

# BTA OIL PRODUCERS

OJO CHISO FEDERAL #003

API 30-025-30733

## C141 SITE REMEDIATION PLAN

NMOCD RP # 1286

UL-M (SW¼ OF THE SW ¼) OF SECTION 26 T22S R34E

LATITUDE: N32° 21.486'      LONGITUDE: 103° 26.771'

~17.6 MILES SW (BEARING 252°) OF EUNICE

LEA COUNTY, NEW MEXICO

May 2, 2007

PREPARED FOR BTA OIL PRODUCERS BY:

*incident - NPAC 07/12330868  
application - PPAC 07/12330988*

*RP# 1286*

### **HUNGRY HORSE, LLC**

#### **ENVIRONMENTAL SERVICES**

P.O. Box 1058; 3709 S. Eunice Hwy  
Hobbs, NM 88241

Phone: 505-393-3386

Cell: 505-631-3277

Fax: 505-391-4585

E-mail: jgood4614@aol.com



**JOHN GOOD**  
ENVIRONMENTAL MANAGER



## Table of Contents

1.0 Project Summary .....	3
2.0 Site Description .....	3
2.1 Geological Description .....	3
2.2 Ecological Description .....	3
2.3 Area Ground Water .....	4
2.4 Area Water Wells .....	4
2.5 Area Surface Water Features .....	4
3.0 Contaminant and Size of Area .....	4
4.0 NMOCD Site Ranking .....	5
5.0 Proposed Remediation .....	5

## ATTACHMENTS ..... 7-15

Plate 1: Site Location Map .....	7
Plate 2: Site Topography Map .....	8
Plate 3: Site Aerial Photograph .....	9
Plate 4: Site Detail Drawing .....	10
Photographs .....	11-13
Site Information and Metrics Form .....	14
Initial NMOCD C141 Form .....	15

## 1.0 Project Summary

Release Site Name: Ojo Chiso Federal #003 (API: 30-025-30661)  
Operating Company: BTA Oil Producers  
Company Representative: Royce Boyce, Operations Manager Phone: 432-682-3753  
Address: 104 S. Pecos, Midland, TX 79701-9988 Email: RBoyce@BTAOil.com  
Remediation Company: Hungry Horse, LLC Phone: 505-393-3386

### SITE SPECIFIC DATA:

Legal Description: Lea County, New Mexico UL-M Section 26, T22S, R34E  
General Location: 17.6 miles southwest (bearing 252°) of Eunice, NM.  
Latitude: N32° 21.486' Longitude: W103° 26.771' Elevation: 3,422-ft amsl  
Land Ownership: Surface – BLM; Minerals - BLM  
Ground Water Elevation: ~90' bgs (based on Chevron/Texaco contour map)  
Water Wells within 1000-ft: none Surface Water within 1000-ft: none

### RELEASE SPECIFIC DATA:

Date and Time of Release(s): Periodically over long time period  
Material Released: Natural Gas Liquids; Refined Lubrication Oil  
Volume Released: Unknown but <5-bbl Volume Recovered: 0-bbl  
Cause of Release: Blow-down line of compressor installed to discharge onto caliche pad.  
Release Affected Area: Total ~800-ft<sup>2</sup> in and around compressor building  
Depth of Contamination: Unknown – estimate 1-ft to 2-ft bgs  
NMOCD Site Ranking: 10 (ground water > 50' below lowest contamination)

### PROPOSED REMEDIATION:

This Site Remediation Plan is submitted pursuant to a Notice of Written Order issued to BTA by Mr. Paul Evans of the BLM – Carlsbad Office. The hydrocarbon contaminated soils outside of the compressor building excavated and blended with clean soil to achieve TPH, BTEX, Benzene and Total Chloride concentrations less than the Remedial Action Levels for this site. Excavated areas will be backfilled with the blended soil and covered with a clean caliche cap layer.

The oil contaminated area within the compressor building will be manually excavated to a depth of 6-inches (removed soil to be included in the above blending procedure) and then bio-remediated with a MicroBlaze bacterial treatment plus nitrogen containing fertilizer combination. After treatment, the floor of the compressor building will be brought back to its original level with clean caliche.

