

*Basin Environmental Service Technologies, LLC*

P. O. Box 301  
Lovington, New Mexico 88260  
kdutton@basinenv.com  
Office: (505) 396-2378 Fax: (505) 396-1429



R1004  
1R004  
PRS

**PRELIMINARY SITE INVESTIGATION REPORT  
and  
WORK PLAN**

**Olsen Energy, Inc.  
B. V. Lynch "A" & "B" Federal Lease  
Lea County, New Mexico  
UNIT J (NW/SE), Section 34, Township 20 South, Range 34 East  
Latitude 32°, 31', 45.5" North, Longitude 103°, 32', 48.0" West**

Prepared For:

Olsen Energy, Inc.  
Oil & Gas Development  
19210 Huebner Road  
Suite 200  
San Antonio, Texas 78258

Prepared By:

Basin Environmental Service Technologies, LLC  
P. O. Box 301  
Lovington, New Mexico 88260

**21 April 2005**

  
Ken Dutton

Basin Environmental Service Technologies, LLC

application # pPRS0512341581  
Olsen #16482

## **Table of Contents**

Introduction	1
Summary of Field Activities	1
New Mexico Oil Conservation Division (NMOCD) Soil Classification	1
Recommendations for Remediation	2
QA/QC Procedures	2
Soil Sampling	2
Decontamination of Equipment	2
Laboratory Protocol	2
Limitations	3
Distribution	4

## **Figures**

Figure 1:	Site Location Map
Figure 2:	Site Map

## **Appendices**

Appendix A:	New Mexico Office of the State Engineer Water Well Database Report
Appendix B:	BLM Form 3160-18, Notice of Written Order



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Mark E. Fesmire, P.E.**

Director

**Oil Conservation Division**

April 27, 2005

12004

Olsen Energy, Inc., (Olsen)  
Attn: Rusty Olsen  
19210 Huebner, Suite 200  
San Antonio, TX 78258

Re: **B. V. Lynch "A" & "B" Federal Lease**  
Preliminary Site Work Plan Approval – Tank Battery Remediation Plan  
UL-J Sec.34, T20S-R34E  
Dated: April 21, 2005, Basin Environmental Service Technologies, LLC.

Dear Mr. Olsen,

The New Mexico Oil Conservation Division (OCD) reviewed the proposal submitted for Olsen by Basin Environmental Service Technologies, LLC, and referenced above. The proposal is **hereby approved** according to the information provided.

Please be advised that OCD approval does not relieve Olsen of liability should operations result in pollution of surface water, ground water, or the environment. In addition, OCD approval does not relieve Olsen of responsibility for compliance with other federal, state or local laws and/or regulations.

If you have any questions or need any assistance call: (505) 393-6161 x113 or email: [psheeley@state.nm.us](mailto:psheeley@state.nm.us)

Sincerely,

Paul Sheeley-Environmental Engineer

Cc: Roger Anderson - Environmental Bureau Chief  
Chris Williams - District I Supervisor  
Larry Johnson - Environmental Engineer  
Paul Evans - BLM  
Ken Dutton - Basin

## INTRODUCTION

Basin Environmental Service Technologies, LLC (Basin), responded to a verbal request by Mr. Rusty Olsen, Olsen Energy, Inc. (Olsen), to visually inspect the ~~operational tank battery~~ and affected areas adjacent to the battery to prepare a work plan for submission to New Mexico Oil Conservation Division (NMOCD) and the Bureau of Land Management (BLM) pertaining to the B. V. Lynch "A" & "B" Federal Lease on 06 April 2005. Olsen Energy, Inc., received a BLM Form 3160-18, Notice of Written Order, dated 28 March 2005, Number 05-PE-179 and 05-PE-180, initiating this request (Appendix B).

This site is located in Unit J (NW/SE), Section 34, Township 20 South, Range 34 East, in Lea County, New Mexico (topographic Site Location Map is attached as Figure 1). The latitude is ~~32° 31' 45.5~~ North, and longitude is ~~103° 32' 48.0~~ West. The site is characterized as an operational tank battery surrounded by pastureland utilized for cattle ranching.

## SUMMARY OF FIELD ACTIVITIES

On 06 April 2005, Basin arrived at the B.V. Lynch "A" & "B" Federal Lease to visually inspect the tank battery and adjacent area. Utilizing the BLM Form 3160-18 the visually stained crude oil and chloride-impacted areas were located and preliminary assessment of the site was accomplished. Mr. Olsen was notified of Basin's preliminary assessment of the site and approved the preparation of a work plan for submission to NMOCD and BLM for approval.

