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

30-045-31417

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company **Hallador Petroleum LLP**	Contact **Tim Lovseth**
Address **1660 Lincoln St., Ste 2700, Denver CO 80264**	Telephone No. **303 839-5504 ext 317**
Facility Name **Horton 4B**	Facility Type **well**

Surface Owner **Mr. & Ms. Lesher**	Mineral Owner **Federal**	Lease No. **SF-078146A**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	**27**	**32N**	**12W**	**1872**	**FSL**	**1906**	**FWL**	**San Juan**

Latitude 36.95508 **Longitude** 108.08513

NATURE OF RELEASE

Type of Release **possible hydrocarbons**	Volume of Release **unknown**	Volume Recovered **none**
Source of Release **below-grade tank**	Date and Hour of occurrence ?	Date and Hour of Discovery **7/13 10 am**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Brandon Powell - OCD**	
By Whom? **Tim Lovseth**	Date and Hour **7/13/10 10 am**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

BGT closure 5-point composite sample showed analyzed constituents to be below reporting levels, no remedial action taken

Describe Area Affected and Cleanup Action Taken.*

No soil hydrocarbon staining observed, no cleanup action taken

RECEIVED
JUL 2010
OIL CONS. DIV. DIST. 3

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:

Printed Name: **Tim Lovseth**

Title: **Exploration Manager**

E-mail Address: **timlovseth@qwest.net**

Date: **7-26-10** Phone: **303 839-5504 ext 317**

OIL CONSERVATION DIVISION

Approved by District Supervisor: For: CP

Approval Date: 9/16/10 Expiration Date:

Conditions of Approval:

Attached ☐

* Attach Additional Sheets If Necessary

nBP1025955039

10

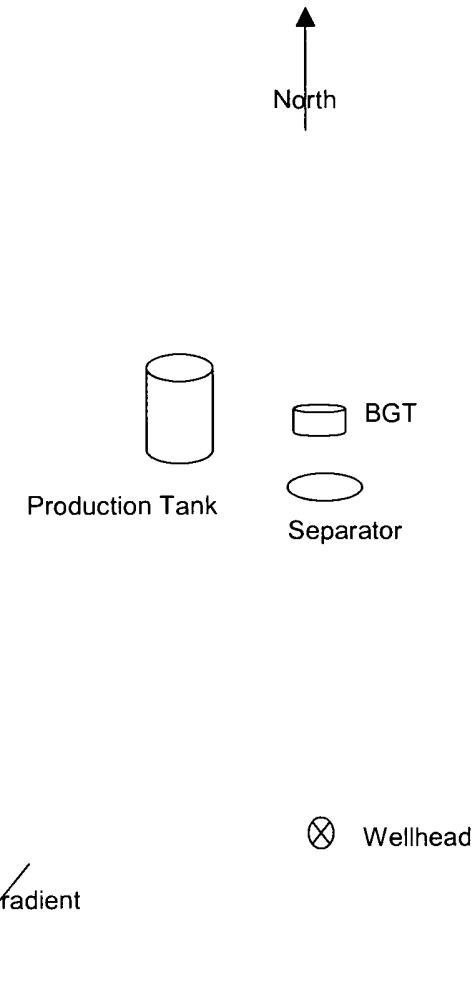
Client: Hallador Petroleum

Date Began: 6/28/10 Date End:6/28/10

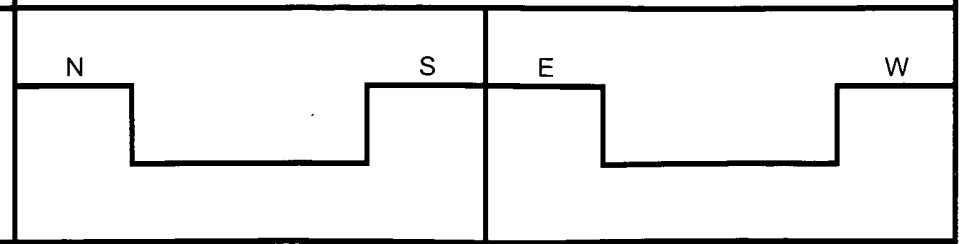
Location:	Horton # 4 B				
Footages:	1872' FSL & 1906' FWL				
Unit Letter:	K	Sec.	27	Twn. 32N	Rng 12W
Latitude:	36.95508	Longitude:	108.08513		
Lease Num.	SF-078146A	Land Type:	BLM		
BGT Type:	Sep				
BGT Reference					
Reference:	wellhead	Footage:	105-ft		
Direction:	North	0°			
Initial size:	20' x 20' x 4' deep				
Final Size:	20' x 20' x 4' deep				
Total Cubic Yards:	0				
Distanes from (ft):					
Groundwater:	>100'				
Wellhead Protection Area:	>1000'				
Nearest Surface Water:	>1000'				
Distance to ephemeral stream:	N/A				
(Navajo/Jicarilla only)					
Ranking Score (points):	0				

Sample ID	Description		OVM Reading
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Site Diagram:



Comments:
Soil is brown clayey loam, no h-c odor & or staining. 5-point composite sample prepared for Lab analysis.