## **2.0 Site Description**

### **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. Typically, the QA and CO formations in the area are capped by a thick interbed of caliche and generally overlain by sandy soil." The release site is located within the San Simon Swale physiographic subdivision, described by Nicholson & Clebsch as an area "covered by stabilized dune sand and no apparent drainage pattern is apparent" (Nicholson & Clebsch - 1961).

### **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 (*Quercus harvardi*) interspersed with Honey Mesquite (*Prosopis glandulosa*) along with typical desert grasses, flowering annuals and flowering perennials. Mammals represented, include Orrd's and Merriam's Kangaroo Rat, Deer Mouse, White Throated Wood Rat, Cottontail Rabbit, Black Tailed Jackrabbit, Mule Deer, Bobcat, Red Fox and Coyote. 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**

Based on available evidence, depth to ground water is projected to be 90-feet below ground surface (bgs).

### **2.4 Area Water Wells**

There are no recorded or observed water wells within 1000 horizontal feet of the site.

### **2.5 Area Surface Water Features**

No permanent surface water bodies exist within 1000 horizontal feet of the site.

## **3.0 Contaminant and Size of Area**

The primary Contaminants of Concern (COC's) are petroleum based hydrocarbons and, to a lesser extent total chlorides. The release affected areas are in and around the compressor building located at the northeast corner of the well pad. The estimated combined area of the releases is ~800-ft<sup>2</sup> (see Plate 4, Attachments).

The un-refined fluids associated with this release are considered RCRA Exempt oilfield waste. The lubricating oil associated with the compressor is not RCRA Exempt. No evidence of other contaminants was observed.

## 4.0 NMOCD Site Ranking Table

Preliminary investigation and evaluation of this site indicate that the chemical parameters of the soil and the physical parameters of the ground water are characterized consistent with the characterization and remediation/abatement goals and objectives set forth in the following New Mexico Oil Conservation Division (NMOCD) publications:

- *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<sup>8015m</sup>, Benzene, and the mass sum of Benzene, Toluene, Ethyl Benzene, and total Xylenes (BTEX<sup>8260</sup>), was 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.*

Based on the proximity of the site to area water wells, surface water bodies, and depth to ground water from the lower most contamination, the NMOCD ranking score for the site is 10 points with the soil remedial goals highlighted in the Site Ranking Table below.

NMOCD Site Ranking Table

1. GROUND WATER		2. WELLHEAD PROTECTION	3. DISTANCE TO SURFACE WATER
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
DEPTH TO GW 50 TO 99 FEET: 10 POINTS			200-1000 HORIZONTAL FEET: 10 POINTS
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 =1 0		WELLHEAD PROTECTION SCORE= 0	SURFACE WATER SCORE= 0
SITE RANK (1+2+3) = 10 + 0 + 0 = 10 POINTS			
TOTAL SITE RANKING SCORE AND ACCEPTABLE REMEDIAL GOAL CONCENTRATIONS			
PARAMETER	20+	10	0
BENZENE	10 PPM	10 PPM	10 PPM
BTEX	50 PPM	50 PPM	50 PPM
TPH	100 PPM	1000 PPM	5000 PPM

## 5.0 Proposed Remediation

Area(s) outside of compressor building:

The contaminated soil area(s) will be excavated to a depth sufficient to achieve hydrocarbon concentrations significantly below the acceptable remedial goal

