

State of New Mexico  
Energy, Minerals and Natural Resources Department

Susana Martinez  
Governor

Ken McQueen  
Cabinet Secretary

Matthias Sayer  
Deputy Cabinet Secretary

Heather Riley, Division Director  
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-3 APD form.

Operator Signature Date: 7/25/2016

Well information;

Operator Dugan, Well Name and Number Bolt #1

API# 30-045-35790, Section 10, Township 23 N, Range 10 E/W

Conditions of Approval: (See the below checked and handwritten conditions)

- Notify Aztec OCD 24hrs prior to casing & cement.
- Hold C-104 for directional survey & "As Drilled" Plat
- Hold C-104 for NSL, NSP, DHC
- Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
  - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
  - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
  - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
- Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
- Submit Gas Capture Plan form prior to spudding or initiating recompletion operations
- Regarding Hydraulic Fracturing, review EPA Underground Injection Control Guidance 84
- Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.
- Well-bore communication is regulated under 19.15.29 NMAC. This requires well-bore Communication to be reported in accordance with 19.15.29.8.

Heather Riley  
NMOCD Approved by Signature

6-19-2018  
Date

RECEIVED

JUL 2 / 2016

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Farmington Field Office  
Bureau of Land Management

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-120380
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name Navajo Tribal Trust
1c. Type of Completion: <input checked="" type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator Dugan Production Corp.		8. Lease Name and Well No. Bolt #1
3a. Address 709 East Murray Drive, Farmington, NM 87401	3b. Phone No. (include area code) 505-325-1821	9. API Well No. 30-045-35790
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1,772' FNL & 1,669' FWL, LAT: 36.243660 N; LONG: 107.887083 W NAD 1983 At proposed prod. zone Same as above.		10. Field and Pool, or Exploratory Basin Fruitland Coal
14. Distance in miles and direction from nearest town or post office* 39-miles southeast from Bloomfield, New Mexico		11. Sec., T. R. M. or Blk. and Survey or Area Sect.10, T23N, R10W NMPM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1,669-Feet	16. No of acres in lease 320.0-acres	17. Spacing Unit dedicated to this well 320.0 Acres - W/2
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. No other wells.	19. Proposed Depth 1150-Feet	20. BLM/BIA Bond No. in file NZS349071 / NZS348744
21. Elevations (Show whether DF, KDB, RT, GL, etc.) GL-6633'	22. Approximate date work will start* ASAP	23. Estimated duration 7-days
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- |  |   |
|--|---|
| 1. Well plat certified by a registered surveyor.   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.  | 5. Operator certification.  |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be requested by the BLM.            |

25. Signature <i>Kurt Fagrelis</i>	Name (Printed/Typed) Kurt Fagrelis	Date July 25, 2016
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Title  
VP Land & Exploration

Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed) Richard A Fields	Date JUN 08 2018
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Title  
VP Land & Exploration **Field Manager**  
Office  
Farmington

Application approval 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.  
Conditions of approval, if any, are attached.

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.

NMOCGD

JUN 13 2018

DISTRICT III

District I  
1625 N. French Drive, Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

District II  
811 S. First Street, Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720

District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV  
1220 S. St. Francis Drive, Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 1, 2011

Submit one copy to  
Appropriate District Office

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

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35790		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 321555	*Property Name BOLT		*Well Number 1
*GRID No. 006515	*Operator Name DUGAN PRODUCTION CORPORATION		*Elevation 6633'

