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	
BGT 1 Proposed Alternative Method Permit or Closure Plan Application	
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 order.	e inances.
Operator: Dugan Production Corp. OGRID #: 006515	
Address: PO Box 420, Farmington, NM 87499-0420	
Facility or well name: <u>Jicarilla Otero Com #1</u>	Ug
API Number: <u>30-039-21978</u> OCD Permit Number:	
U/L or Qtr/Qtr M Section 22 Township 24N Range 5W County: Rio Arriba	
Center of Proposed Design: Latitude 36.29329 North Longitude -107.35397 West NAD83	
Surface Owner:    Federal    State    Private    Tribal Trust or Indian Allotment	
Temporary: Drilling Workover shall be taken under the liner or the below-grade tank and that sample Permanent Emergency Cavitation P&A Shall be analyzed for the constituents listed in Table 1 of 19,15-17,013 I Lined Unlined Liner type: Thicknessmil LLDPE HDPE PVC Other  String-Reinforced  Liner Seams: Welded Factory Other Volume:bbl Dimensions: Lx Wx D	NMAC
3.    Below-grade tank: Subsection I of 19.15.17.11 NMAC	
Volume: 55 bbl Type of fluid: Produced water  Tank Construction materials Fibraries	
Tank Construction material: Fiberglass  Secondary containment with leak detection Visible sidewalls, liner, 6-inch lift	
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other _No visible sidewalls, no leak detection	
Liner type: Thicknessmil	
4. Alternative Method:	
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approximately a	val.
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\_

6.	
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)  □ Screen □ Netting □ Other	
☐ Monthl ⊅ inspections (If netting or screening is not physically feasible)	
Signs: Su Desction C of 19.15.17.11 NMAC  12"x 24",2" lettering, providing Operator's name, site location, and emergency telephone numbers  Signed incompliance with 19.15.16.8 NMAC	#
Nation Sand Exceptions:  Justificatio ™ and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.  Please checka 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. <u>Siting Critetia (regarding permitting)</u> : 19.15.17.10 NMAC  Instruction: S: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of accematerial are provided below. Siting criteria does not apply to drying pads or above-grade tanks.	ptable source
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
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
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
<ul> <li>Within an unstable area. (Does not apply to below grade tanks)</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>	☐ Yes ☐ No
Within a 100-year floodplain. (Does not apply to below grade tanks) - FEMA map	Yes No
Below Grade Tanks	12
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.	☐ Yes ☐ No
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	
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
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 N  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the doc 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 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 19.1 and 19.15.17.13 NMAC Previously Approved Design (attach copy of design) API Number:  or Permit Number:	NMAC	
II.  Multi Wall Fluid Management Dit Cheeklists Subsection P of 10 15 17 0 NMAC		
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 doc 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	uments are	
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. and 19.15.17.13 NMAC	15.17.9 NMA	'C
☐ 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:		

Permanen Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instruction Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the	e documents are
attached.  Hyd Togeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC  Sitirals Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  Clin alological Factors Assessment	
☐ Clin <sup>alo</sup> logical Factors Assessment☐ Cert iffed 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☐	
☐ Leal< Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC☐ Line ** Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC	
<ul> <li>Quality Control/Quality Assurance Construction and Installation Plan</li> <li>Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC</li> <li>Free ▶ ard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC</li> </ul>	
Nuis ance or Hazardous Odors, including H <sub>2</sub> S, Prevention Plan  Emergency Response Plan	t
Oil Field Waste Stream Characterization Mon itering and Inspection Plan	
☐ Eros ion Control Plan ☐ Clos ☐ Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC	
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 Alternative	Fluid Management Pit
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	
closure plars. Please indicate, by a check mark in the box, that the documents are attached.  Proto cols 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	
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 sou provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. 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
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
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.  - En gineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map			
Within a 100-year floodplain.	Yes No		
- FEMA map			
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 19.15.17.13 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			
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 beli	ef.		
Name (Print): Kevin Smaka Title: Engineer			
Signature: 1/10/2020  Date: 1/10/2020			
e-mail address: kevin.smaka@duganproduction.com  Telephone: 505-325-1821 x1049			
18.  OCD Approval: ☐ Permit Application (including closure plan)			
OCD Representative Signature: Approval Date: 1/28/2	020		
Title: Environmental Specalist OCD Permit Number:			
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 is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed.  Closure Completion Date:			
Closure Method:  Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-lo If different from approved plan, please explain.	op systems only)		
Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please incommark 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)	dicate, by a check		

