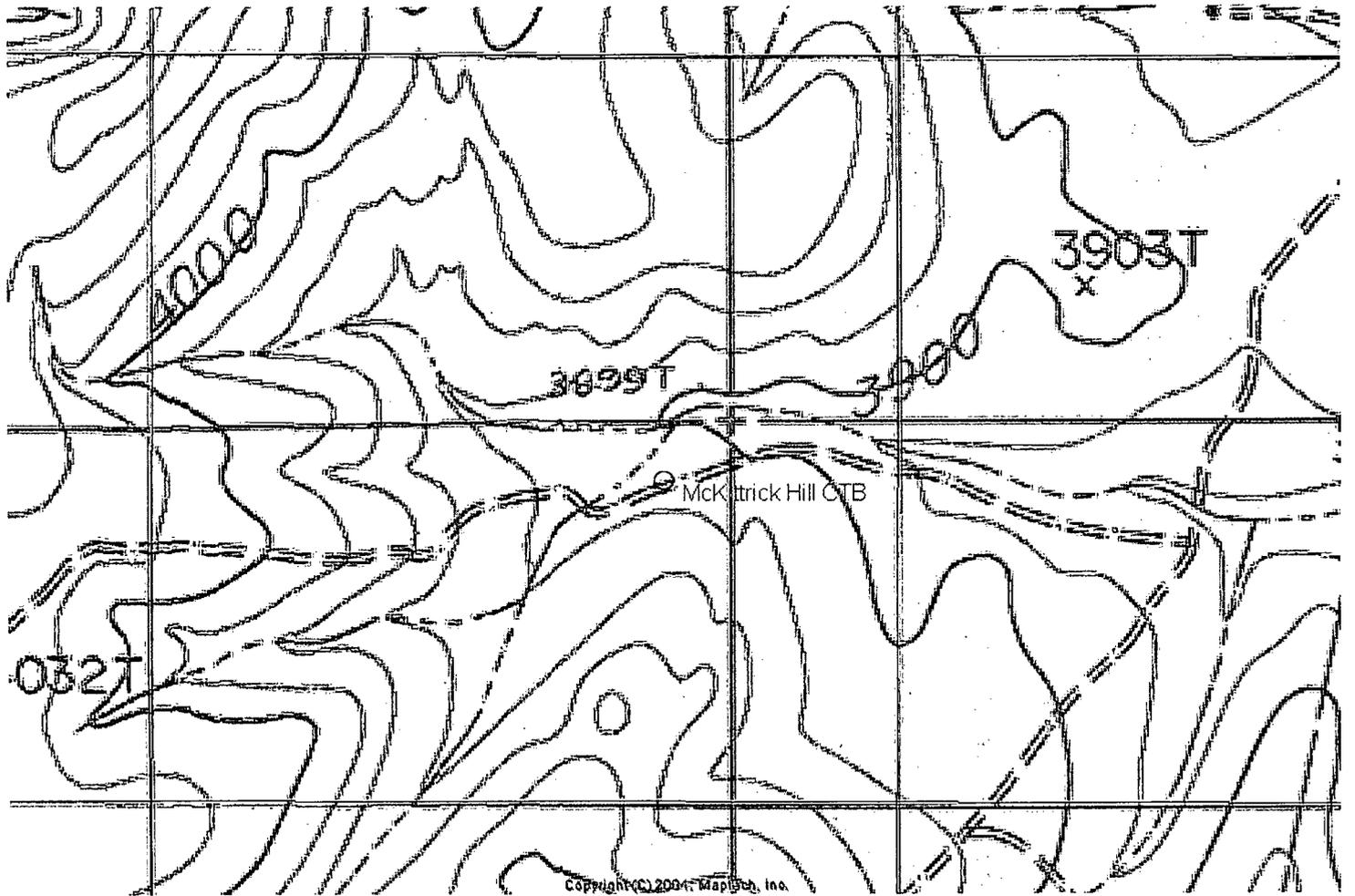
**V. Closure Plan**

Due to the fact that this is an active battery it is proposed to excavate the top 2' of contaminated soil and transport for disposal. The excavated are will then be backfilled with clean soils and returned to grade.

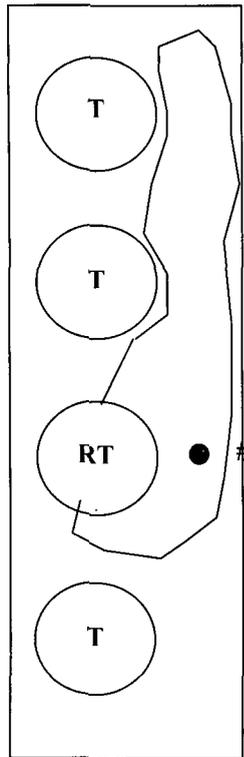
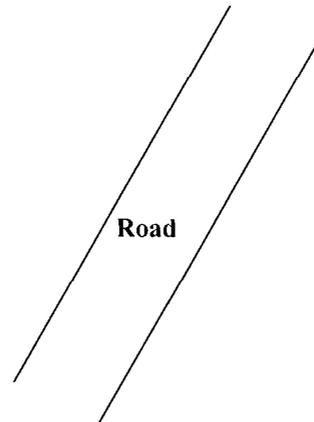
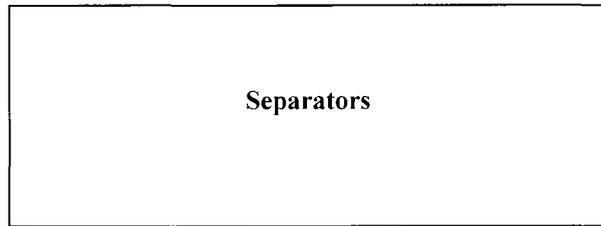
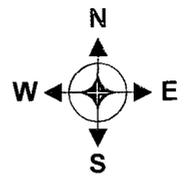
**VI. Figures & Appendices**

- Figure 1 – Vicinity Map
- Figure 2 – Site Plan
- Appendix A – C-141
- Appendix B – Analytical Results
- Appendix C – Site Photos

**Figure 1**  
**Vicinity Map**

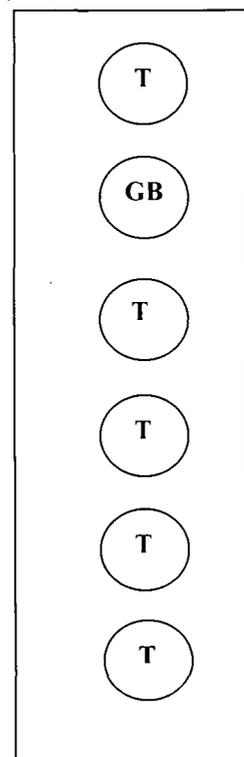


**Figure 2  
Site Plan**



● #3

● #2



●--Borehole Sample

T--Tank

RT--Receiving Tank

GB--Gun Barrel

\*\*Not to Scale\*\*

OXY USA

McKittrick Hills Central Battery

  
Safety & Environmental  
Solutions, Inc.

# **Appendix A**

## **C-141**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised October 10, 2003

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report     Final Report

Name of Company OXY USA WTP LP	Contact Rick Kerby	
Address PO Box 1988 102 S Main Carlsbad NM 88220	Telephone No. (O) 505-887-8337 (C) 505-631-4972	
Facility Name Mckittrick Hill CTB	Facility Type Indian Basin	
Surface Owner	Mineral Owner	Lease No.

**LOCATION OF RELEASE**

Unit Letter	Section 14	Township 22 S	Range 24 E	Feet from the	North/South Line	Feet from the	East/West Line	County EDDY
-------------	---------------	------------------	---------------	---------------	------------------	---------------	----------------	----------------

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

**NATURE OF RELEASE**

Type of Release Oil	Volume of Release 132.48	Volume Recovered 0
Source of Release Oil Leak	Date and Hour of Occurrence 10:00 AM	Date and Hour of Discovery 10:30 AM
Was Immediate Notice Given? Required	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not If YES, To Whom? Mike Bratcher NMOCD Jim Amos BLM	
By Whom? Rick Kerby	Date and Hour 1:40 PM 5-1-2008	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

Hole in the bottom of the tank allowed fluid to leak out on the ground. All fluid contained inside secondary containment.

Describe Area Affected and Cleanup Action Taken.\*

All fluid contained inside berm and work plan will be formulated and forwarded to appropriate government agencies

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Rick Kerby	Approved by District Supervisor:	
Title: HES Tech	Approval Date:	Expiration Date:
E-mail Address: rick_kerby@oxy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 4-11-08      Phone: 631-4972		

Attach Additional Sheets If Necessary

# **Appendix B**

## **Analytical Results**

# argon laboratories

15 May 2008

Bob Allen  
Safety & Environmental Solutions, Inc.  
703 E. Clinton Ave  
Hobbs, NM 88240

RE: Oxy McKittrick Hills Project Data

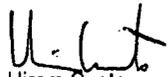
Enclosed are the results for sample(s) received on 05/06/08 15:00 by Argon Laboratories. The sample(s) were analyzed according to instructions in accompanying chain-of-custody. Results are summarized on the following pages.

Please see quality control report for a summary of QC data pertaining to this project.

The sample(s) will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Sample(s) may be archived by prior arrangement.

Thank you for the opportunity to service the needs of your company.

Sincerely,

  
Hiram Cueto  
Lab Manager



# Argon Laboratories Sample Receipt Checklist

Client Name: SESI Date & Time Received: 05/06/08 15:00

Project Name: Oxy McKittrick Hills Client Project Number: OXY-08-008

Received By: R.E. Matrix: Water  Soil  Sludge

Sample Carrier: Client  Laboratory  Fed Ex  UPS  Other

Argon Labs Project Number: C805008

Shipper Container in good condition? N/A  Yes  No  Samples received in proper containers? Yes  No

Samples received under refrigeration? Yes  No  Samples received intact? Yes  No

Chain of custody present? Yes  No  Sufficient sample volume for requested tests? Yes  No

Chain of Custody signed by all parties? Yes  No  Samples received within holding time? Yes  No

Chain of Custody matches all sample labels? Yes  No  Do samples contain proper preservative? N/A  Yes  No

Do VOA vials contain zero headspace? (None submitted  ) Yes  No

**ANY "No" RESPONSE MUST BE DETAILED IN THE COMMENTS SECTION BELOW**

Date Client Contacted: \_\_\_\_\_ Person Contacted: \_\_\_\_\_

Contacted By: \_\_\_\_\_ Subject: \_\_\_\_\_

*Comments:*

*Action Taken:*

**ADDITIONAL TEST(S) REQUEST / OTHER**

Contacted By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Call Received By: \_\_\_\_\_

*Comments:*





Safety & Environmental Solutions, Inc.  
703 E. Clinton Ave  
Hobbs, NM 88240

Project Number: OXY-08-008  
Project Name: Oxy McKittrick Hills  
Project Manager: Bob Allen

Work Order No.:  
C805008

**ANALYTICAL REPORT FOR SAMPLES**

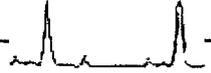
Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH # 1 5'	C805008-01	Soil	05/06/08 10:05	05/06/08 15:00
BH # 2 5'	C805008-02	Soil	05/06/08 10:50	05/06/08 15:00
BH # 3 5'	C805008-03	Soil	05/06/08 11:35	05/06/08 15:00

---

Approved By  
Argon Laboratories, Inc.

---

QC Officer



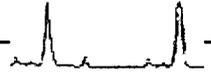
Safety & Environmental Solutions, Inc. 703 E. Clinton Ave Hobbs, NM 88240	Project Number: OXY-08-008 Project Name: Oxy McKittrick Hills Project Manager: Bob Allen	Work Order No.: C805008
---	--	----------------------------

**ANALYSIS REPORT**

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
<b>BH # 1 5' (C805008-01) Soil Sampled: 05/06/08 10:05 Received: 05/06/08 15:00</b>							
Chloride	23	10	mg/kg	1	05/14/08	EPA 300.0	
<b>BH # 2 5' (C805008-02) Soil Sampled: 05/06/08 10:50 Received: 05/06/08 15:00</b>							
Chloride	ND	10	mg/kg	1	05/14/08	EPA 300.0	
<b>BH # 3 5' (C805008-03) Soil Sampled: 05/06/08 11:35 Received: 05/06/08 15:00</b>							
Chloride	ND	10	mg/kg	1	05/14/08	EPA 300.0	

Approved By  
Argon Laboratories, Inc.