<sup>10</sup> Surface Location

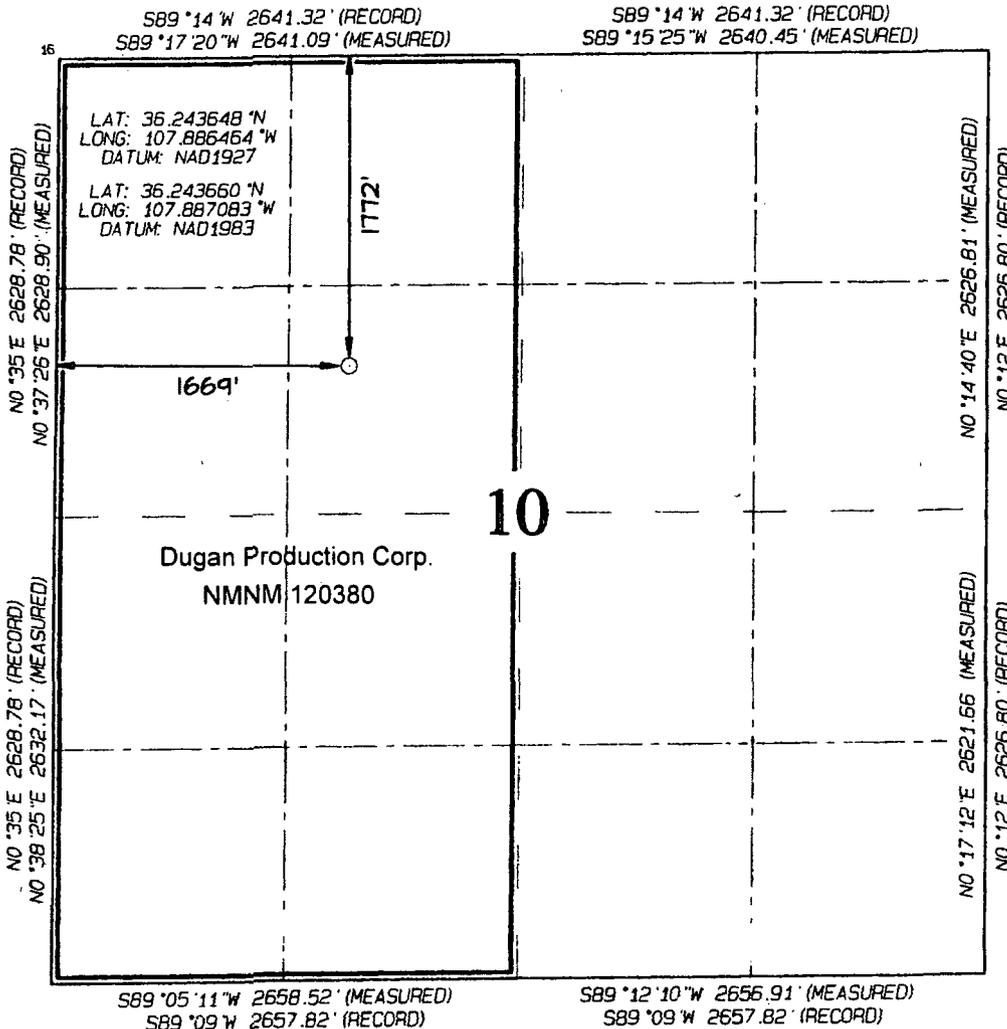
UL or lot no.	Section	Township	Range	Lot Ion	Feet from the	North/South line	1669	East/West line	County
F	10	23N	10W		1772	NORTH	1669	WEST	SAN JUAN

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

UL or lot no.	Section	Township	Range	Lot Ion	Feet from the	North/South line	Feet from the	East/West line	County

<sup>12</sup> Dedicated Acres 320.0 Acres - W/2	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



<sup>17</sup> OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

*Kurt Fagrelius* 4/7/2016  
Signature Date

Kurt Fagrelius  
Printed Name

kfagrelius@duganproduction.com  
E-mail Address

<sup>18</sup> SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief

Date Revised: MAY 2, 2016  
Date of Survey: APRIL 2, 2016

Signature and Seal of Professional Surveyor



JASON C. EDWARDS  
Certificate Number 15269

EXHIBIT B.

Operations Plan

Bolt #1  
Lease #NM-120380  
SENW of Section 10, T23N, R10W  
1,772' FNL and 1,669' FWL  
San Juan County, New Mexico

1. APPROXIMATE FORMATION TOPS:

Nacimientos	Surface
Ojo Alamo	140'
Kirtland	225'
Fruitland	600'
Pictured Cliffs	1015'
Total Depth	1150'

Catch samples every 10 feet from 750-feet to total depth.

2. LOGGING PROGRAM:

Run cased hole GR-CCL-CNL from total depth to surface.

3. CASING PROGRAM:

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt./ft.</u>	<u>Setting Depth</u>	<u>Grade and Condition</u>
12-1/4"	8-5/8"	24#	120'	J-55
7-7/8"	5-1/2"	15.5#	1150'	J-55

Plan to drill a 12-1/4" hole and set 120' of 8-5/8" OD, 24#, J-55 surface casing. Then plan to drill a 7-7/8" hole to total depth with gel-water mud program to test the Fruitland Coal. 5-1/2", 15.5#, J-55 production casing will be run and cemented. Cased hole GR-CCL-CNL log will be run. Productive zone will be perforated and fractured. After frac, the well will be cleaned out and production equipment will be installed.

