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

16488

Type of action:
- ☐ Below grade tank registration
- ☐ Permit of a pit or proposed alternative method
- ☒ 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: 709 E. Murray Drive Farmington, NM, 87401
Facility or well name: Seoul #88
API Number: 30-045-26630 OCD Permit Number:
U/L or Qtr/Qtr A Section 9 Township 23N Range 10W County: San Juan
Center of Proposed Design: Latitude Longitude NAD83
Surface Owner: ☐ Federal ☐ State ☐ Private ☒ Tribal Trust or Indian Allotment

NMOCD
SEP 11 2018
DISTRICT III

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: 45 bbl Type of fluid: produced water
Tank Construction material: steel
☐ 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 20 mil ☐ 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

35

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: _____ **Approval Date:** 10/24/18

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

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:** 8-3-2018

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 Title: Regulatory Engineer

Signature: Kevin Smaka Date: 9-7-2018

e-mail address: kevin.smaka@duganproduction.com Telephone: 505-325-1821

4. Below grade tank will be closed within 60-days after cessation of use or by 6-16-2013 whichever comes first.

5. Closure notice will be provided by certified mail to surface owner prior to closing the below grade tank. Proof of notice will be provided to the Environmental Bureau in the NMOCD Santa Fe office and attached to the final closure report.

6. Remove all liquid from below grade tank prior to closure and dispose of at the Dugan Production operated Sanchez O'Brien SWD #1 salt water disposal well (permit SWD-694) 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.

7. All solids from the below grade tank and all solids removed from the below grade tank vault will be excavated, hauled to and disposed of at either the Envirotech facility (permit #NM-01-0011) facility located in Section 6, Township 26 North, Range 10 West or the IEI facility (permit NM-01-0010B) located in Section 2, Township 29 North, Range 12 West.

8. Remove below grade tank and obtain prior approval from the NMOCD to dispose (in an approved NMOCD facility), recycle, reuse or reclaim the tank. Documentation of the final disposition of the tank will be provided to the NMOCD in the final closure report.

9. Remove pit liner system, if applicable and dispose of only the pit liner material at an NMOCD approved, solid waste facility (Waste Management's Crouch Mesa facility, San Juan County, New Mexico) in accordance with subparagraph (m) of Paragraph (1) of Subsection D of 19.15.9.712.

10. On site equipment associated with the below grade tank will be removed unless it is needed for some other purpose.

11. Collect at a minimum, a five point, composite sample; also, collect individual grab samples from any area that is wet, discolored or showing other evidence of a release; and analyze for Benzene, BTEX, TPH, GRO/DRO and chlorides to demonstrate that Benzene, BTEX, TPH, GRO/DRO and chlorides do not exceed the standards as specified in 19.15.17.13.E or the background chloride concentration, whichever is greater.

Components	Test Method	Limit (mg/kg)
Benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	100
GRO/DRO	EPA SW-846 8015M	NS
Chlorides	EPA 300.1	250 or Background

12. The NMOCD will be notified of the testing results on form C-141.

13. If it is determined that a release has occurred, rule 19.15.3.116 NMAC and 19.15.1.19 NMAC will be complied with as required.

Seoul #88 Below Grade Tank Closure Plan–Methods, Procedures and Protocols

1. Comply with deadlines for closure of a pit or below grade tank established by the State of New Mexico, Energy Minerals and Natural Resources Department 19.15.17.13 NMAC, or an earlier date if required by the NMOCD in the case of imminent danger to fresh water, public health or the environment.

Existing	Permit Applc. Submittal or	File Closure Plan By	Stop Use By	Close By
On June 16, 2008	Modification Request			
Temporary Pit - Unlined	Not Permtd under 19.15.17	7/16/2008	Upon drlg rig release	9/16/2008
Permanent Pit - Unlined or Lined	Not permitted with NMOCD	7/16/2008	6-16-2008	12/16/2008
Permanent Pit - Unlined	Permitted with NMOCD	12-16-2008	6-16-2010	6-16-2011
BGT-Aprvd. Design	Not Permtd under 19.15.17	12/16/2008	failed integrity replc	
	Applc. by 9-16-2008		w/apprvd design	
BGT-Not Aprvd Design Nor Retrofit	Not Permtd under 19.15.17	12/31/2008	6/16/2013	6-16-2013
to Comply w/19.15.17	Mod. Rqust by 9-16-2008			
BGT-Not Aprvd Design Nor Retrofit	NA	12/16/2008	6/16/2013	6/16/2013
to comply w/19.15.17				
Permanent Pit-Design and Constr	Mod. Rqust by 12-16-2008	12/16/2008	failed integrity replc	60-days after cessation
Does not comply w/19.15.17	Comply w/in 18-mos of aprvl	submit w/mod request	w/apprvd design	
permitted and lined				
Permanent Pit-Design and Constr	Permit Applc by 12-16-2008	12/16/2008		60-days after cessation
Does not comply w/19.15.17	Comply w/in 18-mos of aprvl	submit w/permit Applc		
Registered and Lined				
Permanent Pit	Permitted under 19.15.17	60-Days prior to close		
Temporary Pit	Permitted under 19.15.17	Prior to closure	Upon drlg rig release	6-mos after rig release
BGT	Permitted under 19.15.17	12/16/2013	failed integrity replc	60-days after cessation
		or prior to closure	w/apprvd design	

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).