QC Officer



Safety & Environmental Solutions, Inc. 703 E. Clinton Ave Hobbs, NM 88240	Project Number: OXY-08-008 Project Name: Oxy McKittrick Hills Project Manager: Bob Allen	Work Order No.: C805008
---	--	----------------------------

**BTEX EPA Method 8021B**

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
<b>BH # 1 5' (C805008-01) Soil Sampled: 05/06/08 10:05 Received: 05/06/08 15:00</b>							
Benzene	ND	0.005	mg/kg	1	05/13/08	8021B	
Toluene	ND	0.005	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	
Surr. Rec.:		111 %			"	"	
<b>BH # 2 5' (C805008-02) Soil Sampled: 05/06/08 10:50 Received: 05/06/08 15:00</b>							
Benzene	ND	0.005	mg/kg	1	05/13/08	8021B	
Toluene	ND	0.005	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Xylenes (total)	<b>0.011</b>	0.010	"	"	"	"	
Surr. Rec.:		109 %			"	"	
<b>BH # 3 5' (C805008-03) Soil Sampled: 05/06/08 11:35 Received: 05/06/08 15:00</b>							
Benzene	ND	0.005	mg/kg	1	05/13/08	8021B	
Toluene	ND	0.005	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	
Xylenes (total)	<b>0.014</b>	0.010	"	"	"	"	
Surr. Rec.:		110 %			"	"	

Approved By  
Argon Laboratories, Inc.

QC Officer



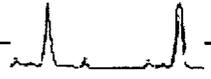
Safety & Environmental Solutions, Inc. 703 E. Clinton Ave Hobbs, NM 88240	Project Number: OXY-08-008 Project Name: Oxy McKittrick Hills Project Manager: Bob Allen	Work Order No.: C805008
---	--	----------------------------

**Total Recoverable Petroleum Hydrocarbons with Silica Gel Clean-Up by IR Spectrometry**

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
<b>BH # 1 5' (C805008-01) Soil Sampled: 05/06/08 10:05 Received: 05/06/08 15:00</b>							
<b>Total Petroleum Hydrocarbons</b>	<b>460</b>	<b>40</b>	<b>mg/kg</b>	<b>2</b>	<b>05/14/08</b>	<b>EPA 418.1</b>	
<b>BH # 2 5' (C805008-02) Soil Sampled: 05/06/08 10:50 Received: 05/06/08 15:00</b>							
<b>Total Petroleum Hydrocarbons</b>	<b>8000</b>	<b>1000</b>	<b>mg/kg</b>	<b>50</b>	<b>05/14/08</b>	<b>EPA 418.1</b>	
<b>BH # 3 5' (C805008-03) Soil Sampled: 05/06/08 11:35 Received: 05/06/08 15:00</b>							
<b>Total Petroleum Hydrocarbons</b>	<b>2000</b>	<b>400</b>	<b>mg/kg</b>	<b>20</b>	<b>05/14/08</b>	<b>EPA 418.1</b>	

Approved By  
Argon Laboratories, Inc.

QC Officer



Safety & Environmental Solutions, Inc. 703 E. Clinton Ave Hobbs, NM 88240	Project Number: OXY-08-008 Project Name: Oxy McKittrick Hills Project Manager: Bob Allen	Work Order No.: C805008
---	--	----------------------------

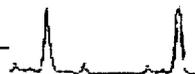
**ANALYSIS REPORT - Quality Control**

**Argon Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	RPD	Notes
<b>Batch CR00066 - General Prep</b>								
<b>Blank (CR00066-BLK1)</b>				Prepared & Analyzed: 05/14/08				
Chloride	ND	10	mg/kg					
<b>LCS (CR00066-BS1)</b>				Prepared & Analyzed: 05/14/08				
Chloride	5.25		mg/kg	5.00		105		
<b>LCS Dup (CR00066-BSD1)</b>				Prepared & Analyzed: 05/14/08				
Chloride	5.40		mg/kg	5.00		108	3	
<b>Matrix Spike (CR00066-MS1)</b>				Prepared & Analyzed: 05/14/08				
Chloride	5.45		mg/kg	5.00		109		
<b>Matrix Spike Dup (CR00066-MSD1)</b>				Prepared & Analyzed: 05/14/08				
Chloride	5.75		mg/kg	5.00		115	5	

Approved By  
Argon Laboratories, Inc.

QC Officer



Safety & Environmental Solutions, Inc. 703 E. Clinton Ave Hobbs, NM 88240	Project Number: OXY-08-008 Project Name: Oxy McKittrick Hills Project Manager: Bob Allen	Work Order No.: C805008
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**BTEX EPA Method 8021B - Quality Control**

**Argon Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	RPD	Notes
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**Batch CR00067 - EPA 5030B**

**Blank (CR00067-BLK1)**

Prepared & Analyzed: 05/13/08

<i>Surrogate: a,a,a-Trifluorotoluene</i>	0.0495		mg/kg	0.0500		99		
Benzene	ND	0.005	"					
Toluene	ND	0.005	"					
Ethylbenzene	ND	0.005	"					
Xylenes (total)	ND	0.010	"					

**LCS (CR00067-BS1)**

Prepared & Analyzed: 05/13/08

Benzene	0.050		mg/kg	0.0500		100		
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**LCS Dup (CR00067-BSD1)**

Prepared & Analyzed: 05/13/08

Benzene	0.052		mg/kg	0.0500		104	4	
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**Matrix Spike (CR00067-MS1)**

Prepared & Analyzed: 05/13/08

Toluene	0.053		mg/kg	0.0500		106		
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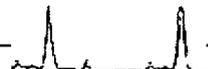
**Matrix Spike Dup (CR00067-MSD1)**

Prepared & Analyzed: 05/13/08

Toluene	0.054		mg/kg	0.0500		108	2	
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Approved By  
Argon Laboratories, Inc.

QC Officer



Safety & Environmental Solutions, Inc.  
703 E. Clinton Ave  
Hobbs, NM 88240

Project Number: OXY-08-008  
Project Name: Oxy McKittrick Hills  
Project Manager: Bob Allen

Work Order No.:  
C805008

**Total Recoverable Petroleum Hydrocarbons with Silica Gel Clean-Up by IR Spectrometry - Quality Control**

**Argon Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	RPD	Notes
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**Batch CR00065 - EPA 3550B**

<b>Blank (CR00065-BLK1)</b>				Prepared & Analyzed: 05/14/08				
Total Petroleum Hydrocarbons	ND	20	mg/kg					
<b>LCS (CR00065-BS1)</b>				Prepared & Analyzed: 05/14/08				
Total Petroleum Hydrocarbons	245		mg/kg	250		98		
<b>LCS Dup (CR00065-BSD1)</b>				Prepared & Analyzed: 05/14/08				
Total Petroleum Hydrocarbons	225		mg/kg	250		90	9	
<b>Duplicate (CR00065-DUP1)</b>				Prepared & Analyzed: 05/14/08				
Total Petroleum Hydrocarbons	520	20	mg/kg		460		12	

Approved By  
Argon Laboratories, Inc.

QC Officer



Safety & Environmental Solutions, Inc.  
703 E. Clinton Ave  
Hobbs, NM 88240

Project Number: OXY-08-008  
Project Name: Oxy McKittrick Hills  
Project Manager: Bob Allen

Work Order No.:  
C805008

**Notes and Definitions**

- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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Approved By  
Argon Laboratories, Inc.

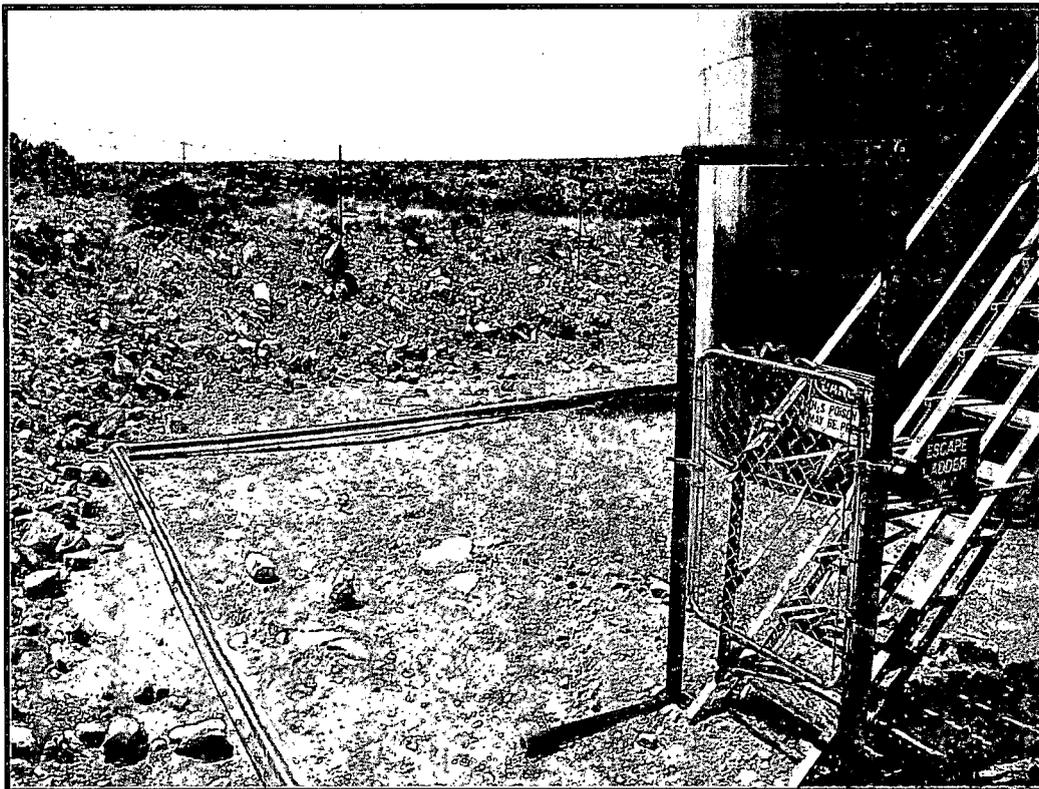
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QC Officer

