District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
Revised April 3, 2017

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.
For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Type of action:
- ☐ Below grade tank registration
- ☐ Permit of a pit or proposed alternative method
- BGT1 ☒ Closure of a pit, below-grade tank, or proposed alternative method
- ☐ Modification to an existing permit/or registration
- ☐ Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
Operator: Dugan Production Corp. OGRID #: 006515
Address: PO Box 420, Farmington, NM 87499-0420
Facility or well name: Strawberry #1
API Number: 30-039-23076 OCD Permit Number:
U/L or Qtr/Qtr L Section 3 Township 23N Range 6W County: Rio Arriba
Center of Proposed Design: Latitude 36.2517014 Longitude -107.4629669 NAD83
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☐ **Pit:** Subsection F, G or J of 19.15.17.11 NMAC
Temporary: ☐ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management Low Chloride Drilling Fluid ☐ yes ☐ no
☐ Lined ☐ Unlined Liner type: Thickness _____mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☐ String-Reinforced
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____ Volume: _____bbl Dimensions: L_____ x W_____ x D_____

3.
☒ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: _____bbl Type of fluid: Produced Water
Tank Construction material: _____
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other _____
Liner type: Thickness _____ ☐ HDPE ☐ PVC ☐ Other _____

4.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

5.
Fencing: Subsection D of 19.15.17.11 NMAC *(Applies to permanent pits, temporary pits, and below-grade tanks)*
☐ Chain link, six feet in height, two strands of barbed wire at top *(Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)*
☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet
☒ Alternate. Please specify 4'=3' Hog wire + 1 strand barbed wire

6.

Netting: Subsection E of 19.15.17.11 NMAC *(Applies to permanent pits and permanent open top tanks)*

☐ Screen ☐ Netting ☐ Other_____

☒ Monthly inspections (If netting or screening is not physically feasible)

7.

Signs: Subsection C of 19.15.17.11 NMAC

☒ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☐ Signed in compliance with 19.15.16.8 NMAC

8.

Variances and Exceptions:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

☐ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.

☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

9.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. **Siting criteria does not apply to drying pads or above-grade tanks.**

General siting

Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank. - ☐ NM Office of the State Engineer - iWATERS database search; ☐ USGS; ☐ Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit . NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. **(Does not apply to below grade tanks)** - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within the area overlying a subsurface mine. **(Does not apply to below grade tanks)** - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
Within an unstable area. **(Does not apply to below grade tanks)** - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☐ No
Within a 100-year floodplain. **(Does not apply to below grade tanks)** - FEMA map	☐ Yes ☐ No

Below Grade Tanks

Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No

Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)

Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.) - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No

Within 100 feet of a wetland.
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site ☐ Yes ☐ No

Temporary Pit Non-low chloride drilling fluid

Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).
- Topographic map; Visual inspection (certification) of the proposed site ☐ Yes ☐ No

Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image ☐ Yes ☐ No

Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;
- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site ☐ Yes ☐ No

Within 300 feet of a wetland.
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site ☐ Yes ☐ No

Permanent Pit or Multi-Well Fluid Management Pit

Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).
- Topographic map; Visual inspection (certification) of the proposed site ☐ Yes ☐ No

Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image ☐ Yes ☐ No

Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.
- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site ☐ Yes ☐ No

Within 500 feet of a wetland.
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site ☐ Yes ☐ No

10.
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

11.
Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ A List of wells with approved application for permit to drill associated with the pit.
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12.
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H_2S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

13.
Proposed Closure: 19.15.17.13 NMAC
Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

Type: ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☒ Below-grade Tank ☐ Multi-well Fluid Management Pit ☐ Alternative

Proposed Closure Method: ☒ Waste Excavation and Removal
☐ Waste Removal (Closed-loop systems only)
☐ On-site Closure Method (Only for temporary pits and closed-loop systems)
☐ In-place Burial ☐ On-site Trench Burial
☐ Alternative Closure Method

14.
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

15.
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC
Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 25 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	

adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☐ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☐ No

16.
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC
- ☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC
- ☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
- ☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

17.
Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

18.
OCD Approval: ☐ Permit Application (including closure plan) ☒ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: Victoria Venegas **Approval Date:** 10/30/2023

Title: Environmental Specialist **OCD Permit Number:** BGT1

19.
Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☐ **Closure Completion Date:** _____

20.
Closure Method:

☒ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)
☐ If different from approved plan, please explain.

