

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

OK  
Submit 1 copy to  
appropriate  
District Office  
and 1 copy to  
the Santa Fe Office

(Revised 3/9/94)

PIT REMEDIATION AND CLOSURE REPORT

30-045-11448

Operator: Hallador Petroleum, LLP Telephone: 1-800-839-5506

Address: 1660 Lincoln Street, Denver, CO 80264

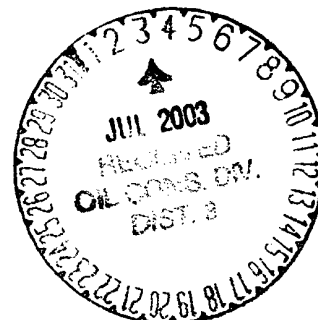
Facility Or: Horton 3

Well Name

Location: Unit G Sec 13, T 32N, R 12W, County San Juan, NM

Pit Type: Separator X Dehydrator \_\_\_\_\_ Other \_\_\_\_\_

Land Type: BLM X, State \_\_\_\_\_, Fee \_\_\_\_\_ Other \_\_\_\_\_



Pit Location: Pit dimensions: length 30', width 30', depth 8'  
(Attach diagram)

Reference: wellhead X, other \_\_\_\_\_

Footage from reference: 45'

Direction from reference: 35 Degrees West of North

Depth To Ground Water	Less than 50 feet	No	(20 points)
(Vertical distance from	50 feet to 99 feet		(10 points)
contaminants to seasonal	Greater than 100 feet		( 0 points)
high water elevation of			<u>0</u>
ground water.)			

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

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

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: 10/1999 Date completed: 6/2003

Remediation Method: Excavation X Approx. cubic yards 266

(Check all appropriate sections.)

Landfarmed X

In situ Bioremediation

Other \_\_\_\_\_

Remediation Location: Onsite Landfarmed Offsite

(i.e. landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action: Contaminated soils were excavated from pit area to a bedrock (shale) at approx. 8 feet. Recovered soil was distributed on the location and plowed and tilled periodically over a two year period.

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 Horton 3, pit excavation bottom

Sample depth 1' below excavated bottom approx. 8' BGS

Sample Date 11/09/00 Sample time 1150

Sample Results

Benzene(ppm) NA

Total BTEX(ppm) NA

Field headspace(ppm) 0.0

TPH 50 mg/Kg

Sample location Horton 3, side wall

Sample depth 3-4' BGS

Sample Date 11/09/00 Sample time 1125

Sample Results

Benzene(ppm) NA

Total BTEX(ppm) NA

Field headspace(ppm) 0.0

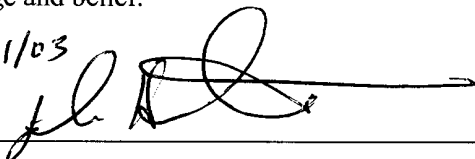
TPH 210 mg/Kg

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

As an Agent for Hallador, LLP, I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Date 7/11/03

Signature



Printed Name: John Hagstrom  
and Title: Environ. Technician

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**

1220 St. Francis Drive  
Santa Fe NM 87505

SUBMIT 1 COPY  
TO

APPROPRIATE

DISTRICT  
OFFICE

AND 1 COPY TO

SANTA FE  
OFFICE

**Landfarm Remediation and Closure Report**

**Owner/Operator:** Hallador Petroleum, LLP

**Telephone:** 1-800-839-5506

**Address:** 1660 Lincoln Street Denver, CO 80264

**Facility or Well Name:** Horton 3

**Location:** Unit G Section: 13 T32N R12W

County: San Juan, NM

**Land Type** BLM ☒ State ☐ Fee ☐ Other ☐

**Landfarm location** Length: 100' Width: 40'

**Reference:** Wellhead: ☒ Other: ☐

Footage from reference: 25'

Direction from reference: 95°South of North

**Refer to attached map for land farm location**

**GENERAL DISCRPTION of LANDFARM ACTIVITIES:** Contaminated soils from pit area were excavated to bedrock. Soils from pit were distributed on location and turned numerous times in a twenty four month period. Following landfarm remediation, soils were sampled for clearance and will be backfilled in the original pit areas.

