

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

Form C-144  
July 21, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.  
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

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

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

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, 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.

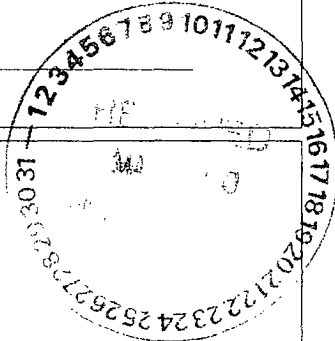
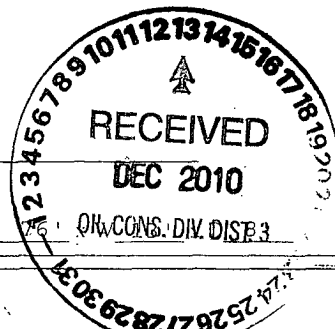
1. Operator: Dugan Production Corp. OGRID #: 006515  
Address: 709 East Murray Drive, Farmington, New Mexico 87401  
Facility or well name: Sanchez O'Brien #90-S  
API Number: 30-045-35146 OCD Permit Number: \_\_\_\_\_  
U/L or Qtr/Qtr E Section 6 Township 24N Range 9W County: San Juan County  
Center of Proposed Design: Latitude 36.34633 N Longitude 107.83498 W NAD: ☐ 1927 ☒ 1983  
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2. ☒ Pit: Subsection F or G of 19.15.17.11 NMAC  
Temporary: ☒ Drilling ☐ Workover  
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A  
☒ Lined ☐ Unlined Liner type: Thickness 20 mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other \_\_\_\_\_  
☒ String-Reinforced  
Liner Seams: ☐ Welded ☒ Factory ☐ Other \_\_\_\_\_ Volume: 600 bbl Dimensions: L 76 W 12 H 12

3. ☐ Closed-loop System: Subsection H of 19.15.17.11 NMAC  
Type of Operation: ☐ P&A ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)  
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other \_\_\_\_\_  
☐ Lined ☐ Unlined Liner type: Thickness \_\_\_\_\_ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other \_\_\_\_\_  
Liner Seams: ☐ Welded ☐ Factory ☐ Other \_\_\_\_\_

4. ☐ Below-grade tank: Subsection I of 19.15.17.11 NMAC  
Volume: \_\_\_\_\_ bbl Type of fluid: \_\_\_\_\_  
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 \_\_\_\_\_ mil ☐ HDPE ☐ PVC ☐ Other \_\_\_\_\_

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



6.

**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' Hogwire

7.

**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)

8.

**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 19.15.3.103 NMAC

9.

**Administrative Approvals 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:*

- ☒ Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.
- ☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

10.

**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. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.*

Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. ( <i>Applies to temporary, emergency, or cavitation pits and below-grade tanks</i> ) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. ( <i>Applies to permanent pits</i> ) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within a 100-year floodplain. - FEMA map _____	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

11.

**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: 30-045- or Permit Number: \_\_\_\_\_

12.

**Closed-loop Systems 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.*

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - 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: \_\_\_\_\_

☐ Previously Approved Operating and Maintenance Plan API Number: \_\_\_\_\_ (Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

13.

**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<sub>2</sub>S, 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

14.

**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 ☐ Closed-loop System ☐ 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 (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15.

**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 F 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 I of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

16.

**Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:** (19.15.17.13.D NMAC)

*Instructions: Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.*

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please provide the information below) ☐ No

*Required for impacted areas which will not be used for future service and operations:*

☐ 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 I of 19.15.17.13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

17.

**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 may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.*

Ground water is less than 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 between 50 and 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

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 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 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 private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, 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

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 500 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ 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

18.

**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 F of 19.15.17.13 NMAC

☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements 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 Subsection F of 19.15.17.13 NMAC

☒ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F 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 I of 19.15.17.13 NMAC

☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19.

**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): Kurt Fagrelus

Title: Vice President, Exploration

Signature: Kurt Fagrelus

Date: August 24, 2009

e-mail address: kfagrelus@duganproduction.com

Telephone: 505-325-1821 (o), 505-320-8248 (H)

20.

**OCD Approval:** ☒ Permit Application (including closure plan) ☒ Closure Plan (only) ☐ OCD Conditions (see attachment)OCD Representative Signature: Bob BallApproval Date: 7/9/10Title: Enviro Spec

OCD Permit Number: \_\_\_\_\_

21.

**Closure Report (required within 60 days of closure completion):** Subsection K of 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: 11/26/2010

22.

**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.

23.

**Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:***Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.*

Disposal Facility Name: \_\_\_\_\_

Disposal Facility Permit Number: \_\_\_\_\_

Disposal Facility Name: \_\_\_\_\_

Disposal Facility Permit Number: \_\_\_\_\_

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No*Required for impacted areas which will not be used for future service and operations:*

- ☐
- Site Reclamation (Photo Documentation)
- 
- ☐
- Soil Backfilling and Cover Installation
- 
- ☐
- Re-vegetation Application Rates and Seeding Technique

24.

**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)
- 
- ☒
- 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 36.34627 N Longitude 107.83508 W NAD: ☐ 1927 ☒ 1983

25.

**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): Kurt FagrelusTitle: GeologistSignature: Kurt FagrelusDate: 12/1/2010e-mail address: Kfagrelus@duganproduction.comTelephone: 505-325-1821

**Dugan Production Corp.  
Closure Report**

Lease Name: Sanchez O'Brien #90S  
API No.: 30-045-35146

In accordance with Rule 10.15.17.13 NMAC the following information describes the closure of the temporary pit referenced above. All proper documentation concerning closure activities is included with the C-144. The temporary pit for this location was an approved design under Rule 19.15.17. **The closure plan for the temporary pit was submitted on 8-24-2009 and approved on 7-9-2010.**

1. Comply with siting criteria for temporary pits established by the State of New Mexico, Energy Minerals and Natural Resources Department 19.15.17.10 NMAC.