### New Mexico Oil Conservation Division (NMOCD) Soil Classification

A search of the New Mexico State Engineers database revealed no water depth information for that section; however, a stock tank and windmill are located approximately one-half mile to the southwest of the site, with a depth to groundwater of approximately ~~88 feet below ground surface (bgs)~~. There are no surface water bodies or water wells within 1000 feet of the release site. Based on this data, the site has an NMOCD Ranking Score of 10 -19, which sets the remediation levels at:

Benzene:	10 ppm
BTEX:	50 ppm
TPH:	1000 ppm

The above criterion is assumed and may be adjusted based on the actual results of the soil delineation activities.

## **RECOMMENDATIONS FOR DELINEATION/REMEDIATION**

Olsen proposes to mobilize a backhoe to the tank battery and adjacent impacted areas to determine the vertical and horizontal depth of the chloride and hydrocarbon-impacted soils (see Figure 2, proposed delineation locations). Delineation trenches will be excavated and soil samples will be collected at depth; field screened with a Photoionization Detector (PID) to determine Volatile Organic Compounds (VOC's), a chloride field test kit, and selected samples will be delivered to a certified laboratory for analysis. The soil samples will be analyzed for chlorides, BTEX and TPH-GRO/DRO. The delineation trenches will be backfilled for safety precautions, flagged: photographed and total depth documented awaiting analytical results.

A remedial work plan will be submitted to the NMOCD, Hobbs District, and BLM, Carlsbad District, for approval once delineation of the site is completed and remedial options have been evaluated. As requested in the BLM 3160-18, a BLM Undesirable Event Form (BLM NM 3162-1) will be accomplished and submitted to the Carlsbad BLM office.

## **QA/QC PROCEDURES**

### **Soil Sampling**

Soil samples will be delivered to Environmental Lab of Texas, Inc. (ELOT), in Odessa, Texas for BTEX, TPH and Chloride analyses using the methods described below. Soil samples will be analyzed for BTEX, TPH-GRO/DRO and Chlorides within fourteen days following the collection date.

The soil samples will be analyzed as follows:

- BTEX concentrations in accordance with EPA Method 8021B, 5030
- TPH concentrations in accordance with modified EPA Method 8015M GRO/DRO
- Chloride concentrations in accordance with EPA Method 300.1

### **Decontamination Of Equipment**

Cleaning of the sampling equipment will be the responsibility of the environmental technician. Prior to use, and between each sample, the sampling equipment will be cleaned with Liqui-Nox<sup>®</sup> detergent and rinsed with distilled water.

### **Laboratory Protocol**

The laboratory will be responsible for proper QA/QC procedures after signing the chain-of-custody form. These procedures will be either transmitted with the laboratory reports or are on file at the laboratory.



## **LIMITATIONS**

Basin Environmental Service Technologies, LLC, has prepared this Preliminary Investigation Report and Work Plan to the best of its ability. No other warranty, expressed or implied, is made or intended.

Basin Environmental Service Technologies, LLC, has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Basin Environmental Service Technologies, LLC, has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Basin Environmental Service Technologies, LLC, has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental Service Technologies, LLC, also notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Olsen Energy, Inc. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the written consent of Basin Environmental Service Technologies, LLC, and Olsen Energy, Inc.

**DISTRIBUTION**

Copy 1: Mr. Rusty Olsen  
Olsen Energy, Inc.  
19210 Huebner Road  
Suite 200  
San Antonio, Texas 78258

Copy 2: Mr. Larry Johnson  
New Mexico Oil Conservation Division  
1625 Francis Dr.  
Hobbs, New Mexico 88240  
[LWJohnson@state.nm.us](mailto:LWJohnson@state.nm.us)

Copy 3: Mr. Paul Evans  
U. S. Department of the Interior  
Bureau of Land Management  
620 E. Greene St.  
P. O. Box 1778  
Carlsbad, New Mexico 88220  
[Paul\\_Evans@nm.blm.gov](mailto:Paul_Evans@nm.blm.gov)

Copy 4: Basin Environmental Service Technologies LLC  
P. O. Box 301  
Lovington, New Mexico 88260  
[kdutton@basinenv.com](mailto:kdutton@basinenv.com)