	ats submitted with this closure report is true, accurate and complete to the best of my knowledge and all applicable closure requirements and conditions specified in the approved closure plan.
Name (Prirat):	Title:
Signature:	Date:
e-mail add ess:	Telephone:

## Below Grade Tank Closure Plan

Dugan Production Corp.

As directed by NMAC 19.15.17 the following plan/procedure has been prepared for closure of the below grade tank identified on the associated C-144.

- 1. Dugan will provide notice via-email to the NMOCD 72 hours prior to commencing closure activities. Dugan will also notify the appropriate surface owner by e-mail if possible or by certified letter.
- 2. Dugan will close the pit, drying pad or below-grade tank by first removing all contents and, if applicable, synthetic liners and transferring those materials to a division approved facility. In this case Dugan will haul solid waste to Envirotech (Permit # NM-01-0011) or IEI (Permit # NM-01-0010B). Liquid waste will be hauled to Dugan's Sanchez O'Brien SWD #1 (Permit # SWD-694). If needed the pit liner will be disposed of at Waste Management's Crouch Mesa facility.
- 3. Dugan will take a composite 5 point soil sample underneath the BGT liner. If the sample results do not exceed the limits in the applicable portion of table 1, found in NMAC 19.15.17, Dugan will continue with closure by backfilling the BGT vault and commencing reclamation activities. In the event the sampling results exceed the limits in table 1 Dugan will further delineate and remediate the soils in the BGT vault until samples are in the limits established in Table 1.
- 4. Concerning reclamation and revegetation Dugan will follow the guidelines in NMAC 19.15.17, specifically Dugan will:
- 5. All areas disturbed by the closure of pits and belowgrade tanks, except areas reasonably needed for production operations or for subsequent drilling operations, shall be reclaimed as early and as nearly as practicable to their original condition or their final land use and shall be maintained to control dust and minimize erosion to the extent practicable.
- 6. Topsoils and subsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns. The disturbed area then shall be reseeded in the first favorable growing season following closure of a pit, drying pad associated with a closed-loop system or below-grade tank.
- 7. Reclamation of all disturbed areas no longer in use shall be considered complete when all ground surface disturbing activities at the site have been completed, and a uniform vegetative cover has been established that reflects a life-form ratio of plus or minus fifty percent (50%) of pre-disturbance levels and a total percent plant cover of at least seventy percent (70%) of pre-disturbance levels, excluding noxious weeds.

- 8. Other regulatory requirements. The re-vegetation and reclamation obligations imposed by other applicable federal or tribal agencies on lands managed by those agencies shall supersede these provisions and govern the obligations of any operator subject to those provisions, provided that the other requirements provide equal or better protection of fresh water, human health and the environment.
- 9. The operator shall notify the division when reclamation and re-vegetation are complete.
- 10. Concerning soil cover designs for closures after site contouring, where the operator has removed the below-grade tank or drying pad contents and liner, and if necessary remediated the soil beneath the below-grade tank or drying pad liner to chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, shall consist of the background thickness of topsoil or one foot of suitable material, whichever is greater.
  - Dugan has elected to submit this closure plan without any depth to groundwater and citing information and has elected to have all sampling results conducted at the most stringent standards of table 1.
  - In the event samples exceed the allowable limits Dugan will review the results and correlate the results with actual groundwater data. The groundwater determination will also be submitted to the division. In the event the soil samples fall below the allowed limits in table 1 Dugan will proceed with closure and reclamation as outlined in this closure plan. If the samples exceed the limits Dugan will delineate and remediate the contaminated soil in question until it meets the thresholds established in table #1.