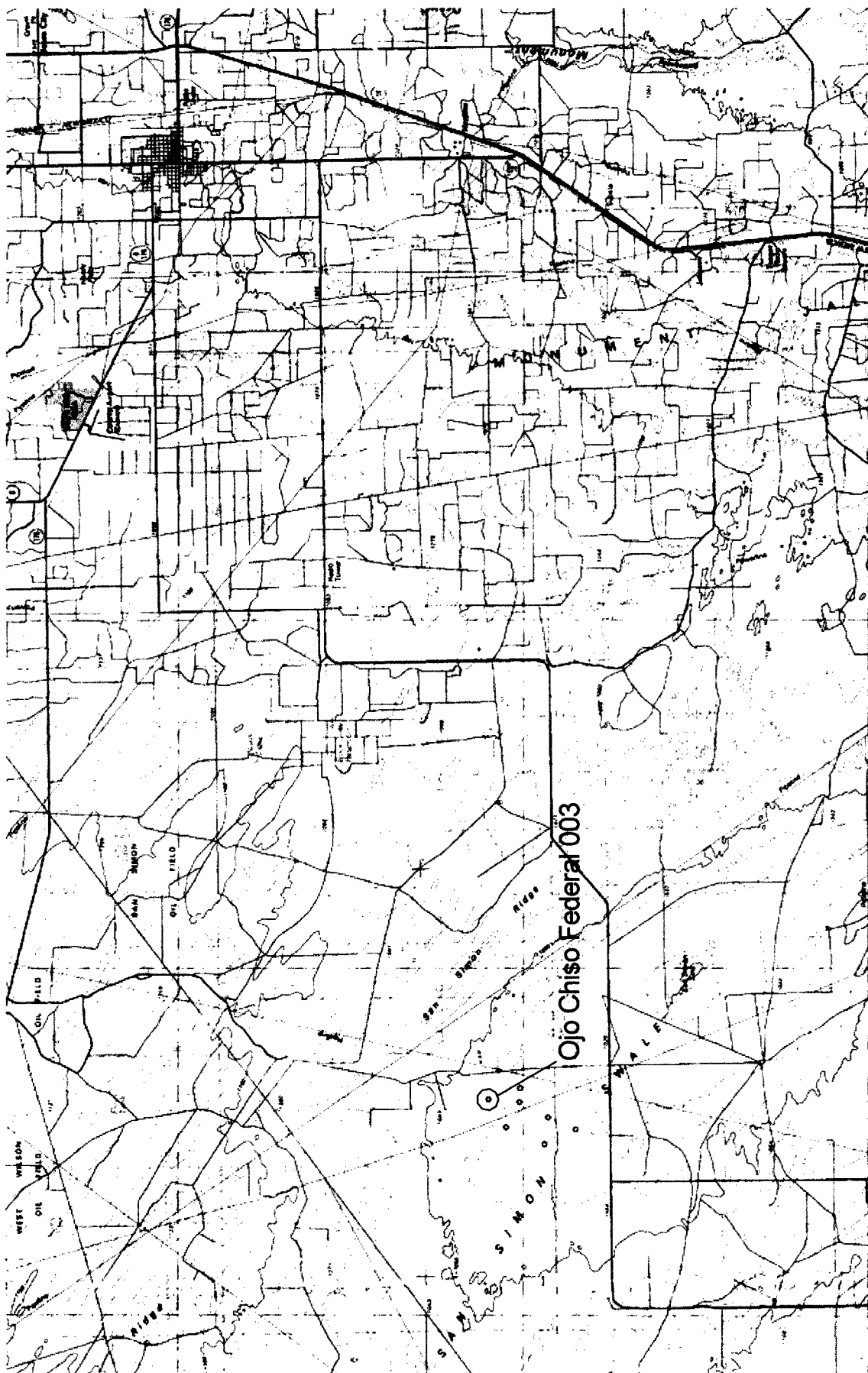
concentrations for this site, and a total chloride concentration below the New Mexico Water Quality Control Commission standard of 250-ppm. The excavated soil will be blended with clean soil obtained on-site to achieve CoC concentrations below the Remedial Action Levels for this site. Sidewall, bottom and blended soil samples will be obtained and submitted to Cardinal Laboratories, Hobbs, NM for certified analyses. Samples will be transported under proper Chain of Custody by Hungry Horse personnel.

Area within the compressor building:

Due to the vertical and horizontal limitations posed by the walls and ceiling of the compressor building, soil remediation efforts within the building will be accomplished by utilizing hand-tools and manual labor only. The contaminated soil within the compressor building does not pose a threat to ground water at this location. Removal and relocation of the compressor unit is not justified at this time. The contaminated soil within the building will be removed from around the compressor unit to a depth of 6-inches. This excavated area will then be bio-remediated with MicorBlaze bacterial treatment and a nitrogen containing fertilizer. Clean caliche will be utilized to bring the floor to its original level.