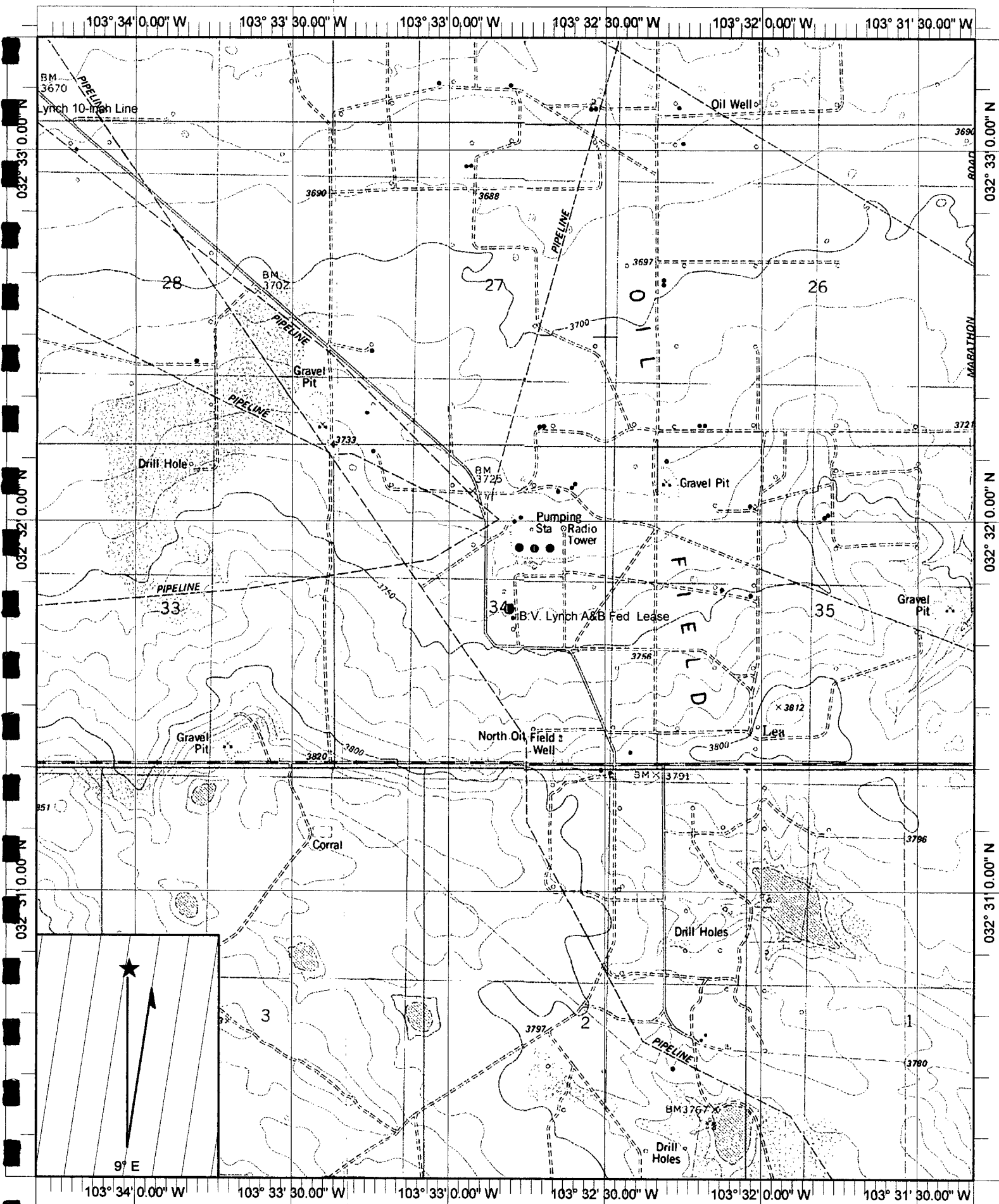
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## FIGURES

# **FIGURE 1**

## **SITE LOCATION MAP**



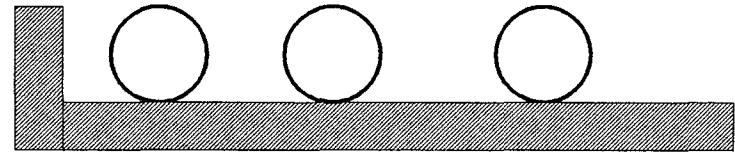
Name: LEA  
Date: 4/25/2005  
Scale: 1 inch equals 2000 feet

Location: 032° 31' 45.63" N 103° 32' 49.7" W  
Caption: Figure 1  
Site Map  
B. V. Lynch A & B Fed Lease