3. The Seoul #88 below grade tank is not an approved design under rule 19.15.17. Upon approval of this application, the existing below grade tank will be closed and a new below grade tank that complies with the design requirements of rule 19.15.17 as illustrated in the design plan (Exhibit 7) will be constructed.

14. If the sampling results demonstrate that a release has not occurred, or that any release does not exceed the concentrations specified above or background concentrations, the below grade tank vault will be backfilled with compacted, non-waste containing, earthen material.

15. Stockpiled sub-surface soil will be used to backfill below grade tank vault and re-contour (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.

16. Stockpiled surface soil will be used as a cover over the backfilled below grade tank vault and disturbed area 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. The soil cover will be constructed to the site's existing grade and prevent water collection or ponding and erosion of the cover material.

17. Disturbed areas will be seeded the first growing season after the below grade tank is closed. Seeding will be accomplished by drilling on contour whenever possible or by other division approved methods. BLM stipulated seed mixes will be used on all Federal lands and NMOCD approved seed mixes (administratively approved if required) will be used on all State or private lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. If alternate seed mix is required by the state, private owner or tribe, it will be implemented with administrative approval if needed. Seeding or planting will be continued until successful vegetative growth occurs.

18. The NMOCD will be notified within 60-days of closure of the below grade tank. The closure report will be filed on form C-144 and will include the following:
    a. Proof of Closure Notice (surface owner and division)
    b. Confirmation Sampling Analytical Results (if applicable)
    c. Disposal Facility Name and Permit Number
    d. Soil Backfilling and Cover Installation
    e. Re-vegetation Application Rates and Seeding Technique
    f. Site Reclamation (Photo Documentation)

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

On Friday April 27th DPC pulled the pit located at Dugan's Seoul 88. The well is on a Navajo allotted lease. As prescribed in 19.15.17.13 NMAC notice was provided to the NMOCD and FIMO so the OCD and surface owner could be present for sampling purposes. Since these are government agencies they were notified by e-mail. Cassandra Gould with FIMO requested a sundry notice be submitted for official record. **Copies of the e-mail and sundry have been provided (see exhibit 1).**

As was directed in the closure plan all liquid and solid waste were disposed of at the following facilities:

Liquid waste- Sanchez O'Brien SWD #1 (SWD-694)

Solid Waste- Envirotech (NM-01-0011)

IEI (NM-01-0010B)

Waste Management's Crouch Mesa Facility

After removing the steel BGT the soil below the BGT was sampled. The sample results exceeded the allowable limits designated in 19.15.17.13 NMAC. After consulting with the NM OCD and determining the best course of action moving forward was to delineate the historical release and remediate the contaminated. At this point DPC held discussions with various consultants to determine what would be the best path moving forward to remediate the BGT area. It was determined that digging and hauling the contaminated soil would provide the best results. **The BGT was hauled to Dugan's yard for repair and re-use/sale**.

Dugan planned to install a new BGT in the same vault after the cleanup is finished. **No production equipment was removed except for the old BGT.**

On July 25, 2018, Halo began removing the contaminated soil. The hole was excavated to a size of 28'x30'x19'. In total Halo removed 1120 yards of contaminated soil. Once the hole was excavated five point samples were taken on the side walls and the bottom. **The results have been included as part of form C-141.**

Once the results were obtained and found to be within the acceptable limits of the standards set forth in 19.15.17.13.H, **the hole was refilled with clean soil**. The topsoil was stockpiled and used as the cover so the sight was prepared for revegetation. **Further reclamation will take place when this well is P&A'd. Pictures of the BGT area have been included with this closure report.**

Kevin Smaka

From: Kevin Smaka
Sent: Wednesday, April 25, 2018 2:58 PM
To: 'Smith, Cory, EMNRD'
Subject: RE: Seoul 88 pit closure

Hi Cory,

We will close the pit this Friday, April 27th, 9:00 AM.

Kevin

From: Smith, Cory, EMNRD [mailto:Cory.Smith@state.nm.us]
Sent: Tuesday, April 24, 2018 7:20 AM
To: Kevin Smaka
Cc: Fields, Vanessa, EMNRD
Subject: RE: Seoul 88 pit closure

Kevin,

Ok please keep us informed, if the timing extends out past this week Dugan will need to send out another Closure notice.

Thanks,

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Kevin Smaka <Kevin.Smaka@duganproduction.com>
Sent: Tuesday, April 24, 2018 7:17 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Subject: Seoul 88 pit closure

Just a heads up we are not closing the pit on the Seoul 88 today. The plan is to do it this week but I don't have a schedule from our roustabout department yet. Once I have a time and date I will let you know.