Prepared by: F. McDonald

Biosphere Environmental Sciences Technologies

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Analytical Laboratory

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Hallador Pet.	Project #:	10067-0001
Sample ID:	5 pt comp	Date Reported:	07-06-10
Laboratory Number:	54931	Date Sampled:	06-28-10
Chain of Custody No:	9820	Date Received:	06-29-10
Sample Matrix:	Soil	Date Extracted:	07-01-10
Preservative:	Cool	Date Analyzed:	07-02-10
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996

Comments: **Horton #4B**

Analyst

Review

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Analytical Laboratory

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	07-02-10 QA/QC	Date Reported:	07-06-10
Laboratory Number:	54974	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-02-10
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	05-07-07	9.9960E+002	1.0000E+003	**0.04%**	**0 - 15%**
Diesel Range C10 - C28	05-07-07	9.9960E+002	1.0000E+003	**0.04%**	**0 - 15%**

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	**ND**	**0.2**
Diesel Range C10 - C28	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	**ND**	**ND**	**0.0%**	**0 - 30%**
Diesel Range C10 - C28	**ND**	**ND**	**0.0%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	**ND**	**250**	**242**	**96.8%**	**75 - 125%**
Diesel Range C10 - C28	**ND**	**250**	**261**	**104%**	**75 - 125%**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **QA/QC for Samples 54974-54975; 54977-54980; 54928-54931**

Analyst

Review

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Analytical Laboratory

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Hallador Pet.	Project #:	10067-0001
Sample ID:	5 pt comp	Date Reported:	07-05-10
Laboratory Number:	54931	Date Sampled:	06-28-10
Chain of Custody:	9820	Date Received:	06-29-10
Sample Matrix:	Soil	Date Analyzed:	07-02-10
Preservative:	Cool	Date Extracted:	07-01-10
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**5.4**	**0.9**
Toluene	**1.7**	**1.0**
Ethylbenzene	**ND**	**1.0**
p,m-Xylene	**ND**	**1.2**
o-Xylene	**4.1**	**0.9**
Total BTEX	**11.2**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**100 %**
	1,4-difluorobenzene	**100 %**
	Bromochlorobenzene	**100 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Horton #4B**

Analyst

Review

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	0702BBLK QA/QC	Date Reported:	07-05-10
Laboratory Number:	54977	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-02-10
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Benzene	1.2508E+006	1.2533E+006	0.2%	ND	0.1
Toluene	1.1592E+006	1.1615E+006	0.2%	ND	0.1
Ethylbenzene	1.0493E+006	1.0514E+006	0.2%	ND	0.1
p,m-Xylene	2.5923E+006	2.5975E+006	0.2%	ND	0.1
o-Xylene	9.6518E+005	9.6711E+005	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	2.1	1.6	23.8%	0 - 30%	0.9
Toluene	2.5	3.0	20.0%	0 - 30%	1.0
Ethylbenzene	1.7	1.6	5.9%	0 - 30%	1.0
p,m-Xylene	7.2	7.2	0.0%	0 - 30%	1.2
o-Xylene	4.8	5.3	10.4%	0 - 30%	0.9

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	2.1	50.0	49.0	94.1%	39 - 150
Toluene	2.5	50.0	49.7	94.7%	46 - 148
Ethylbenzene	1.7	50.0	50.5	97.6%	32 - 160
p,m-Xylene	7.2	100	99.1	92.4%	46 - 148
o-Xylene	4.8	50.0	48.9	89.2%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **QA/QC for Samples 54977-54980; 54974-54975; 54928-54931**

Analyst

Review

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Hallador Pet.	Project #:	10067-0001
Sample ID:	5 pt Comp	Date Reported:	07-06-10
Laboratory Number:	54931	Date Sampled:	06-28-10
Chain of Custody No:	9820	Date Received:	06-29-10
Sample Matrix:	Soil	Date Extracted:	06-30-10
Preservative:	Cool	Date Analyzed:	06-30-10
Condition:	Intact	Analysis Needed:	TPH-418.1

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**12.4**	**9.6**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Horton #4B**

Analyst

Review

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EPA METHOD 418.1
TOTAL PETROLEUM HYROCARBONS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	QA/QC	Date Reported:	07-01-10
Laboratory Number:	06-30-TPH.QA/QC 54931	Date Sampled:	N/A
Sample Matrix:	Freon-113	Date Analyzed:	06-30-10
Preservative:	N/A	Date Extracted:	06-30-10
Condition:	N/A	Analysis Needed:	TPH

Calibration	I-Cal Date	C-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
	06-30-10	06-30-10	1,716	1,770	3.1%	+/- 10%

Blank Conc. (mg/Kg)	Concentration	Detection Limit
TPH	ND	9.6

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
TPH	12.4	11.0	11.3%	+/- 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
TPH	12.4	2,000	1,920	95.4%	80 - 120%

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **QA/QC for Samples 54928-54931, 54945; 54891-54895**

Analyst

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Chloride

Client:	Hallador Pet.	Project #:	10067-0001
Sample ID:	5 pt. composite	Date Reported:	07-06-10
Lab ID#:	54931	Date Sampled:	06-28-10
Sample Matrix:	Soil	Date Received:	06-29-10
Preservative:	Cool	Date Analyzed:	07-02-10
Condition:	Intact	Chain of Custody:	9820

Parameter	Concentration (mg/Kg)
Total Chloride	**10**

Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Horton #4B**

Analyst

Review

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CHAIN OF CUSTODY RECORD

09820

Client: Valladar Pet.	Project Name / Location: Horton #4B
Client Address:	Sampler Name: F. McDonald
Client Phone No.:	Client No.: 10067-0001

ANALYSIS / PARAMETERS

Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative $HgCl_2$	Preservative HCl	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
5-PT Comp	6/28/10	14:45 ~~2:45~~ pm	54931	Soil (circled) Solid Sludge Aqueous	1			X	X							X	X				X	X
				Soil Solid Sludge Aqueous																		
				Soil Solid Sludge Aqueous																		
				Soil Solid Sludge Aqueous																		
				Soil Solid Sludge Aqueous																		
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				Soil Solid Sludge Aqueous																		

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	6/29/10	1325	Steve Ottersberg [signature]	6/29/10	13:25
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

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