

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: Mesa SWD 4 API #: 30-045-32086 U/L or Qtr/Qtr I Sec 16 T 24N R 8W
County: San Juan Latitude 36.31100 Longitude 107.68250 NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☐ State ☒ Private ☐ Indian ☐

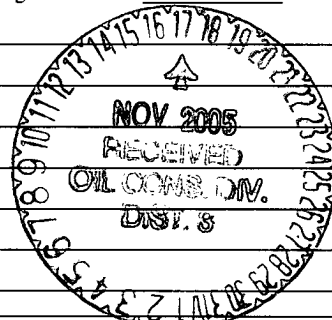
Pit
Type: Drilling ☒ Production ☐ Disposal ☐
Workover ☐ Emergency ☐
Lined ☐ Unlined ☒
Liner type: Synthetic ☐ Thickness _____ mil Clay ☐
Pit Volume 6,900 ± bbl

Below-grade tank
Volume: _____ bbl Type of fluid: _____
Construction material: _____
Double-walled, with leak detection? Yes ☐ 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)	0
	1000 feet or more	(0 points)	
Ranking Score (Total Points)			0

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:
108' x 60/30' x 8'± deep unlined drilling reserve pit., center located 60 feet due East of wellhead.
Collect 5 point composite of pit contents for laboratory testing
See attached field sampling report and laboratory test reports.



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: Nov 15, 2005

Printed Name/Title JEFF BLAGE, AGENT

Signature [Signature]

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, DIST. 8

Printed Name/Title _____

Signature [Signature]

Date: NOV 17 2005

$$36.31100 \times 107.69250$$

CLIENT: <u>DUGAN</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: _____ COCR NO: <u>15023</u>
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FIELD REPORT: PIT CLOSURE VERIFICATION

LOCATION NAME: <u>MESA SWD</u> WELL #: <u>4</u> TYPE: <u>Drilling RES</u> QUAD/UNIT: <u>I SEC: 16 TWP: 24N RNG: 8W PM: NM CNTY: SJ ST: NM</u> QTR/FOOTAGE: <u>1450 FSL x 1245 FEL</u> CONTRACTOR: <u>-</u>	PAGE No: <u>1</u> of <u>1</u> DATE STARTED: <u>11-4-05</u> DATE FINISHED: <u>11-4-05</u> ENVIRONMENTAL SPECIALIST: <u>JCB</u>
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EXCAVATION APPROX. NA FT. X NA FT. DEEP. CUBIC YARDAGE: 0

DISPOSAL FACILITY: NA REMEDIATION METHOD: CLOSE AS IS

LAND USE: RANGE - STATE LEASE: Lg-1917 FORMATION: MV

FIELD NOTES & REMARKS:

PIT LOCATED APPROXIMATELY 60 FT. DUE EAST FROM WELLHEAD.
 DEPTH TO GROUNDWATER: >100 NEAREST WATER SOURCE: >1000 NEAREST SURFACE WATER: >1000
 NMOCD RANKING SCORE: 0 NMOCD TPH CLOSURE STD: 5000 PPM

SOIL AND EXCAVATION DESCRIPTION:

OVM CALIB. READ =	ppm
OVM CALIB. GAS =	ppm RF = 0.52
TIME:	am/pm DATE:

SOIL TYPE: SAND / SILTY SAND / SILT / SILTY CLAY / CLAY / GRAVEL / OTHER _____
 SOIL COLOR: _____
 COHESION (ALL OTHERS): NON COHESIVE / SLIGHTLY COHESIVE / COHESIVE / HIGHLY COHESIVE
 CONSISTENCY (NON COHESIVE SOILS): LOOSE / FIRM / 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 / SLIGHTLY MOIST / MOIST / WET / SATURATED / SUPER SATURATED
 DISCOLORATION/STAINING OBSERVED: YES / NO EXPLANATION - _____
 HC ODOR DETECTED: YES / NO EXPLANATION - _____
 SAMPLE TYPE: GRAB (COMPOSITE) # OF PTS. 5
 ADDITIONAL COMMENTS: DRY surface. USE sample shovel to collect 5 point composite of contents
108' x 30'/60' ± x 8' ± DEEP unlined AT