21.
Closure Report Attachment Checklist: ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***

- ☒ Proof of Closure Notice (surface owner and division)
- ☐ Proof of Deed Notice (required for on-site closure for private land only)
- ☐ Plot Plan (for on-site closures and temporary pits)
- ☒ Confirmation Sampling Analytical Results (if applicable)
- ☐ Waste Material Sampling Analytical Results (required for on-site closure)
- ☒ Disposal Facility Name and Permit Number
- ☒ Soil Backfilling and Cover Installation
- ☒ Re-vegetation Application Rates and Seeding Technique
- ☐ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude _____ Longitude _____ NAD: ☐1927 ☐ 1983

22.

Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Kevin Smaka, PE Title: Regulatory Engineer

Signature: Kevin Smaka Date: 10-18-23

e-mail address: Kevin.Smaka@duganproduction.com Telephone: 505-325-1821 x1049

Strawberry #1 BGT Closure Report

30-039-23076

L-03-23N-06W

Closure Notification

On 9/12/23, Dugan emailed the NMOCD and BLM of our intention to close and remove a BGT located at the Strawberry #1 well site. Closure commend on 9/15/23. A copy of the email sent to BLM and OCD has been included with this report.

Closure Narrative

1. On 9/15/23 soil samples were collected as part of BGT closure at the well site. The sample was collected 5 feet below grade surface.
2. While removing the BGT and its associated line there were no indications of a spill or prior release. Pictures of the soil conditions have been included. Each picture has been stamped with time, date and GPS coordinates.
3. A 5-point composite sample was collected from the soils directly beneath the BGT and taken to the lab. The lab analyzed the samples for TPH, BTEX and Chlorides.
4. Lab results showed there were trace amounts of hydrocarbons and chlorides in the soil but nothing above regulatory closure standards. A table of the results are included here as well as a copy of the lab report.

Well	Oil Range (mg/kg)	Diesel Range (mg/kg)	Gas Range (mg/kg)	BTEX (mg/kg)	Chlorides (mg/kg)
Strawberry #1	198	102	0	0	30.3

5. Dugan reviewed our records and found the original hydrogeologic report for the site. The report indicates groundwater is nearly 200 feet below ground. A copy of the hydrogeologic report is included with this report

6. Based on the depth to groundwater determination in the hydrogeologic report, Dugan believes it is appropriate to change the closure standard to the least stringent standards found in NMAC 19.15.17, table 1, >100 feet to groundwater. A copy of the standard has been provided here:

> 100 feet	Chloride	EPA 300.0	20,000 mg/kg
	TPH	EPA SW-846 Method 418.1	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg

7. Once the C-144 has been approved Dugan will backfill the below grade tank hole and commence restoration activities. The top layer of soil will be of sufficient quality to allow for growth of vegetation.
8. Dugan will contour the pad to match the surrounding topography.
9. The BGT area and well pad will be seeded as part of the P&A reclamation process. The seed mix will use the following seeds, all rates are listed in pounds/acre:

3 ½ # Crested Wheatgrass

1# Four wing Saltbush

¾# Sand Dropseed

¾# Alkali Sucaton

10. Following seeding the site will be monitored for adequate regrowth.

As part of this report Dugan has included the following items:

1. A copy of the labs results
2. A copy of the notice of sampling
3. Pictures of the BGT vault prior to backfilling

Strawberry #1 Hydrogeologic Report

The Strawberry #1 is located on Federal land in the southeast of the San Juan Basin in Rio Arriba County, New Mexico. The area is characterized by high (7,200 feet ASL), northeast trending mesas with stands of pinon, juniper and occasional ponderosa, bordered by deep broad canyons on the north and south with grass and sage. The area is well drained by Escrito and Haynes Canyon that drain water from rain and snowmelt to the northeast.

A records search of the NM Office of the State Engineer –iWATERS database was conducted on a three square mile area centered on the Strawberry #1 location (Exhibit 2). No water wells were located in the search area. The results of the search are shown on Exhibit 1.