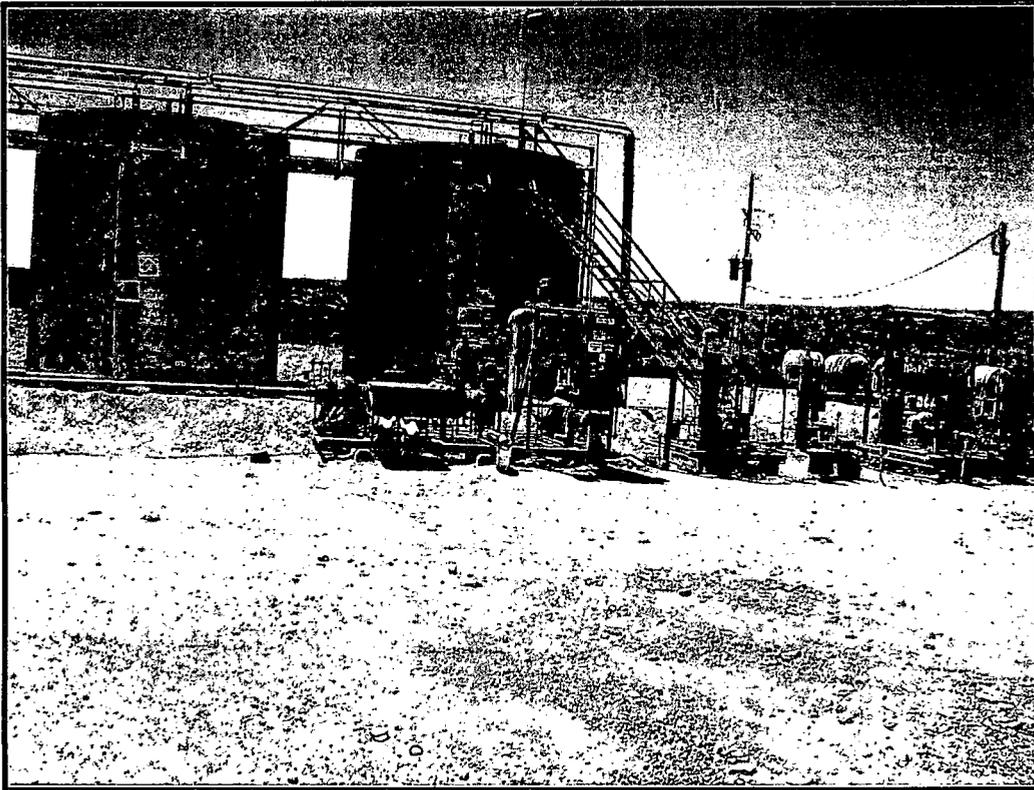
**Appendix C**  
**Site Photos**



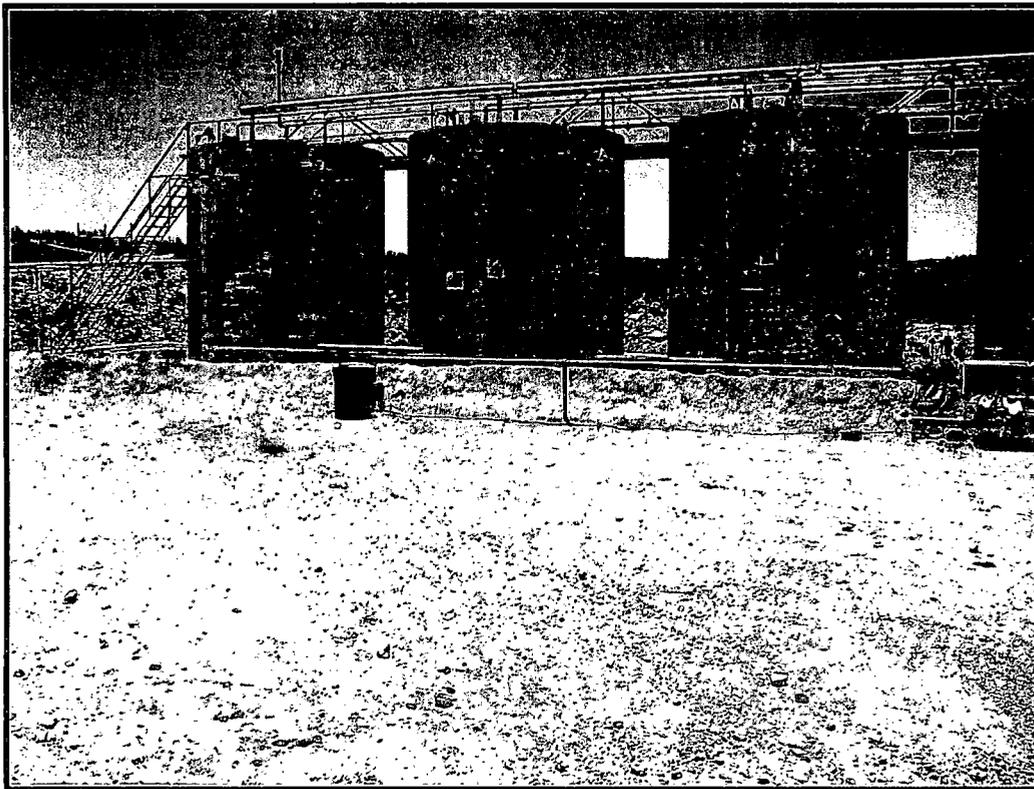
Well sign



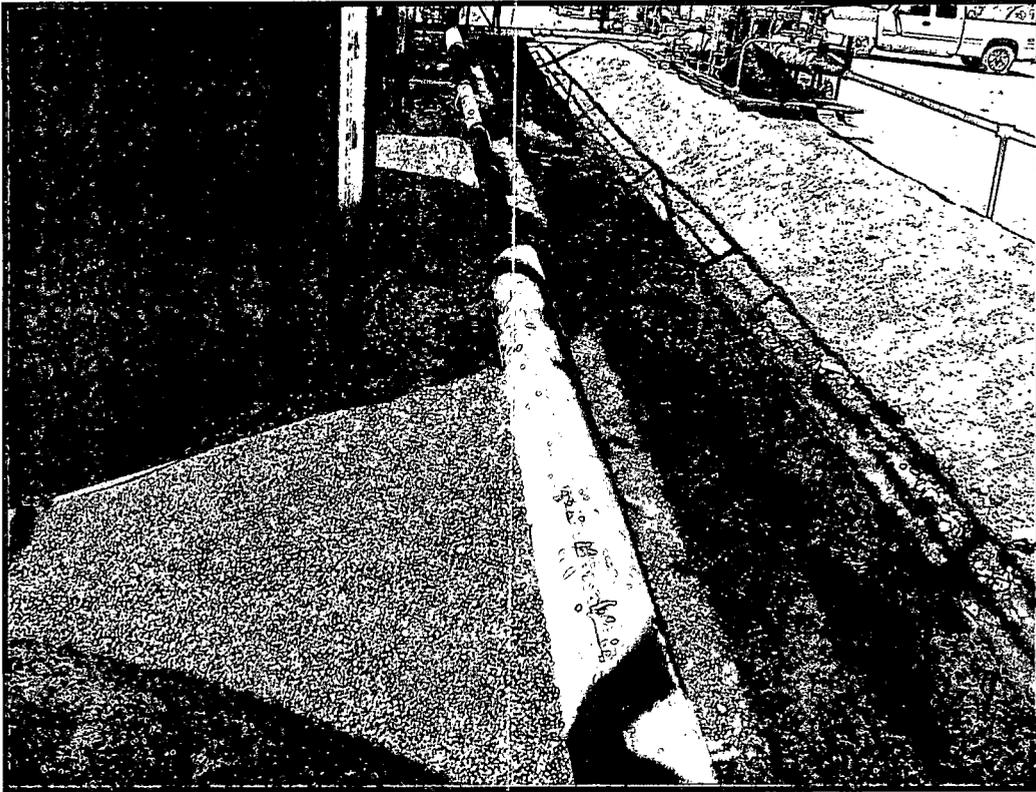
Southside of berm area



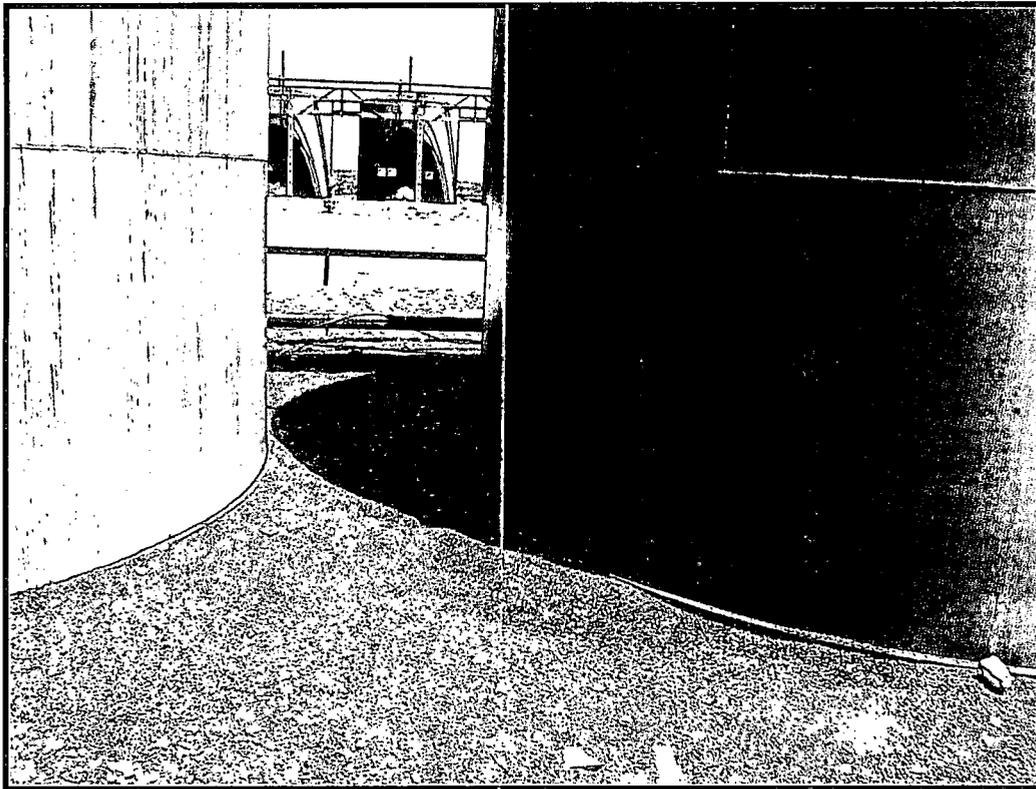
West side tanks facing west



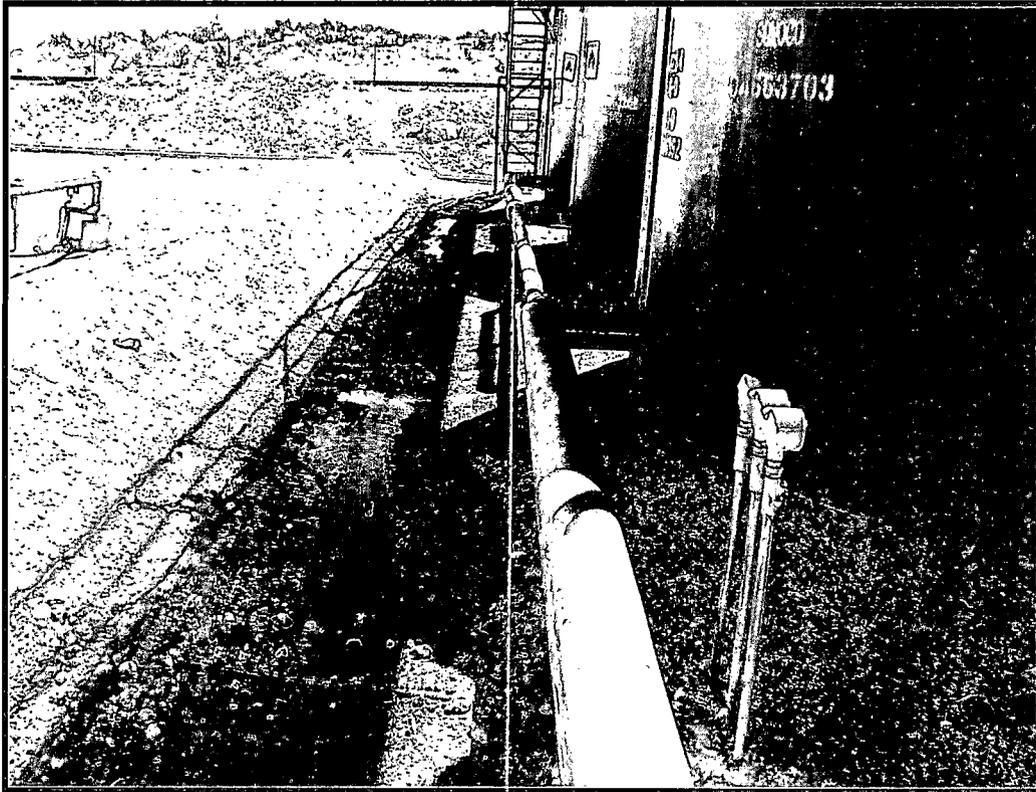
West side tank and location pad facing west



