

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary

Matthias Sayer
Deputy Cabinet Secretary

David R. Catanach, 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: 5/30/17

Well information;

Operator Dugen, Well Name and Number Flats 1

API# 30-045-35845, Section 6, Township 23 N/S, Range 11 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.

A handwritten signature in black ink, appearing to read "David R. Catanach".

NMOCD Approved by Signature

Date

11-16-2017

10400014512
ATS-F010-17-59

NOV 03 2017

Form 3160-3
(March 2012)

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. NMNM119288	
6. If Indian, Allottee or Tribe Name	
7. If Unit or CA Agreement, Name and No.	
8. Lease Name and Well No. FLATS 1	
9. API Well No. 30-045-35845	
10. Field and Pool, or Exploratory BASIN FRUITLAND COAL	
11. Sec., T. R. M. or Blk. and Survey or Area SEC 6 / T23N / R11W / NMP	
12. County or Parish SAN JUAN	13. State NM
1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER	
1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other CBNG <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone	
2. Name of Operator DUGAN PRODUCTION CORP	
3a. Address 709 E Murray Dr. Farmington NM 87401	3b. Phone No. (include area code) (505)325-1821
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface NENE / 1000 FNL / 660 FEL / LAT 36.260542 / LONG -108.036946 At proposed prod. zone NENE / 1000 FNL / 660 FEL / LAT 36.260542 / LONG -108.036946	
14. Distance in miles and direction from nearest town or post office* 40 miles	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660 feet	16. No. of acres in lease 949.33
17. Spacing Unit dedicated to this well 320	
18. Distance from proposed location* to nearest well, drilling, completed, 0 feet applied for, on this lease, ft.	19. Proposed Depth 620 feet / 620 feet
	20. BLM/BIA Bond No. on file FED: NM0140 95,000. slw
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6159 feet	22. Approximate date work will start* 08/22/2017
	23. Estimated duration 5 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- | | |
|--|---|
| 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 required by the BLM. |

25. Signature (Electronic Submission)	Name (Printed/Typed) Tyra Feil / Ph: (505)325-1821	Date 05/30/2017
Title Authorized Representative		
Approved by (Signature) 	Name (Printed/Typed)	Date 11/1/17
Title AFM	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.

(Continued on page 2)

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and 43 CFR 3165.4 pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"

NMOCDAY

ACCEPTED FOR RECORD
MAY 30 2017
FARMINGTON FIELD OFFICE
BY _____

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
OIL CONS. DIV DIST. 3

NOV 03 2017

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35845		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 320050	*Property Name FLATS		*Well Number 1
*OGRID No. 006515	*Operator Name DUGAN PRODUCTION CORPORATION		*Elevation 6159'

NM119288
NEW

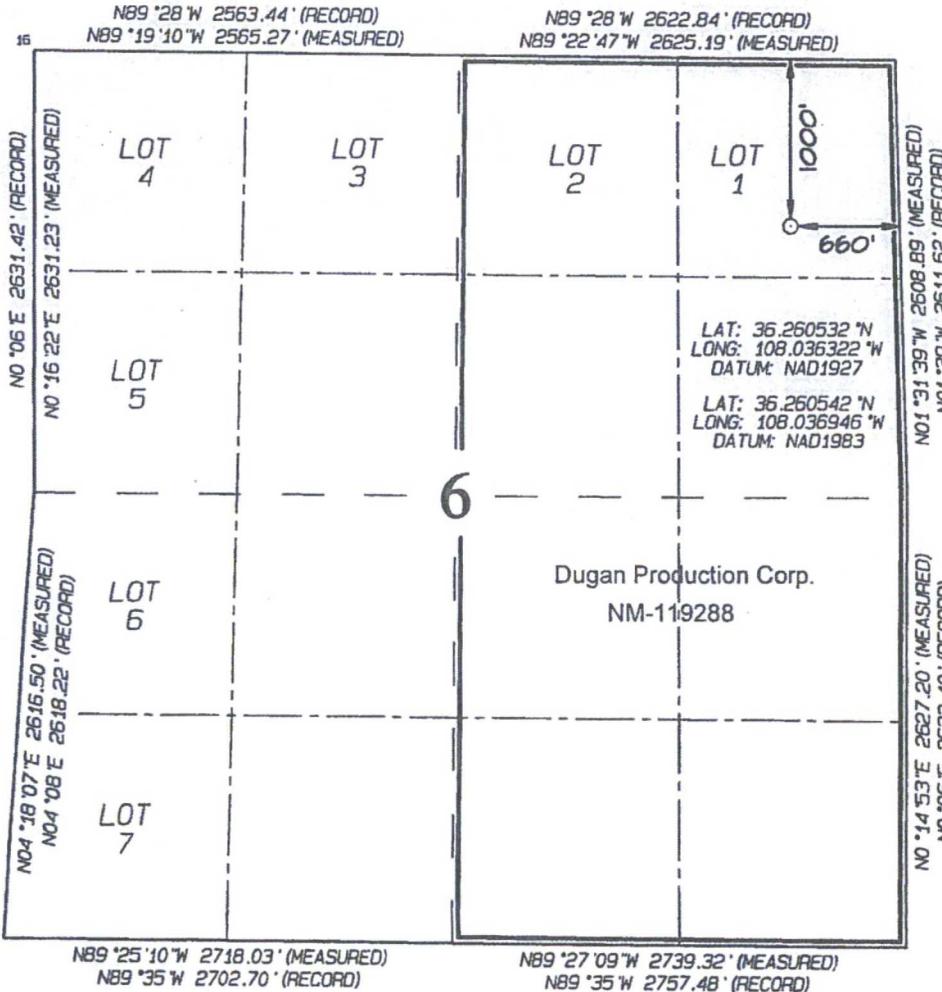
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	6	23N	11W	1	1000	NORTH	660	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
					¹² Dedicated Acres 319.52 Acres - (E/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.	

