

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

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 4	Facility Type well

Surface Owner Duane Miller	Mineral Owner Federal	Lease No. SF-078146A
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LOCATION OF RELEASE

Unit Letter M	Section 27	Township 32N	Range 12W	Feet from the 990	North/South Line FSL	Feet from the 990	East/West Line FWL	County San Juan
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Latitude 36.95243 Longitude 108.08832

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.*

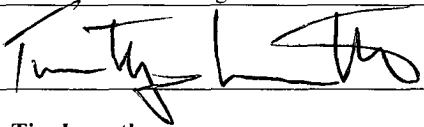
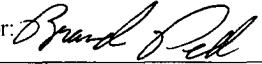
Describe Cause of Problem and Remedial Action Taken.*

BGT closure 5-point composite sample showed TPH to be 591 mg/kg by method 418.1, no remedial action taken

Describe Area Affected and Cleanup Action Taken.*

No soil hydrocarbon staining observed, no cleanup action taken, resampled soil for TPH to be analyzed by method 8015

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: 	OIL CONSERVATION DIVISION	
Printed Name: Tim Lovseth	Approved by District Supervisor: 	For: CP
Title: Exploration Manager	Approval Date: 9/16/10	Expiration Date:
E-mail Address: timlovseth@qwest.net	Conditions of Approval:	Attached ☐
Date: 7-26-10 5504 ext 317	Phone: 303 839-	

* Attach Additional Sheets If Necessary

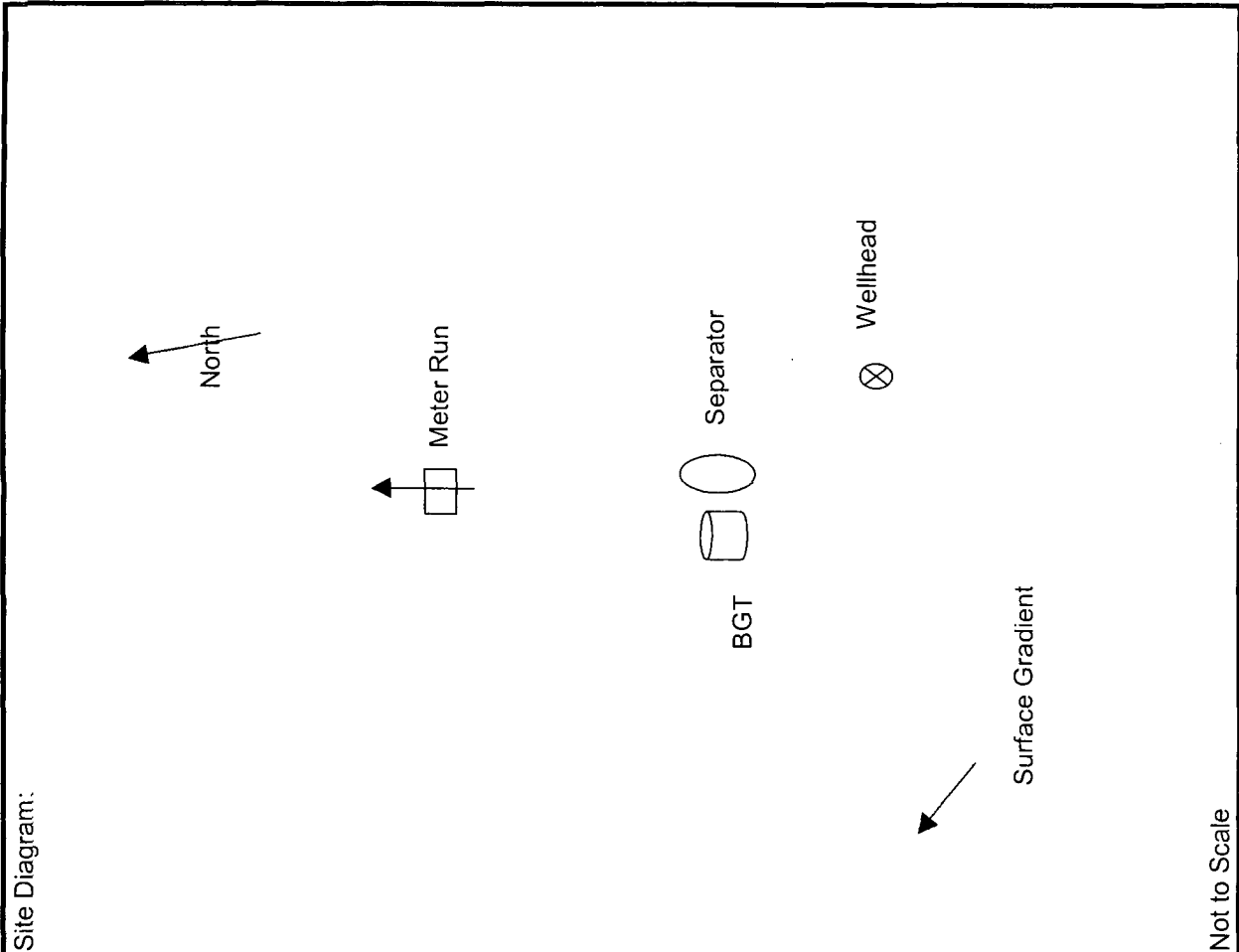
48P1025954777

Site Diagram:

Location:	Horton # 4		
Footages:	990' FSL & 990' FWL		
Unit Letter:	M	Sec. 27	Twn. 32N Rng 12W
Latitude:	36.95243	Longitude: 108.08832	
Lease Num.	SF-078146A	Land Type:	BLM
BGT Type:	Sep		
BGT Reference			
Reference:	wellhead	Footage:	85-ft
Direction:	North	35°	West
Initial size:	20'x20'x4' deep		
Final Size:	20'x20'x4' deep		
Total Cubic Yards:	0		
Distances 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		

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





EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client: Hallador Petroleum
Sample ID: 5 Pt Comp
Laboratory Number: 54985
Chain of Custody: 9843
Sample Matrix: Soil
Preservative: Cool
Condition: Intact

Project #: 10067-0001
Date Reported: 07-08-10
Date Sampled: 07-01-10
Date Received: 07-01-10
Date Analyzed: 07-07-10
Date Extracted: 07-06-10
Analysis Requested: BTEX

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

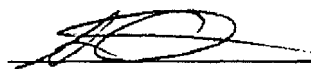
ND - Parameter not detected at the stated detection limit.

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

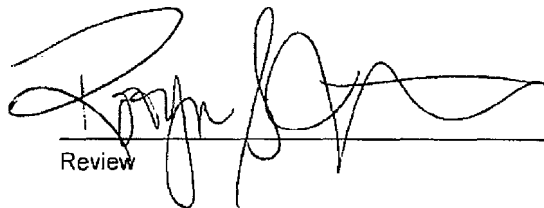
References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

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

Comments: Horton #4



Analyst



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EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	0707BBLK QA/QC	Date Reported:	07-07-10
Laboratory Number:	55020	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-07-10
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff.	Blank Conc	Detect. Limit
		Accept. Range 0 - 15%			
Benzene	4.4610E+006	4.4699E+006	0.2%	ND	0.1
Toluene	3.7622E+006	3.7697E+006	0.2%	ND	0.1
Ethylbenzene	2.8177E+006	2.8234E+006	0.2%	ND	0.1
p,m-Xylene	6.8481E+006	6.8618E+006	0.2%	ND	0.1
o-Xylene	2.4700E+006	2.4750E+006	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	6.7	6.8	1.5%	0 - 30%	0.9
Toluene	7.8	9.6	23.1%	0 - 30%	1.0
Ethylbenzene	ND	ND	0.0%	0 - 30%	1.0
p,m-Xylene	5.5	5.7	3.6%	0 - 30%	1.2
o-Xylene	4.0	4.3	7.5%	0 - 30%	0.9

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	6.7	50.0	52.2	92.1%	39 - 150
Toluene	7.8	50.0	48.0	83.0%	46 - 148
Ethylbenzene	ND	50.0	48.4	96.8%	32 - 160
p,m-Xylene	5.5	100	100	94.5%	46 - 148
o-Xylene	4.0	50.0	47.8	88.5%	46 - 148

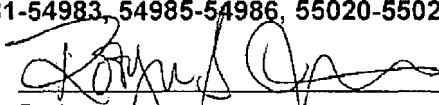
ND - Parameter not detected at the stated detection limit.

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 54956-54957, 54981-54983, 54985-54986, 55020-55021



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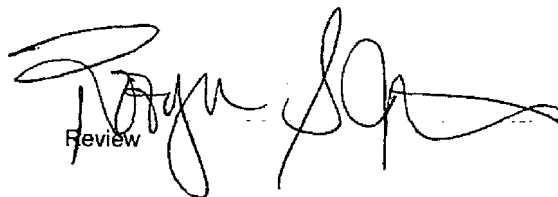
Client:	Hallador Petroleum	Project #:	10067-0001
Sample ID:	5 Pt Comp	Date Reported:	07-08-10
Laboratory Number:	54985	Date Sampled:	07-01-10
Chain of Custody No:	9843	Date Received:	07-01-10
Sample Matrix:	Soil	Date Extracted:	07-02-10
Preservative:	Cool	Date Analyzed:	07-02-10
Condition:	Intact	Analysis Needed:	TPH-418.1

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	591	5.5

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 #4


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**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS
QUALITY ASSURANCE REPORT**

Client:	QA/QC	Project #:	N/A
Sample ID:	QA/QC	Date Reported:	07-02-10
Laboratory Number:	07-02-TPH.QA/QC 54974	Date Sampled:	N/A
Sample Matrix:	Freon-113	Date Analyzed:	07-02-10
Preservative:	N/A	Date Extracted:	07-02-10
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	07-02-10	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	94.8	86.5	8.8%	+/- 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
TPH	94.8	2,000	2,090	99.8%	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 54974-54975; 54979-54980; 54988, 54899; 54954-54955 and 54985-54986


Analyst


Review



Chloride

Client:	Hallador Petroleum	Project #:	10067-0001
Sample ID:	5 Pt Comp	Date Reported:	07-08-10
Lab ID#:	54985	Date Sampled:	07-01-10
Sample Matrix:	Soil	Date Received:	07-01-10
Preservative:	Cool	Date Analyzed:	07-07-10
Condition:	Intact	Chain of Custody:	9843

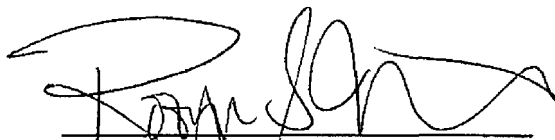
Parameter	Concentration (mg/Kg)
Total Chloride	15

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 #4

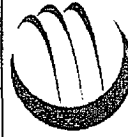


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