**FIGURE 2**

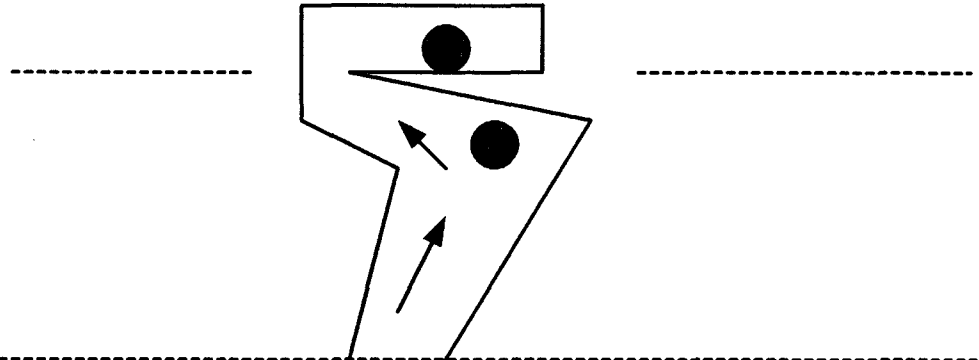
**SITE MAP**

Plains All American Lynch  
Station

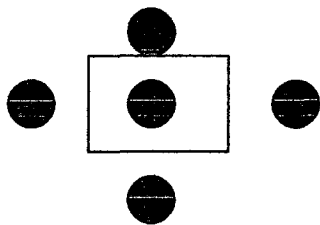


Berm

Fence

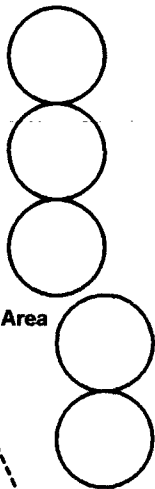


Pit Area

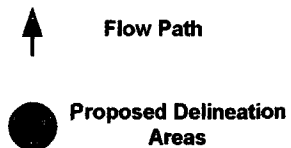
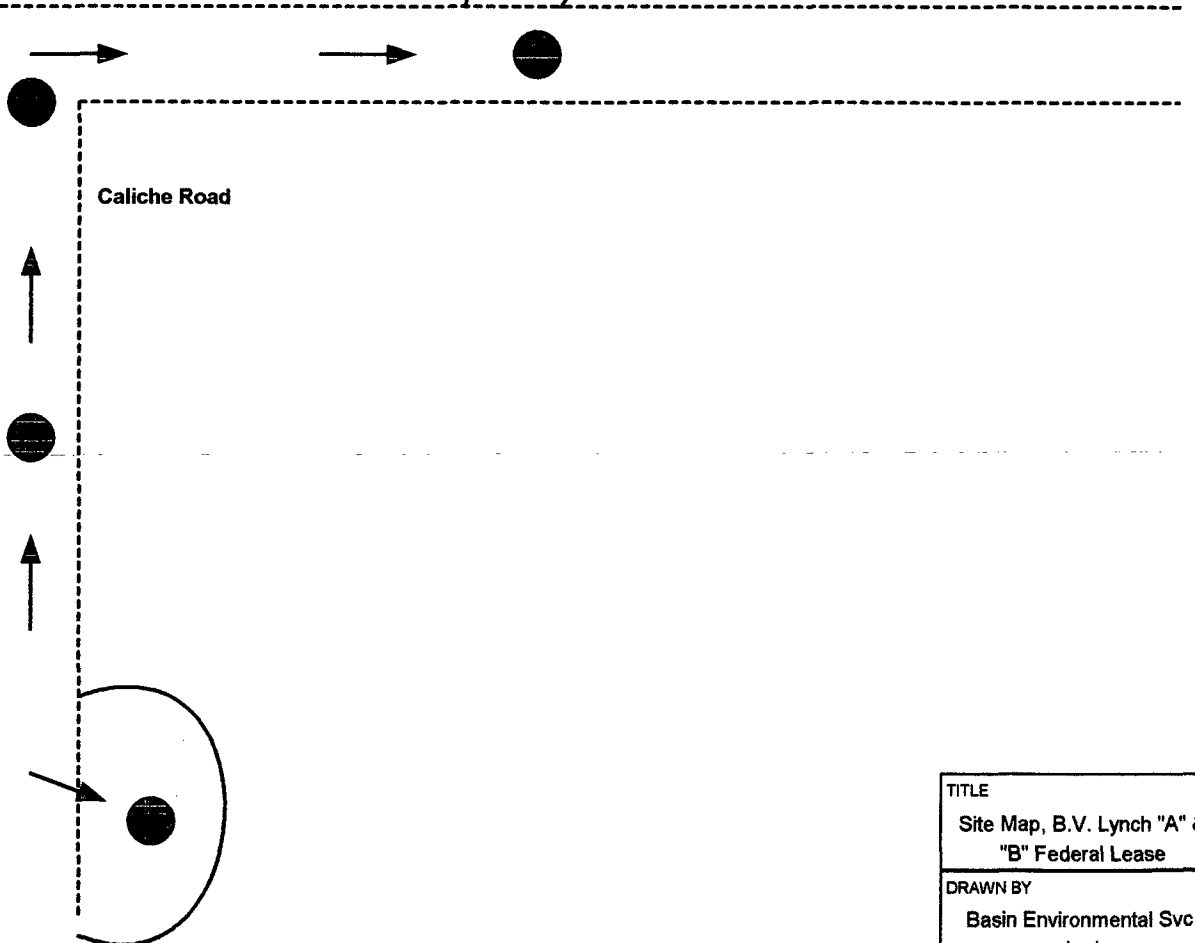