SCALE

0 FT

PIT PERIMETER

FIELD 418.1 CALCULATIONS

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

OVM READING

SAMPLE ID	FIELD HEADSPACE (ppm)
1 @	
2 @	
3 @	
4 @	
5 @	

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
(*) 5-point	TPH	1245
	BTEX	
	Cont./Ar/Lv	

PIT PROFILE

NA

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

TRAVEL NOTES: CALLOUT: _____ ONSITE: 11-4-05

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

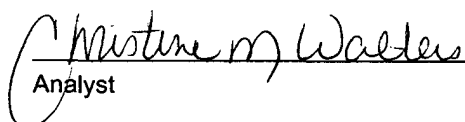
Client:	Blagg / Dugan	Project #:	94034-010
Sample ID:	Reserve Pit	Date Reported:	11-10-05
Laboratory Number:	34936	Date Sampled:	11-04-05
Chain of Custody No:	15028	Date Received:	11-04-05
Sample Matrix:	Soil	Date Extracted:	11-08-05
Preservative:	Cool	Date Analyzed:	11-09-05
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	0.2	0.2
Diesel Range (C10 - C28)	858	0.1
Total Petroleum Hydrocarbons	858	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: **Mesa 4 SWD 5 - Point Composite.**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / Dugan	Project #:	94034-010
Sample ID:	Reserve Pit	Date Reported:	11-09-05
Laboratory Number:	34936	Date Sampled:	11-04-05
Chain of Custody:	15028	Date Received:	11-04-05
Sample Matrix:	Solid	Date Analyzed:	11-09-05
Preservative:	Cool	Date Extracted:	11-08-05
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	4.8	1.8
Toluene	29.6	1.7
Ethylbenzene	100	1.5
p,m-Xylene	80.0	2.2
o-Xylene	10.6	1.0
Total BTEX	225	

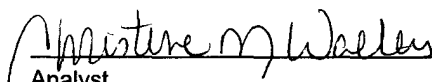
ND - Parameter not detected at the stated detection limit.

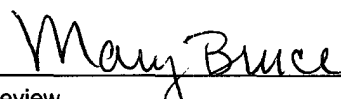
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99.0 %
	1,4-difluorobenzene	99.0 %
	Bromochlorobenzene	99.0 %

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: Mesa 4 SWD 5 - Point Composite.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client: Blagg / Dugan
Sample ID: Reserve Pit
Laboratory Number: 34936
Chain of Custody: 15028
Sample Matrix: Solid
Preservative: Cool
Condition: Cool & Intact

Project #: 94034-010
Date Reported: 11-09-05
Date Sampled: 11-04-05
Date Received: 11-04-05
Date Extracted: 11-07-05
Date Analyzed: 11-08-05

Parameter	Analytical Result	Units
pH	9.24	s.u.
Conductivity @ 25° C	418	umhos/cm
Total Dissolved Solids @ 180C	296	mg/L
Total Dissolved Solids (Calc)	292	mg/L
SAR	9.4	ratio
Total Alkalinity as CaCO3	20.0	mg/L
Total Hardness as CaCO3	20.4	mg/L

Bicarbonate as HCO3	20.0	mg/L	0.33	meq/L
Carbonate as CO3	<0.1	mg/L	0.00	meq/L
Hydroxide as OH	<0.1	mg/L	0.00	meq/L
Nitrate Nitrogen	0.3	mg/L	0.00	meq/L
Nitrite Nitrogen	<0.01	mg/L	0.00	meq/L
Chloride	96.0	mg/L	2.71	meq/L
Fluoride	<0.01	mg/L	0.00	meq/L
Phosphate	2.80	mg/L	0.09	meq/L
Sulfate	74.0	mg/L	1.54	meq/L
Iron	0.100	mg/L	0.00	meq/L
Calcium	8.16	mg/L	0.41	meq/L
Magnesium	<0.1	mg/L	0.00	meq/L
Potassium	0.70	mg/L	0.02	meq/L
Sodium	97.5	mg/L	4.24	meq/L
Cations			4.67	meq/L
Anions			4.67	meq/L

Cation/Anion Difference

0.00%

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Mesa 4 SWD 5 - Point Composite.**

Mary Bruno
Analyst

Christine M. Walter
Review