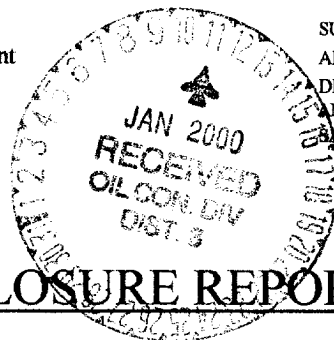


District I  
P.O. Box 1980, Hobbs, NM  
District II  
P.O. Drawer DD, Artesia, NM 88211  
District III  
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088



SUBMIT 1 COPY TO  
APPROPRIATE  
DISTRICT OFFICE  
AND 1 COPY TO  
SANTA FE OFFICE

## PIT REMEDIATION AND CLOSURE REPORT

*Bedrock*

Operator: Questar Energy Company Telephone: (505) 326-9195

Address: P.O. Box 2330 Farmington, NM 87499

Facility Or: No. 24(N.W) Lindrith  
Well Name *Dr. 24 NW*

Location: Unit or Qtr/Qtr Sec F Sec 4 T 26N R 7W County Rio Arriba

Pit Type: Separator            Dehydrator            Other Separator / Compressor

Land Type: BLM           , State X, Fee           , Other           

Pit Location: Pit dimensions: Length 30 ft, width 50 ft, depth 4 ft

(Attach diagram)

Reference: wellhead X other           

Footage from reference: 140 ft

Direction from reference: 45 Degrees X East North X  
of  
           West South           

Depth to Ground Water: <u>&gt;100'</u>	<u>          </u> Less than 50 feet	(20 points)	
(vertical distance from	<u>          </u> 50 ft to 99 feet	(10 points)	
contaminants to seasonal	<u>X</u> Greater than 100 feet	(0 points)	<u>0</u>
highwater elevation of			
ground water)			

Wellhead Protection Area:			
(less than 200 feet from a private	<u>          </u> Yes	(20 points)	
domestic water source, or: less than	<u>X</u> No	(0 points)	<u>0</u>
1000 feet from all other water sources).			

Distance to Surface Water:			
(Horizontal distance to perennial	<u>X</u> Less than 200 feet	(20 points)	
lakes, ponds, rivers, streams, creeks,	<u>          </u> 200 feet to 1000 feet	(10 points)	
irrigation canals and ditches.)	<u>          </u> Greater than 1000 feet	(0 points)	<u>10</u>

P:\pits\PrrC@WK3

RANKING SCORE (TOTAL POINTS): 10

Date Remediation Started: 2/2/98 Date Completed: 2/2/98

Excavation X Approx. cubic yards 139

Landfarmed \_\_\_\_\_ Insitu Bioremediation \_\_\_\_\_

Other \_\_\_\_\_

Remediation Method: Onsite \_\_\_\_\_ Offsite \_\_\_\_\_

(Check all appropriate  
sections)

General Description of Remedial Action : On 2/2/98, the pit was excavated to a depth of 4 feet, where bedrock was encountered. A composite sample was obtained from the south wall of the pit at a depth of 3 feet utilizing U.S.E.P.A. protocol and sent to On Site Technologies, Ltd. for GRO/DRO and BTEX analysis. Excavation was limited on the south wall of the pit due to equipment.

Ground Water Encountered: No X Yes \_\_\_\_\_ Depth \_\_\_\_\_

Final Pit:

Closure Sampling:  
(if multiple samples,  
attach sample results

and diagram of sample  
locations and depths)

Sample location South Wall Composite

Sample depth 3 feet

Sample date 2/2/98

Sample time 16:30

Sample Results

Benzene(ppm) 2.066

Total BTEX (PPM) 89.119

Field Headspace (ppm) 317

TPH 590

Ground Water Sample: Yes \_\_\_\_\_ No X (if yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETED TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE 1/6/00 PRINTED NAME Monica Rodahl

SIGNATURE Monica D. Rodahl and TITLE Environmental Specialist

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: September 30, 1990

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill, deepen or reentry to a different reservoir.  
Use 'APPLICATION FOR PERMIT' for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well: oil well gas well **X** other  
2. Name of Operator: **Questar Energy Company**  
3. Address of Operator: **P.O. Box 2330 Farmington, NM 87499**  
4. Location of Well: (Footage, Sec., T., R., M., or Survey Description)

**Unit F Sec. 4 T 26 N R 7 W**

5. Lease Designation and Serial No.  
**NM-079161**

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agmt. Design.:

8. Well Name and No.:  
**Lindrith #24**

9. API Well No.:  
**30-039-82354**

10. Field & Pool/Exploratory Area:  
**Basin Dakota / Largo Gallup**

11. County or Parish, State:  
**Rio Arriba, New Mexico**

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☐ Notice of Intent  
☒ Subsequent Report  
☐ Final Abandonment Notice

TYPE OF ACTION

☐ Abandonment ☐ Change of Plans  
☐ Recompletion ☐ New Construction  
☐ Plugging Back ☐ Non-Routine Fracturing  
☐ Casing Repair ☐ Water Shut-Off  
☐ Altering Casing ☐ Conversion to Injection  
☒ Other: **Pit Closure**

(Note: Report results of multiple completion on Well  
Completion or Recompletion Report and Log form.)