Sent from my iPhone

On Apr 17, 2018, at 6:14 PM, Smith, Cory, EMNRD <Cory.Smith@state.nm.us> wrote:

> Mr. Smaka,

Kevin Smaka

From: Gould, Cassandra <cassandra.gould@bia.gov>
Sent: Wednesday, April 18, 2018 4:35 PM
To: Kevin Smaka
Subject: Re: [EXTERNAL] Pit Closure

Hi Kevin,

You would need to provide a sundry notice to BLM and then BLM would notify us with a copy. I'll look into this lease. I will be at Regional Office in Gallup tomorrow. If you need more information you can contact our FIMO Director Maureen Joe, 564-7671 or maureen.joe@bia.gov.

Thank you,

Cassandra Gould
Realty Specialist
Bureau of Indian Affairs
Federal Indian Minerals Office
6251 College Blvd, Ste B
Farmington, NM 87402
Direct:(505) 564-7642
Mobile: (505) 252-0835
Main: (505) 564-7640
Fax: (505) 564-7790
cassandra.gould@bia.gov

---------- Forwarded message ----------
From: **Kevin Smaka** <Kevin.Smaka@duganproduction.com>
Date: Tue, Apr 17, 2018 at 1:52 PM
Subject: [EXTERNAL] Pit Closure
To: "cassandra.gould@bia.gov" <cassandra.gould@bia.gov>

Hi Cassandra,

We at Dugan are planning to close a pit at one of our wells. NM OCD regulations require operators to provide notice to the OCD and the surface owner. In this case the well is located on allotted land. The lease no. is NOOC 14207312. Do I provide the notice to you or someone else?

Kevin Smaka

Production Engineer

Dugan Production Corp.

Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NOOC14207312

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
SEOUL 88

2. Name of Operator
DUGAN PRODUCTION CORP.
Contact: KEVIN SMAKA
E-Mail: kevin.smaka@duganproduction.com

9. API Well No.
30-045-26630

3a. Address
P0 BOX 420
FARMINGTON, NM 87499-0420

3b. Phone No. (include area code)
Ph: 505-325-1821

10. Field and Pool or Exploratory Area
SOUTH BISTI GALLUP

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 9 T23N R10W Mer NMP NENE 330FNL 330FEL
36.247599 N Lat, 107.893219 W Lon

11. County or Parish, State
SAN JUAN COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Dugan Production Corp. plans to replace existing 40 bbl below grade steel tank with a 90 bbl below grade steel tank.

14. I hereby certify that the foregoing is true and correct.
Electronic Submission #412023 verified by the BLM Well Information System
For DUGAN PRODUCTION CORP., sent to the Farmington

Name *(Printed/Typed)* KEVIN SMAKA — Title PRODUCTION ENGINEER

Signature (Electronic Submission) — Date 04/23/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____ Title _____ Date _____

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Office _____

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

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

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Dugan Production Corp	Contact: Neil Haws
Address: PO Box 420, Farmington NM 87499-0420	Telephone No. 505-635-3124
Facility Name: Seoul 88	Facility Type: Gas well

Surface Owner: Federal	Mineral Owner: Indian	API No. 30-045266300081

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	9	23N	10W	330	N	330	E	San Juan

Latitude: 36.247527 Longitude: -107.893804

NATURE OF RELEASE

Type of Release: Contaminated Soil	Volume of Release: UNK	Volume Recovered: UNK
Source of Release: ORIGINAL RESERVE PIT	Date and Hour of Occurrence: UNK	Date and Hour of Discovery: 4-27-18
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. None	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.* On 4-27-2018 Dugan Production crew was replacing a fiberglass BGT with a larger steel BGT at Seoul 88. While cleaning out cellar area the crew noticed stained soil. Crew removed soil within the cellar area to the mechanical limits of the equipment. Approximately 30 yards of dirt has been removed at this time.

Describe Area Affected and Cleanup Action Taken.*
(On location) Stained soil will be removed and taken to an approved land farm, clean soil will be used for replacement as needed.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Neil Haws	Approved by Environmental Specialist:	
Title: Environmental	Approval Date:	Expiration Date:
E-mail Address: neil.haws@duganproduction.com	Conditions of Approval:	Attached ☐
Date: 6-7-18 Phone: 505-635-3124		

Attach Additional Sheets If Necessary

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

May 08, 2018

MIKE SANDOVAL

DUGAN PRODUCTION

P. O. BOX 420

FARMINGTON, NM 87499

RE: SEOUL 88

Enclosed are the results of analyses for samples received by the laboratory on 05/02/18 9:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated 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 (V1, 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

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

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

Received:	05/02/2018	Sampling Date:	04/30/2018
Reported:	05/08/2018	Sampling Type:	Soil
Project Name:	SEOUL 88	Sampling Condition:	Cool & Intact
Project Number:	BELOW GRADE PIT	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SEOUL 88 BOTTOM (H801217-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/07/2018	ND	1.70	85.0	2.00	2.48	
Toluene*	**0.071**	0.050	05/07/2018	ND	1.82	91.2	2.00	1.23	
Ethylbenzene*	**0.566**	0.050	05/07/2018	ND	1.84	91.8	2.00	2.48	
Total Xylenes*	**5.70**	0.150	05/07/2018	ND	5.66	94.4	6.00	3.03	
Total BTEX	**6.34**	0.300	05/07/2018	ND					