The main source of stock water in the region is encountered in valley-fill deposits in existing arroyos at shallow depths of approximately 15 – 50 feet below the surface and stock tanks constructed in surface shale layers along the upper reaches and confluences of arroyos. The below grade tank is not located in valley fill deposits of an existing arroyo. The closest arroyo is 275 feet to the west (Exhibit 2).

The San Jose Formation extends from the surface down to a depth of approximately 600 feet and the section is comprised of mudstone / shale with a trace of siltstone.

The Nacimiento ranges from 600-1380 feet and contains numerous sands 20-40 feet thick inter-bedded with mudstone / shale (20-60 feet thick) that have good reservoir qualities and should contain a good volume of poor quality water.

The San Jose and Nacimiento intervals are a source of ground water for livestock purposes and more rarely domestic use in some areas near the outcrop. With depth and distance from the outcrop, water quality decreases quickly and may be useful for livestock only (Stone, 1983).

Based on electric open hole logs, the iWATERS database, literature reviewed, depth to ground water ranges from 15 - 50 feet below the surface in major arroyos in the area. Moving away from the wash ground water depth drops rapidly to greater than 200 feet below the surface. At the location of the subject below grade tank, poor quality ground water might be found at depths of approximately 600-1310 feet below the surface in laterally discontinuous sand layers in the Nacimiento Formation. A deeper source of ground water would be the Ojo Alamo / Animas from 1380 down to 1490 feet.

Due to the excessive drilling depth, high silt content in the sands, poor water and reservoir quality and unpredictable nature of sand occurrence, there has not been any San Jose or Nacimiento water wells drilled in the area of the subject below grade tank.

This Hydrogeologic Report was prepared by Mr. Kurt Fagrelius, Geologist for Dugan Production. Mr. Fagrelius has been employed as a geologist for Dugan for the past 31-years, received a MS in Geology from NMIMT in Socorro, NM and a BS in Geology from FLC in Durango, CO.

Stone, W.J., Lyford, F.P., Frenzel, P.F., Mizell, N.H., and Padgett, E.T., 1983, Hydrogeology and water resources of San Juan Basin, New Mexico: New Mexico Bureau of Mines and Mineral Resources Hydrologic Report 6, 70 p.

Brown, D.R., and Stone, W.J., 1979, Hydrogeology of Aztec quadrangle, San Juan County, New Mexico: New Mexico Bureau of Mines and Mineral Resources Hydrogeologic Sheet 1.

Levings, G.W., Craigg, S.D., Dam, W.L. Kernodle, J.M., and Thorn, C.R., 1990, Hydrogeology of the San Jose, Nacimiento, and Animas Formations in the San Juan Structural Basin, New Mexico, Colorado, Arizona and Utah: U.S. Geological Survey, Atlas HA-720-A, Sheet 1 and 2.

Thorn, C.R., Levings, G.W., Craigg, S.D., Dam, W.L., and Kernodle, J.M., 1990, Hydrogeology of the Ojo Alamo Sandstone in the San Juan Structural Basin, New Mexico, Colorado, Arizona and Utah: U.S. Geological Survey, Atlas HA-720-B, Sheet 1 and 2.

Kevin Smaka

From: Kevin Smaka
Sent: Tuesday, September 12, 2023 4:38 PM
To: 'Barr, Leigh, EMNRD'; 'Adeloye, Abiodun A'; 'Velez, Nelson, EMNRD'
Cc: Tyra Feil; Dalvin Harrison; Carlos Ramos
Subject: Notice of Sampling/BGT Closure

Dugan will be collecting soil samples as part of a below grade tanks closure and this coming Friday, 9/15/2023, at 10:00 AM.