## ATTACHMENTS

Plate 1: Site Location Map .....	7
Plate 2: Site Topography Map .....	8
Plate 3: Site Aerial Photograph .....	9
Plate 4: Site Detail Drawing .....	10
Photographs .....	11-13
Site Information and Metrics Form .....	14
Initial NMOCD C141 Form .....	15

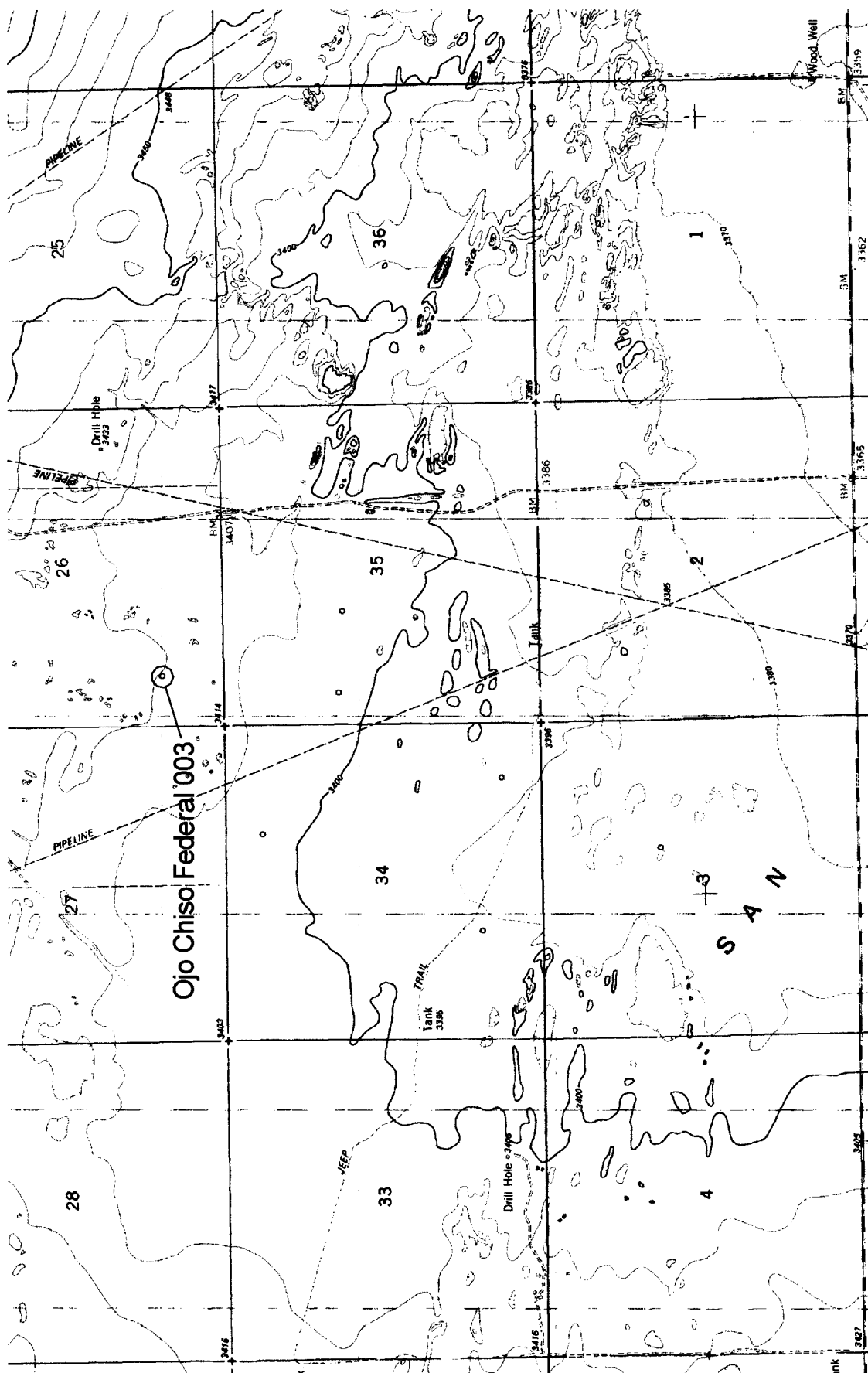


Drawing by: John Good  
March - 2007  
Rev. 1



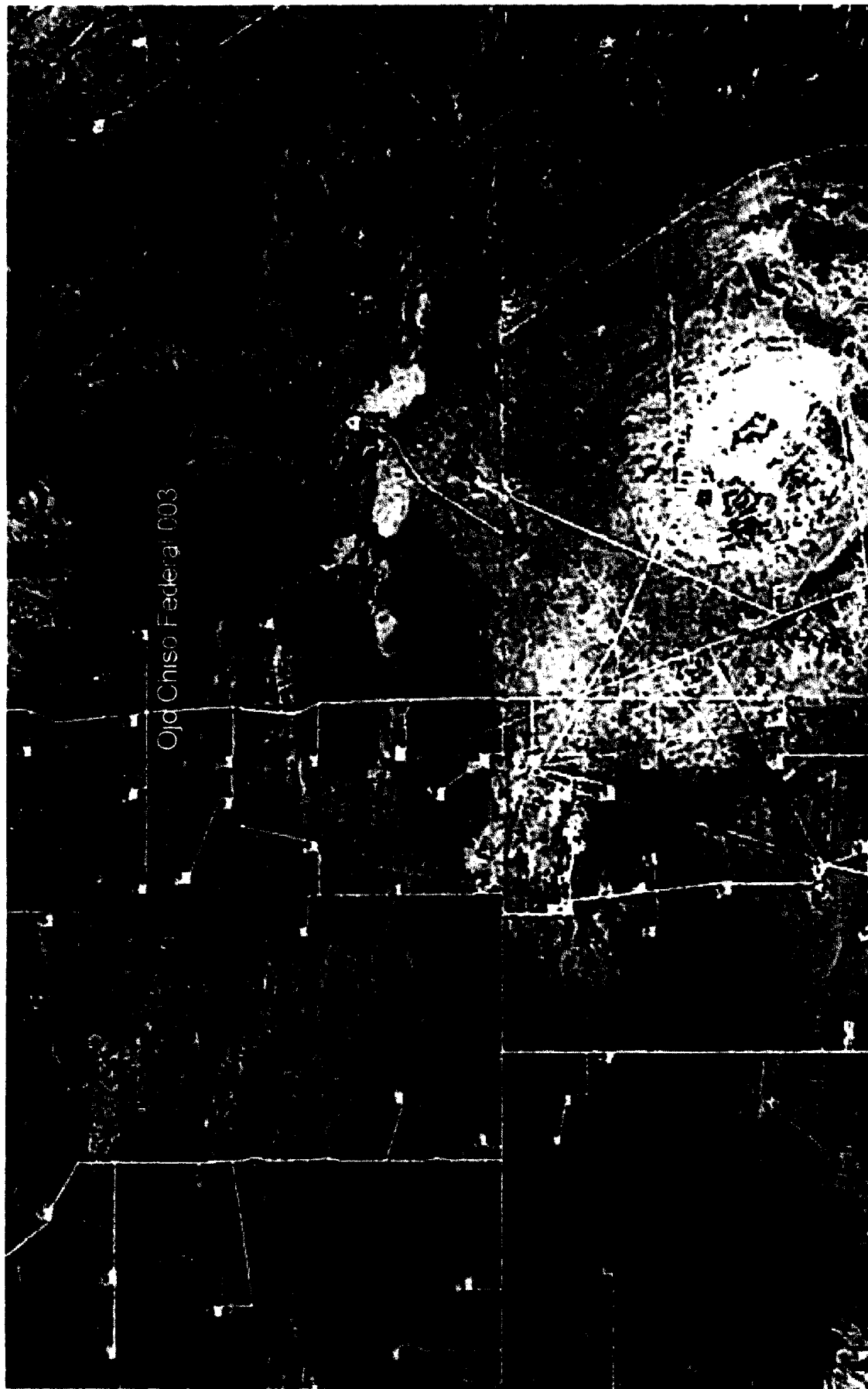
Lea County, New Mexico  
UL-M SECTION 26 T22S R34E  
32° 21.486' N, 103° 26.771' W  
Elevation: ~3422-ft amsl



