

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**

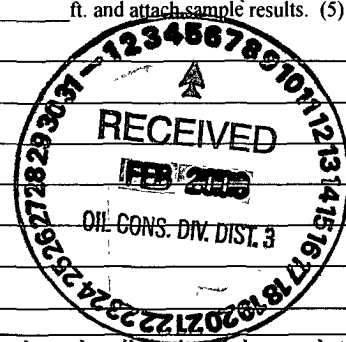
Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

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

Operator: <u>Dugan Production Corp</u> Telephone: <u>(505)325-1821</u> e-mail address: _____		
Address: <u>P.O. Box 420, Farmington, New Mexico 87401</u>		
Facility or well name: <u>LH No. 174</u> API #: <u>30-045-28533</u> U/L or Qtr/Qtr <u>A</u> Sec <u>32</u> T <u>23N</u> R <u>8W</u>		
County: <u>San Juan</u> Latitude <u>36.18901</u> Longitude <u>107.69787</u> NAD: 1927 <input type="checkbox"/> 1983 <input type="checkbox"/> Surface Owner Federal <input type="checkbox"/> State <input checked="" type="checkbox"/> Private <input type="checkbox"/> Indian <input type="checkbox"/>		
<b>Pit</b> 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 _____ mil Clay <input type="checkbox"/> Pit Volume <u>77±</u> bbl	<b>Below-grade tank</b> Volume: _____ 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) 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)
<b>Ranking Score (Total Points)</b>		10

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 105 Feet North 15° East of wellhead.
Use backhoe to collect 5-point composite sample at 8 foot depth for lab testing.
Excavate to 15' x 15' x 8' and landfarm on-site.



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: January 14, 2008

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: Deputy Oil & Gas Inspector,  
Printed Name/Title District #3

Signature [Signature]

Date: FEB 12 2008

CLIENT: <u>DUGAN</u>	<b>BLAGG ENGINEERING, INC.</b> <b>P.O. BOX 87, BLOOMFIELD, NM 87413</b> <b>(505) 632-1199</b>	LOCATION NO: _____ COCR NO: <u>3042</u>
<b>FIELD REPORT: PIT CLOSURE VERIFICATION</b>		PAGE No: <u>1</u> of <u>1</u>
LOCATION: NAME: <u>LH</u> WELL #: <u>174</u> TYPE: <u>TANK</u> QUAD/UNIT: <u>A</u> SEC: <u>32</u> TWP: <u>23N</u> RNG: <u>8W</u> PM: <u>NM</u> CNTY: <u>SJ</u> ST: <u>NM</u> QTR/FOOTAGE: <u>570 FNL x 645 FEL</u> CONTRACTOR: <u>SIEMA</u>		DATE STARTED <u>10-8-07</u> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST: <u>JCB</u>
EXCAVATION APPROX. <u>15</u> FT. x <u>15</u> FT. x <u>8</u> FT. DEEP. CUBIC YARDAGE: <u>45±</u> DISPOSAL FACILITY: <u>ON-SITE</u> REMEDIATION METHOD: <u>L.F.</u> LAND USE: <u>RANGE - STATE</u> LEASE: <u>LH-174</u> FORMATION: <u>GAL</u>		
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY <u>105</u> FT. <u>NISE</u> FROM WELLHEAD. DEPTH TO GROUNDWATER: <u>&gt;100</u> NEAREST WATER SOURCE: <u>&gt;1000</u> NEAREST SURFACE WATER: <u>&gt;200</u> NMOCD RANKING SCORE: <u>10</u> NMOCD TPH CLOSURE STD: <u>1000</u> PPM		
<b>SOIL AND EXCAVATION DESCRIPTION:</b> <div style="float: right; border: 1px solid black; padding: 5px; margin-top: 10px;">           OVM CALIB. READ. = <u>53.9</u> ppm            OVM CALIB. GAS = <u>100</u> ppm RF = <u>0.52</u>            TIME: <u>0915</u> am/pm DATE: <u>10/8</u> </div>		
SOIL TYPE <u>SAND / SILTY SAND</u> / SILT / SILTY CLAY / CLAY / GRAVEL / OTHER _____ SOIL COLOR _____ COHESION (ALL OTHERS): NON COHESIVE <u>(SLIGHTLY COHESIVE)</u> COHESIVE / HIGHLY COHESIVE CONSISTENCY (NON COHESIVE SOILS): LOOSE <u>FIRM</u> / DENSE / VERY DENSE PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD MOISTURE DRY <u>(SLIGHTLY MOIST)</u> / MOIST / WET / SATURATED / SUPER SATURATED DISCOLORATION/STAINING OBSERVED: <u>(YES)</u> NO EXPLANATION - <u>STAIN ON PIT SURFACE TO 7'</u> HC ODOR DETECTED: <u>(YES)</u> NO EXPLANATION - <u>MOD.</u> SAMPLE TYPE GRAB / COMPOSITE - # OF PTS. _____ ADDITIONAL COMMENTS: <u>12' x 12' x 3'± cone shaped unlined pit. Use backhoe to dig into pit &amp; sample.</u>		

