

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

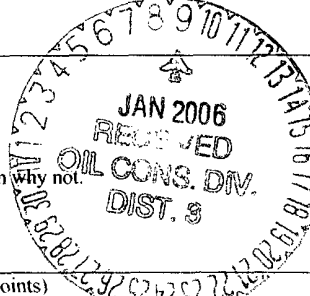
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

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. 6</u> API #: <u>3004521889</u> U/L or Qtr/Qtr <u>D</u> Sec <u>7</u> T <u>29N</u> R <u>16W</u>		
County: <u>San Juan</u> Latitude <u>36° 44.706'</u> Longitude <u>-108° 34.420</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 (20 points) 50 feet or more, but less than 100 feet (10 points) 100 feet or more (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 (20 points) No (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 (20 points) 200 feet or more, but less than 1000 feet (10 points) 1000 feet or more (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 ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:
Approximately 1716 cubic yards of contaminated soil was excavated from the North Hogback 7-#6 Separator pit.
Documentation of BTEX analysis via USEPA Method 8021B is attached for the Bottom of excavation.
Before backfill, the excavation was treated with a potassium permanganate solution to aid break down of any residual contaminants in the soil.
<u>30 ft shale</u>

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. 3

Approval:

Printed Name/Title Wendy Foot

Signature Wendy Foot

Date: JAN 09 2006

NVIROTECH LABS

ACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Duncan Oil	Project #:	05161-001
Sample ID:	Duncan Oil 7 #6 30'	Date Reported:	09-08-05
Laboratory Number:	34270	Date Sampled:	09-07-05
Chain of Custody:	14791	Date Received:	09-07-05
Sample Matrix:	Soil	Date Analyzed:	09-08-05
Preservative:	Cool	Date Extracted:	09-07-05
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	16.9	1.8
Toluene	56.3	1.7
Ethylbenzene	268	1.5
p,m-Xylene	23.2	2.2
o-Xylene	104	1.0
Total BTEX	468	


ND - Parameter not detected at the stated detection limit.

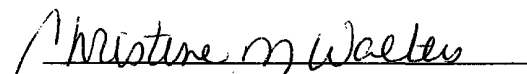
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	97.0 %
	1,4-difluorobenzene	97.0 %
	Bromochlorobenzene	97.0 %

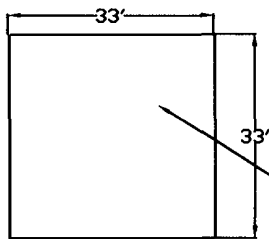
References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

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

Comments: N. Hogback.

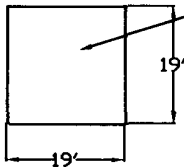

Analyst


Review



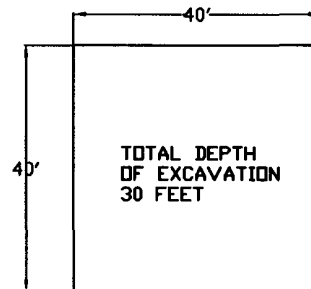
TANK BATTERY NO. 1

TOTAL DEPTH
OF EXCAVATION
25 FEET



TANK BATTERY NO. 2

N. HOGBACK 7-#6



SEPARATOR PIT

NORTH HOGBACK 7-#6 LEGEND



WELLHEAD

SCALE:

PROJECT NO.05161-001

FIGURE NO. 2

REV

REVISIONS

NO.	DATE	BY	DESCRIPTION
MAP DRWN	gwc	1/14/05	BASE DRWN

MAP DRWN

gwc

1/14/05

BASE DRWN

ENVIRONMENTAL SCIENTISTS & ENGINEERS
ENVIROTECH

5796 U.S. HIGHWAY 64, FARMINGTON, NM 87401 505-632-0615

CLIENT: _____

ENVIROTECH INC.

ENVIRONMENTAL SCIENTISTS & ENGINEERS
5796 U.S. HIGHWAY 64-3014
FARMINGTON, NEW MEXICO 87401
PHONE: (505) 632-0615

LOCATION NO: _____

C.O.C. NO: _____

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1LOCATION: NAME: N. Hogback 7th 6 WELL #: 6 PIT: Separator
QUAD/UNIT: D SEC: 7 TWP: 29 RNG: 16 PM: NMPM CNTY: San Juan ST: NM
QTR/FOOTAGE: 1295 FNL 100 FWL CONTRACTOR: _____DATE STARTED: 9/1/05DATE FINISHED: 9/6/05ENVIRONMENTAL
SPECIALIST: G. CrabtreeEXCAVATION APPROX. 40 FT. x 40 FT. x 24 FT. DEEP. CUBIC YARDAGE: 1800DISPOSAL FACILITY: ET LF # 3

REMEDIATION METHOD: _____

LAND USE: grazing

LEASE: _____

FORMATION: _____

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 35 FT. South FROM WELLHEAD.DEPTH TO GROUNDWATER: <50 NEAREST WATER SOURCE: >1000 NEAREST SURFACE WATER: <800NMDCD RANKING SCORE: 30 NMDCD TPH CLOSURE STD: 100 PPM

SOIL AND EXCAVATION DESCRIPTION:

CHECK ONE:

☒ PIT ABANDONED☐ STEEL TANK INSTALLEDExcavate contaminated soil from Separator pit. contaminated soil dimensions
approximately 40 x 40 x 24.