Plate 1  
Release Site Location  
BTA Oil Producers  
Ojo Chiso Federal 003

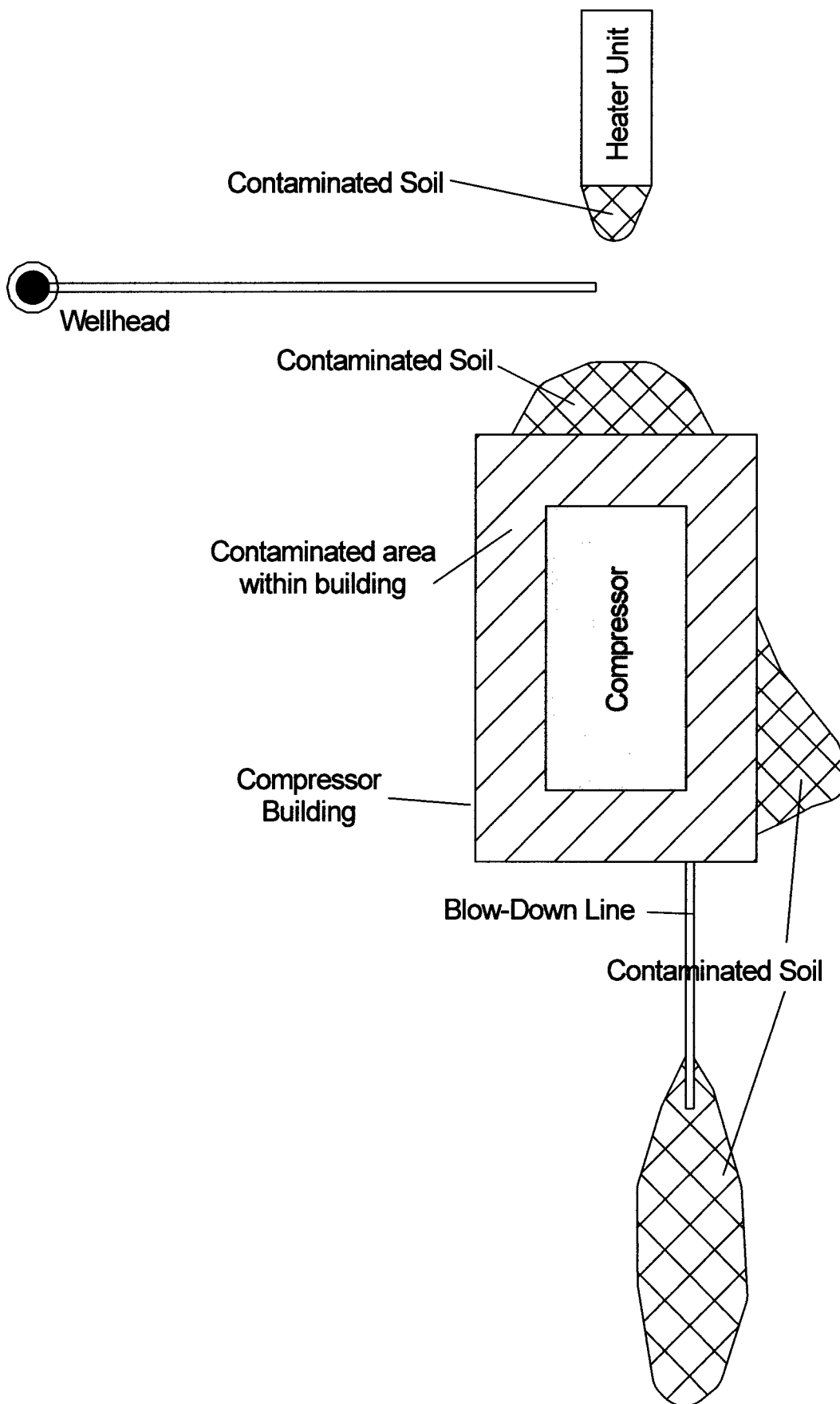


<p>Plate 2</p> <p>Release Site Topography</p> <p>BTA Oil Producers</p> <p>Ojo Chiso Federal 003</p>	<p>Lea County, New Mexico</p> <p>UL-M SECTION 26 T22S R34E</p> <p>32° 21.486' N, 103° 26.771' W</p> <p>Elevation: ~3422-ft amsl</p>	<p>Drawing by: John Good</p> <p>March - 2007</p> <p>Rev: 1</p>
<p>SCALE:</p> <p>0 Feet 4000</p>		<p>North Arrow</p>