**See approved permit dated 7-9-2010.**

2. Provide the NMOCD district office at least 72-hours notice but no greater than 1-week prior to any closure operations. Notice will include operator name, well name and number, API number, and location (unit letter, section, township and range).

**See email notification dated 11-22-2010.**

3. Provide the surface owner notice of the operator's proposal of an on-site closure method. Proof of notice will be attached to the permit application. Also, proof of closure notice will be provided by certified mail to surface owner after closure. Proof of notice will be attached to final closure report.

**Federal surface, certified notification not applicable as per BLM/OCD MOU.**

4. Remove all liquid from pit and reclaim, re-use or dispose of at an NMOCD approved facility. Upon completion of drilling operations, drilling mud will be vacuumed from pit and transported to the next reserve pit for re-use at another drilling location. After the remaining mud settles, the free water that shakes out and any free water left over from completion operations will be hauled to the Dugan Production operated Sanchez O'Brien #1 SWD located 1650 feet from the South line and 990 feet from the West line (Unit L) of Section 6, Township 24 North, Range 9 West NMPM, San Juan County, New Mexico. The disposal facility was permitted by the NMOCD with Administrative Order SWD-694.

**Drilling rig was released 9-10-2010) and drilling mud was transferred to the Coaly #3 for re-use (9-11-2010). Remaining free water was transferred to Basin Disposal Inc. (see attached invoice #508803) and the Sanchez O'Brien SWD #1 salt water disposal well. Remaining water and wet mud was transferred by Polaris Services to IEI Industrial Ecosystems Inc. on 11/12/2010 (see attached invoices #7357 and 15513).**

5. Remove all fluids from temporary pit within 30-days and close within 6-months following release of drilling rig.

**Free water was removed within 30-days and temporary pit was closed (11-27-2010).**

6. Air dry pit contents and stabilize or solidify to a load bearing capacity sufficient to support the temporary pit's final cover.

**Pit contents were allowed to dry prior to temporary pit closure.**

7. Collect a five point, composite sample of the pit contents to demonstrate that Benzene, BTEX, the GRO and DRO combined fraction, TPH, and chlorides (depth to groundwater from bottom of pit is greater than 100-feet), do not exceed the standards as specified in 19.15.17.9.B or the background concentration, whichever is greater.

**A five point composite sample was taken of remaining cuttings in temporary pit and was tested**

in accordance with Subsection B of 19.15.17.13 (B)(1)(b)(ii). Depth from bottom of pit to top of ground-water is greater than 100-feet. Sample results are attached.

Components	Test Method	Limit (mg/kg)	*Results (mg/kg)
Benzene	EPA SW-846 8021B or 8260B	0.2	<0.100
BTEX	EPA SW-846 8021B or 8260B	50	<0.300
TPH	EPA SW-846 418.1	2500	452
GRO/DRO	EPA SW-846 8015M	500	<10
Chlorides	EPA 300.1	1000 / 500	784

8. Other methods if the standards in 19.15.17.9.B can not be met will include: The pit contents may be mixed to a ratio not to exceed 3:1, un-contaminated soil or other material to pit contents. A second five point, composite sample of the contents after treatment or stabilization will be taken to demonstrate that the contents do not exceed the standards. If the second soil analyses do not satisfy the closure standards, the operator will close the temporary pit using the waste excavation and removal method.

**Not applicable, testing standards of 19.15-17.9 were met.**

9. Cut pit liner off at the mud line (solids level); remove liner and apron and transport to a NMOCD approved facility for disposal.

**Pit liner was removed 11-27-2010 and disposed of at the Crouch Mesa Waste Management facility on 11-27-2010 (see attached invoice #1322299).**

10. Stockpiled sub-surface soil will be used to backfill pit and re-contour well pad (to a final or intermediate cover that blends with the surrounding topography). A minimum of four-feet of compacted, non-waste containing, earthen material will be used as backfill.

**Stockpiled sub-surface soil was used to backfill temporary pit and re-contour well pad. A minimum of four-feet of compacted, non-waste containing, earthen material was used to backfill pit.**

11. Stockpiled surface soil will be used as a cover over the backfilled pit and disturbed areas of the well pad no longer needed for production operations. The soil cover will include either the background thickness of top soil or one foot of suitable material to establish vegetation at the site whichever is greater.

**Stockpiled surface soil was used to cover backfilled temporary pit and disturbed areas of the well pad no longer needed for production operations. The soil cover included the greater of either the background thickness or one foot of suitable material necessary to establish vegetation. The location was re-contoured to approximate the original topography of the site and diversions were constructed to protect soil cover and minimize erosion.**

12. The area will be re-seeded as per BLM guidelines. Re-seeding will be repeated until 70% of the native natural cover is achieved and maintained for two successive growing seasons. The first growing season after the pit is closed the disturbed area will be re-seeded. The seeding method will be to drill on contour whenever possible.

**Re-seeding will be done according to BLM guidelines as specified by BLM/OCD memorandum of understanding.**

13. The NMOCD will be notified once successful re-vegetation has been achieved.

**Re-seeding will be done according to BLM guidelines as specified by BLM/OCD memorandum of understanding.**

14. A steel marker will be set at the center of the on-site burial following onsite-pit closure (see application for administrative approval). The marker will be (24" X 24") and will have the operator name, lease name, well number, location (UL, Sec., Twp. and Rge.) and that it designates an "on-site burial location" lettering welded on the

top side with a 4" threaded collar welded to the bottom side. The marker will be set at ground level and attached to a 4" diameter pipe that is cemented in a hole three feet deep. When the well is abandoned, a steel riser that is 4" in diameter, extending 4' above the ground will be welded to the pipe anchored in cement below the surface. The riser will have lettering welded on side showing operator name, well number, location (UL, Sec., Twp., and Rge.) and that it designates an on-site burial location.