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1103	West Wall		5.0	20	1	10	40
1135	South Wall		5.0	20	1	3	12
1200	East Wall		5.0	20	1	4	16

SCALE



0 FT

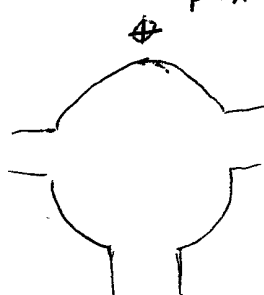
PIT PERIMETER

OVM
RESULTS

PIT PROFILE



Pit Marker



SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 West Wall	0.0
2 South Wall	5.0
3 East Wall	0.0
4 North Wall	0.0
5 bottom	445

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

Cobbles with sand + clay mixture

Clean

Contaminated

33 Consolidated

40'

24'

TRAVEL NOTES:

CALLOUT: _____

ONSITE: _____

CASE # 14-20-0603-10069

**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS**

Client:	Duncan Oil	Project #:	05161-001
Sample No.:	6	Date Reported:	9/8/2005
Sample ID:	Composit Sample of Bottom at 30 feet	Date Sampled:	9/6/2005
Sample Matrix:	Soil	Date Analyzed:	9/6/2005
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	2,772.0	5.0

ND = Parameter not detected at the stated detection limit.

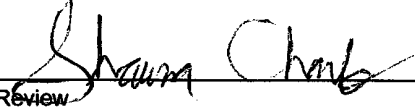
References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **North Hogback 7 - #6, Separator**

Instrument callibrated to 200 ppm standard. Zeroed before each sample



Analyst



Review

**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS**

Client:	Duncan Oil	Project #:	05161-001
Sample No.:	5	Date Reported:	9/8/2005
Sample ID:	Composit Sample of East Wall	Date Sampled:	9/6/2005
Sample Matrix:	Soil	Date Analyzed:	9/6/2005
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

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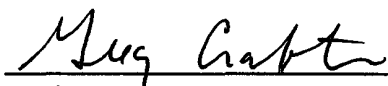
Total Petroleum Hydrocarbons	16.0	5.0
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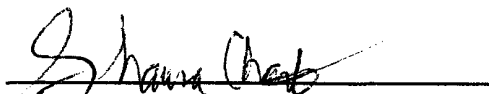
ND = Parameter not detected at the stated detection limit.

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

Comments: **North Hogback 7 - #6, Separator**

Instrument callibrated to 200 ppm standard. Zeroed before each sample


Analyst


Review

**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS**

Client:	Duncan Oil	Project #:	05161-001
Sample No.:	4	Date Reported:	9/8/2005
Sample ID:	Composit Sample of South Wall	Date Sampled:	9/6/2005
Sample Matrix:	Soil	Date Analyzed:	9/6/2005
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

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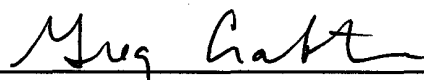
Total Petroleum Hydrocarbons	12.0	5.0
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ND = Parameter not detected at the stated detection limit.

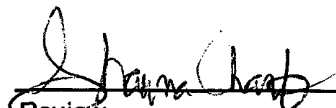
References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **North Hogback 7 - #6, Separator**

Instrument calibrated to 200 ppm standard. Zeroed before each sample



Analyst



Review

**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS**

Client:	Duncan Oil	Project #:	05161-001
Sample No.:	1	Date Reported:	9/8/2005
Sample ID:	Composit Sample of West Wall	Date Sampled:	9/6/2005
Sample Matrix:	Soil	Date Analyzed:	9/6/2005
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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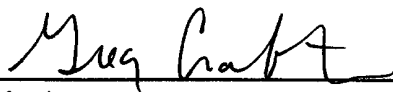
Total Petroleum Hydrocarbons	40.0	5.0
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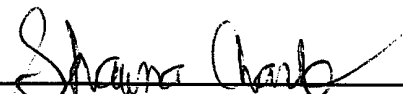
References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **North Hogback 7 - #6, Separator**

Instrument calibrated to 200 ppm standard. Zeroed before each sample



Analyst



Review

**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS**

Client:	Duncan Oil	Project #:	05161-001
Sample No.:	3	Date Reported:	9/8/2005
Sample ID:	Composit Sample of North Wall	Date Sampled:	9/6/2005
Sample Matrix:	Soil	Date Analyzed:	9/6/2005
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	24.0	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 - #6, Separator**

Instrument callibrated to 200 ppm standard. Zeroed before each sample



Analyst



Review