<p>Plate 3</p> <p>Release Site Aerial Photograph</p> <p>BTA Oil Producers</p> <p>Ojo Chiso Federal 003</p>	<p>Lea County, New Mexico</p> <p>UL-M SECTION 26 T22S R34E</p> <p>32° 21.486' N, 103° 26.771' W</p> <p>Elevation: ~3422-ft amsl</p>		
		Drawing by: John Good March - 2007	Rev: 1
		SCALE: 	



Rev: 1

Drawing by: John Good  
March - 2007

DRAWING NOT TO SCALE

Lea County, New Mexico  
UL-M SECTION 26 T22S R34E  
32° 21.486' N, 103° 26.771' W  
Elevation: ~3422-ft amsl

Plate 4  
Release Site Detail  
BTA Oil Producers  
Ojo Chiso Federal 003



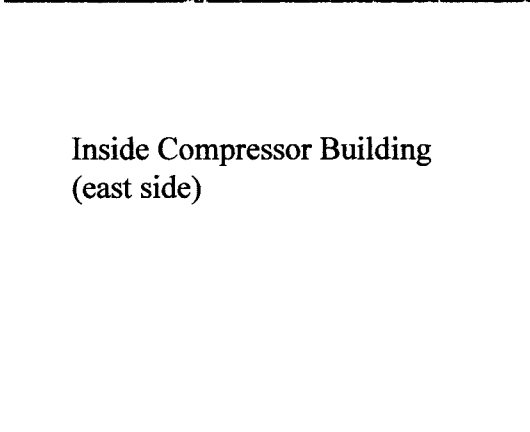
Compressor Building  
(looking NE)



Wellhead with Compressor  
Building and Heater  
(looking east)



Blow-Down south of  
Compressor Building



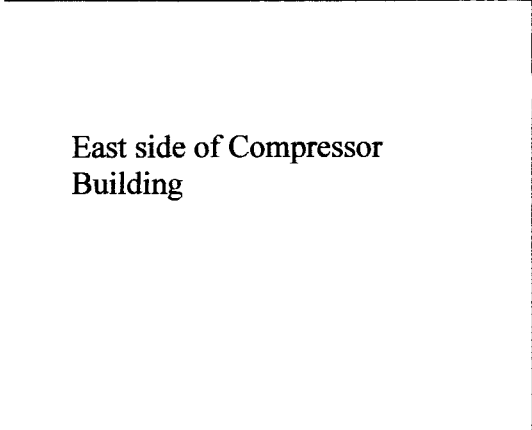
Inside Compressor Building  
(east side)



Inside Compressor Building  
(west side)