The locations are listed below:

Strawberry #1
30-039-23076
L-03-23N-06W
1980 FSL 810 FWL

Gulf Federal 24 #1
30-043-20672
D-24-23N-06W
920 FNL 795 FWL

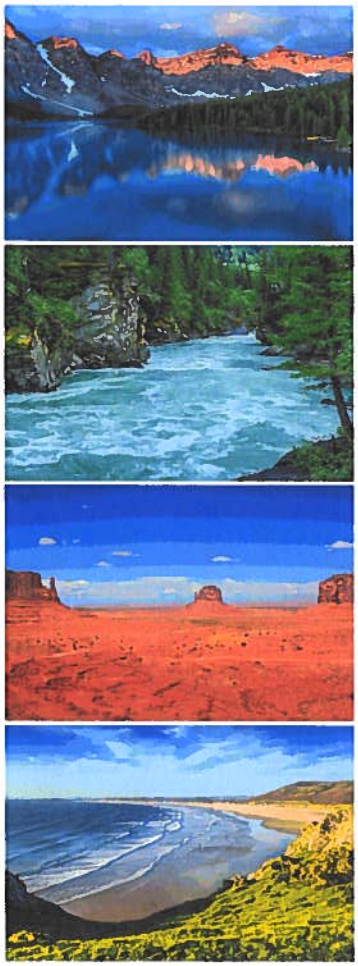
We will start at the Strawberry Well and then proceed to the Gulf Federal.

Please contact me should you have any questions

Kevin Smaka P.E.
Regulatory Engineer
Dugan Production Corp
505-486-6207

Report to:

Kevin Smaka



5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

NELAP ACCREDITED TNI LABORATORY

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Dugan Production Corp.

Project Name: Strawberry BGT

Work Order: E309120

Job Number: 06094-0177

Received: 9/15/2023

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
9/22/23

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 9/22/23

Kevin Smaka
PO Box 420
Farmington, NM 87499

Project Name: Strawberry BGT
Workorder: E309120
Date Received: 9/15/2023 1:20:00PM

Kevin Smaka,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 9/15/2023 1:20:00PM, under the Project Name: Strawberry BGT.

The analytical test results summarized in this report with the Project Name: Strawberry BGT apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
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Table of Contents

Sample Summary

Dugan Production Corp.	Project Name:	Strawberry BGT	Reported:
PO Box 420	Project Number:	06094-0177	
Farmington NM, 87499	Project Manager:	Kevin Smaka	09/22/23 11:12

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Strawberry BGT	E309120-01A	Soil	09/15/23	09/15/23	Glass Jar, 2 oz.

Sample Data

Dugan Production Corp.	Project Name:	Strawberry BGT	
PO Box 420	Project Number:	06094-0177	**Reported:**
Farmington NM, 87499	Project Manager:	Kevin Smaka	9/22/2023 11:12:26AM

Strawberry BGT

E309120-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: IY			Batch: 2338003
Benzene	ND	0.0250	1	09/18/23	09/19/23	
Ethylbenzene	ND	0.0250	1	09/18/23	09/19/23	
Toluene	ND	0.0250	1	09/18/23	09/19/23	
o-Xylene	ND	0.0250	1	09/18/23	09/19/23	
p,m-Xylene	ND	0.0500	1	09/18/23	09/19/23	
Total Xylenes	ND	0.0250	1	09/18/23	09/19/23	
Surrogate: 4-Bromochlorobenzene-PID		*94.1 %*	*70-130*	*09/18/23*	*09/19/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2338003
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/18/23	09/19/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID		*86.6 %*	*70-130*	*09/18/23*	*09/19/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2338059
Diesel Range Organics (C10-C28)	**102**	25.0	1	09/20/23	09/21/23	
Oil Range Organics (C28-C36)	**198**	50.0	1	09/20/23	09/21/23	
Surrogate: n-Nonane		*83.4 %*	*50-200*	*09/20/23*	*09/21/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2338053
Chloride	**30.3**	20.0	1	09/20/23	09/21/23	

QC Summary Data

Dugan Production Corp.	Project Name:	Strawberry BGT	**Reported:**
PO Box 420	Project Number:	06094-0177	
Farmington NM, 87499	Project Manager:	Kevin Smaka	9/22/2023 11:12:26AM