4. CEMENTING PROGRAM:

Surface: Cement to surface with 85 sks (100 Cu.ft) Haliburton Halcem cement system (Class G cement) (15.8 lbs/gal, 1.174 Cu.ft/sk). Circulate cement to surface.

Production: Cement w/ 116 sks, 227.4 Cu.ft, Haliburton Varicem Cement blend, (12.4#/gal, 1.96 cu.ft/sk) (Class G w/ 35% Poz, 6% bwoc bentonite, 5 lb/sk Kol-seal, 1/8 lb/sk Pol-E-Flake & 1 % CaCl<sub>2</sub>) tailed w/100 sks, 137 Cu.ft, Haliburton HalCem cement blend, (13.5 #/gal, 1.37 cu.ft/sk, 5.79 gals/sk mix water) (Class G w/ 50% poz, 1% bwoc bentonite, 5 lb/sk Kol-seal, 0.125 lb/sk Pol-E-Flake,

0.1% bwoc CFR3 and 2% CaCl<sub>2</sub>). Total Cement volume: 364.4 Cu.ft, 65 bbls.  
Circulate cement to surface.

An adequate spacer will be pumped ahead of the cement slurry to help prevent mud contamination of the cement. An adequate number of casing centralizers will be run through useable water zones to ensure that casing is centralized through these zones. The adequate number of centralizers will be determined based on API standards. Centralizers to impart a swirling action around the casing will be used just below and into the base of the lowest usable water zone. These devices will assist mud displacement, increase cement bonding potential and create an effective hydraulic seal. A chronological log will be kept which records the pump rate, pressure, slurry density and slurry volume for the cement job. The log will be sent to the BLM after completion of the job.

5. **Maximum Anticipated Bottom Hole Pressure** - 300 psi.
6. **Drilling Fluid** - will be fresh water with bentonite 8.9#/gal.
7. **WELLHEAD EQUIPMENT:**
  - Huber 8-5/8"x5-1/2" casing head, 1000# WP, tested to 2000#.
  - Huber 5-1/2"x2-7/8" tubing head, 1000# WP, tested to 2000#.
8. **Blow-Out Preventer Equipment (BOPE): Exhibit 8.**
  - Annular preventer, double ram, or 2 rams with one being blind and one being a pipe ram.
  - Kill line (2" minimum)
  - 1 kill line valve (2" minimum)
  - 1 choke line valve
  - 2 adjustable chokes
  - Upper kelly cock valve with handle available.
  - Safety valve and subs to fit all drill string connections in use.
  - Pressure gauge on choke manifold.
  - 2" minimum choke line.
  - Fill-up line.

Working pressure for all BOPE will be 2,000 psi or greater. Will test BOPE (blind rams, pipe rams, choke manifold and surface casing) separately. Each test will include a low pressure test to 250-psig held for five minutes and a high pressure test to 800-psig held for

thirty minutes (with no more than a 10-percent pressure drop during the duration of the tests). If a 10-percent or greater pressure drop occurs; a packer will be run to isolate the surface casing and BOPE to locate the source of the leak.

9. **Contacts:** Dugan Prod. Corp. Office & Radio Dispatch:

(505) 325-1821

Gerald Wright

Kurt Fagrelus

John Alexander

(505) 632-5150 (H)

(505) 325-4327 (H)

(505) 325-6927 (H)

(505) 330-9585 (M)

(505) 320-8248 (M)

(505) 320-1935 (M)

14. Certification -

The Following statement must be signed by the Lessee's or Operator's Field Representative who is identified above in Item #13 of this Surface Use Plan.

I hereby certify that I, or persons under my direct supervision, has inspected the proposed drill site, access route and pipeline route; that I am familiar with the conditions which presently exist; that the statements made in this Surface Use Plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by the Operator and its Contractors and Subcontractors in conformity with this Application Surface Use Plan and the terms and conditions under which it is approved. I also certify that I, or the company I represent, are responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

By:   
Kurt Fagrelus

Date: July 25, 2016

3. Construction materials for pipeline will be obtained on-site. If additional material is needed, it will be obtained from existing private or approved permitted sources (providing it does not contain any noxious weeds) and will be transported to the construction site with trucks over existing roads in the area.

