

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-144
June 1, 2004

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: Dugan Production Corp Telephone: (505)325-1821 e-mail address: _____
Address: P.O. Box 420, Farmington, New Mexico 87401
Facility or well name: Pinon No. 1E API #: 30-045-24186 U/L or Qtr/Qtr L Sec 13 T 30N R 14W
County: San Juan Latitude 36.81182 Longitude 108.26638 NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

Pit
Type: Drilling ☐ Production ☒ Disposal ☐
Workover ☐ Emergency ☐
Lined ☐ Unlined ☒
Liner type: Synthetic ☐ Thickness _____ mil Clay ☐
Pit Volume 120 ± bbl

Below-grade tank
Volume: _____ bbl Type of fluid: _____
Construction material: _____
Double-walled, with leak detection? Yes ☐ If not, APR 2007 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)	0
100 feet or more	(0 points)	

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)	10
1000 feet or more	(0 points)	

Ranking Score (Total Points)		10
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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 _____. (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:

12' x 12' x 3'± deep unlined production pit, center located at approximately 81 Feet North 44° West of wellhead

Use backhoe to dig into pit and remove impacted soils. Sandstone at 3 feet below ground surface, becoming very dense at 6 feet. Submit 4-point composite sidewall and pit center samples for laboratory testing.

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: April 12, 2007

Printed Name/Title: Jeffrey C Blagg, agent

Signature: Jeffrey C. Blagg

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.

Approval:

Printed Name/Title: DEPUTY OIL & GAS INSPECTOR, DIST. #4

Signature: Brandon Penell

Date: 4-20-07

CLIENT: <u>DUGAN</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: _____ COCR NO: <u>2035</u>
FIELD REPORT: PIT CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>
LOCATION: NAME: <u>PINON</u> WELL #: <u>1E</u> TYPE: <u>PROD.</u> QUAD/UNIT: <u>L SEC: 13 TWP: 30N RNG: 14W PM: NM CNTY: SJ ST: NM</u> QTR/FOOTAGE: <u>1790 FSL x 890 FWL</u> CONTRACTOR: <u>MJO</u>		DATE STARTED: <u>3-29-07</u> DATE FINISHED: <u>3-29-07</u> ENVIRONMENTAL SPECIALIST: <u>JCB</u>
EXCAVATION APPROX. <u>15</u> FT. x <u>15</u> FT. x <u>6</u> FT. DEEP. CUBIC YARDAGE: <u>34 ±</u>		
DISPOSAL FACILITY: <u>ONSITE</u> REMEDIATION METHOD: <u>L.F.</u>		
LAND USE: <u>RANGE- BLM</u> LEASE: <u>NM6899</u> FORMATION: <u>DK</u>		
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY <u>81</u> FT. <u>N 44 W</u> FROM WELLHEAD. DEPTH TO GROUNDWATER: <u>>100</u> NEAREST WATER SOURCE: <u>>1000</u> NEAREST SURFACE WATER: <u>>200</u> NMOCD RANKING SCORE: <u>10</u> NMOCD TPH CLOSURE STD: <u>1,000</u> PPM		
SOIL AND EXCAVATION DESCRIPTION:		OVM CALIB. READ. = <u>53.1</u> ppm OVM CALIB. GAS = <u>100</u> ppm RF = 0.52 TIME: <u>0845</u> am DATE: <u>3/29</u>
SOIL TYPE: SAND / SILTY SAND / SILT / SILTY CLAY / CLAY / GRAVEL / OTHER <u>BEDROCK SANDSTONE @ 3'</u> SOIL COLOR: _____ COHESION (ALL OTHERS): NON COHESIVE / SLIGHTLY COHESIVE / COHESIVE <u>HIGHLY COHESIVE</u> CONSISTENCY (NON COHESIVE SOILS): LOOSE / FIRM / DENSE <u>VERY DENSE</u> PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD MOISTURE: <u>DRY / SLIGHTLY MOIST</u> / MOIST / WET / SATURATED / SUPER SATURATED DISCOLORATION/STAINING OBSERVED: YES / NO EXPLANATION - _____ HC ODOR DETECTED: YES / NO EXPLANATION - _____ SAMPLE TYPE: <u>GRAB / COMPOSITE</u> # OF PTS. _____ ADDITIONAL COMMENTS: <u>12' x 12' x 3' ± Deep Unlined Pit. USE BACKHOE TO REMOVE IMPACTED SOILS + LF ON SITE.</u>		