Volatile Organics by EPA 8021B

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2338003-BLK1)									Prepared: 09/18/23 Analyzed: 09/19/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	*7.43*		*8.00*		*92.8*	*70-130*			
LCS (2338003-BS1)									Prepared: 09/18/23 Analyzed: 09/19/23
Benzene	4.26	0.0250	5.00		85.3	70-130			
Ethylbenzene	4.15	0.0250	5.00		83.0	70-130			
Toluene	4.30	0.0250	5.00		86.0	70-130			
o-Xylene	4.30	0.0250	5.00		86.0	70-130			
p,m-Xylene	8.60	0.0500	10.0		86.0	70-130			
Total Xylenes	12.9	0.0250	15.0		86.0	70-130			
Surrogate: 4-Bromochlorobenzene-PID	*7.54*		*8.00*		*94.2*	*70-130*			
Matrix Spike (2338003-MS1)				**Source: E309120-01**					Prepared: 09/18/23 Analyzed: 09/19/23
Benzene	4.78	0.0250	5.00	ND	95.5	54-133			
Ethylbenzene	4.66	0.0250	5.00	ND	93.1	61-133			
Toluene	4.82	0.0250	5.00	ND	96.4	61-130			
o-Xylene	4.78	0.0250	5.00	ND	95.7	63-131			
p,m-Xylene	9.63	0.0500	10.0	ND	96.3	63-131			
Total Xylenes	14.4	0.0250	15.0	ND	96.1	63-131			
Surrogate: 4-Bromochlorobenzene-PID	*7.55*		*8.00*		*94.4*	*70-130*			
Matrix Spike Dup (2338003-MSD1)				**Source: E309120-01**					Prepared: 09/18/23 Analyzed: 09/19/23
Benzene	4.42	0.0250	5.00	ND	88.5	54-133	7.67	20	
Ethylbenzene	4.31	0.0250	5.00	ND	86.2	61-133	7.74	20	
Toluene	4.46	0.0250	5.00	ND	89.3	61-130	7.66	20	
o-Xylene	4.44	0.0250	5.00	ND	88.9	63-131	7.41	20	
p,m-Xylene	8.92	0.0500	10.0	ND	89.2	63-131	7.59	20	
Total Xylenes	13.4	0.0250	15.0	ND	89.1	63-131	7.53	20	
Surrogate: 4-Bromochlorobenzene-PID	*7.59*		*8.00*		*94.9*	*70-130*			

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QC Summary Data

Dugan Production Corp.	Project Name:	Strawberry BGT	**Reported:**
PO Box 420	Project Number:	06094-0177	
Farmington NM, 87499	Project Manager:	Kevin Smaka	9/22/2023 11:12:26AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2338003-BLK1)									Prepared: 09/18/23 Analyzed: 09/19/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	*6.93*		*8.00*		*86.6*	*70-130*			
LCS (2338003-BS2)									Prepared: 09/18/23 Analyzed: 09/19/23
Gasoline Range Organics (C6-C10)	45.8	20.0	50.0		91.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.06*		*8.00*		*88.2*	*70-130*			
Matrix Spike (2338003-MS2)				**Source: E309120-01**					Prepared: 09/18/23 Analyzed: 09/19/23
Gasoline Range Organics (C6-C10)	45.0	20.0	50.0	ND	90.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	*6.94*		*8.00*		*86.8*	*70-130*			
Matrix Spike Dup (2338003-MSD2)				**Source: E309120-01**					Prepared: 09/18/23 Analyzed: 09/19/23
Gasoline Range Organics (C6-C10)	44.9	20.0	50.0	ND	89.9	70-130	0.108	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	*7.00*		*8.00*		*87.5*	*70-130*			

envirotech Inc.

QC Summary Data

Dugan Production Corp.	Project Name:	Strawberry BGT	**Reported:**
PO Box 420	Project Number:	06094-0177	
Farmington NM, 87499	Project Manager:	Kevin Smaka	9/22/2023 11:12:26AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2338059-BLK1)									Prepared: 09/20/23 Analyzed: 09/20/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*42.4*		*50.0*		*84.7*	*50-200*			
LCS (2338059-BS1)									Prepared: 09/20/23 Analyzed: 09/20/23
Diesel Range Organics (C10-C28)	248	25.0	250		99.1	38-132			
Surrogate: n-Nonane	*43.3*		*50.0*		*86.5*	*50-200*			
Matrix Spike (2338059-MS1)				**Source: E309126-01**					Prepared: 09/20/23 Analyzed: 09/20/23
Diesel Range Organics (C10-C28)	244	25.0	250	ND	97.6	38-132			
Surrogate: n-Nonane	*38.7*		*50.0*		*77.4*	*50-200*			
Matrix Spike Dup (2338059-MSD1)				**Source: E309126-01**					Prepared: 09/20/23 Analyzed: 09/20/23
Diesel Range Organics (C10-C28)	242	25.0	250	ND	96.7	38-132	0.927	20	
Surrogate: n-Nonane	*41.3*		*50.0*		*82.6*	*50-200*			

envirotech Inc.

