

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

Form C-144
June 1, 2004

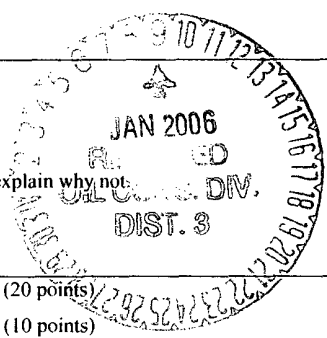
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator: <u>Duncan Oil</u> Telephone: <u>(303) 759-3303</u> e-mail address: <u>sfallin@duncanoil.com</u>		
Address: <u>1777 South Harrison Street - Penthouse One, Denver, Colorado, 80210</u>		
Facility or well name: <u>N. Hogback 7 No. 4</u> API #: <u>3004521570</u> U/L or Qtr/Qtr <u>E</u> Sec <u>7</u> T <u>29N</u> R <u>16W</u>		
County: <u>San Juan</u> Latitude <u>36° 44.622'</u> Longitude <u>-108° 34.37'</u> NAD: 1927 <input checked="" type="checkbox"/> 1983 <input type="checkbox"/>		
Surface Owner: Federal <input type="checkbox"/> State <input type="checkbox"/> Private <input type="checkbox"/> Indian <input checked="" type="checkbox"/>		
Pit Type: Drilling <input type="checkbox"/> Production <input checked="" type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input type="checkbox"/> Unlined <input checked="" type="checkbox"/> Liner type: Synthetic <input type="checkbox"/> Thickness <u> </u> mil Clay <input type="checkbox"/> Pit Volume <u> </u> bbl	Below-grade tank Volume: <u> </u> bbl Type of fluid: Construction material: Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not. 	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) (0 points) 20
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No	(20 points) (0 points) 0
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points) 10
Ranking Score (Total Points)		30

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☐ offsite ☒ If offsite, name of facility Envirotech Landfarm #2. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☒ If yes, show depth below ground surface 20 ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:
Approximately 724 cubic yards of contaminated soil was excavated from the North Hogback 7-#4 Separator pit and hauled to Envirotech's Landfarm.
Documentation of BTEX analysis via USEPA Method 8021B is attached for the ground water sample.
Documentation of TPH and OVM results are also attached for the soil samples
Prior to backfilling, the pit was sprayed with a potassium permanganate solution to further aid in the break down of the residual contamination

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 1/4/06

Printed Name/Title Steve Fallin - Production Manager

Signature Steve Fallin

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

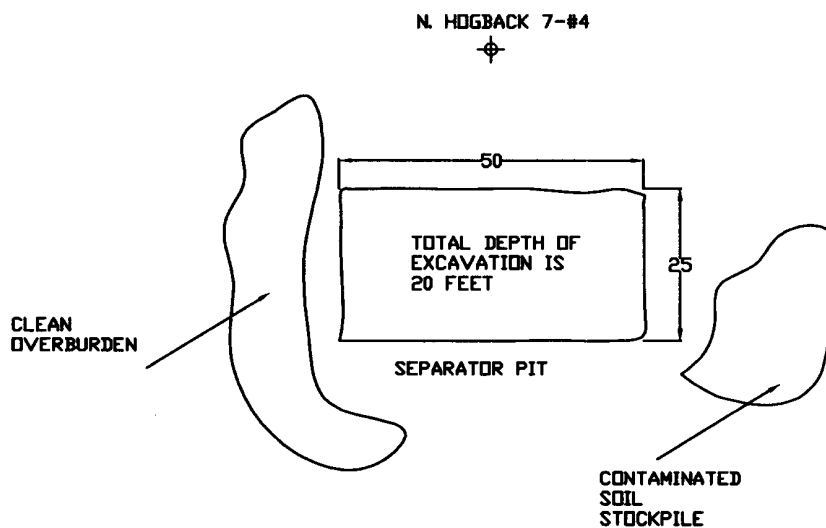
DEPUTY OIL & GAS INSPECTOR, DIST. #

Approval:

Printed Name/Title

Signature Denny Keap


Date: JAN 09 2006



NORTH HOGBACK 7-#4 LEGEND			
WELLHEAD			
SCALE: 1" = 30'		FIGURE NO. 2	REV
PROJECT NO. 05161-001			
REVISIONS			
NO.	DATE	BY	DESCRIPTION
MAP DRWN	gwc	11/29/05	BASE DRWN
ENVIRONMENTAL SCIENTISTS & ENGINEERS ENVIROTECH			
5796 U.S. HIGHWAY 64, FARMINGTON, NM 87401 505-632-0615			

CLIENT: <u>Duncan</u> 011	ENVIROTECH INC. <small>ENVIRONMENTAL SCIENTISTS & ENGINEERS 5796 U.S. HIGHWAY 64-3014 FARMINGTON, NEW MEXICO 87401 PHONE: (505) 632-0815</small>	LOCATION NO: _____ C.O.C. NO: _____
FIELD REPORT: CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>
LOCATION: NAME: <u>N. Hogback 7 #4</u> WELL #: <u>4</u> PIT: <u>sep</u> QUAD/UNIT: _____ SEC: <u>7</u> TWP: <u>29N</u> RNG: <u>16W</u> PM: <u>NM/MCNTY: SS ST: NM</u> QTR/FOOTAGE: <u>2070 FNL 740 FWL</u> CONTRACTOR: _____		DATE STARTED: <u>9/14/05</u> DATE FINISHED: <u>9/16/05</u> ENVIRONMENTAL SPECIALIST: <u>gwc</u>
EXCAVATION APPROX. <u>50</u> FT. x <u>25</u> FT. x <u>12</u> FT. DEEP. CUBIC YARDAGE: <u>724</u> yd ³ DISPOSAL FACILITY: <u>ET LF #3</u> REMEDIATION METHOD: <u>Landfarm</u> LAND USE: <u>grazing</u> LEASE: _____ FORMATION: <u>Shale Rock DAK</u>		
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY <u>35</u> FT. <u>180°</u> FROM WELLHEAD. DEPTH TO GROUNDWATER: <u>20 ft</u> NEAREST WATER SOURCE: <u>> 1000</u> NEAREST SURFACE WATER: <u>< 1000</u> NMOC RANKING SCORE: <u>30</u> NMOC TPH CLOSURE STD: <u>100</u> PPM		
SOIL AND EXCAVATION DESCRIPTION: Approximately 724 yd ³ of contaminated soil was excavated and disposed of at ENVIROTECH's NMOC permitted soil remediation facility		CHECK ONE: <input checked="" type="checkbox"/> PIT ABANDONED <input type="checkbox"/> STEEL TANK INSTALLED

SCALE

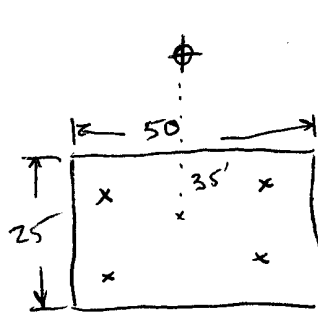


0 FT

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1000	16' bottom		5.0	20	1	168	672

PIT PERIMETER

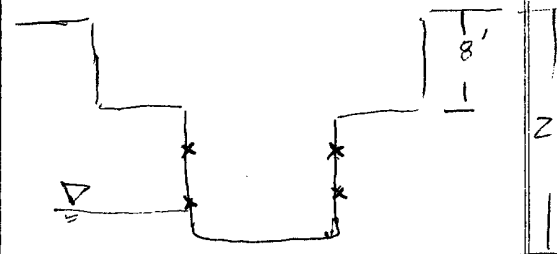


x - bottom sample location

OVN RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 16' bott	304
2 North wall	10.6
3 20' bott	5.0
4 South	0.0
5 West	0.0
East	10.0
North	0.0

PIT PROFILE



x - sample locations

TRAVEL NOTES:	CALLOUT: _____	ONSITE: _____
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LEASE # 14-20-0603-10009