Surrogate: 4-Bromofluorobenzene (PII *137 %* *72-148*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**496**	16.0	05/04/2018	ND	432	108	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**164**	10.0	05/07/2018	ND	219	110	200	0.627	
DRO >C10-C28*	**2170**	10.0	05/07/2018	ND	227	113	200	1.43	QM-07
EXT DRO >C28-C36	**404**	10.0	05/07/2018	ND					

Surrogate: 1-Chlorooctane *116 %* *41-142*

Surrogate: 1-Chlorooctadecane *133 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

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

Received:	05/02/2018	Sampling Date:	04/30/2018
Reported:	05/08/2018	Sampling Type:	Soil
Project Name:	SEOUL 88	Sampling Condition:	Cool & Intact
Project Number:	BELOW GRADE PIT	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SEOUL 88 WALL 1 (H801217-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/07/2018	ND	1.70	85.0	2.00	2.48	
Toluene*	<0.050	0.050	05/07/2018	ND	1.82	91.2	2.00	1.23	
Ethylbenzene*	<0.050	0.050	05/07/2018	ND	1.84	91.8	2.00	2.48	
Total Xylenes*	**1.80**	0.150	05/07/2018	ND	5.66	94.4	6.00	3.03	
Total BTEX	**1.80**	0.300	05/07/2018	ND					

Surrogate 4-Bromofluorobenzene (PH 137 % 72-148

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1060**	16.0	05/04/2018	ND	432	108	400	7.69	

TPH 8015M mg/kg Analyzed By: MS S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**87.6**	50.0	05/04/2018	ND	219	110	200	0.627	
DRO >C10-C28*	**1810**	50.0	05/04/2018	ND	227	113	200	1.43	
EXT DRO >C28-C36	**325**	50.0	05/04/2018	ND					

Surrogate 1-Chlorooctane 111 % 41-142

Surrogate 1-Chlorooctadecane 217 % 37.6-147

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

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

Received:	05/02/2018	Sampling Date:	04/30/2018
Reported:	05/08/2018	Sampling Type:	Soil
Project Name:	SEOUL 88	Sampling Condition:	Cool & Intact
Project Number:	BELOW GRADE PIT	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SEOUL 88 WALL 2 (H801217-03)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/07/2018	ND	1.70	85.0	2.00	2.48	
Toluene*	<0.050	0.050	05/07/2018	ND	1.82	91.2	2.00	1.23	
Ethylbenzene*	<0.050	0.050	05/07/2018	ND	1.84	91.8	2.00	2.48	
Total Xylenes*	**0.619**	0.150	05/07/2018	ND	5.66	94.4	6.00	3.03	
Total BTEX	**0.619**	0.300	05/07/2018	ND					

Surrogate 4-Bromofluorobenzene (PII 135 % 72-148

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1490**	16.0	05/04/2018	ND	432	108	400	7.69	

TPH 8015M mg/kg Analyzed By: MS S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<50.0	50.0	05/04/2018	ND	219	110	200	0.627	
DRO >C10-C28*	**1820**	50.0	05/04/2018	ND	227	113	200	1.43	
EXT DRO >C28-C36	**441**	50.0	05/04/2018	ND					

Surrogate 1-Chlorooctane 105 % 41-142

Surrogate 1-Chlorooctadecane 150 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

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

Received:	05/02/2018	Sampling Date:	04/30/2018
Reported:	05/08/2018	Sampling Type:	Soil
Project Name:	SEOUL 88	Sampling Condition:	Cool & Intact
Project Number:	BELOW GRADE PIT	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SEOUL 88 WALL 3 (H801217-04)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/07/2018	ND	1.70	85.0	2.00	2.48	
Toluene*	<0.050	0.050	05/07/2018	ND	1.82	91.2	2.00	1.23	
Ethylbenzene*	<0.050	0.050	05/07/2018	ND	1.84	91.8	2.00	2.48	
Total Xylenes*	**1.16**	0.150	05/07/2018	ND	5.66	94.4	6.00	3.03	
Total BTEX	**1.16**	0.300	05/07/2018	ND					

Surrogate 4-Bromofluorobenzene (PII 144 % 72-148

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**752**	16.0	05/04/2018	ND	432	108	400	7.69	

TPH 8015M mg/kg Analyzed By: MS S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**65.4**	50.0	05/04/2018	ND	219	110	200	0.627	
DRO >C10-C28*	**1950**	50.0	05/04/2018	ND	227	113	200	1.43	
EXT DRO >C28-C36	**337**	50.0	05/04/2018	ND					

Surrogate 1-Chlorooctane 118 % 41-142

Surrogate 1-Chlorooctadecane 149 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