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

**The pit associated with the subject well has been closed and replaced with a fiberglass tank.  
Details of the closure are attached.**

14. I hereby certify that the foregoing is true and correct.

Signed: Monica D. Rodahl Monica Rodahl Title: Environmental Specialist

Date: 1/6/00

(This space for Federal or State office use)

Approved by \_\_\_\_\_  
Conditions of approval, if any:

Title \_\_\_\_\_

Date \_\_\_\_\_

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency or the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**Risk Assessment  
Questar Energy Company  
Lindrith #24**

Depth to Groundwater	>100'
Distance to Water Source	>1000'
Distance to Surface Water	>500'
TPH Limit (ppm)	1000

The subject pit was located in bedrock at a depth of 4 feet. The initial size of the pit was 25' x 45' x 2' deep. The stained soil was a sandy clay and was excavated to a final pit size of 30' x 50' x 4' deep. Minimal soil was excavated and consisted of primarily blow sand.

On February 2, 1998 Cimarron Oilfield Service Co. performed a pit closure verification. The pit was excavated to a depth of 4 feet, where bedrock was encountered. A composite soil sample from the south wall at 3 feet provided a headspace concentration of 317 ppm and a Total Petroleum Hydrocarbon (TPH) concentration of 590 ppm. A BTEX analysis provided a benzene concentration of 2.066 ppm and a total BTEX concentration of 89.119 ppm. Excavation of the south wall was limited due to equipment. No groundwater was encountered.

Having determined vertical extent as well as excavating to the greatest lateral extent practical, this pit should be considered to have reached "final closure". Questar Energy Company has removed and remediated all soils to the extent practical. Based on this information and the physical location of the pit, there is little to no risk to human health or environment.

Location : <u>No. 24 N.W. Lindrith</u>		Overview of Location and Sampling :																																								
Quad : <u>F</u> Section : <u>4</u>																																										
Range : <u>7 W</u> Township: <u>26 N</u>																																										
Pit : Separator/Compressor Pit Reference : 140' N 45 E of wellhead Initial Size : 25' x 45' x 2' deep Final Size : 30' x 50' x 4' deep Yds. Excavated : 139 cy																																										
Depth to Groundwater: <u>&gt;100'</u> Nearest Water Source: <u>&gt;1000'</u> Nearest Surface Water: <u>500'</u> NMOCD Ranking Score: <u>10</u> TPH Closure Standard: <u>1000</u>		Comments: Soil is brown, moist, sandy clay. There was some minor staining from 2' to 4' below surface. Bedrock was encountered at 4' (2' below pit bottom). Excavation was limited on the south wall due to equipment. A composite sample was taken on the south wall due to varied degrees of staining on the wall. A composite from the south wall @ 3' was sent to "On - Site" for GRO/DRO & BTEX analysis.																																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Sample #</th> <th style="width: 40%;">Location</th> <th style="width: 45%;">OVM</th> </tr> </thead> <tbody> <tr><td>1</td><td>N Wall @ 3'</td><td>0.7</td></tr> <tr><td>2</td><td>Scomp @ 3'</td><td>317</td></tr> <tr><td>3</td><td>E Wall @ 3'</td><td>85</td></tr> <tr><td>4</td><td>WW Wall @ 3'</td><td>25</td></tr> <tr><td>5</td><td>C Btm @ 4'</td><td>14.3</td></tr> <tr><td>6</td><td></td><td></td></tr> <tr><td>7</td><td></td><td></td></tr> <tr><td>8</td><td></td><td></td></tr> <tr><td>9</td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td></tr> <tr><td>11</td><td></td><td></td></tr> <tr><td>12</td><td></td><td></td></tr> </tbody> </table>		Sample #	Location	OVM	1	N Wall @ 3'	0.7	2	Scomp @ 3'	317	3	E Wall @ 3'	85	4	WW Wall @ 3'	25	5	C Btm @ 4'	14.3	6			7			8			9			10			11			12			Pit Profile : East to West :	
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OFF: (505) 325-5667