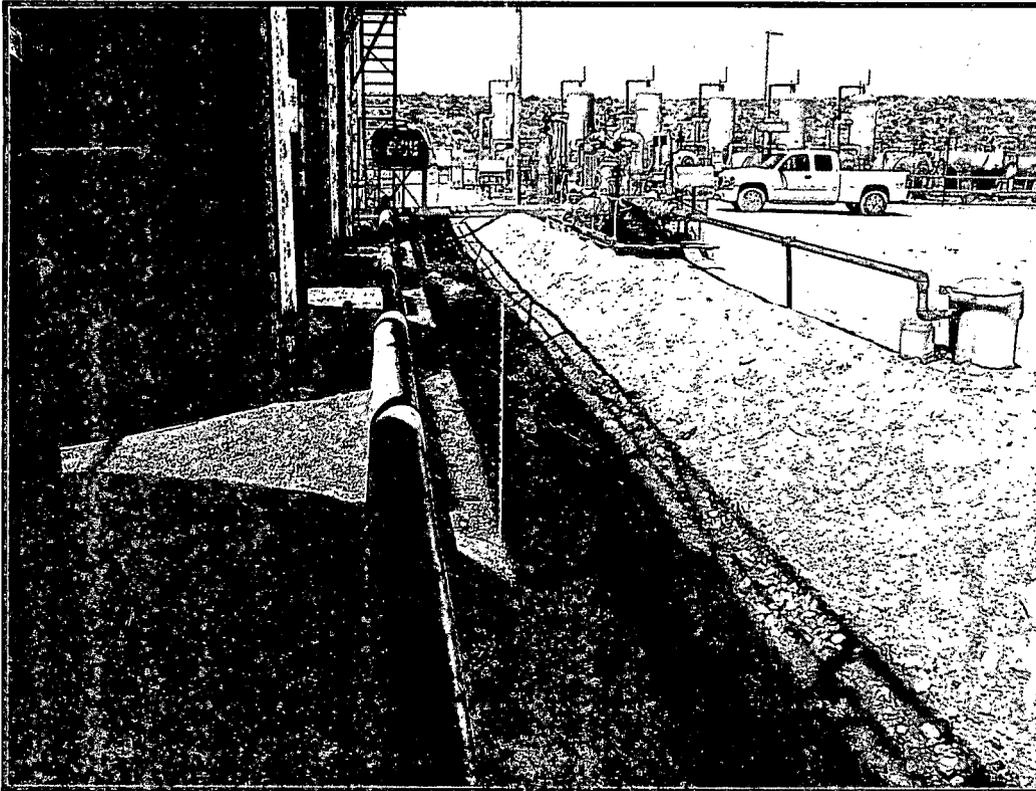
Release area facing north



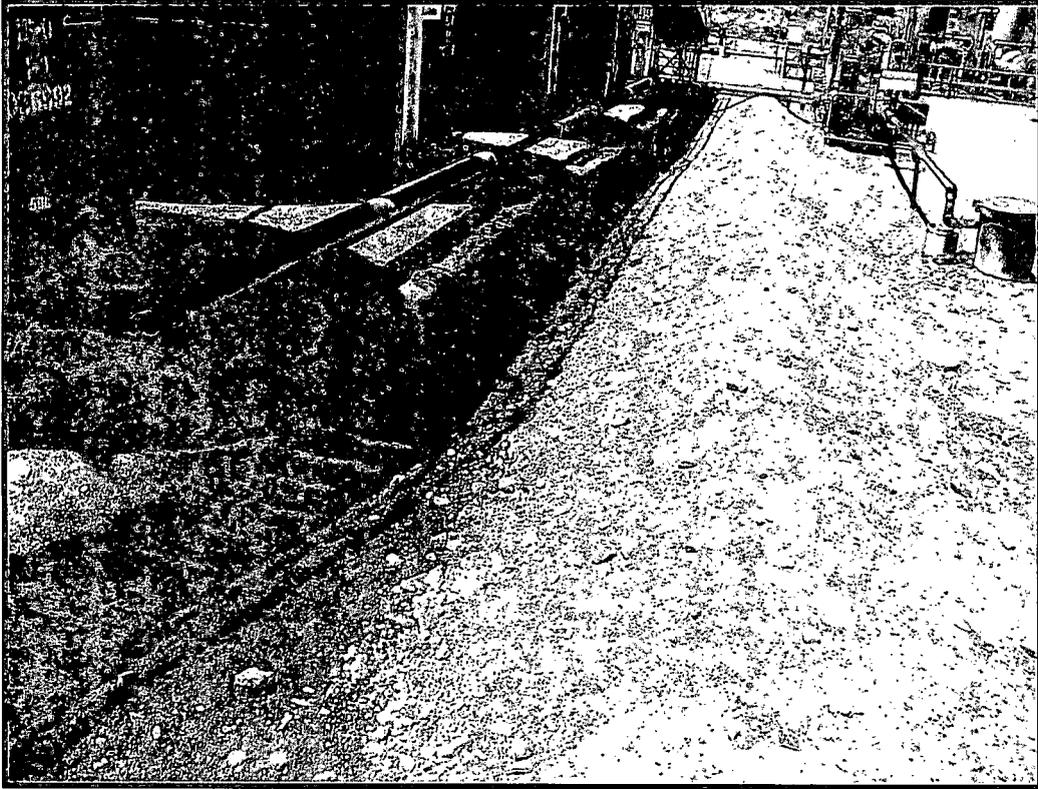
West side of release tank facing east



East side of release area facing south



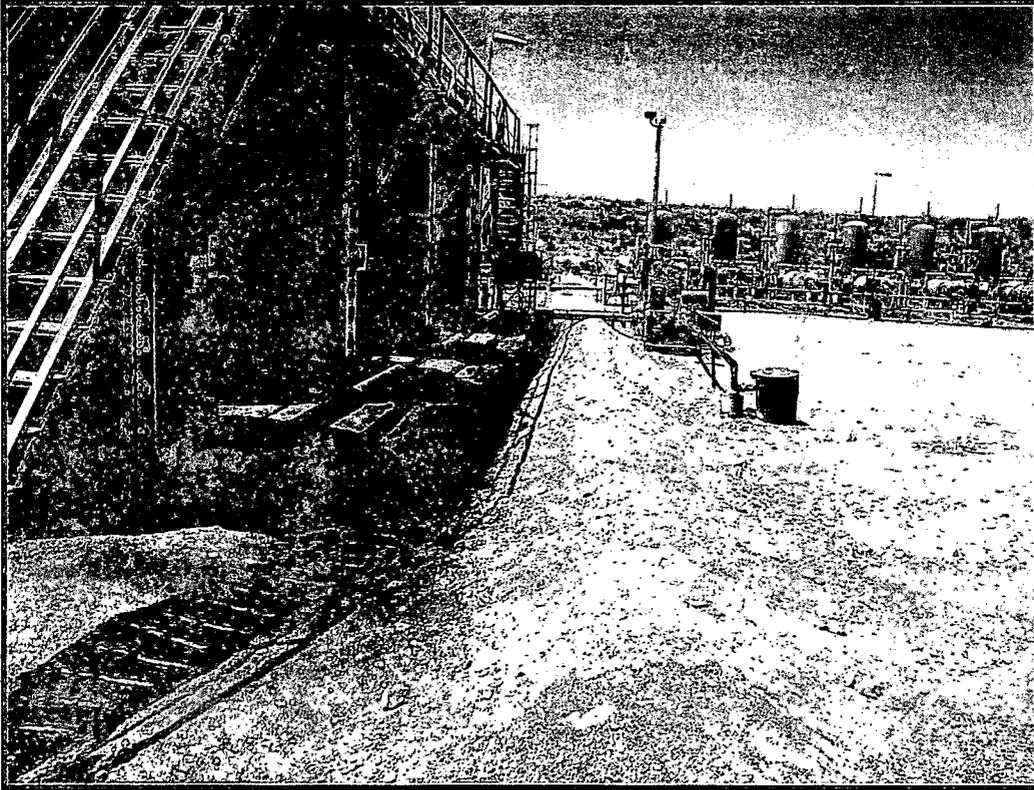
East side of release area facing north



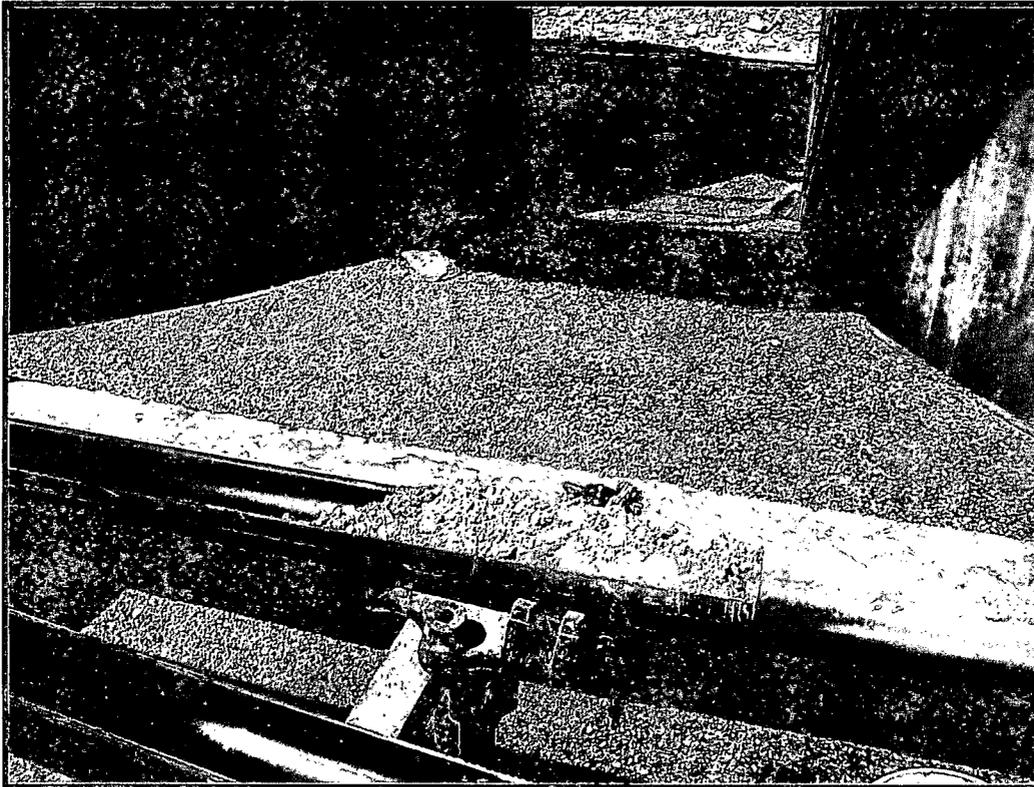
East side of release area facing north west