**A flat steel marker (24" X 24") with the lettering "on-site burial location" was set at ground-level in the center of the burial site. The marker is welded to a 4" pipe that is cemented in a 3-foot deep hole and is shown in the attached photographs (administrative approval was received). When the well is P&A'd, the steel plate will be removed and a riser that is 4" in diameter, extending 4' above the ground will be welded to the pipe anchored in cement below the surface. The riser will have lettering welded on the side showing operator name, well number, location (UL, Sec., Twp., and Rge.) and that it designates an on-site burial location.**

15. Closure Report will be submitted within 60-days of completion of temporary pit closure. Closure report will include the following:
- 1) Proof of Closure Notice.
  - 2) Proof of Deed Notice (if applicable).
  - 3) Plot Plan.
  - 4) Confirmation Sampling Analytical Results.
  - 5) Waste Material Sampling Analytical Results.
  - 6) Disposal Facility Name and Permit Number.
  - 7) Soil Backfilling and Cover Installation.
  - 8) Re-vegetation Application Rates and Seeding Technique.

**All items listed above if applicable are attached and submitted on this date.**

16. A deed notice identifying the exact location of the on-site burial will be filed with the County clerk in the county where the on-site burial occurs.

**Federal surface, deed notice identifying exact location of on-site burial is not applicable according to BLM/OCD MOU.**



Dugan Production Corp.  
709 East Murray Drive  
Farmington, NM 87401

Well Name:  
Location:  
Drilling Operator:  
Well #:

Dugan Prod  
Sanchez DB Line # 90-5

Start Date:

8-24-9-1-10

Stop Date:  
Days Moved Off

Time to Remove Liquids by:  
(Days from rig release)

Time to Close Pit by:  
(Days from rig release)

Book of Daily Inspections during Drilling / workover operations, weekly after rig is moved off.

Date	Signature	Freeboard (> 2-ft.) Yes / No	Tears or Holes Yes / No	Oil Yes / No	Trash Yes / No	Remarks
8-31	Wayne Smith	✓	✓	✓	✓	Trans Fwd 7 Loads 450 bbls
9-1	John	4'	✓	✓	✓	1 Load Fresh 8 Cement 1-1-1 800 bbls
9-3	Wayne Smith	4'	✓	✓	✓	OFF-LOGS 9-2-10
9-7	Wayne Smith	4'	✓	✓	✓	Pressure Test All, Plug Cement
9-8	Wayne Smith	4'	✓	✓	✓	600 bbls Fluid insp. 1.0 bbls 300
9-9	Wayne Smith	3 1/2'	✓	✓	✓	Mixed Spud - 8.5'
9-10	Wayne Smith	3 1/2'	✓	✓	✓	WL 6 - Clog 4, 400
9-11	Kurt Fry					Lost 40 bbls mud Add 1 Load wt. Run Casing & Cement Raised pit level to 3' Transfer Mud to Casing

**Kurt Fagrellius**

**From:** Kurt Fagrellius  
**Sent:** Monday, November 22, 2010 11:12 AM  
**To:** 'Powell, Brandon, EMNRD'; 'Spencer, Bertha'; Evan Rowland (erowland@slo.state.nm.us); 'dave\_mankiewicz@nm.blm.gov'; 'Mark\_Kelly@nm.blm.gov'; 'lucas\_vargo@blm.gov'; Kurt Fagrellius  
**Subject:** Notice to Close Temporary Drilling Reserve Pits  
**Attachments:** 72-Hr Notice to Close Temp Drig Pits 11-26&27-2010.xls

November 22, 2010

Mr. Brandon Powell, Ms. Bertha Spencer, Mr. Evan Rowland, Mr. Dave Mankiewicz, Mr. Mark Kelly and Mr. Lucas Vargo,

Dugan Production Corp. is hereby giving notice that Dugan will be closing the following drilling reserve pits (Temporary Pits):

- 1) Federal I Com #102S – Private Surface
- 2) Coaly #3 – Navajo Tribal Trust Surface
- 3) Martinez Begay Com #1 – Navajo Allotted Surface
- 4) Sixteen G's #90S – Federal Surface
- 5) Sixteen G's Com #91 – Federal Surface
- 6) Sixteen G's Com #91S – Federal Surface
- 7) Sanchez O'Brien #90S – Federal Surface

Site specific and cuttings analysis information for each drilling reserve pit is included in the enclosed attachment.

Depending on prevailing weather conditions, those highlighted in red (#'s 1 - 3) will be closed on Friday, November 26, 2010; and those highlighted in blue (#'s 4 - 7) will be closed on Saturday, November 27, 2010.

If you have any questions or require additional information, please contact me.

Kurt Fagrellius  
Dugan Production Corp.  
709 East Murray Drive  
Farmington, New Mexico 87401  
505-325-1821 (O), 505-320-8248 (C)  
kfagrellius@duganproduction.com

11/24/2010

**Dugan Production Corp. Permanent Pits to be Closed on November 8, 2010**

Lease Name	Federal I Com #102S	Coaly #3	Martinez Begay Com #1
API Number	30-045-35013	30-045-35012	30-045-34983
Surface Owner - Notice Sent	Private	Navajo Tribal Trust	Navajo Allotted
Location - UL, Sec., Twp, Rge	I-12-29N-14W	P-28-27N-12W	P-34-24N-10W
Latitude	36.74038 N	36.54076 N	36.26631 N
Longitude	108.25630 W	108.11156 W	107.887816 W
Benzene (<0.2 mg/kg)	<0.050 mg/kg	<0.100 mg/kg	<0.100 mg/kg
Betex (<50 mg/kg)	0.201 mg/kg	<0.300 mg/kg	<0.300 mg/kg
TPH - Analytic Mthd-418.1 (<2500 mg/kg)	517 mg/kg	386 mg/kg	473 mg/kg
GRO + DRO - Analytic Mthd-8015 (<200 mg/kg)	15.6 mg/kg	35.9 mg/kg	<10 mg/kg
Chlorides (<1000 mg/kg)	448 mg/kg	544 mg/kg	752 mg/kg
Thresholds as per "Pit Rule" 19.15.17 NMAC are highlighted in red.			