QC Summary Data

Dugan Production Corp.	Project Name:	Strawberry BGT	**Reported:**
PO Box 420	Project Number:	06094-0177	
Farmington NM, 87499	Project Manager:	Kevin Smaka	9/22/2023 11:12:26AM

Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2338053-BLK1)									Prepared: 09/20/23 Analyzed: 09/21/23
Chloride	ND	20.0							
LCS (2338053-BS1)									Prepared: 09/20/23 Analyzed: 09/21/23
Chloride	261	20.0	250		104	90-110			
Matrix Spike (2338053-MS1)				**Source: E309120-01**					Prepared: 09/20/23 Analyzed: 09/21/23
Chloride	292	20.0	250	30.3	105	80-120			
Matrix Spike Dup (2338053-MSD1)				**Source: E309120-01**					Prepared: 09/20/23 Analyzed: 09/21/23
Chloride	284	20.0	250	30.3	102	80-120	2.83	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

Dugan Production Corp.	Project Name:	Strawberry BGT	
PO Box 420	Project Number:	06094-0177	**Reported:**
Farmington NM, 87499	Project Manager:	Kevin Smaka	09/22/23 11:12

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information

Chain of Custody

Page 1 of 1

Client: Pugea
Project: Strawberry BGT
Project Manager: Kevin Smaka
Address:
City, State, Zip
Phone:
Email:
Report due by:

Bill To
Attention:
Address:
City, State, Zip
Phone:
Email:

Lab Use Only
Lab WO#: E309120
Job Number: 06094-0177

TAT: 1D | 2D | 3D | Standard X

EPA Program: CWA | SDWA | RCRA

State: NM | CO | UT | AZ | TX

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX					Remarks
10:00	9-15	S	1	Strawberry BGT	1	X	X	X			X	X						

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Kevin Smaka

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Kevin Smaka	9-15	1:20	[signature]	9.15.23	13:20
	9-15				

Lab Use Only
Received on Ice: (Y) N
T1 ____ T2 ____ T3 ____
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other ______

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 9/15/2023 2:55:33PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Dugan Production Corp.	Date Received:	09/15/23 13:20	Work Order ID:	E309120
Phone:	505-486-6207	Date Logged In:	09/15/23 14:54	Logged In By:	Caitlin Mars
Email:	kevin.smaka@duganproduction.com	Due Date:	09/22/23 17:00 (5 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Kevin Smaka
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	Yes	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Comments/Resolution

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes

Sample Cooler

7. Was a sample cooler received?	Yes
8. If yes, was cooler received in good condition?	Yes
9. Was the sample(s) received intact, i.e., not broken?	Yes
10. Were custody/security seals present?	No
11. If yes, were custody/security seals intact?	NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes
13. If no visible ice, record the temperature. Actual sample temperature: 4°C	

Sample Container

14. Are aqueous VOC samples present?	No
15. Are VOC samples collected in VOA Vials?	NA
16. Is the head space less than 6-8 mm (pea sized or less)?	NA
17. Was a trip blank (TB) included for VOC analyses?	NA
18. Are non-VOC samples collected in the correct containers?	Yes
19. Is the appropriate volume/weight or number of sample containers collected?	Yes

Field Label

20. Were field sample labels filled out with the minimum information:	
Sample ID?	Yes
Date/Time Collected?	Yes
Collectors name?	Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No
22. Are sample(s) correctly preserved?	NA
24. Is lab filteration required and/or requested for dissolved metals?	No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA

Subcontract Laboratory

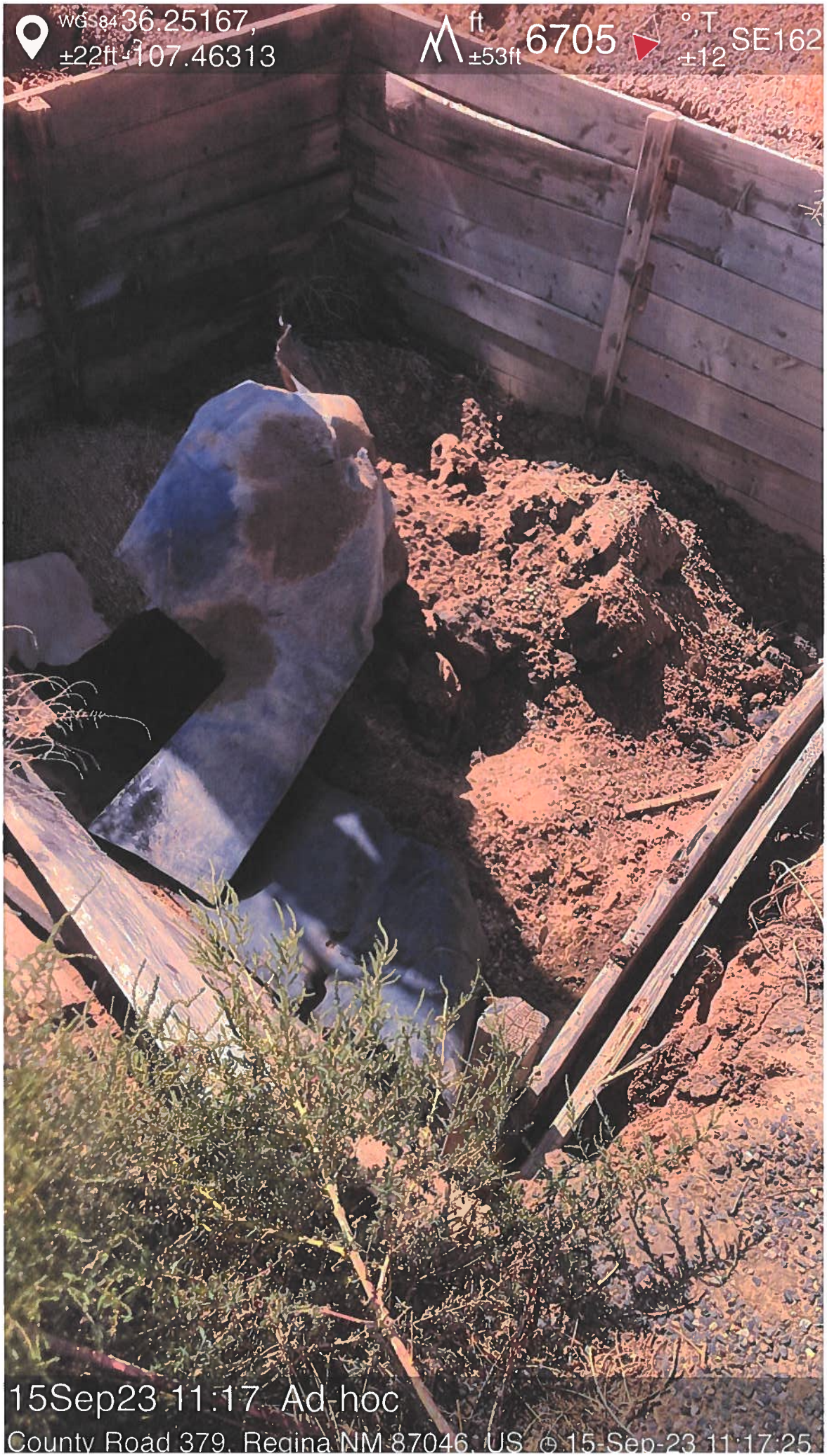
28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: na

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.



District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 277117

CONDITIONS

Operator: DUGAN PRODUCTION CORP PO Box 420 Farmington, NM 87499	OGRID: 6515
	Action Number: 277117
	Action Type: [C-144] Below Grade Tank Plan (C-144B)

CONDITIONS

Created By	Condition	Condition Date
vvenegas	None	10/30/2023