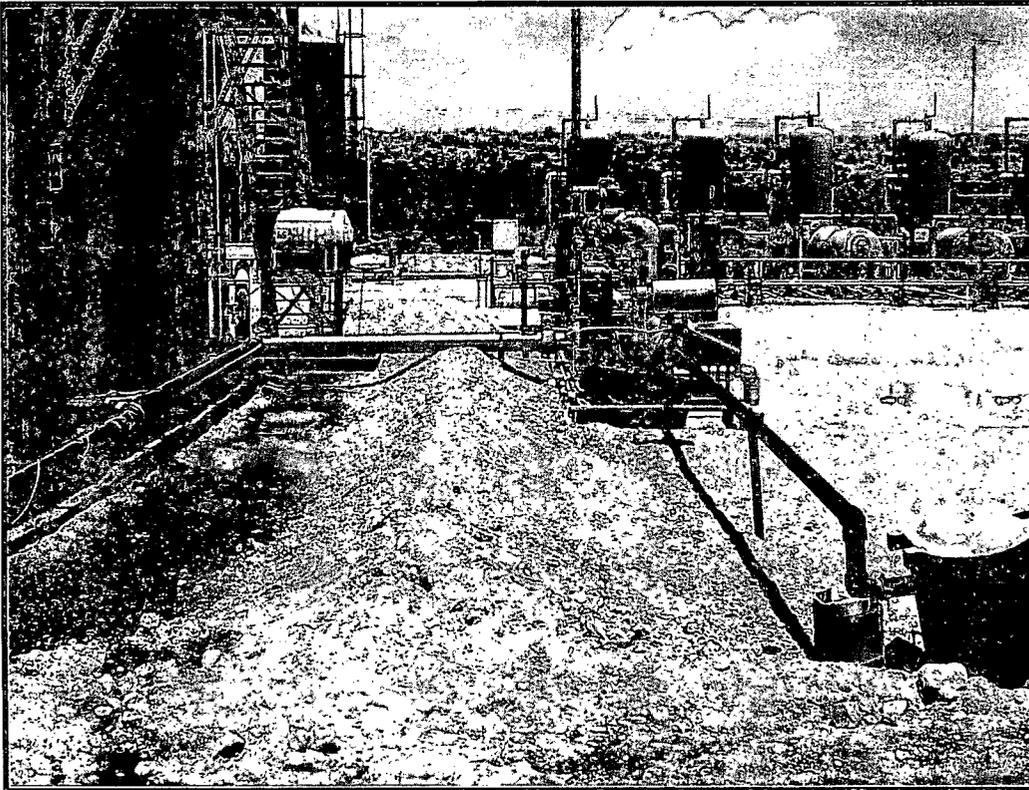
West side of release area facing north



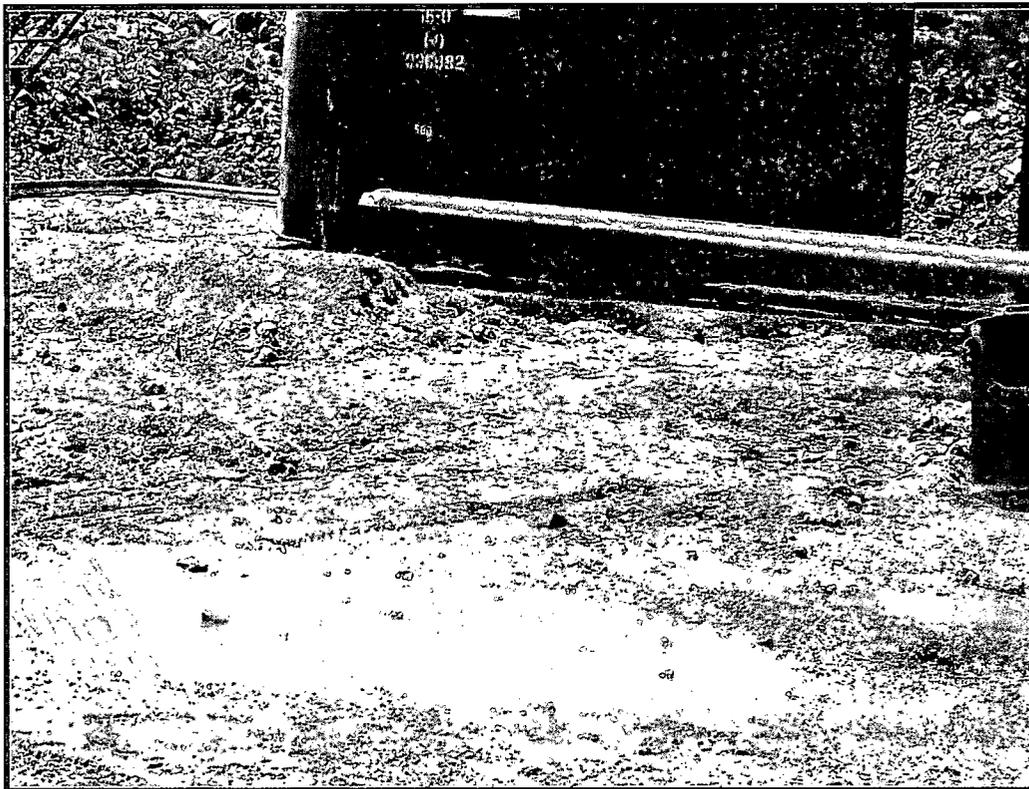
East side of release area facing north



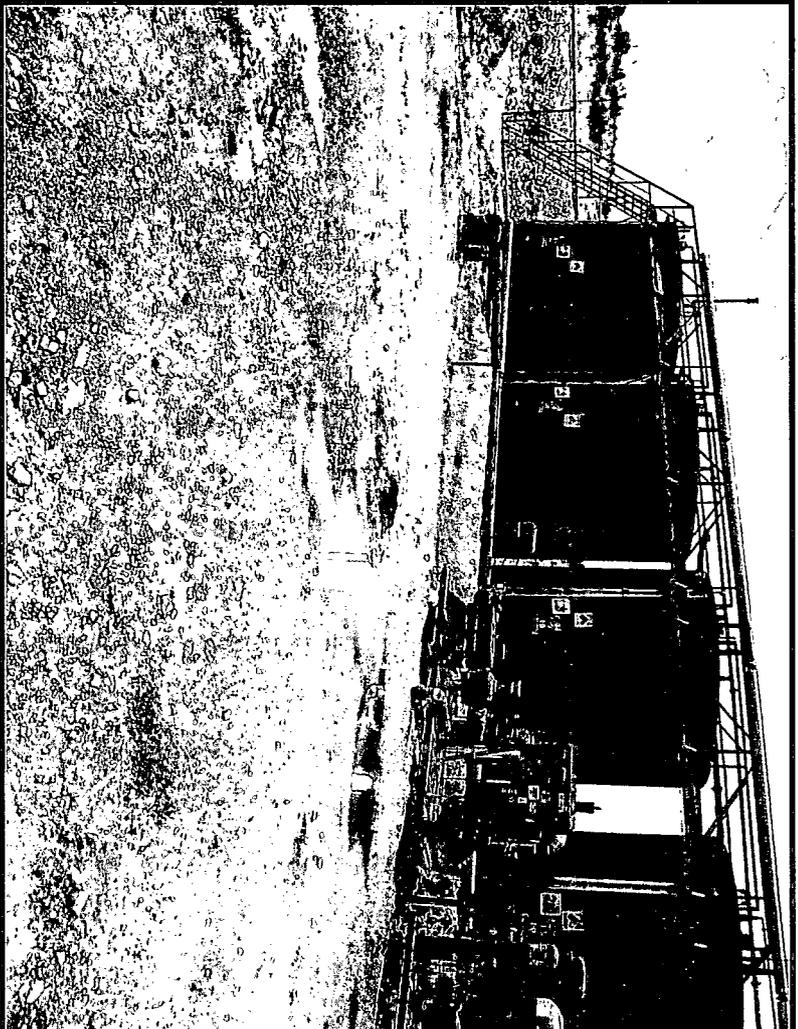
BH #2 at 5'



Release area inside berm facing north



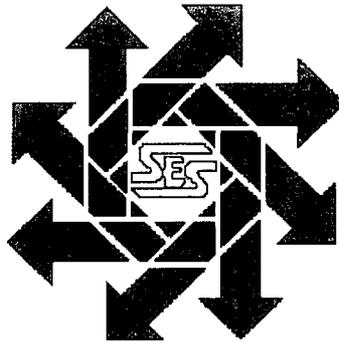
BH #1 and BH #2 facing west



BH #3 facing west

**Oxy USA Corporation  
McKittrick Hills Central Tank Battery  
Work Plan  
Section 14, Township 22S, Range 24E  
Eddy County, New Mexico**

**May 28, 2008**



**Prepared for:**

***Oxy USA WTP LP  
P.O. Box 1988  
Carlsbad, New Mexico 88221***

**By:**

***Safety & Environmental Solutions, Inc.  
703 E. Clinton  
Hobbs, New Mexico 88240  
(575) 397-0510***

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**I. Company Contacts**

NAME	Company	Telephone	E-mail
Rick Kerby	Oxy USA	575-390-8639	<a href="mailto:Rick_Kerby@oxy.com">Rick_Kerby@oxy.com</a>
Isaac Kincaid	SESI	575-390-8841	<a href="mailto:ikincaid@sesi-nm.com">ikincaid@sesi-nm.com</a>

**II. Background**

Safety and Environmental Solutions, Inc. (SESI) was engaged by Oxy USA Corporation to perform remediation services at the McKittrick Hills Central Tank Battery. On May 1, 2008 a release occurred due to a hole in the bottom of one of the tanks at the battery. Approximately 132 barrels of oil was released.

**III. Surface and Ground Water**

The closest groundwater of record with the New Mexico State Engineers Office is located in Section 12 of the same range and township. The depth of water in this well was 585' in November of 2003.

**IV. Work Performed**

On May 8, 2008 SESI was on site to delineate the spill area. Three boreholes were installed to a depth of 5'. Grab samples were retrieved at this depth and transported under Chain of Custody to Argon Laboratories in Hobbs, NM for analysis. The samples were analyzed for Chlorides (EPA method 300.0), Benzene, Toluene, Ethyl benzene, and Xylenes (BTEX) (EPA method 8021B), and Total Petroleum Hydrocarbons (TPH) (EPA method 418.1). The results of the analysis were as follows:

Sample Point	Chlorides	TPH	Benzene	Toluene	Ethyl Benzene	Xylenes
BH #1 5'	23	460	ND	ND	ND	ND
BH #2 5'	ND	8,000	ND	ND	ND	0.011
BH #3 5'	ND	2,000	ND	ND	ND	0.014

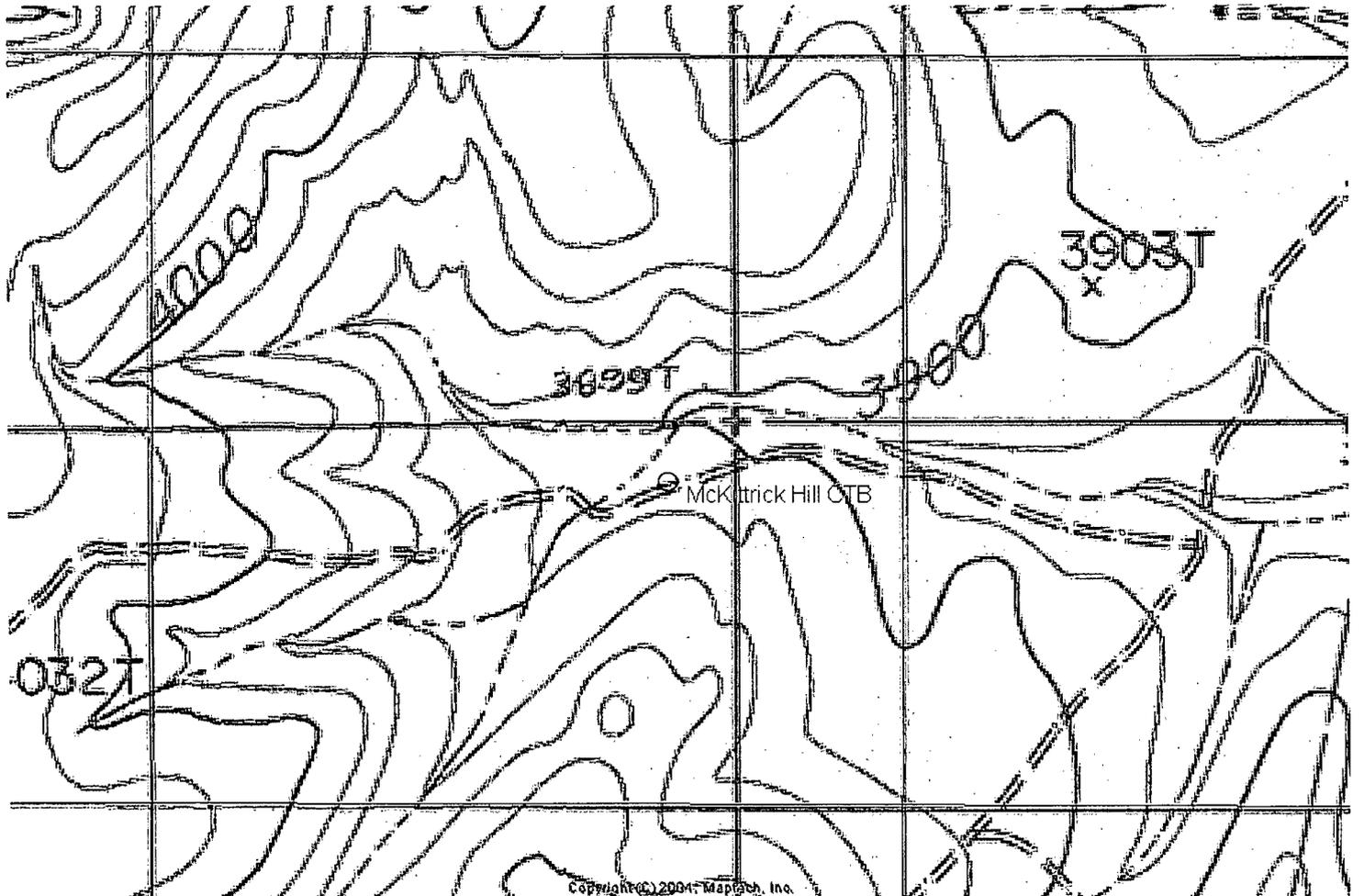
**V. Closure Plan**

Due to the fact that this is an active battery it is proposed to excavate the top 2' of contaminated soil and transport for disposal. The excavated are will then be backfilled with clean soils and returned to grade.

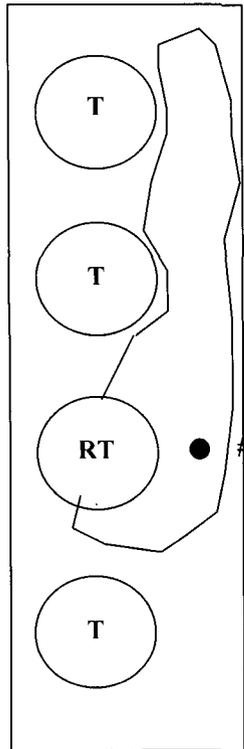
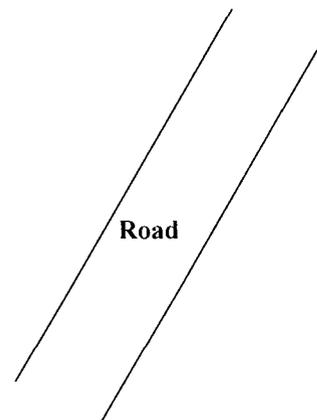
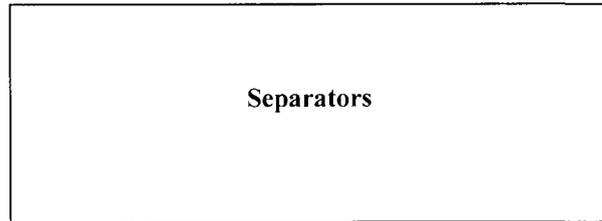
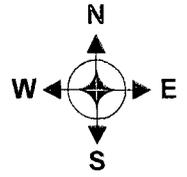
**VI. Figures & Appendices**

- Figure 1 – Vicinity Map
- Figure 2 – Site Plan
- Appendix A – C-141
- Appendix B – Analytical Results
- Appendix C – Site Photos

**Figure 1**  
**Vicinity Map**

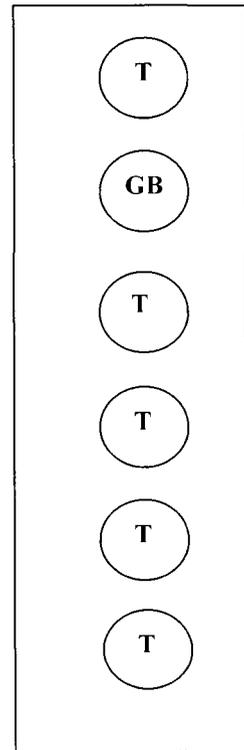


**Figure 2  
Site Plan**



● #3

● #2



●--Borehole Sample

T--Tank

RT--Receiving Tank

GB--Gun Barrel

\*\*Not to Scale\*\*

OXY USA

McKittrick Hills Central Battery

**Safety & Environmental  
Solutions, Inc.**



# **Appendix A**

## **C-141**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised October 10, 2003

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

**Release Notification and Corrective Action**

**OPERATOR**

X  Initial Report     Final Report

Name of Company OXY USA WTP LP	Contact Rick Kerby
Address PO Box 1988 102 S Main Carlsbad NM 88220	Telephone No. (O) 505-887-8337 (C) 505-631-4972
Facility Name Mckittrick Hill CTB	Facility Type Indian Basin

Surface Owner	Mineral Owner	Lease No.
---------------	---------------	-----------

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	14	22 S	24 E					EDDY

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

**NATURE OF RELEASE**

Type of Release Oil	Volume of Release 132.48	Volume Recovered 0
Source of Release Oil Leak	Date and Hour of Occurrence 10:00 AM	Date and Hour of Discovery 10:30 AM
Was Immediate Notice Given? Required	If YES, To Whom? Mike Bratcher NMOCD Jim Amos BLM	
By Whom? Rick Kerby	Date and Hour 1:40 PM 5-1-2008	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

Hole in the bottom of the tank allowed fluid to leak out on the ground. All fluid contained inside secondary containment.