North side of Compressor Building



East side of Compressor Building



South side of heater unit

		Incident Date:		NMOCD Notified:	
SITE: Ojo Chiso Federal 003		Assigned Site Reference:		BTA-OJO-003	
Company: BTA Oil Producers		API No.:		30-025- 30733	
Street Address: 104 South Pecos		Lease No.:		NM43564	
Mailing Address: 104 South Pecos					
City, State, Zip: Midland, TX 79701-9988					
Representative: Royce Boyce		Position: Operations Manager			
Representative Telephone: 432-682-3753					
Telephone:					
Fluid Volume Released (bbl): > 5		Volume Recovered (bbl): 0		Net Release: > 5	
<i>&gt;25 bbl: Notify NMOCD verbally within 24 hours and submit C-141 within 15 days.</i> <i>5-25 bbl: Submit Form C-141 within 15 days. (Also applies to unauthorized release of &gt;50 mcf Natural Gas).</i>					
Leak, Spill, or Pit (LSP) Name:		Ojo Chiso Federal 003			
Source of Contamination:		Compressor, Blow-Down, Heater			
Land Owner, i.e. BLM, ST, Fee, Other:		BLM			
LSP Dimensions:		~			
LSP Area		~ 800 -ft <sup>2</sup>			
Location of Reference Point (RP):					
Location distance and direction from RP:					
Latitude: North		32deg 21.486'			
Longitude: West		103deg 26.771'			
Elevation above mean sea level (amsl):		3422 feet 1043 meters			
Distance from North Section Line (feet):					
Distance from East Section Line (feet):					
Location - Unit Letter and 1/4 1/4:		UL-	M	SW - 1/4 of	SW - 1/4
Location - Section		26			
Location - Township		22S			
Location - Range		34E			
Surface water body within 1000' radius of site:		0			
Surface water body within 1000' radius of site:		0			
Domestic water wells within 1000' radius of site:		0			
Domestic water wells within 1000' radius of site:		0			
Agricultural water wells within 1000' radius of site:		0			
Agricultural water wells within 1000' radius of site:		0			
Public water supply wells within 1000' radius of site:		0			
Public water supply wells within 1000' radius of site:		0			
Depth (feet) from land surface to Ground Water (DG): ~		90			
Depth (feet) of lowest contamination (DC):		10			
Depth (feet) to Ground Water (DG - DC = DtGW): ~		80			
<b>1. Ground Water</b>		<b>2. Wellhead Protection Area</b>		<b>3. Distance to Surface Water</b>	
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 100-feet: 10 points				200-1000 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 Score: 0		Surface Water Score: 0	
Site Ranking (1 + 2 + 3):		10			
<b>Total Site Ranking Score and Acceptable Concentrations</b>					
Parameter	20 or >	10		0	
Benzene <sup>1</sup>	10-ppm	10-ppm		10-ppm	
BTEX <sup>1</sup>	50-ppm	50-ppm		50-ppm	
TPH	100-ppm	1000-ppm		5000-ppm	

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

Form C-141  
Revised June 10, 2003

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

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	BTA Oil Producers	Contact	Royce Boyce	Operations Manager
Address	104 South Pecos	Midland, TX 79701-9988	Telephone No.	432-682-3753
Facility Name	Ojo Chiso Federal 003	Facility Type	Natural Gas Well	

Surface Owner	BLM	Mineral Owner	BLM	API No.:	30-025- 30733
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from North Line	Feet from East Line	Longitude-W	Latitude-N	County
M	26	22S	34E			103deg 26.771'	32deg 21.486'	Lea

NATURE OF RELEASE

Type of Release	Volume of Release	Volume Recovered
NGL and Lubrication Oil from Compressor	> 5 bbl	0 bbl
Source of Release	Date and Hour of Occurrence	Date and Hour of Discovery
Compressor, Blow-Down, Heater	Over Time	NA
Was Immediate Notice Given?	If YES, To Whom?	
<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> Not Required		
By Whom?	Date and Hour	
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse	
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	NA	
If a Watercourse was Impacted, Describe Fully*		

Describe Cause of Problem and Remedial Action Taken. \*

Blow down has been sprayed directly onto ground south of compressor building. Spillage in and around compressor building, and adjacent to heater unit.

Describe Area Affected and Cleanup Action Taken. \*

The affected area is approximately 800-ft<sup>2</sup> in and around compression/heating equipment. Contaminant depth presumed to be 1-2 feet but not confirmed at this time. Hungry Horse, LLC, Hobbs, NM contracted to perform site remediation.

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:	John Good	Approved by District Supervisor:	ENRERO ENGR
Title:	Env. Manager, Hungry Horse LLC	Approval Date:	5.2.07
E-Mail Address:	jcgood4614@aol.com	Expiration Date:	7.2.07
Date:	5/2/2007	Phone:	505-631-3277
Conditions of Approval:			<input type="checkbox"/> Attached
WORK PLAN DEPENDS ON IDENTIFICATION RESULTS			

HUNGRY HORSE, LLC