LAB: (505) 325-1556

### ANALYTICAL REPORT

Attn: *Frank McDonald*  
Company: *Cimmaron Oilfield Service*  
Address: *P.O. Box 3235*  
City, State: *Farmington, NM 87401*

Date: 18-Feb-98  
COC No.: 6843  
Sample No.: 17470  
Job No.: 2-1000

Project Name: *Questar Energy - No.24 NW Lindrith*  
Project Location: *S. Wall @ 3ft. Composite*  
Sampled by: VC  
Analyzed by: DC  
Sample Matrix: *Soil*

Date: 2-Feb-98 Time: 16:30  
GRO Date: 11-Feb-98  
DRO Date: 12-Feb-98

#### Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Gasoline Range Organics (C5 - C9)</i>	552	mg/kg	125	mg/kg
<i>Diesel Range Organics (C10 - C28)</i>	38	mg/kg	5	mg/kg

ND - Not Detected at Limit of Quantitation

#### Quality Assurance Report

GRO QC No.: 0554-STD

DRO QC No.: 0555-STD

#### Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
<i>Gasoline Range (C5 - C9)</i>	ND	ppb	1,801	1,797	0.2	15%
<i>Diesel Range (C10 - C28)</i>	ND	ppm	200	228	13.0	15%

#### Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Gasoline Range (C5-C9)</i>	85	77	(80-120)	4	20%
<i>Diesel Range (C10-C28)</i>	93	93	(75-125)	0	20%

Method: *SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography*

Approved by: *[Signature]*  
Date: *2/18/98*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



**ON SITE**  
TECHNOLOGIES, LTD.


## ANALYTICAL REPORT

Date: 18-Feb-98  
COC No.: 6843  
Sample No.: 17470  
Job No.: 2-1000

Date: 2-Feb-98 Time: 16:30  
Date: 13-Feb-98

Parameter		Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
Benzene		2066	ug/kg	500	ug/kg
Toluene		37710	ug/kg	1000	ug/kg
Ethylbenzene		3845	ug/kg	500	ug/kg
m,p-Xylene		39585	ug/kg	1000	ug/kg
o-Xylene		5914	ug/kg	500	ug/kg
	TOTAL	89119	ug/kg		

**Method - SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography**

Approved by:   
Date: 2/18/95

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

The logo for On Site Technologies, Ltd. features a stylized, jagged line graphic that resembles a mountain range or a signal waveform. The words "ON SITE" are prominently displayed in a large, bold, serif font, with the "O" and "S" being significantly larger than the other letters. Below "ON SITE", the words "TECHNOLOGIES, LTD." are written in a smaller, all-caps, sans-serif font. The entire logo is rendered in black.

## **QUALITY ASSURANCE REPORT** *for EPA Method 8020*

Internal QC No.: 0559-STD  
Surrogate QC No.: 0567-STD  
Reference Standard QC No.: 0529/30-QC

<i>Parameter</i>	<i>Result</i>	<i>Units of Measure</i>
<i>Average Amount of All Analytes In Blank</i>	< 1.0	ppb

Calibration Check					
Parameter	Units of Measure	True Value	Analyzed Value	RPD	Limit
Benzene	ppb	60.0	60.7	1	15%
Toluene	ppb	60.0	62.7	4	15%
Ethylbenzene	ppb	60.0	61.9	3	15%
m,p-Xylene	ppb	120.0	121.0	1	15%
o-Xylene	ppb	60.0	63.3	5	15%

<i>Parameter</i>	<i>1- Percent Recovered</i>	<i>2 - Percent Recovered</i>	<i>Limit</i>	<i>RPD</i>	<i>RPD Limit</i>
<i>Benzene</i>	90	87	(39-150)	4	20%
<i>Toluene</i>	92	89	(46-148)	1	20%
<i>Ethylbenzene</i>	90	86	(32-160)	4	20%
<i>m,p-Xylene</i>	90	86	(35-145)	3	20%
<i>o-Xylene</i>	93	89	(35-145)	3	20%

<b>Synthetic Recoveries</b>		
<b>Laboratory Identification</b>	<b>S1 Percent Recovered</b>	<b>S2 Percent Recovered</b>
<b>Limit Percent Recovery</b>	(70-130)	
17470-6843	93	
	JAL	(DL)
	2/18/98	2/18/98

**P.O. BOX 2606 • FARMINGTON, NM 87499**  
- *TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT* -

# CHAIN OF CUSTODY RECORD



**ON SITE**  
TECHNOLOGIES, LTD.

657 W. Maple • P. O. Box 2606 • Farmington NM 87499  
LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: 2/3/98

[illegible]

Distribution:	White – On Site	Yellow – LAB	Pink – Sampler	Goldenrod – Client
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