**Dugan Production Corp. Permanent Pits to be Closed on November 8, 2010**

Sixteen G's #90S 30-045-35143	Sixteen G's Com #91 30-045-35144	Sixteen G's Com #91S 30-045-35145	Sanchez O'Brie #90S 30-045-35146
Federal D-7-24N-9W 36.33228 N 107.83704 W	Federal M-7-24N-9W 36.32419 N 107.83658 W	Federal O-7-24N-9W 36.32446 N 107.82612 W	Federal E-6-24N-9W 36.34627 N 107.83508 W
<0.050 mg/kg <0.150 mg/kg 80 mg/kg <10 mg/kg 560 mg/kg	0.061 mg/kg 0.536 mg/kg 32 mg/kg <10 mg/kg 768 mg/kg	<0.050 mg/kg 0.288 mg/kg 20 mg/kg <10 mg/kg 368 mg/kg	<0.100 mg/kg <0.300 mg/kg 452 mg/kg <10 mg/kg 784 mg/kg

## Kurt Fagrelius

---

**From:** System Administrator  
**To:** Kurt Fagrelius  
**Sent:** Monday, November 22, 2010 11:12 AM  
**Subject:** Delivered: Notice to Close Temporary Drilling Reserve Pits

Your message

**To:** Powell, Brandon, EMNRD; Spencer, Bertha; Evan Rowland (erowland@slo.state.nm.us); dave\_mankiewicz@nm.blm.gov; Mark\_Kelly@nm.blm.gov; lucas\_vargo@blm.gov; Kurt Fagrelius  
**Subject:** Notice to Close Temporary Drilling Reserve Pits  
**Sent:** 11/22/2010 11:12 AM

was delivered to the following recipient(s):

Kurt Fagrelius on 11/22/2010 11:12 AM

## Kurt Fagrelius

---

**From:** Rowland, Evan [erowland@slo.state.nm.us]  
**To:** Kurt Fagrelius  
**Sent:** Monday, November 22, 2010 1:33 PM  
**Subject:** Read: Notice to Close Temporary Drilling Reserve Pits

Your message

To: erowland@slo.state.nm.us  
Subject:

was read on 11/22/2010 1:33 PM.

## Kurt Fagrelus

---

**From:** Mark\_Kelly@blm.gov  
**Sent:** Tuesday, November 23, 2010 6:09 AM  
**To:** Kurt Fagrelus  
**Subject:** Notice to Close Temporary Drilling Reserve Pits

### Return Receipt

Your Notice to Close Temporary Drilling Reserve Pits  
document:

was Mark Kelly/FFO/NM/BLM/DOI  
received  
by:

at: 11/23/2010 06:09:15 AM

## Kurt Fagrelius

---

**From:** Lucas\_Vargo@blm.gov  
**Sent:** Tuesday, November 23, 2010 9:29 AM  
**To:** Kurt Fagrelius  
**Subject:** Notice to Close Temporary Drilling Reserve Pits

### Return Receipt

Your Notice to Close Temporary Drilling Reserve Pits  
document:

was Lucas Vargo/FFO/NM/BLM/DOI  
received  
by:

at: 11/23/2010 09:29:19 AM



## Kurt Fagrelius

---

**From:** postmaster@duganproduction.com  
**Sent:** Monday, November 22, 2010 11:13 AM  
**To:** Kurt Fagrelius  
**Subject:** Delivery Status Notification (Relay)

**Attachments:** ATT20879.txt; Notice to Close Temporary Drilling Reserve Pits

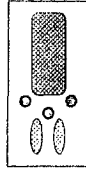


ATT20879.txt (407 B) Notice to Close  
Temporary Dril...

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

Brandon.Powell@state.nm.us



**BASIN DISPOSAL, INC.**  
SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD  
P.O. BOX 100 • AZTEC, NEW MEXICO 87410 • PHONE (505) 832-8936

NO. **508803**

NMOC D PERMIT: NM -001-0005  
Oil Field Waste Document, Form C138  
INVOICE:

DATE 10-21-10

DEL. TKT# 6584

GENERATOR: DUGAN

BILL TO: DUGAN

HAULING CO. SSO water service

DRIVER: Justin

ORDERED BY: Murt Fadrhelias

CODES: \_\_\_\_\_  
(Print Full Name)

WASTE DESCRIPTION: ☒ Exempt Oilfield Waste

☒ Produced Water

☐ Drilling/Completion Fluids

☐ Reserve Pit

STATE: ☒ NM ☐ CO ☐ AZ ☐ UT TREATMENT/DISPOSAL METHODS: ☒ EVAPORATION ☒ INJECTION ☒ TREATING PLANT

NO.	TRUCK	LOCATION(S)	VOLUME	AM	PM	COST	TOTAL	TIME
1	2	CEALYS	80			854	689	OCT 21 10:56AM
2		MACHINES BEHAT 90						
3		2AACHIZ ABRIEN 90 / SIXTEEN 65						
4		SIXTEEN 65 / COM 91						
5								
TOTAL								

I, [Signature] representative or authorized agent for the above generator and hauler hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination that the above described waste is RCRA Exempt, Oil field wastes generated from oil and gas exploration and production operations and not mixed with non-exempt waste, per OCD's mixing policy.