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Duncan Oil	Project #:	05161-001
Sample ID:	N. Hogback 7 #4	Date Reported:	09-19-05
Chain of Custody:	14817	Date Sampled:	09-16-05
Laboratory Number:	34344	Date Received:	09-16-05
Sample Matrix:	Water	Date Analyzed:	09-19-05
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	ND	1	0.2
Toluene	1.5	1	0.2
Ethylbenzene	0.8	1	0.2
p,m-Xylene	1.3	1	0.2
o-Xylene	0.7	1	0.1

Total BTEX 4.3

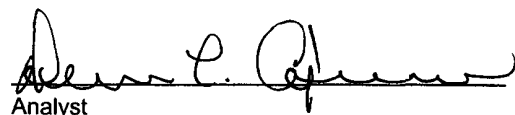
ND - Parameter not detected at the stated detection limit.

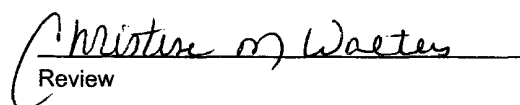
Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	99 %
	1,4-difluorobenzene	99 %
	4-bromochlorobenzene	99 %

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: Hogback.


Analyst


Review

**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS**

Client:	Duncan Oil	Project #:	05161-001
Sample No.:	4	Date Reported:	9/15/2005
Sample ID:	Composite Sample @ 20' Bottom	Date Sampled:	9/14/2005
Sample Matrix:	Soil	Date Analyzed:	9/14/2005
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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Total Petroleum Hydrocarbons	12.0	5.0
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ND = Parameter not detected at the stated detection limit.

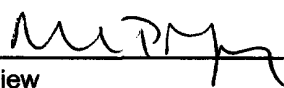
References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **North Hogback 7 - #4**

Instrument callibration checked against 100 ppm standard. Zeroed before each sample



Analyst



Review

**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS**

Client:	Duncan Oil	Project #:	05161-001
Sample No.:	7	Date Reported:	9/15/2005
Sample ID:	Composite Sample of North Wall	Date Sampled:	9/14/2005
Sample Matrix:	Soil	Date Analyzed:	9/14/2005
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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Total Petroleum Hydrocarbons	ND	5.0
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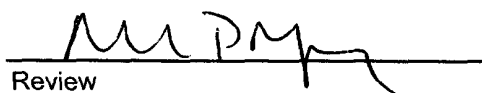
ND = Parameter not detected at the stated detection limit.

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

Comments: **North Hogback 7 - #4**

Instrument calibration checked against 100 ppm standard. Zeroed before each sample


Analyst


Review

**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS**

Client:	Duncan Oil	Project #:	05161-001
Sample No.:	8	Date Reported:	9/15/2005
Sample ID:	Composite Sample of South Wall	Date Sampled:	9/14/2005
Sample Matrix:	Soil	Date Analyzed:	9/14/2005
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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Total Petroleum Hydrocarbons	16.0	5.0
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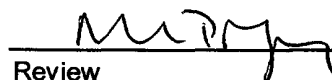
ND = Parameter not detected at the stated detection limit.

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

Comments: **North Hogback 7 - #4**

Instrument callibration checked against 100 ppm standard. Zeroed before each sample


Analyst


Review

EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Client:	Duncan Oil	Project #:	05161-001
Sample No.:	10	Date Reported:	9/17/2005
Sample ID:	Composite Sample of East Wall	Date Sampled:	9/16/2005
Sample Matrix:	Soil	Date Analyzed:	9/16/2005
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		


Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	72.0	5.0


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: **North Hogback 7 - #4**

Instrument calibration checked against 100 ppm standard. Zeroed before each sample


Analyst


Review

EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Client:	Duncan Oil	Project #:	05161-001
Sample No.:	6	Date Reported:	9/15/2005
Sample ID:	Composite Sample of West Wall	Date Sampled:	9/14/2005
Sample Matrix:	Soil	Date Analyzed:	9/14/2005
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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Total Petroleum Hydrocarbons	ND	5.0
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ND = Parameter not detected at the stated detection limit.

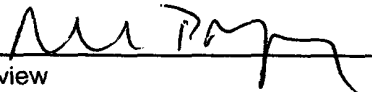
References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **North Hogback 7 - #4**

Instrument calibration checked against 100 ppm standard. Zeroed before each sample



Analyst



Review