SCALE  0 FT	<b>FIELD 418.1 CALCULATIONS</b>																																								
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>SAMP. TIME</th> <th>SAMP. ID</th> <th>LAB NO.</th> <th>WEIGHT (g)</th> <th>mL FREON</th> <th>DILUTION</th> <th>READING</th> <th>CALC. (ppm)</th> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table>	SAMP. TIME	SAMP. ID	LAB NO.	WEIGHT (g)	mL FREON	DILUTION	READING	CALC. (ppm)																																
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<b>PIT PERIMETER</b> 	<b>OVM READING</b> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>SAMPLE ID</th> <th>FIELD HEADSPACE (ppm)</th> </tr> <tr><td>1 @</td><td> </td></tr> <tr><td>2 @</td><td> </td></tr> <tr><td>3 @</td><td> </td></tr> <tr><td>4 @</td><td> </td></tr> <tr><td>5 @</td><td> </td></tr> <tr><td>5-PA @ 9'</td><td>13</td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>	SAMPLE ID	FIELD HEADSPACE (ppm)	1 @		2 @		3 @		4 @		5 @		5-PA @ 9'	13									<b>PIT PROFILE</b> 
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<b>LAB SAMPLES</b> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>SAMPLE ID</th> <th>ANALYSIS</th> <th>TIME</th> </tr> <tr> <td>5-PA</td> <td>T/STEX</td> <td>1545</td> </tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>	SAMPLE ID	ANALYSIS	TIME	5-PA	T/STEX	1545													P.D. = PIT DEPRESSION; B.G. = BELOW GRADE; B = BELOW T.H. = TEST HOLE; ~ = APPROX.; T.B. = TANK BOTTOM
SAMPLE ID	ANALYSIS	TIME																	
5-PA	T/STEX	1545																	
TRAVEL NOTES: CALLOUT: _____ ONSITE: <u>10/8/07</u>																			

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

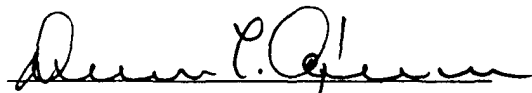
Client:	Blagg / Dugan	Project #:	94034-010
Sample ID:	LH #174 - Tank	Date Reported:	10-10-07
Laboratory Number:	43306	Date Sampled:	10-08-07
Chain of Custody No:	3042	Date Received:	10-09-07
Sample Matrix:	Soil	Date Extracted:	10-09-07
Preservative:	Cool	Date Analyzed:	10-10-07
Condition:	Cool & Intact	Analysis Requested:	8015 TPH

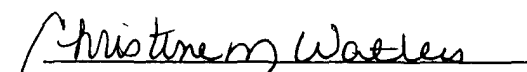
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	4.8	0.2
Diesel Range (C10 - C28)	48.3	0.1
Total Petroleum Hydrocarbons	53.1	0.2