Describe Area Affected and Cleanup Action Taken.\*

All fluid contained inside berm and work plan will be formulated and forwarded to appropriate government agencies

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Rick Kerby	Approved by District Supervisor:	
Title: HES Tech	Approval Date:	Expiration Date:
E-mail Address: rick_kerby@oxy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 4-11-08	Phone: 631-4972	

Attach Additional Sheets If Necessary

# **Appendix B**

## **Analytical Results**

# **Appendix C**

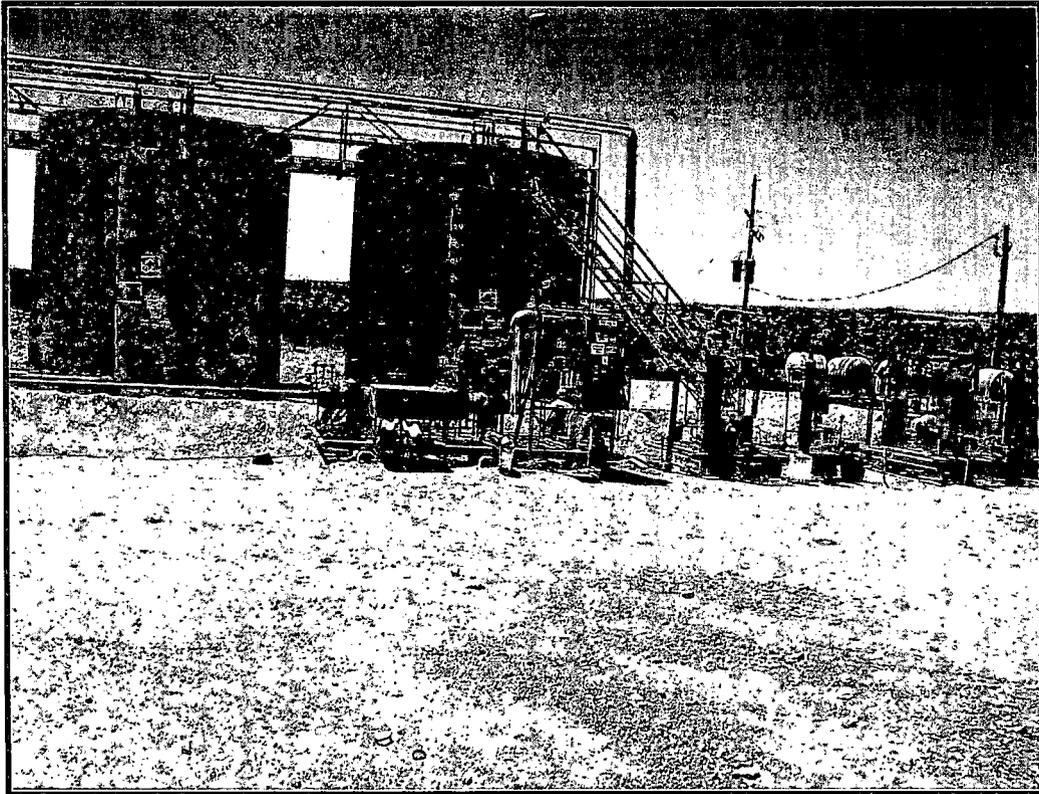
## **Site Photos**



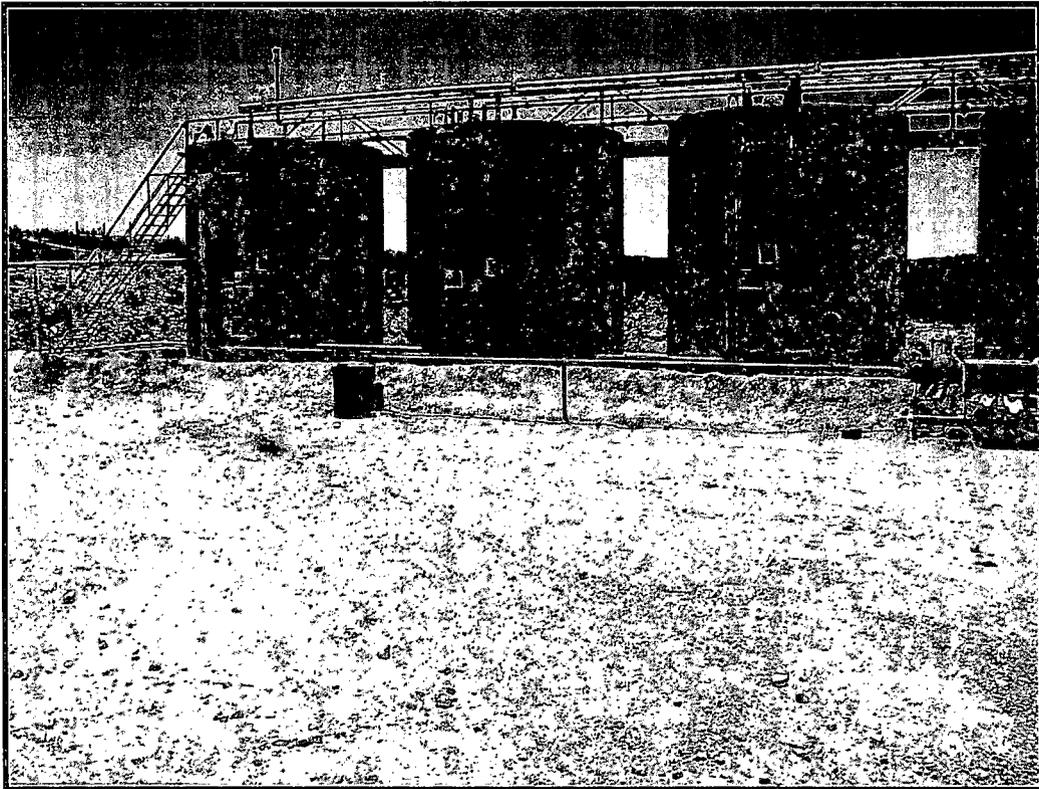
Well sign



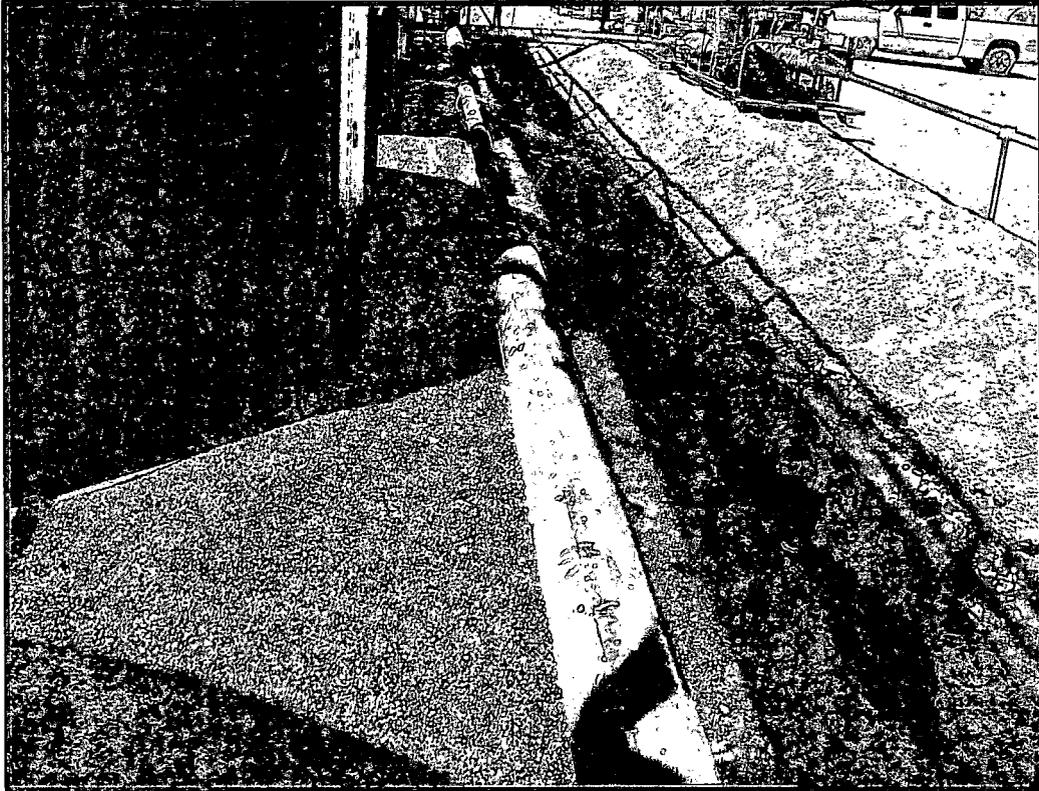
Southside of berm area



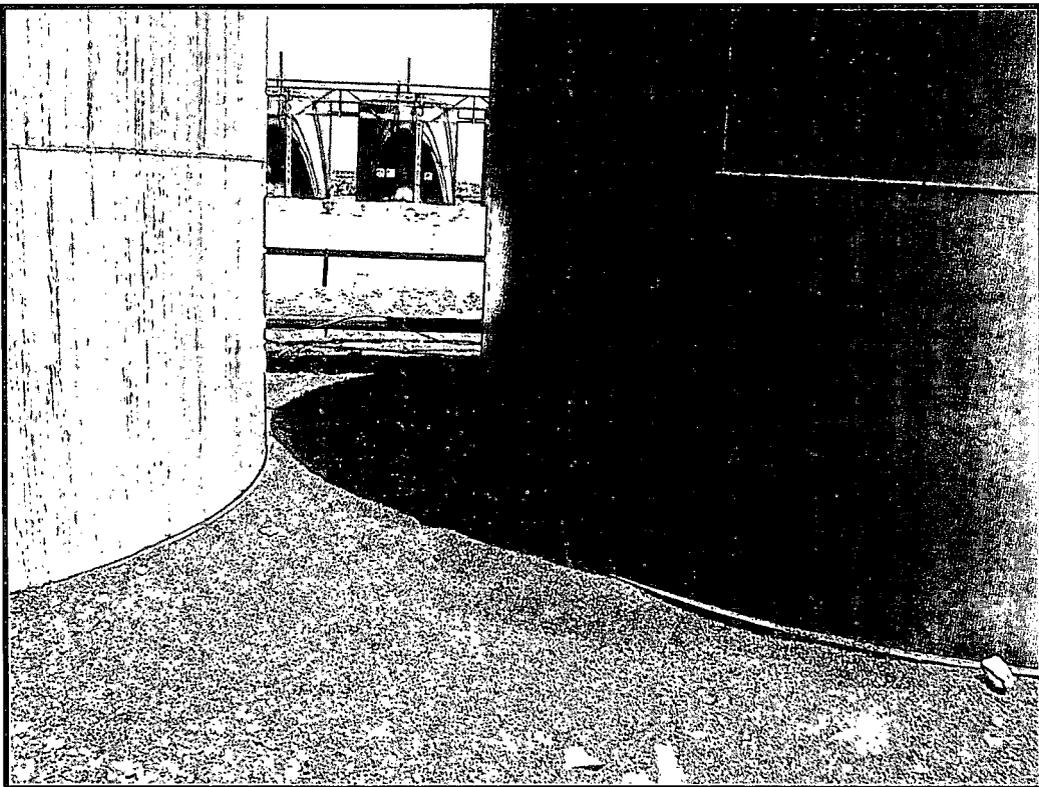
West side tanks facing west



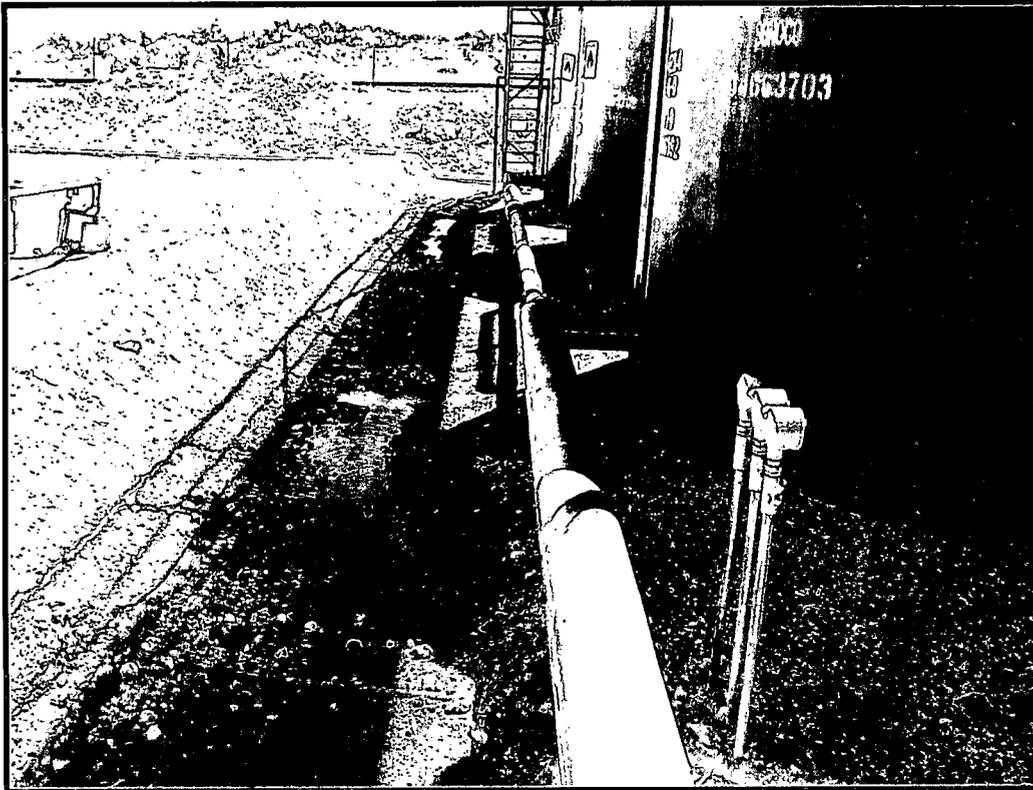
West side tank and location pad facing west