☒ Approved

☐ Denied

ATTENDANT SIGNATURE: [Signature]

# POLARIS SERVICES, LLC

## HYDRO-EXCAVATION & CONTROLLED RECOVERY SERVICES

P.O. Box 1060  
Aztec, NM 87410  
(505) 334-5300

2211 FM 920  
Weatherford, TX 70688  
(817) 594-6770

**"THE DIFFERENCE BETWEEN DARK & DAYLIGHT"**

Job Date: 11-12-10  
Operator: Joseph Abeyta  
Unit #: 502  
Mileage: (Start) \_\_\_\_\_  
(Finish) \_\_\_\_\_

Company Name: DUGAN PRODUCTION  
Company Rep: Curt Fagerluis  
Purchase Order / Job #: \_\_\_\_\_  
Location: Canby #3 / Saddle Union  
County/State: \_\_\_\_\_

### PRE-JOB HAZARD ANALYSIS

Worksite Identified YES ☒ NO ☐  
One Call Confirmed YES ☒ NO ☐  
Overhead Power Lines YES ☒ NO ☐  
Loaded Lines YES ☒ NO ☐  
Confined Space Entry YES ☒ NO ☐  
Customer Present YES ☒ NO ☐  
Hazardous Materials Onsite YES ☒ NO ☐  
Excavation Permit Required YES ☒ NO ☐  
Hot Work Permit Required YES ☒ NO ☐  
Contaminated Soil Onsite YES ☒ NO ☐  
Other: \_\_\_\_\_

### TAILGATE SAFETY MEETING

Job Hazard Analysis Discussed With Work Crew YES ☒ NO ☐  
Specific Topics Discussed: SEEKING TRAFFIC

Personal Protective Equipment Required: (circle all that apply)  
Hard Hats Steel Toes Face Shields Safety Glasses Gloves FRC's

Attendance (name and company)  
Joseph Abeyta

JOB DESCRIPTION: Pulled two loads off reserve pits and hauled loads to IET to dump and wash out.

ITEMIZED CHARGES		HRS./QTY	RATE	TOTAL
Hydro-Excavation Unit *Unit rate includes Operator and Assistant				
Travel Rate (Portal to Portal)				
Dump Charges (If Applicable)				
Travel Per Diem (If Applicable)				
Project Coordinator (If Requested) *Includes Pickup				
Support Truck (If Requested)				
Support Personnel (If Requested)				
500 Gallon Water Trailer				
Fuel Surcharge				

By signing below, you agree that all hours are accurate and that work was performed to the satisfaction of the customer.

Operator Signature: \_\_\_\_\_  
Customer Signature: Kurt Fagerluis

TAX  
TOTAL

WORK TICKET # **7357**

Distribution: WHITE - Accounting CANARY - File Copy PINK - Customer Copy GOLDEN ROD - Book Copy

san juan reproduction 371-5

PLEASE PAY FROM INVOICE TO FOLLOW



Invoice Number: 15513  
Invoice Date: Nov 18, 2010  
Page: 1

**Industrial Ecosystems Inc.**

P.O. Box 1202

Flora Vista, NM 87415

PH: (505) 632-1782 Fax: (505) 632-1876

PLEASE REMIT PAYMENT TO:

Industrial Ecosystems, Inc.

PO Box 1202

Flora Vista, NM 87415

TAX I.D. #94-3200034

Sold To: DUGAN PRODUCTION CORP  
709 E MURRAY DRIVE  
FARMINGTON, NM 87499-0420

Location: KURT FAGRELIUS  
SANCHEZ O'BRIEN #90-S

Contact	Payment Terms	Due Date	Customer PO
KURT FAGRELIUS	Net 30 Days	12/18/10	

Quantity	Description	Unit Price	Extension
	DATE OF SERVICE: 11/12/10		
	IEI WO #14995		
	MATERIAL TRANSPORTED BY POLARIS, 502		
	DISPOSED OF DRILL MUD		
1.00	CHLORIDE TEST	15.00	15.00
55.00	CHLORIDE TEST	17.50	962.50

**FOR BILLING INQUIRIES PLEASE CALL  
(505) 632-1782**

ACCOUNTS ARE DUE NET 30 DAYS. PURCHASER AGREES TO PAY  
FINANCE CHARGES OF 1.5% PER MONTH (ANNUAL PERCENTAGE RATE  
OF 18%) OR A MINIMUM CHARGE OF .50 PER MONTH. ACCOUNTS THAT  
HAVE BEEN PLACED FOR COLLECTION WILL BE CHARGED A \$100.00  
COLLECTION FEE IN ADDITION TO REASONABLE ATTORNEY FEES AND  
COLLECTION CHARGES.

Subtotal	977.50
Sales Tax	61.70
Total Invoice Amount	1,039.20
<b>TOTAL</b>	<b>1,039.20</b>



November 21, 2010

KURT FAGRELIUS

DUGAN PRODUCTION

P. O. BOX 420

FARMINGTON, NM 87499

RE: PIT CLOSURES

Enclosed are the results of analyses for samples received by the laboratory on 11/16/10 10:00.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBES, NM 88240

**Analytical Results For:**

DUGAN PRODUCTION  
KURT FAGRELIUS  
P. O. BOX 420  
FARMINGTON NM, 87499  
Fax To: (505) 327-4043

Received: 11/16/2010  
Reported: 11/21/2010  
Project Name: PIT CLOSURES  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 11/12/2010  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Hope S. Moreno

**Sample ID: SANCHEZ O'BRIEN #90-S (H021305-01)**

BTX 8260B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.100	0.100	11/19/2010	ND	4.59	115	4.00	5.41	
Toluene*	<b>0.119</b>	0.100	11/19/2010	0.114	4.70	118	4.00	5.75	
Ethylbenzene*	<0.100	0.100	11/19/2010	ND	4.64	116	4.00	6.17	
Total Xylenes*	<0.300	0.300	11/19/2010	ND	13.8	115	12.0	6.36	

Surrogate: Dibromofluoromethane 97.2 % 80-120

Surrogate: Toluene-d8 101 % 80-120

Surrogate: 4-Bromofluorobenzene 106 % 80-120

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>784</b>	16.0	11/18/2010	ND	432	108	400	0.00	

TPH 418.1		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TPH 418.1	<b>452</b>	100	11/17/2010	ND	1260	110	1140	0.478	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/18/2010	ND	163	81.3	200	3.90	
DRO >C10-C28	<10.0	10.0	11/18/2010	ND	158	79.2	200	3.14	
Total TPH C6-C28	<10.0	10.0	11/18/2010						

Surrogate: 1-Chlorooctane 103 % 70-130

Surrogate: 1-Chlorooctadecane 107 % 70-130

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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Celey D. Keene, Lab Director/Quality Manager



Analytical  
Laboratories

## CHAIN OF CUSTODY RECORD

Page \_\_\_\_ of \_\_\_\_

Client: Neon Production

Contact: Justin Ferguson

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

FAX Number: \_\_\_\_\_

### NOTES:

- 1) Ensure proper container packaging.
- 2) Ship samples promptly following collection.
- 3) Designate Sample Reject Disposition.