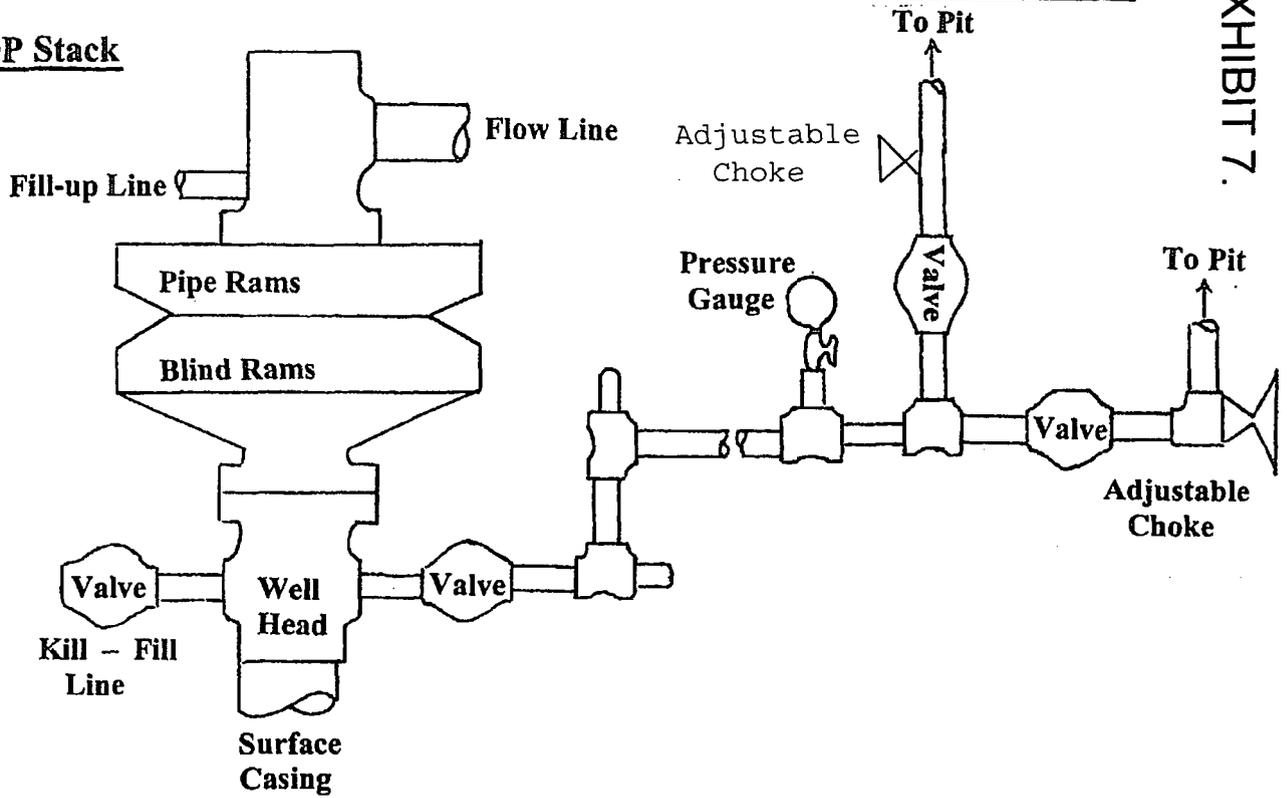
✓ 7. Methods for Handling Wastes –

- A. Closed loop drilling system will be used to contain all liquids and solids waste associated with drilling operations is shown in **Exhibit 6**.
  1. System will be designed and maintained to prevent contamination of fresh water and protect wildlife, public health and the environment.
  2. Stockpile top-soil prior to leveling well pad and digging pit. The top-soil will be kept separate from sub-soil and used as a final cover for interim reclamation of the pit and well pad.
  3. A pit approximately 45-feet long by 12-feet wide and 3-feet deep with vertical sidewalls will be constructed. The pit will be constructed with a firm foundation and interior slopes, smooth and free of rocks or sharp edges.
  4. An open-top steel tank approximately 40-feet long by 10-feet wide and 4-feet deep with internal baffles will be set in the pit and used to separate solids from the drilling fluids.
  5. An upright, 400-bbl tank will be set adjacent to the open top steel tank and used for circulation and storage of drilling fluids.
  6. An upright, 400-bbl tank will be set adjacent to the circulation/storage tank and used for storage of fresh water.
  7. Diversionary berms, ditches or sloping will be constructed to prevent surface run-off from flowing into pit.
  8. Sub-surface soil will be used to construct a 1-foot tall berm around the perimeter of the pit to prevent surface run-off water from entering the pit.
- B. Solids – all accumulated solids (cuttings) in the open-top steel tank and circulating tank will be removed by a vacuum truck and hauled daily to the Industrial Ecosystem Inc. (IEI) land farm for disposal.