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

Received:	05/02/2018	Sampling Date:	04/30/2018
Reported:	05/08/2018	Sampling Type:	Soil
Project Name:	SEOUL 88	Sampling Condition:	Cool & Intact
Project Number:	BELOW GRADE PIT	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SEOUL 88 WALL 4 (H801217-05)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/07/2018	ND	1.70	85.0	2.00	2.48	
Toluene*	<0.050	0.050	05/07/2018	ND	1.82	91.2	2.00	1.23	
Ethylbenzene*	**0.489**	0.050	05/07/2018	ND	1.84	91.8	2.00	2.48	
Total Xylenes*	**5.56**	0.150	05/07/2018	ND	5.66	94.4	6.00	3.03	
Total BTEX	**6.05**	0.300	05/07/2018	ND					

Surrogate 4-Bromofluorobenzene (PII 133 % 72-145

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**656**	16.0	05/04/2018	ND	432	108	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**133**	50.0	05/04/2018	ND	219	110	200	0.627	
DRO >C10-C28*	**1510**	50.0	05/04/2018	ND	227	113	200	1.43	
EXT DRO >C28-C36	**262**	50.0	05/04/2018	ND					

Surrogate 1-Chlorooctane 107 % 41-142

Surrogate 1-Chlorooctadecane 126 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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

Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Analytical
(970) 247-4220
Fax: (970) 247-4227
service@greenanalytical.com or dzufelt@greenanalytical.com
75 Suttle St Durango, CO 81303

Company Name(If Applicable): Jugar
Contact Person: Mike Sandoval
Address:
City: State: Zip:
Phone #:
Email:
Project Name(optional): Seoul 88
Project Number(optional): Below grade pit
Sampler Name (Print): Michael Sandoval

Bill to (if different)
PO #:
Company:
Attn:
Address:
City: State: Zip:
Phone #:
Email:

ANALYSIS REQUEST: Benzene, Toluene, Ethylbenzene, Total Xylenes

2.5°c

For Lab Use	Sample Name or Location	Collected Date	Collected Time	Matrix (check one)	# of containers	
H801217				GROUNDWATER / SURFACEWATER / WASTEWATER / PRODUCEDWATER / SOIL / DRINKING WATER / OTHER	(No preservative) / HNO / HCl / H_2SO_4 / Other / Other	
1	Seoul 88 Bottom	4-30-18	12:15			X
2	Seoul 88 wall 2	4-30-18	11:20			X
3	Seoul 88 wall 2	4-30-18	11:40			X
4	Seoul 88 wall 3	4-30-18	11:50			X
5	Seoul 88 wall 4	4-30-18	12:00			X

PLEASE NOTE: GAL'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 the client for the analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion of the applicable service. In no event shall GAL be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profit incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date:	Received By:
Michael Sandoval	4-30-18	Victor Garry
Relinquished By:	Time: 4:45	Received By:
Victor Garry		Kangaroo Express
Relinquished By:	Date: 05/01/18	Received By: 5.9/5.7c
Kangaroo Express	Time: 0900	#1 onice pc DGO

Delivered By: (Circle One) 3.4°c 5/2/18 9:12 Temperature Date Time
Sampler - UPS - FedEx - Kangaroo - Other: Carried 3.3°c #25 FC

SPECIAL INSTRUCTIONS/COMMENTS: Report to State Forest

† GAL cannot always accept verbal changes. Please fax or email written change requests.
* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.

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

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Dugan Production Corp	Contact: Neil Haws
Address PO Box 420, Farmington NM 87499-0420	Telephone No. 505-635-3124
Facility Name: Seoul 88	Facility Type: Gas well

Surface Owner: Federal	Mineral Owner: Indian	API No. 30-0452663000S1

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	9	23N	10W	330	N	330	E	San Juan

Latitude: 36.247527 Longitude: -107.893804

NATURE OF RELEASE

Type of Release: Contaminated Soil	Volume of Release: UNK	Volume Recovered: UNK
Source of Release: ORIGINAL RESERVE PIT	Date and Hour of Occurrence UNK	Date and Hour of Discovery 4-27-18
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. None	

If a Watercourse was Impacted, Describe Fully.* NA

Describe Cause of Problem and Remedial Action Taken.* On 4-27-2018 Dugan Production crew was replacing a fiberglass BGT with a larger steel BGT at Seoul 88. While cleaning out cellar area the crew noticed stained soil. Crew removed soil within the cellar area to the mechanical limits of the equipment.

Describe Area Affected and Cleanup Action Taken.*
(On location) Stained soil will be removed and taken to an approved land farm, clean soil will be used for replacement as needed.