**SAMPLING INFORMATION**

Type of sample: Grab: ☐ Composite: 10 points

Sample Depth : 0-12"

Sample Date: 6/9/03 Sample Time: 1245

Laboratory Analysis: BTEX ☐ (ppm) TPH ND(ppm)

OVM/PID 0.0 units

**Refer to attached map for sample location. Laboratory results attached**

AS AN AGENT FOR HALLADOR, LLP, I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

Date: 7/1/03

Signature: [Signature]

Print Name: John Hagstrom

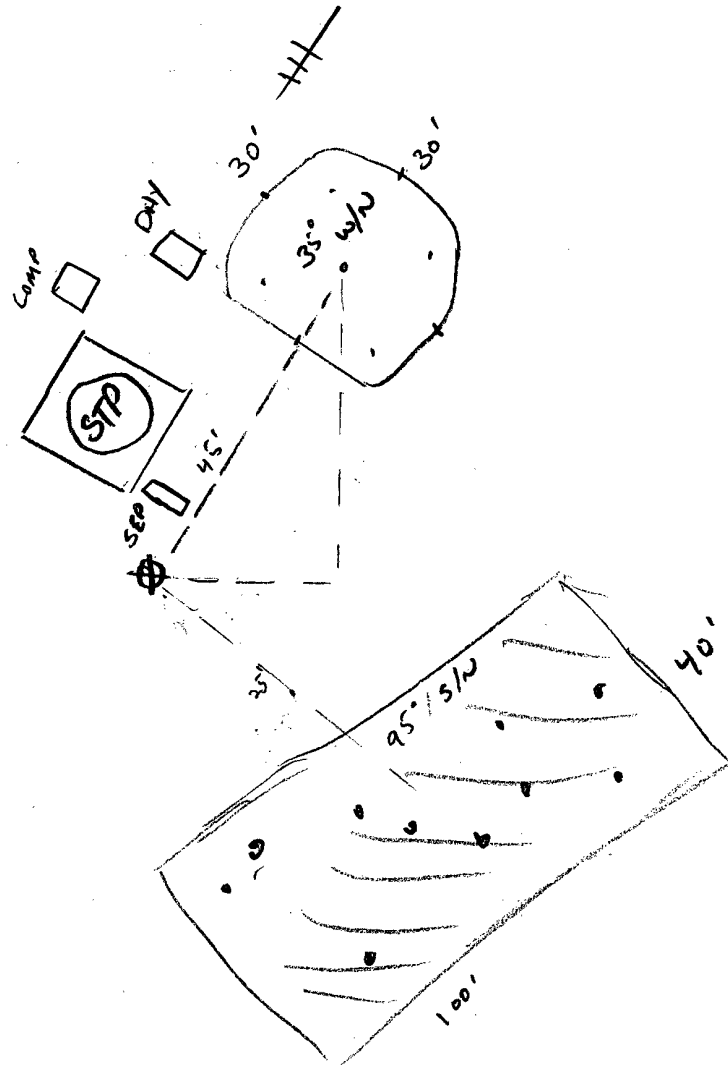
Title: Environmental Technician



DATE 11/9/00  
BY JPH

SUBJECT HORTON 3

1850' FNL 1550' FEL S13 T32N R12W SAN JUAN COUNTY



612 E. Murray Drive  
Farmington, NM 87499

Off: (505) 327-1072  
FAX: (505) 327-1496

# *iiná bá*

P.O. Box 3788  
Shiprock, NM 87420

Off: (505) 368-4065

## ANALYTICAL REPORT

Date: 17-Jun-03

CLIENT: Souder, Miller & Associates  
Work Order: 0306018  
Project: 1114128: Horton 3 Landfarm  
Lab ID: 0306018-001A

Client Sample Info: Horton 3  
Client Sample ID: Landfarm Sample  
Collection Date: 6/9/2003 12:45:00 PM  
Matrix: SOIL

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>						Analyst: JEM
T/R Hydrocarbons: C10-C28	ND	25.0		mg/Kg	1	6/16/2003
<b>GASOLINE RANGE ORGANICS</b>						Analyst: JEM
T/R Hydrocarbons: C6-C10	ND	4.50		mg/Kg	25	6/16/2003

### Qualifiers:

ND - Not Detected at the Practical Quantitation Limit  
J - Analyte detected below Practical Quantitation Limit  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted precision limits  
E - Value above Upper Quantitation Limit - UQL

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MAINTAINING HARMONY BETWEEN MAN AND HIS ENVIRONMENT