Caliche Road

Tank Battery Area



Caliche Road



TITLE
Site Map, B.V. Lynch "A" & "B" Federal Lease
DRAWN BY
Basin Environmental Svc.
kad

## **APPENDICES**

## **APPENDIX A**

# **NEW MEXICO OFFICE OF THE STATE ENGINEER WATER WELL DATABASE REPORT**

*New Mexico Office of the State Engineer*  
**Well Reports and Downloads**

Township: 20S Range: 34E Sections: 34

NAD27 X:            Y:            Zone:            Search Radius:           

County:            Basin:            Number:            Suffix:           

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

Well / Surface Data Report | Avg Depth to Water Report | Water Column Report |

Clear Form | WATERS Menu | Help

**WATER COLUMN REPORT 04/22/2005**

(quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are biggest to smallest)

Well Number	Tws	Rng	Sec	q	q	q	Zone	X	Y	Depth Well	Depth Water	Water (in feet) Column
-------------	-----	-----	-----	---	---	---	------	---	---	---------------	----------------	---------------------------

No Records found, try again



**APPENDIX B**

**BLM FORM 3160-18, NOTICE OF WRITTEN  
ORDER**

☒ Certified Mail - Return  
Receipt Requested  
70042510000069388232

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
NOTICE OF WRITTEN ORDER

IDENTIFICATION	
IID	
Lease	NMLC029519A
CA	
Unit	
PA	

Bureau of Land Management Office		Operator					
HOBBS INSPECTION OFFICE		OLSEN ENERGY INCORPORATED					
Address 414 WEST TAYLOR HOBBS NM 88240		Address 19210 HUEBNER ROAD, SUITE 200 SAN ANTONIO TX 78258					
Telephone 505.393.3612		Attention					
Inspector EVANS		Attn Addr					
Site Name BV LYNCH A	Well or Facility 01	1/4 1/4 Section NWSE 34	Township 20S	Range 34E	Meridian NMP	County LEA	State NM
Site Name	Well or Facility	1/4 1/4 Section	Township	Range	Meridian	County	State
Site Name	Well or Facility	1/4 1/4 Section	Township	Range	Meridian	County	State

The following condition(s) were found by Bureau of Land Management Inspectors on the date and at the site(s) listed above.

Date	Time (24-hour clock)	Corrective Action to be Completed by	Date Corrected	Authority Reference
03/25/2005	07:21	04/11/2005		43 CFR 3161.2 & 43 CFR 3162.5-1

Remarks:  
SUBMIT WITHIN 10 WORKING DAYS OF RECEIPT OF THIS NOTICE A WORK PLAN (FOR APPROVAL) FOR SAMPLING AND CLEAN UP OF ALL OLD AND NEW SALT WATER AND OIL SPILLS BOTH HORIZONTAL AND VERTICALLY FOR THE REMOVAL OF THESE HIGHLY CONTAMINATED/SATURATED SOILS AND DISPOSE OF PROPLY. DO NOT JUST BACK DRAG OR COVER UP WITH CLEAN SOIL.

When the Written Order is complied with, sign this notice and return to above address.