Final: Stained soil was removed from pit until clean dirt was located; samples were taken and returned within acceptable levels. Stained soil was taken to the Envirotech land farm. Approved soil was brought in to backfill the pit. The new Steel BGT has been set in place, new BGT has been registered and will follow all of the requirements of 19.15.17 NMAC.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Neil Haws	Approved by Environmental Specialist:
Title: Environmental	Approval Date: / Expiration Date:
E-mail Address: neil.haws@duganproduction.com	Conditions of Approval: / Attached ☐
Date: 8-8-18 Phone: 505-635-3124	

Attach Additional Sheets If Necessary

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

August 01, 2018

MIKE SANDOVAL

DUGAN PRODUCTION

P. O. BOX 420

FARMINGTON, NM 87499

RE: SEOUL 88

Enclosed are the results of analyses for samples received by the laboratory on 07/31/18 11:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated 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 (V1, 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,

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

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

Received:	07/31/2018	Sampling Date:	07/30/2018
Reported:	08/01/2018	Sampling Type:	Soil
Project Name:	SEOUL 88	Sampling Condition:	Cool & Intact
Project Number:	BELOW GRADE TANK PIT SEPARATOR	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SEOUL #88 WALL #1 SO (H802082-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2018	ND	2.24	112	2.00	3.16	
Toluene*	<0.050	0.050	08/01/2018	ND	2.28	114	2.00	3.97	
Ethylbenzene*	<0.050	0.050	08/01/2018	ND	2.27	114	2.00	4.41	
Total Xylenes*	<0.150	0.150	08/01/2018	ND	6.67	111	6.00	4.50	
Total BTEX	<0.300	0.300	08/01/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	07/31/2018	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2018	ND	190	95.2	200	4.97	
DRO >C10-C28*	<10.0	10.0	08/01/2018	ND	204	102	200	1.15	
EXT DRO >C28-C36	<10.0	10.0	08/01/2018	ND					

Surrogate: 1-Chlorooctane *101 %* *41-142*

Surrogate: 1-Chlorooctadecane *104 %* *37.6-147*

Cardinal Laboratories

*=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

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

Received:	07/31/2018	Sampling Date:	07/30/2018
Reported:	08/01/2018	Sampling Type:	Soil
Project Name:	SEOUL 88	Sampling Condition:	Cool & Intact
Project Number:	BELOW GRADE TANK PIT SEPARATOR	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SEOUL #88 WALL #2 E (H802082-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2018	ND	2.24	112	2.00	3.16	
Toluene*	<0.050	0.050	08/01/2018	ND	2.28	114	2.00	3.97	
Ethylbenzene*	<0.050	0.050	08/01/2018	ND	2.27	114	2.00	4.41	
Total Xylenes*	<0.150	0.150	08/01/2018	ND	6.67	111	6.00	4.50	
Total BTEX	<0.300	0.300	08/01/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	07/31/2018	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2018	ND	190	95.2	200	4.97	
DRO >C10-C28*	<10.0	10.0	08/01/2018	ND	204	102	200	1.15	
EXT DRO >C28-C36	<10.0	10.0	08/01/2018	ND					

Surrogate: 1-Chlorooctane *106 %* *41-142*

Surrogate: 1-Chlorooctadecane *105 %* *37.6-147*

Cardinal Laboratories

*=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

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

Received:	07/31/2018	Sampling Date:	07/30/2018
Reported:	08/01/2018	Sampling Type:	Soil
Project Name:	SEOUL 88	Sampling Condition:	Cool & Intact
Project Number:	BELOW GRADE TANK PIT SEPARATOR	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SEOUL #88 WALL #3 W (H802082-03)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2018	ND	2.24	112	2.00	3.16	
Toluene*	<0.050	0.050	08/01/2018	ND	2.28	114	2.00	3.97	
Ethylbenzene*	<0.050	0.050	08/01/2018	ND	2.27	114	2.00	4.41	
Total Xylenes*	<0.150	0.150	08/01/2018	ND	6.67	111	6.00	4.50	
Total BTEX	<0.300	0.300	08/01/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	07/31/2018	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2018	ND	190	95.2	200	4.97	
DRO >C10-C28*	<10.0	10.0	08/01/2018	ND	204	102	200	1.15	
EXT DRO >C28-C36	<10.0	10.0	08/01/2018	ND					

Surrogate: 1-Chlorooctane *100 %* *41-142*

Surrogate: 1-Chlorooctadecane *101 %* *37.6-147*

Cardinal Laboratories

*=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

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

Received:	07/31/2018	Sampling Date:	07/30/2018
Reported:	08/01/2018	Sampling Type:	Soil
Project Name:	SEOUL 88	Sampling Condition:	Cool & Intact
Project Number:	BELOW GRADE TANK PIT SEPARATOR	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SEOUL #88 WALL #4 N (H802082-04)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2018	ND	2.24	112	2.00	3.16	
Toluene*	<0.050	0.050	08/01/2018	ND	2.28	114	2.00	3.97	
Ethylbenzene*	<0.050	0.050	08/01/2018	ND	2.27	114	2.00	4.41	
Total Xylenes*	<0.150	0.150	08/01/2018	ND	6.67	111	6.00	4.50	
Total BTEX	<0.300	0.300	08/01/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID 105 % 69.8-142

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	07/31/2018	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2018	ND	190	95.2	200	4.97	
DRO >C10-C28*	<10.0	10.0	08/01/2018	ND	204	102	200	1.15	
EXT DRO >C28-C36	<10.0	10.0	08/01/2018	ND					

Surrogate: 1-Chlorooctane 97.9 % 41-142

Surrogate: 1-Chlorooctadecane 97.3 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