- C. Liquids – all liquids (drilling fluids) from the closed loop system will be transferred to the next well in the drilling program for re-use or hauled to Basin Disposal for disposal. All flow back water recovered during completion operations will be collected in a steel storage tank and disposed of at either Basin Disposal or IEI waste disposal facilities.
- D. Spills – any spills of non-freshwater liquid will be reported to the Farmington Field Office of the BLM and the New Mexico Oil Conservation District office within 48-hours. The spill will be cleaned up immediately and transferred to either Basin Disposal or the IEI waste disposal facilities.
- E. Sewage – portable, toilets will be used to collect and contain human sewage. Toilets will

# Well Control Equipment Schematic for 2,000 psi BOP

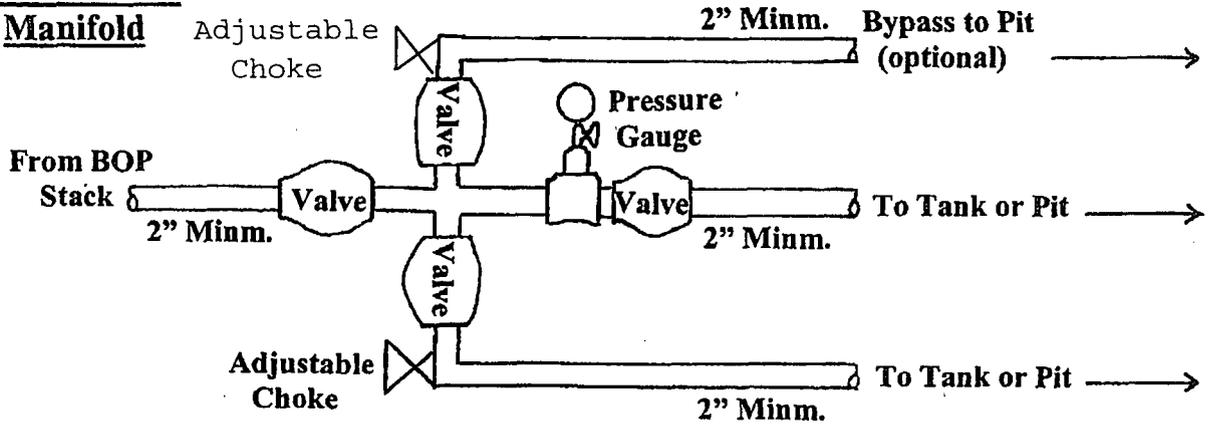
EXHIBIT 7.

## BOP Stack



## Choke & Kill

### Manifold



Working Pressure for all equipment is 2,000 psi or greater

**DUGAN PRODUCTION CORP.**  
Bolt #1

Directions from the Intersection of US Hwy 550 & US Hwy 64  
in Bloomfield, NM to Dugan Production Corporation Bolt #1

1772' FNL & 1669' FWL, Section 10, T23N, R10W, N.M.P.M., San Juan County, NM

Latitude: 36.243660°N Longitude: 107.887083°W Datum: NAD1983

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 27.9 miles to State Hwy #57 @ Mile Marker 123.4:

Go Right (South-westerly) on State Hwy #57 for 3.1 miles to fork in road:

Go Left (South-westerly) remaining on State Hwy #57 for 2.6 miles to fork in road:

Go Right (Westerly) on County Road #7635 for 0.9 miles to fork in road:

Go Left (Southerly) remaining on County Road #7635 for 3.8 miles to begin new access on left-hand side of existing roadway which continues for 108.9' to staked Dugan Bolt #1 location.