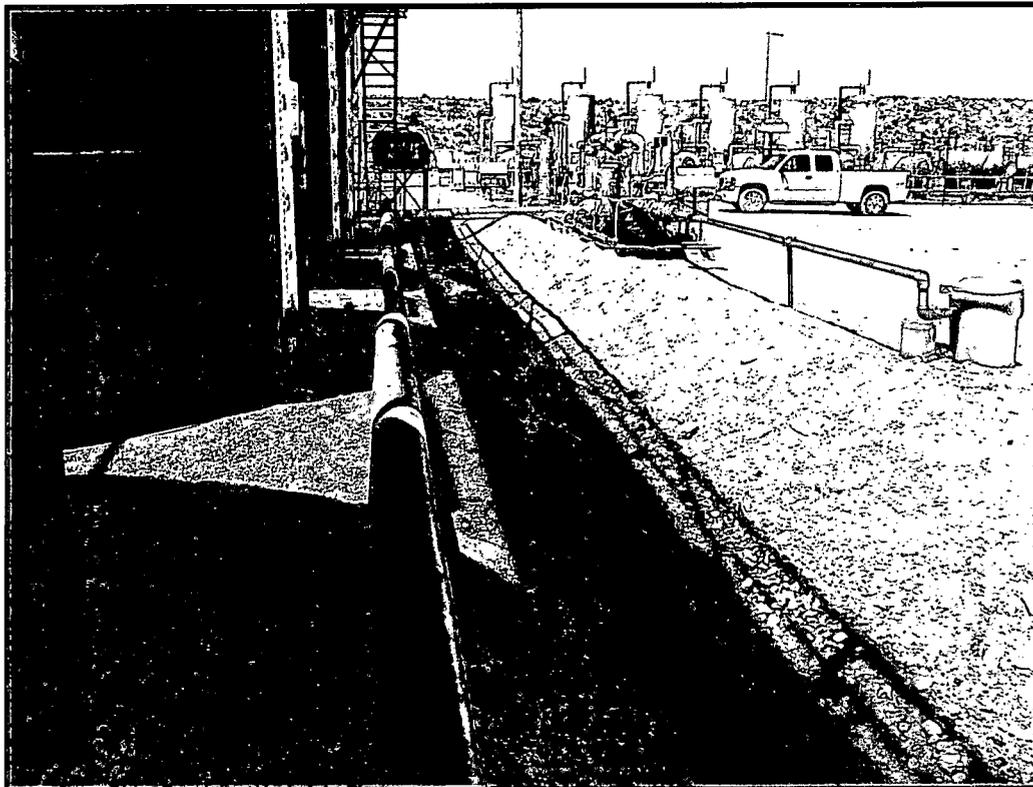
Release area facing north



West side of release tank facing east



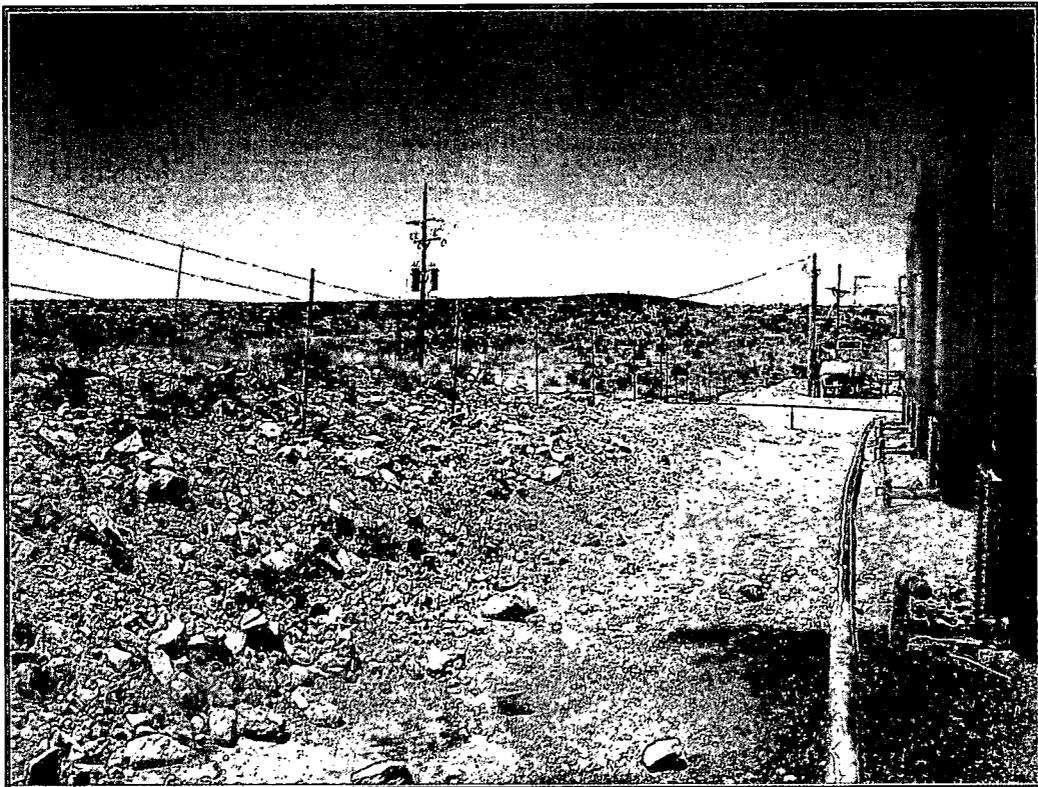
East side of release area facing south



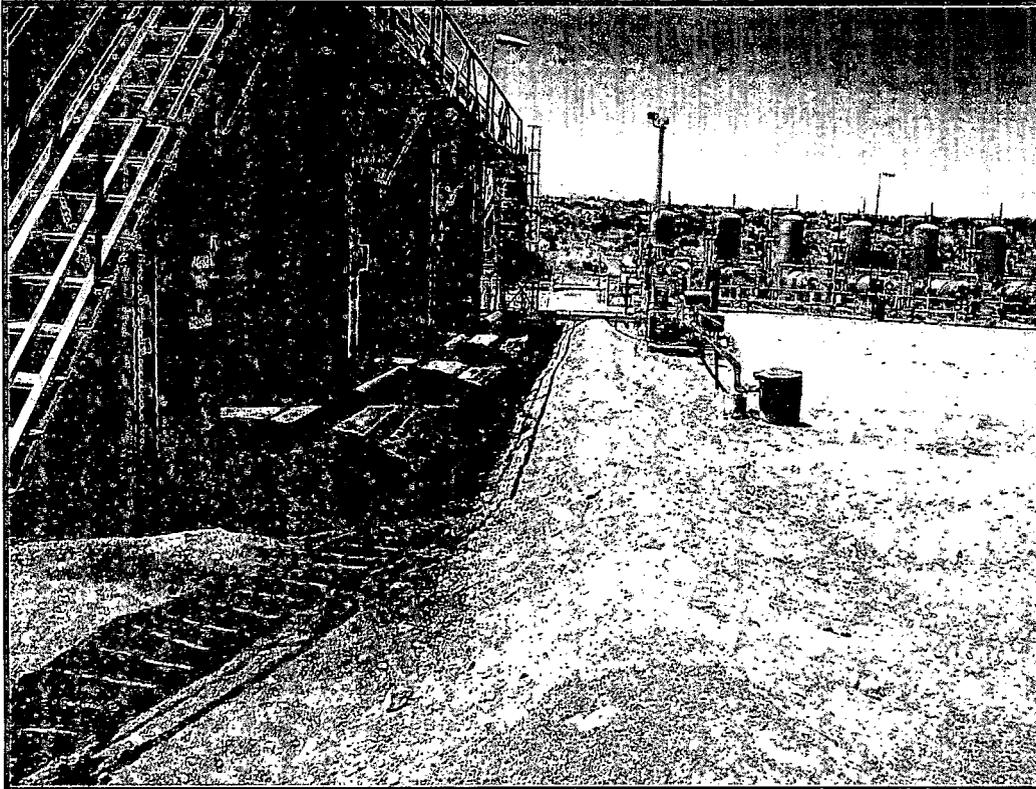
East side of release area facing north



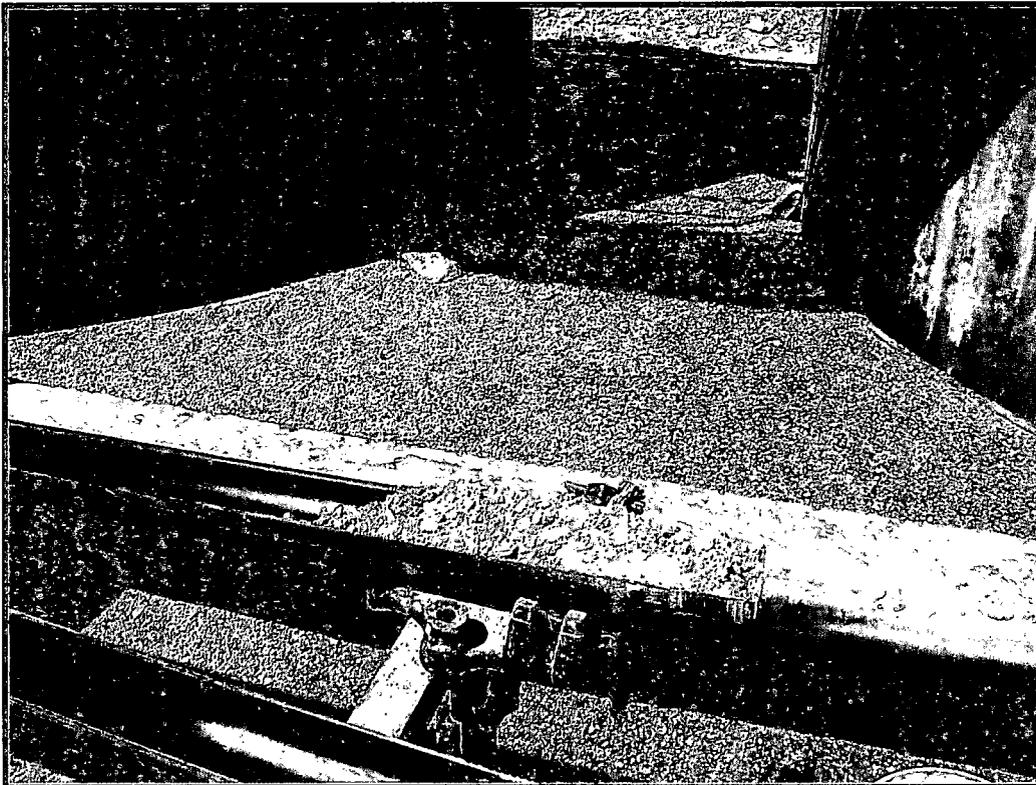
East side of release area facing north west