PO# \_\_\_\_\_

Project Name: \_\_\_\_\_

Samplers Signature: \_\_\_\_\_

Table 1. - Matrix Type

1 = Surface Water, 2 = Ground Water  
3 = Soil/Sediment, 4 = Rinseate, 5 = Oil  
6 = Waste, 7 = Other (Specify) \_\_\_\_\_

FOR CUL USE ONLY

GAL JOB # \_\_\_\_\_

Lab Name: Green Analytical Laboratories (970) 247-4220 FAX (970) 247-4227

Address: 75 Suttle Street, Durango, CO 81303

Sample ID	Date	Time	Collected by: (Init.)	Miscellaneous				Preservative(s)					Analytes Required	Comments	
				Matrix Type From Table 1	No. of Containers	Sample Filtered ? Y/N	Unpreserved (Ice Only)	HNO3	HCL	H2SO4	NaOH	Other (Specify)			
1. <u>Sample 2</u>	<u>11-12-10</u>	<u>1:00 PM</u>													
2. <u>Obvious</u>															
3. <u>#9015</u>															
4.															
5.															
6.															
7.															
8.															
9.															
10.															

Requisitioned by: Justin Ferguson Date: 11-12-10 Time: \_\_\_\_\_  
Received by: Justin Ferguson Date: 11-12-10 Time: \_\_\_\_\_  
Requisitioned by: Justin Ferguson Date: \_\_\_\_\_ Time: \_\_\_\_\_  
Received by: Justin Ferguson Date: \_\_\_\_\_ Time: \_\_\_\_\_

\* Sample Reject: [ ] Return [ ] Dispose [ ] Store (30 Days)





Waste Management  
16 County Road 3140  
Creston, IA 52410  
Tel: (319) 338-1111

Invoice # 1000000000  
Invoice Date 10/22/90

Customer Name DUFFIN PRODUCTION GROUP  
Invoice Date 11/17/90  
Payment Type Credit Account  
Original Invoice #  
Billing Invoice #  
Invoice # 1000000000  
State Waste Code  
Manifest  
Destination Grid  
PQ  
Profile  
Generator

Time	Service	Operator	Inbound	Weight	Weight
11/17/90 15:30	Inbound	101	10680	10680	10680
11/17/90 16:11	Inbound	101	10680	10680	10680
				Net	1140
				Tons	0.57

Comments

Product	Unit	Rate	Amount	Weight
100% 100% 100% 100%	100%	100%	100%	100%

King's Footprints

Original in 16-6's #90-5

→ Sixteen 6's #90-5

#91

#91-5

Sender O'Brien #90-5

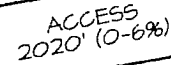
Driver's Signature

Total (10)  
Total (10)


## PLAT 3.

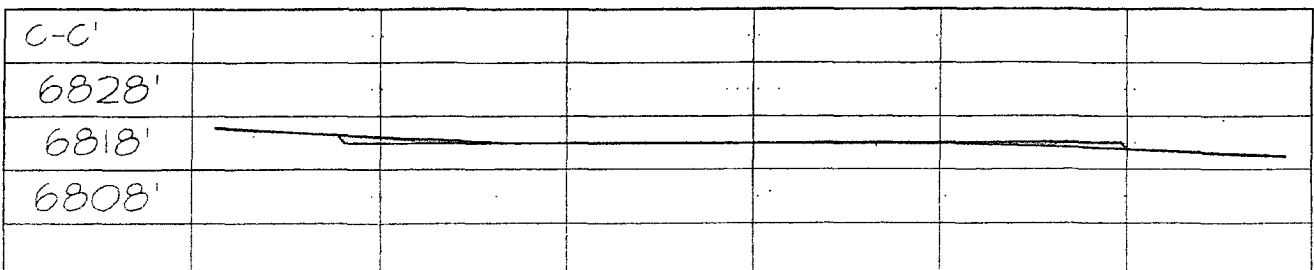
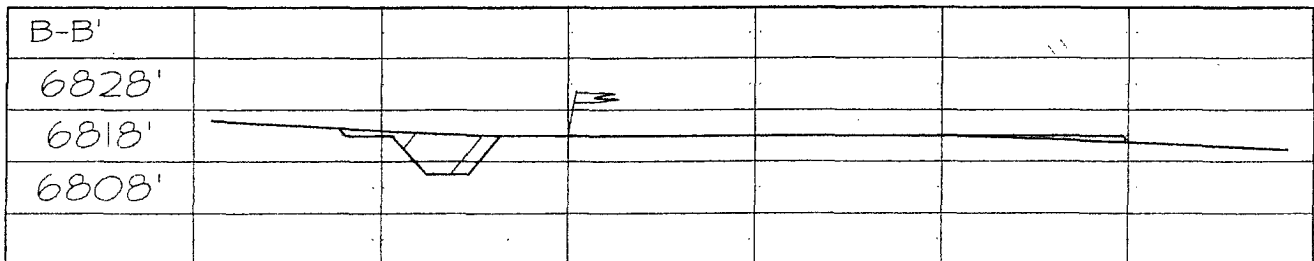
PLAT NOTE:

\*SURFACE OWNER\*  
Bureau of Land  
Management



LATITUDE: 36.34627° N  
LONGITUDE: 107.83508° W  
DATUM: NAD83

A-A'	
6828'	
6818'	
6808'	



Note: Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least two (2) working days prior to construction

District I  
1625 N. French Dr., Hobbs, NM 88240

District II  
1301 W. Grand Avenue, Artesia, NM 88210

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102

Revised October 12, 2005

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-045-38146</b>	<sup>2</sup> Pool Code 71629	<sup>3</sup> Pool Name BASIN FRUITLAND COAL
<sup>4</sup> Property Code	<sup>5</sup> Property Name SANCHEZ O'BRIEN	<sup>6</sup> Well Number 90S
<sup>7</sup> GRID No. 006515	<sup>8</sup> Operator Name DUGAN PRODUCTION CORPORATION	<sup>9</sup> Elevation 6818'