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

Received:	07/31/2018	Sampling Date:	07/30/2018
Reported:	08/01/2018	Sampling Type:	Soil
Project Name:	SEOUL 88	Sampling Condition:	Cool & Intact
Project Number:	BELOW GRADE TANK PIT SEPARATOR	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SEOUL #88 BOTTOM (H802082-05)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2018	ND	2.24	112	2.00	3.16	
Toluene*	<0.050	0.050	08/01/2018	ND	2.28	114	2.00	3.97	
Ethylbenzene*	<0.050	0.050	08/01/2018	ND	2.27	114	2.00	4.41	
Total Xylenes*	<0.150	0.150	08/01/2018	ND	6.67	111	6.00	4.50	
Total BTEX	<0.300	0.300	08/01/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *107 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	07/31/2018	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2018	ND	190	95.2	200	4.97	
DRO >C10-C28*	<10.0	10.0	08/01/2018	ND	204	102	200	1.15	
EXT DRO >C28-C36	<10.0	10.0	08/01/2018	ND					

Surrogate: 1-Chlorooctane *100 %* *41-142*

Surrogate: 1-Chlorooctadecane *102 %* *37.6-147*

Cardinal Laboratories

*=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

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

Received:	07/31/2018	Sampling Date:	07/30/2018
Reported:	08/01/2018	Sampling Type:	Soil
Project Name:	SEOUL 88	Sampling Condition:	Cool & Intact
Project Number:	BELOW GRADE TANK PIT SEPARATOR	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SEOUL #88 PILE #1 T (H802082-06)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2018	ND	2.24	112	2.00	3.16	
Toluene*	<0.050	0.050	08/01/2018	ND	2.28	114	2.00	3.97	
Ethylbenzene*	<0.050	0.050	08/01/2018	ND	2.27	114	2.00	4.41	
Total Xylenes*	<0.150	0.150	08/01/2018	ND	6.67	111	6.00	4.50	
Total BTEX	<0.300	0.300	08/01/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *108 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	07/31/2018	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2018	ND	190	95.2	200	4.97	
DRO >C10-C28*	<10.0	10.0	08/01/2018	ND	204	102	200	1.15	
EXT DRO >C28-C36	<10.0	10.0	08/01/2018	ND					

Surrogate: 1-Chlorooctane *92.7 %* *41-142*

Surrogate: 1-Chlorooctadecane *90.1 %* *37.6-147*

Cardinal Laboratories

*=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

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

Received:	07/31/2018	Sampling Date:	07/30/2018
Reported:	08/01/2018	Sampling Type:	Soil
Project Name:	SEOUL 88	Sampling Condition:	Cool & Intact
Project Number:	BELOW GRADE TANK PIT SEPARATOR	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SEOUL #88 PILE #2 P (H802082-07)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2018	ND	2.24	112	2.00	3.16	
Toluene*	<0.050	0.050	08/01/2018	ND	2.28	114	2.00	3.97	
Ethylbenzene*	<0.050	0.050	08/01/2018	ND	2.27	114	2.00	4.41	
Total Xylenes*	<0.150	0.150	08/01/2018	ND	6.67	111	6.00	4.50	
Total BTEX	<0.300	0.300	08/01/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *108 %* *69.8-142*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	07/31/2018	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2018	ND	190	95.2	200	4.97	
DRO >C10-C28*	<10.0	10.0	08/01/2018	ND	204	102	200	1.15	
EXT DRO >C28-C36	<10.0	10.0	08/01/2018	ND					

Surrogate: 1-Chlorooctane *96.8 %* *41-142*

Surrogate: 1-Chlorooctadecane *94.8 %* *37.6-147*

Cardinal Laboratories

*=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

GREEN GL Analytical Laboratories
(970) 247-4220
Fax: (970) 247-4227
service@greenanalytical.com or dzufelt@greenanalytical.com
75 Suttle St Durango, CO 81303