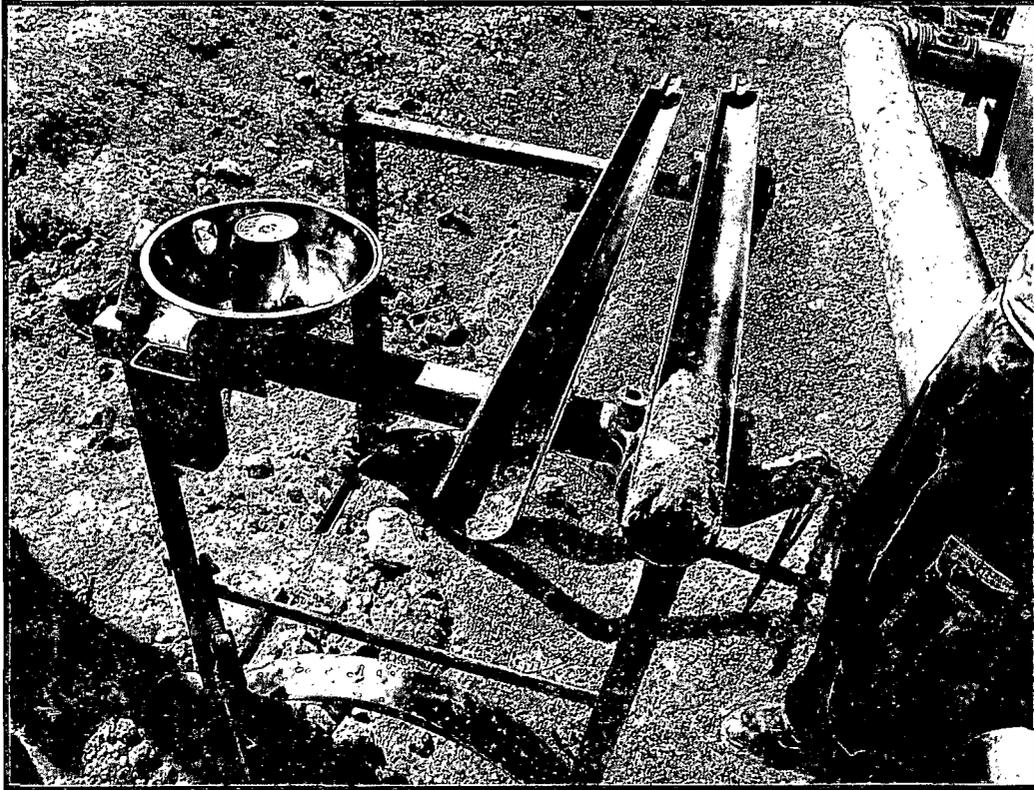
West side of release area facing north



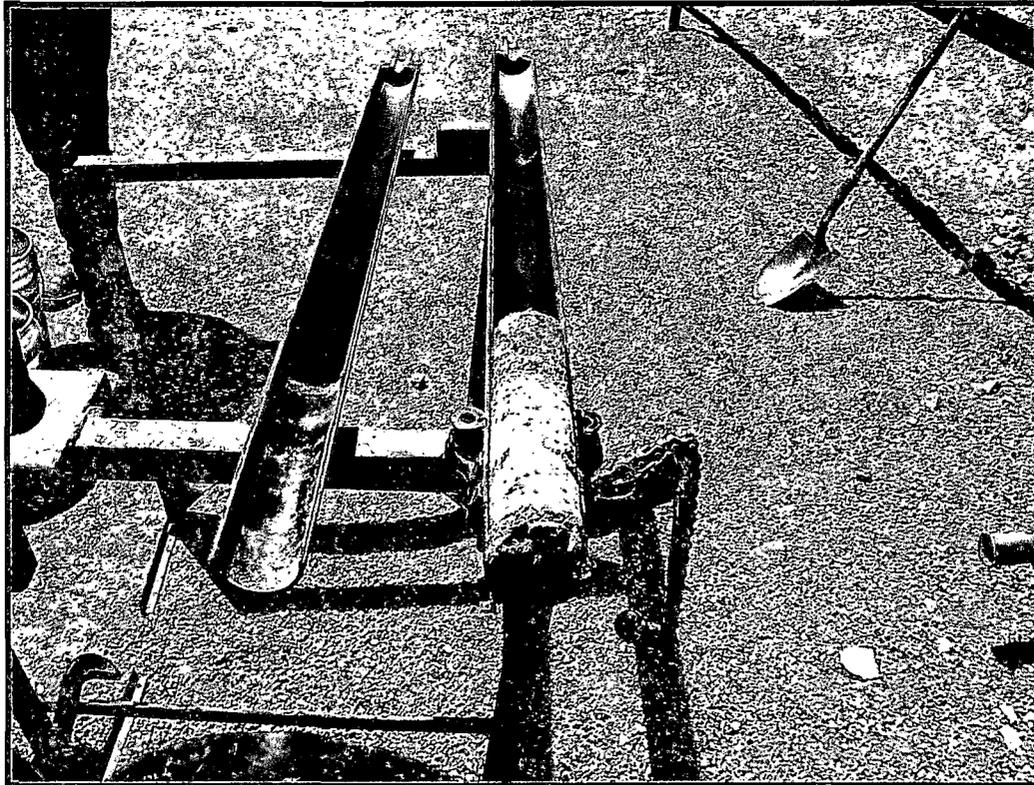
East side of release area facing north



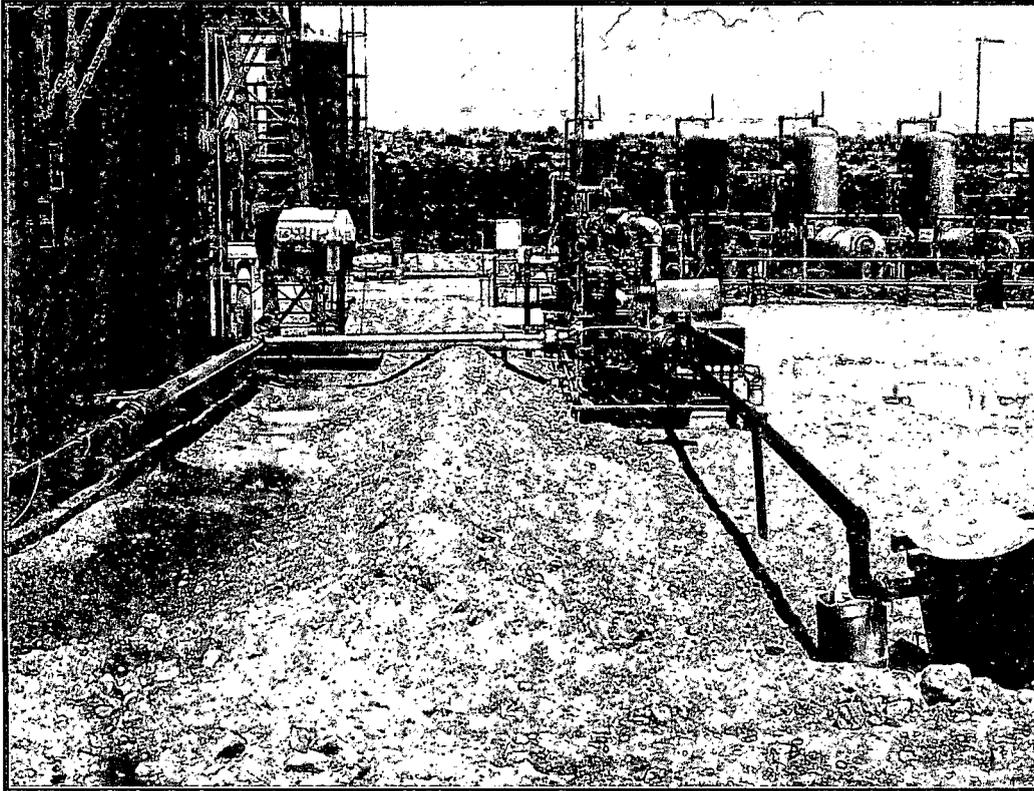
BH #2 at 5'



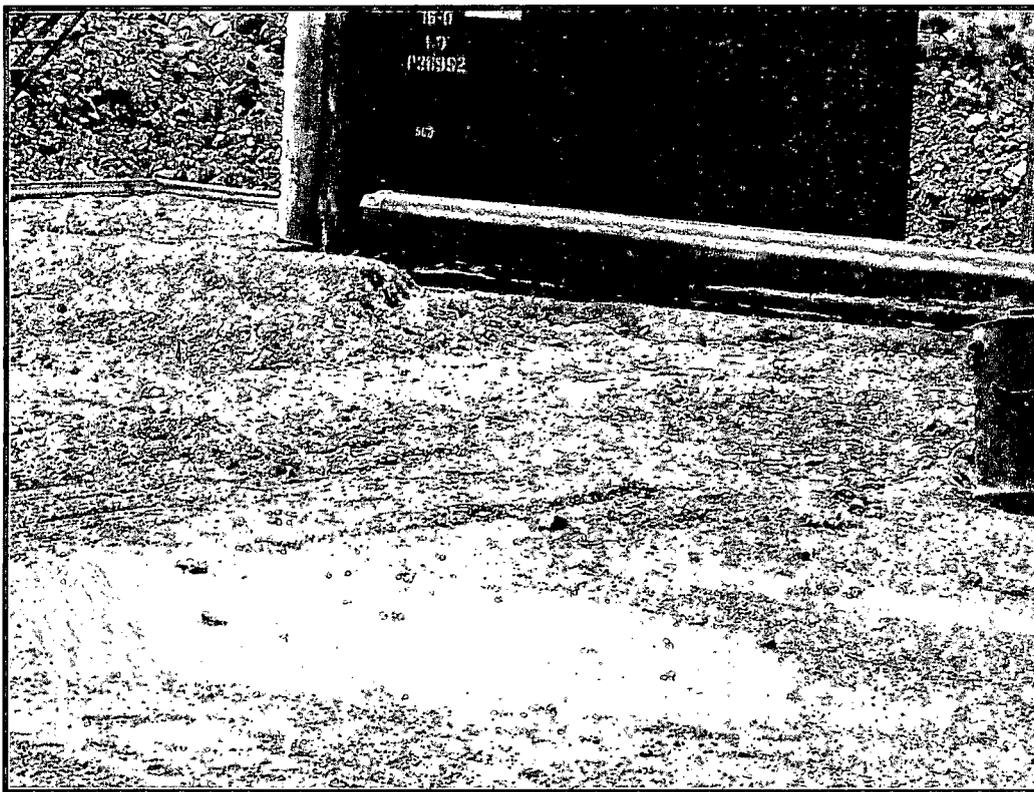
BH #1 at 5'



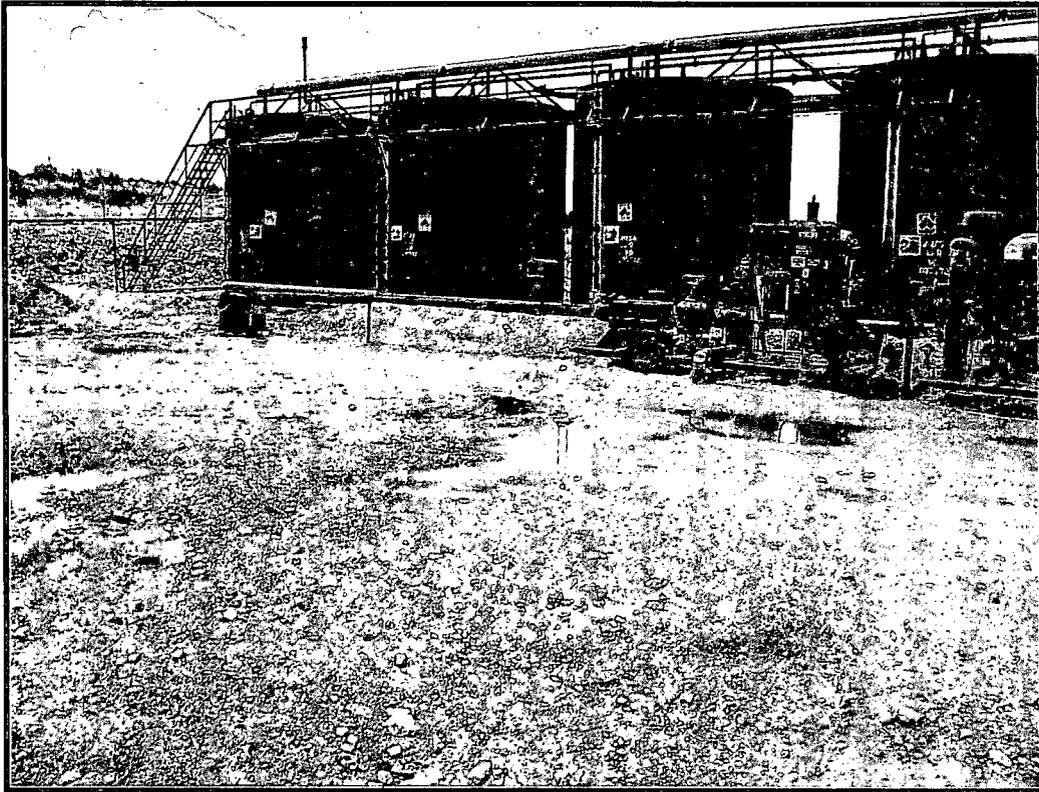
BH #3 at 5'



Release area inside berm facing north



BH #1 and BH #2 facing west



BH #3 facing west