<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	6	24N	9W		1500	NORTH	1250	WEST	SAN JUAN

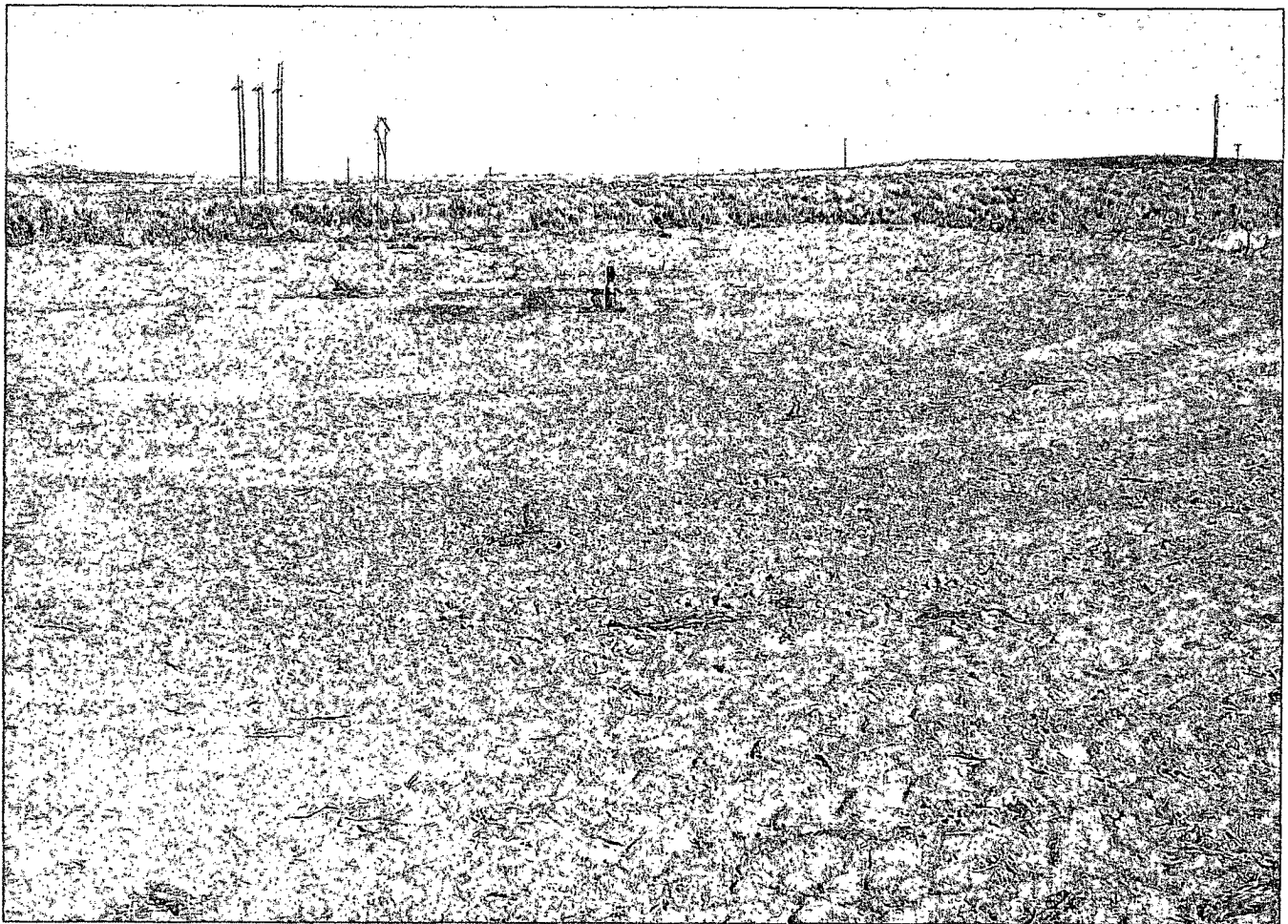
<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres 324.60 Acres - (W/2)					<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.		