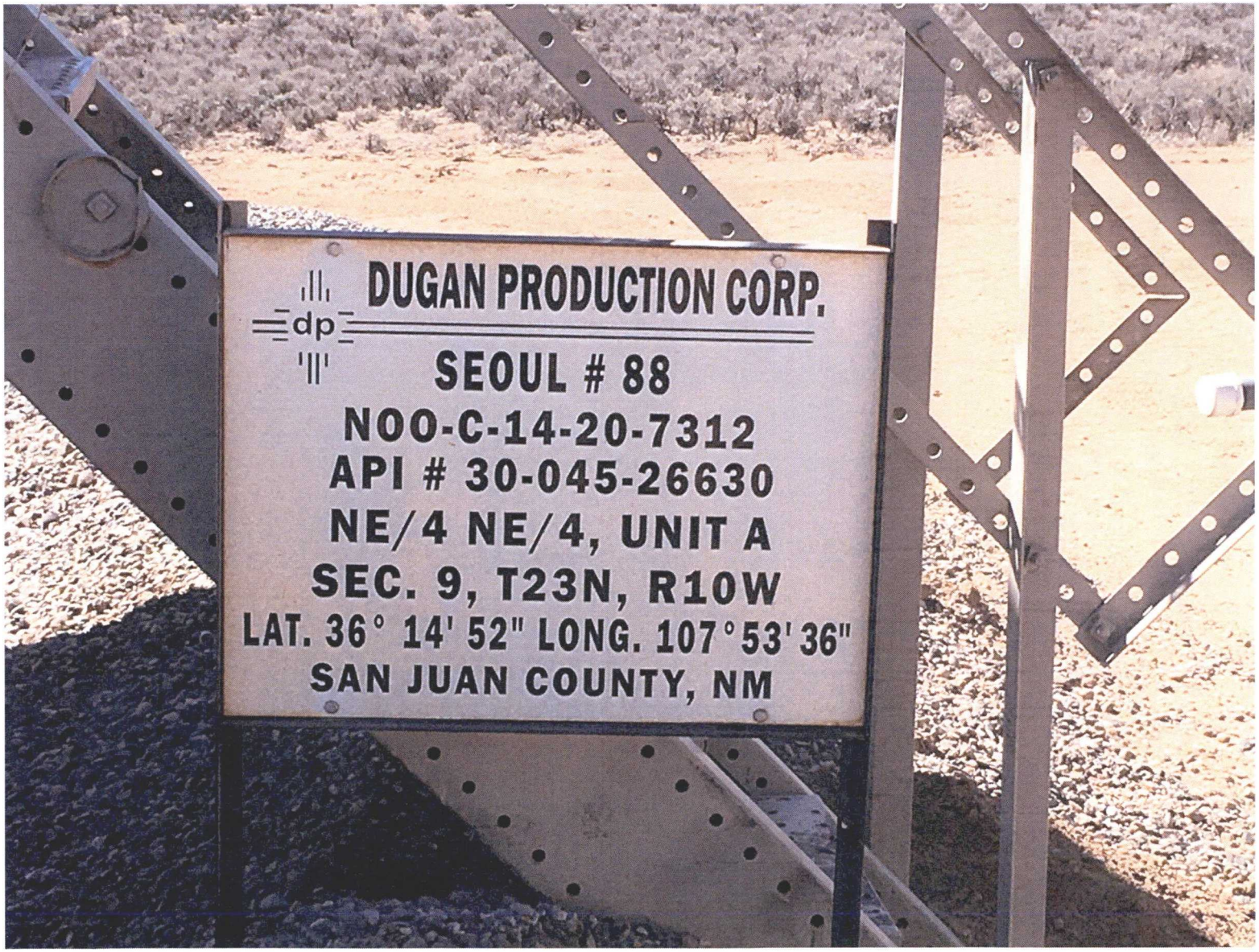
Company Name(If Applicable): Dugan Production	Bill to (if different):
Contact Person: Mike Sandoval	P.O. #:
Address:	Company:
City: State: Zip:	Attn:
Phone #:	Address:
Email:	City:
Project Name(optional): Seoul #88	State: Zip:
Project Number(optional): Below Grade Tank pit Separator	Phone #:
Sampler Name (Print): Richard Sandoval	Email:

For Lab Use	Sample Name or Location	Collected Date	Collected Time	Matrix (check one): GROUNDWATER	SURFACEWATER	WASTEWATER	PRODUCEDWATER	SOIL	DRINKING WATER	OTHER:	# of containers: No preservation (general)	HNO_3	HCl	H_2SO_4	Other:	Other:	ANALYSIS REQUEST: Btex, Chl, Benz, TPH
H802082																	
1	Seoul #88 well #1 SE	7-30-18	11:00														XXXX
2	Seoul # 88 well #2 E	7-30-18	11:15														XXXX
3	Seoul # 88 well #3 W	7-30-18	11:30														XXXX
4	Seoul # 88 well #4 N	7-30-18	11:45														XXXX
5	Seoul # 88 Bottom	7-30-18	12:00														XXXX
6	Seoul # 88 pile #1 T	7-30-18	12:15														XXXX
7	Seoul # 88 pile #2 P	7-30-18	12:30														XXXX

Relinquished By:	Date: 7-30-18 Time: 2:15	Received By:	ADDITIONAL REMARKS: Report to State? (Circle) Yes No
Relinquished By:	Date: 7/30/18 Time: 1600	Received By: Fed Ex	Rush!
Relinquished By:	Date: 7-31-18 Time: 11:15	Received By:	
Delivered By: (Circle One) Sampler - UPS - FedEx - Kangaroo - Other:	1.8° Corrected 1.75°	Temperature at reciept: 3.3 on ice	CHECKED BY:

† GAL cannot always accept verbal changes. Please fax or email written change requests.

* Chain of Custody must be signed in "Reliquished By:" as an acceptance of services and all applicable charges.


DUGAN PRODUCTION CORP.
dp
SEOUL # 88
NOO-C-14-20-7312
API # 30-045-26630
NE/4 NE/4, UNIT A
SEC. 9, T23N, R10W
LAT. 36° 14' 52" LONG. 107° 53' 36"
SAN JUAN COUNTY, NM