FIELD 418.1 CALCULATIONS							
SAMP. TIME	SAMP. ID	LAB NO.	WEIGHT (g)	mL FREON	DILUTION	READING	CALC. (ppm)

SCALE

0 15 FT

PIT PERIMETER

X = 4 point composite
C = Center Sample

OVM READING

SAMPLE ID	FIELD HEADSPACE (ppm)
1 @	
2 @	
3 @	
4 @	
5 @	
CC 7'	22
4-PTS	14

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
4-PTS	TPH/B/C	0835
CC 7'	"	0835

PIT PROFILE

P.D. = PIT DEPRESSION; B.G. = BELOW GRADE; B = BELOW
T.H. = TEST HOLE; ~ = APPROX.; T.B. = TANK BOTTOM

TRAVEL NOTES: CALLOUT: _____ ONSITE: 3/29/07

2035

san juan reproduction 578-129

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client: Blagg / Dugan
Sample ID: 4-Point @ 5'
Laboratory Number: 40663
Chain of Custody No: 2035
Sample Matrix: Soil
Preservative: Cool
Condition: Cool and Intact

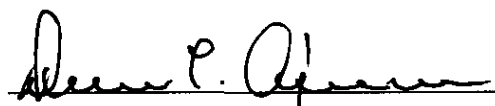
Project #: 94034-010
Date Reported: 04-02-07
Date Sampled: 03-29-07
Date Received: 03-30-07
Date Extracted: 03-30-07
Date Analyzed: 04-02-07
Analysis Requested: 8015 TPH

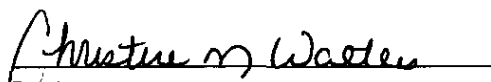
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

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: **Pinon 1E Production Pit**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

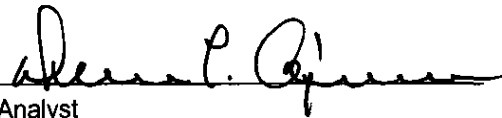
Client:	Blagg / Dugan	Project #:	94034-010
Sample ID:	C @ 7'	Date Reported:	04-02-07
Laboratory Number:	40664	Date Sampled:	03-29-07
Chain of Custody No:	2035	Date Received:	03-30-07
Sample Matrix:	Soil	Date Extracted:	03-30-07
Preservative:	Cool	Date Analyzed:	04-02-07
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

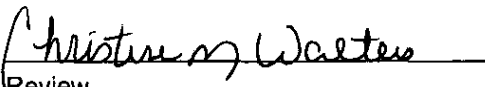
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	14.5	0.2
Diesel Range (C10 - C28)	1,490	0.1
Total Petroleum Hydrocarbons	1,500	0.2

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: **Pinon 1E Production Pit**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	04-02-07 QA/QC	Date Reported:	04-02-07
Laboratory Number:	40646	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-02-07
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept Range
Gasoline Range C5 - C10	07-11-05	9.9358E+002	9.9458E+002	0.10%	0 - 15%
Diesel Range C10 - C28	07-11-05	9.9936E+002	1.0014E+003	0.20%	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

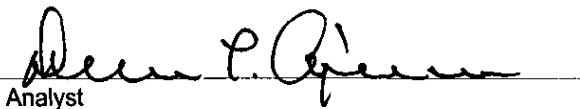
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	313	312	0.6%	0 - 30%

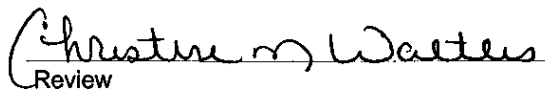
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	ND	250	250	100.0%	75 - 125%
Diesel Range C10 - C28	313	250	562	99.8%	75 - 125%

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 40646 - 40647, 40663 - 40669


Analyst


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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / Dugan	Project #:	94034-010
Sample ID:	4-Point @ 5'	Date Reported:	04-02-07
Laboratory Number:	40663	Date Sampled:	03-29-07
Chain of Custody:	2035	Date Received:	03-30-07
Sample Matrix:	Soil	Date Analyzed:	04-02-07
Preservative:	Cool	Date Extracted:	03-30-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	1.8
Toluene	ND	1.7
Ethylbenzene	3.5	1.5
p,m-Xylene	23.5	2.2
o-Xylene	9.7	1.0
Total BTEX	36.7	