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: **Unlined Pit Closures**

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / Dugan	Project #:	94034-010
Sample ID:	LH #174 - Tank	Date Reported:	10-10-07
Laboratory Number:	43306	Date Sampled:	10-08-07
Chain of Custody:	3042	Date Received:	10-09-07
Sample Matrix:	Soil	Date Analyzed:	10-10-07
Preservative:	Cool	Date Extracted:	10-09-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	0.9
Toluene	11.5	1.0
Ethylbenzene	9.7	1.0
p,m-Xylene	31.0	1.2
o-Xylene	15.4	0.9
Total BTEX	67.6	

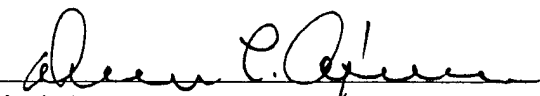
ND - Parameter not detected at the stated detection limit.

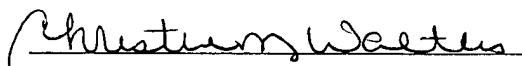
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	97.0 %
	1,4-difluorobenzene	97.0 %
	Bromochlorobenzene	97.0 %

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: Unlined Pit Closures

  
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:	10-10-07 QA/QC	Date Reported:	10-10-07
Laboratory Number:	43289	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-10-07
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	1.0053E+003	1.0057E+003	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	1.0270E+003	1.0274E+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

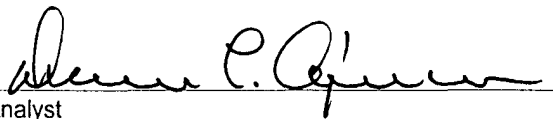
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept Range
Gasoline Range C5 - C10	0.8	0.8	0.0%	0 - 30%
Diesel Range C10 - C28	80.1	79.6	0.6%	0 - 30%

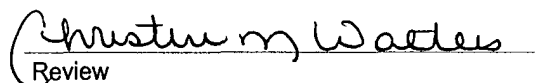
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	0.8	250	250	99.8%	75 - 125%
Diesel Range C10 - C28	80.1	250	330	99.8%	75 - 125%

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 43289 - 43291, 43302 - 43308**

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	10-10-BTEX QA/QC	Date Reported:	10-10-07
Laboratory Number:	43289	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-10-07
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF	O-Cal RF	%Diff	Blank Conc	Detect Limit
		Accept Range 0 - 15%			
Benzene	1.1750E+008	1.1774E+008	0.2%	ND	0.1
Toluene	1.0089E+008	1.0109E+008	0.2%	ND	0.1
Ethylbenzene	8.0712E+007	8.0874E+007	0.2%	ND	0.1
p,m-Xylene	1.6040E+008	1.6072E+008	0.2%	ND	0.1
o-Xylene	7.7993E+007	7.8150E+007	0.2%	ND	0.1

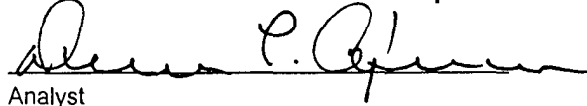
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff	Accept Range	Detect Limit
Benzene	1.6	1.6	0.0%	0 - 30%	0.9
Toluene	ND	ND	0.0%	0 - 30%	1.0
Ethylbenzene	3.1	3.1	0.0%	0 - 30%	1.0
p,m-Xylene	68.4	68.3	0.1%	0 - 30%	1.2
o-Xylene	17.8	17.7	0.6%	0 - 30%	0.9

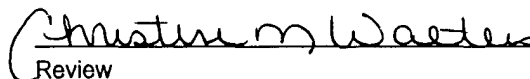
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	1.6	50.0	51.5	99.8%	39 - 150
Toluene	ND	50.0	49.9	99.8%	46 - 148
Ethylbenzene	3.1	50.0	53.0	99.8%	32 - 160
p,m-Xylene	68.4	100	168	99.8%	46 - 148
o-Xylene	17.8	50.0	67.7	99.9%	46 - 148

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 43289 - 43291, 43302 - 43306

  
Analyst

  
Review