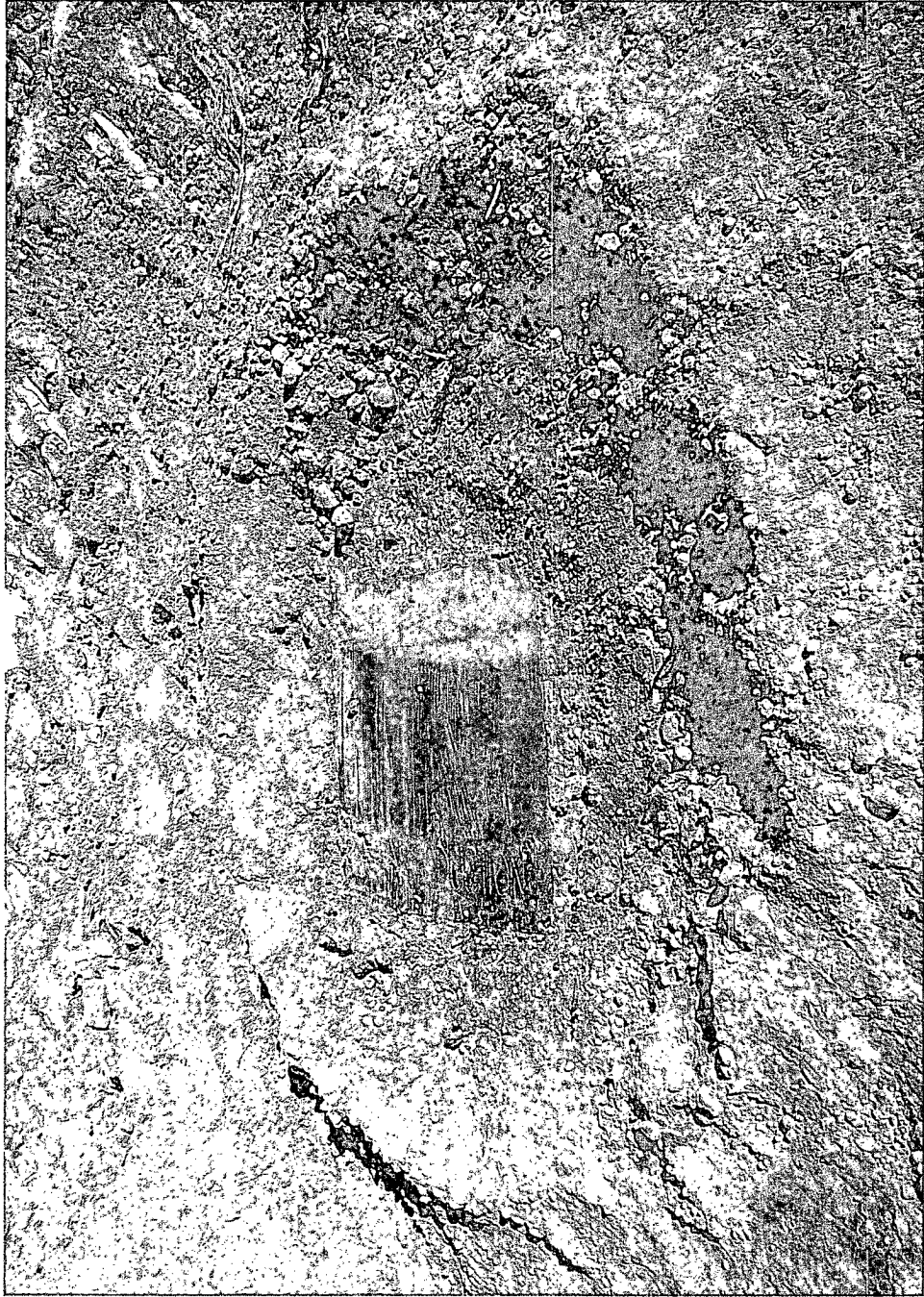
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION.

<div><p><sup>16</sup> 1250.70'</p><p>1341.12'</p><p>LOT 4</p><p>1500'</p><p>1250'</p><p>1321.32'</p><p>LOT 5</p><p>2641.98'</p><p>LOT 6</p><p>LOT 7</p><p>1332.54'</p></div>	<div><p>1320.00'</p><p>LOT 3</p><p>Center of Pit: 23-ft. N75°E</p><p>LAT: 36.34627°N LONG: 107.83508°W DATUM: NAD1983</p><p>10'</p><p>6</p><p>Dugan NM-97108</p><p>1318.68'</p></div>	<div><p>2640.00'</p><p>LOT 2</p><p>LOT 1</p><p>1334.85'</p><p>1324.29'</p><p>2648.58'</p><p>2638.02'</p></div>	<div><p><sup>17</sup> OPERATOR CERTIFICATION</p><p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p><p><i>Kurt Fagrelus</i> 7-25-2009 Signature Date Kurt Fagrelus Printed Name</p><p><sup>18</sup> SURVEYOR CERTIFICATION</p><p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p><p>Date of Survey: JUNE 19, 2009</p><p>Signature and Seal of Professional Surveyor</p><p></p><p><i>JASON C. EDWARDS</i> Certificate Number 15269</p></div>
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**DUGAN PRODUCTION CORP.**  
**SANCHEZ O'BRIEN # 90S**  
**NM-97108**  
**API # 30-045-35146**  
**1500' FNL, 1250' FWL**  
**SWNW SEC. 06, T24N, R09W**  
**LAT. 36° 20' 47" LONG. 107° 50' 6"**  
**SAN JUAN COUNTY, NM**  
**FOR EMERGENCY CALL (505)325-1823**







• Submit To: Appropriate District Office  
Two Copies  
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., 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-105

July 17, 2008

1. WELL API NO.  
30-045-35146

2. Type of Lease  
☐ STATE ☐ FEE ☒ FED/INDIAN

3. State Oil & Gas Lease No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

4. Reason for filing:

☐ COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only)

☒ C-144 CLOSURE ATTACHMENT (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC)

7. Type of Completion:

☒ NEW WELL ☐ WORKOVER ☐ DEEPENING ☐ PLUGBACK ☐ DIFFERENT RESERVOIR ☐ OTHER

8. Name of Operator

Dugan Production Corp.

5. Lease Name or Unit Agreement Name  
Sanchez O'Brien

6. Well Number:

#90S

10. Address of Operator

P.O. Box 420, Farmington, NM 87499-0420

9. OGRID

006515

11. Pool name or Wildcat

Basin Fruitland Coal

12. Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County
Surface:	E	6	24N	9W						
BH:										

13. Date Spudded	14. Date T.D. Reached	15. Date Rig Released 9-10-2010	16. Date Completed (Ready to Produce)	17. Elevations (DF and RKB, RT, GR, etc.)
18. Total Measured Depth of Well	19. Plug Back Measured Depth	20. Was Directional Survey Made?	21. Type Electric and Other Logs Run	

22. Producing Interval(s), of this completion - Top, Bottom, Name

23. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED

24. LINER RECORD				25. TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET

26. Perforation record (interval, size, and number)	27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC. DEPTH INTERVAL AMOUNT AND KIND MATERIAL USED

28. PRODUCTION

Date First Production		Production Method (Flowing, gas lift, pumping - Size and type pump)			Well Status (Prod. or Shut-in)		
Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (Corr.)	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)	30. Test Witnessed By
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31. List Attachments

32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.

33. If an on-site burial was used at the well, report the exact location of the on-site burial:

Latitude 36.34633 N Longitude 107.83498 W NAD 1927 (1983)

I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature *Kurt Fagrelus* Printed Name *Kurt Fagrelus* Title VP-Exploration Date 12-1-2010  
E-mail Address kffagrelus@duganproduction.com