Company Representative Title \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_  
Company Comments \_\_\_\_\_

Warning

The Authorized Officer has authority to issue a Written Order in accordance with 43 CFR 3161.2. Written Order correction and reporting time frames begin upon receipt of this Notice or 7 business days after the date it is mailed, whichever is earlier. Each stipulation must be corrected within the prescribed time from receipt of this Notice and reported to the Bureau of Land Management Office at the address shown above. If you do not comply as noted above under "Corrective Action to be Completed By", you shall be issued an Incident of Noncompliance (INC) in accordance with 43 CFR 3163.1(a). Failure to comply with the INC may result in assessments as outlined in 43 CFR 3163.1 and may also incur civil penalties (43 CFR 3163.2). All self-certified corrections must be postmarked no later than the next business day after the prescribed time frame for correction.

Section 109(d)(1) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions of the operating regulations at Title 43 CFR 3163.2(f)(1), provides that any person who "knowingly or willfully" prepares, maintains, or submits false, inaccurate, or misleading reports, notices, affidavits, records, data, or other written information required by this part shall be liable for a civil penalty of up to \$25,000 per violation for each day such violation continues, not to exceed a maximum of 20 days.

Review and Appeal Rights

A person contesting a decision shall request a State Director review of the Written Order. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

Signature of Bureau of Land Management Authorized Officer \_\_\_\_\_ Date 3/28/05 Time 1324

FOR OFFICE USE ONLY

Number 3 Date \_\_\_\_\_ Type of Inspection ES

OPERATION

Number 05-PE-180

Page 2 of 2

☒ Certified Mail - Return  
Receipt Requested  
7004251000069388232

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
NOTICE OF WRITTEN ORDER

IDENTIFICATION	
IID	
Lease	NMLC029519A
CA	
Unit	
PA	

Bureau of Land Management Office HOBBS INSPECTION OFFICE		Operator OLSEN ENERGY INCORPORATED	
Address 414 WEST TAYLOR HOBBS NM 88240		Address 19210 HUEBNER ROAD, SUITE 200 SAN ANTONIO TX 78258	
Telephone 505.393.3612		Attention	
Inspector EVANS		Attn Addr	
Site Name BV LYNCH A&B	Well or Facility A	1/4 1/4 Section NWSE 34	Township 20S
		Range 34E	Meridian NMP
			County LEA
			State NM
Site Name	Well or Facility	1/4 1/4 Section	Township
			Range
			Meridian
			County
			State
Site Name	Well or Facility	1/4 1/4 Section	Township
			Range
			Meridian
			County
			State

The following condition(s) were found by Bureau of Land Management Inspectors on the date and at the site(s) listed above.

Date	Time (24-hour clock)	Corrective Action to be Completed by	Date Corrected	Authority Reference
03/25/2005	07:21	04/11/2005		43 CFR 3161.2 & 43 CFR 3162.5-1

Remarks:

SUBMIT WITHIN 10 WORKING DAYS OF RECEIPT OF THIS NOTICE A WORK PLAN (FOR APPROVAL) FOR SAMPLING AND CLEAN UP OF ALL OLD AND NEW SALT WATER AND OIL SPILLS AT THESE TWO BATTERIES. DO SAMPLING BOTH HOREZAONTALLY AND VERICALLY FOR THE REMOVAL OF THESE HIGHLY CONTAMINATED/SATURATED SOILS. DO NOT JUST BACK DRAG OR COVER UP WITH CLEAN SOIL.

SUBMIT A UNDESIRABLE EVENT FORM FOR THE SALT WATER SPILL AT THE BATTERY. PICK UP AND REMOVE FROM LOCATION THE SALT WATER THAT RUN DOWN THE ROAD AND DISPOSE OF PROPERLY.

REMOVE FROM ROAD WAYS ALL OLD AND NEW SPILLS AND DISPOSE OF PROPERLY.  
(Remarks continued on following page(s).)

When the Written Order is complied with, sign this notice and return to above address.

Company Representative Title	Signature	Date
Company Comments		

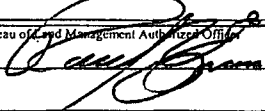
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Signature of Bureau of Land Management Authorized Officer		Date	Time
		3/28/05	1324
FOR OFFICE USE ONLY			
Number	Date	Type of Inspection	
3		ES	

Additional information for Written Order Number 05-PE-180

Page of

BLM Remarks, continued

DO SAMPLING BOTH HOREZAONTALLY AND VERICALLY FOR CONTAMINATES, THEN REMOVE ALL CONTAMINATES FORM THIS PIT AREA AND RECLAIM AND CLOSE THIS PIT.