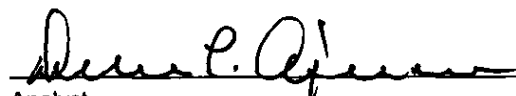
ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	98.0 %
	1,4-difluorobenzene	98.0 %
	Bromochlorobenzene	98.0 %

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: Pinon 1E Production Pit


Analyst


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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / Dugan	Project #:	94034-010
Sample ID:	C @ 7'	Date Reported:	04-02-07
Laboratory Number:	40664	Date Sampled:	03-29-07
Chain of Custody:	2035	Date Received:	03-30-07
Sample Matrix:	Soil	Date Analyzed:	04-02-07
Preservative:	Cool	Date Extracted:	03-30-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	4.4	1.8
Toluene	18.3	1.7
Ethylbenzene	21.9	1.5
p,m-Xylene	120	2.2
o-Xylene	40.5	1.0
Total BTEX	205	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99.0 %
	1,4-difluorobenzene	99.0 %
	Bromochlorobenzene	99.0 %

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: Pinon 1E Production Pit


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	04-02-BTEX QA/QC	Date Reported:	04-02-07
Laboratory Number:	40663	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-02-07
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF Accept. Range 0 - 15%	%Diff.	Blank Conc.	Detect. Limit
Benzene	1.1949E+007	1.1973E+007	0.2%	ND	0.2
Toluene	1.9147E+007	1.9186E+007	0.2%	ND	0.2
Ethylbenzene	9.3966E+006	9.4154E+006	0.2%	ND	0.2
p,m-Xylene	4.3783E+007	4.3871E+007	0.2%	ND	0.2
o-Xylene	1.8334E+007	1.8371E+007	0.2%	ND	0.1

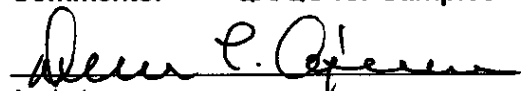
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	ND	ND	0.0%	0 - 30%	1.8
Toluene	ND	ND	0.0%	0 - 30%	1.7
Ethylbenzene	3.5	3.5	0.0%	0 - 30%	1.5
p,m-Xylene	23.5	23.3	0.9%	0 - 30%	2.2
o-Xylene	9.7	9.6	1.0%	0 - 30%	1.0

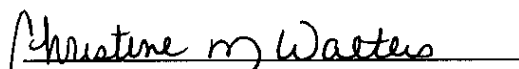
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	50.0	49.9	99.8%	39 - 150
Toluene	ND	50.0	50.0	100.0%	46 - 148
Ethylbenzene	3.5	50.0	53.4	99.8%	32 - 160
p,m-Xylene	23.5	100	123	99.9%	46 - 148
o-Xylene	9.7	50.0	59.7	100.0%	46 - 148

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 40663 - 40669


Analyst


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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Chloride

Client:	Blagg / Dugan	Project #:	94034-010
Sample ID:	4-Point @ 5'	Date Reported:	03-30-07
Lab ID#:	40663	Date Sampled:	03-29-07
Sample Matrix:	Soil	Date Received:	03-30-07
Preservative:	Cool	Date Analyzed:	03-30-07
Condition:	Cool and Intact	Chain of Custody:	2035

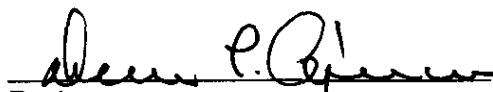
Parameter	Concentration (mg/Kg)
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Total Chloride	1,860
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Reference: Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Pinon 1E Production Pit


Analyst


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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Chloride

Client:	Blagg / Dugan	Project #:	94034-010
Sample ID:	C @ 7'	Date Reported:	03-30-07
Lab ID#:	40664	Date Sampled:	03-29-07
Sample Matrix:	Soil	Date Received:	03-30-07
Preservative:	Cool	Date Analyzed:	03-30-07
Condition:	Cool and Intact	Chain of Custody:	2035

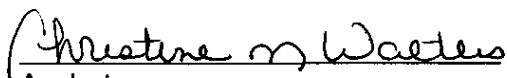
Parameter	Concentration (mg/Kg)
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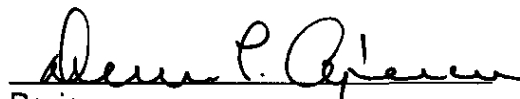
Total Chloride

1,240

Reference: Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Pinon 1E Production Pit


Analyst


Review