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



¹⁷ 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 Fagrelus (5/19/2017)
Signature Date

Kurt Fagrelus
Printed Name

kfagrelus@duganproduction.com
E-mail Address

¹⁸ 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 16, 2017
Survey Date: JANUARY 7, 2017

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

APD ID: 10400014512

Submission Date: 05/30/2017

Highlighted data reflects the most recent changes

Operator Name: DUGAN PRODUCTION CORPORATION

Well Name: FLATS

Well Number: 1

[Show Final Text](#)

Well Type: COALBED NATURAL GAS WELL

Well Work Type: Drill

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	KIRTLAND	6159	620	620	SHALE,SANDSTONE	USEABLE WATER,NATURAL GAS,OIL,COAL	Yes

Section 2 - Blowout Prevention

Pressure Rating (PSI): 2M

Rating Depth: 620

Equipment: 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

Requesting Variance? NO

Variance request:

Testing Procedure: 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 5 minutes and a high pressure test to 800 psig held for 30 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.

Choke Diagram Attachment:

Flats_1_Exhibit_7_05-22-2017.pdf

BOP Diagram Attachment:

Flats_1_Exhibit_7_05-22-2017.pdf

OIL CONS. DIV DIST. 3
NOV 09 2017

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	12.25	8.625	NEW	API	N	0	120	0	120	5539	5419	120	J-55	24	STC	0.041	0.019	DRY	0.012	DRY	0.008

Operator Name: DUGAN PRODUCTION CORPORATION

Well Name: FLATS

Well Number: 1

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
2	PRODUCTION	7.875	5.5	NEW	API	N	120	620	120	620	5419	4919	500	J-55	15.5	STC	0.071	0.06	DRY	0.048	DRY	0.039

Casing Attachments

Casing ID: 1 String Type: SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Surface_Casing_05-26-2017.xlsx

Casing ID: 2 String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Production_Casing_05-26-2017.xlsx

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives

Operator Name: DUGAN PRODUCTION CORPORATION

Well Name: FLATS

Well Number: 1

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead	1	0	120	85	100	15.8	1.17		HALLIBURTON HALCEM CEMENT SYSTEM (CLASS G)	none

PRODUCTION	Lead	120	120	620	145	199	13.5	199		HALLIBURTON HALCEM CEMENT BLEND	50% POZ, 1% BWOC BENTONITE, KOL-SEAL, POL-E-FLAKE, 0.1 BWOC CFR3, 2% CACL2
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Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: BOP, and a sufficient amount of gel, starch and Barite to control all conditions.

✓ **Describe the mud monitoring system utilized:** A. Closed loop drilling system will be used to contain all liquids and solids waste associated with the 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 topsoil prior to leveling well pad and digging pit. The topsoil will be kept separate from subsoil 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 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 flowback 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 be onsite during drilling and completion activity. The toilet holding tanks will be pumped as needed and the contents disposed of at an

Operator Name: DUGAN PRODUCTION CORPORATION

Well Name: FLATS

Well Number: 1

approved sewage disposal facility. F. Trash - portable dumpsters will be used to collect and contain garbage and other waste material and will be onsite during drilling and completion activity. The contents of the dumpsters will be removed as needed and disposed of at an approved waste disposal facility. G. After the drilling and completion rigs and the portable toilet and dumpsters are removed from the location, Dugan will be responsible for any clean-up of location necessary. Also, the area will be maintained free of trash and debris for the life of the well. H. During the drilling, completion and production of the well, there will not be any chemicals subject to reporting under SARA Title III greater than 10,000 pounds in weight, used, produced, stored, transported or disposed of annually at the well site. I. During the drilling, completion and production of the well, there will not be any extremely hazardous substances as defined in 40 CFR 355 used, produced, stored, transported or disposed of at the well site.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
120	620	WATER-BASED MUD	8.9	8.9	66.6		7		1500	10	

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

A 3-step test will be conducted and the well will be placed into production

List of open and cased hole logs run in the well:

CNL,GR

Coring operation description for the well:

SAMPLES WILL BE CAUGHT EVERY 10 FEET FROM 300 FEET TO TOTAL DEPTH

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 300

Anticipated Surface Pressure: 163.6

Anticipated Bottom Hole Temperature(F): 68

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geohazards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? NO

Operator Name: DUGAN PRODUCTION CORPORATION

Well Name: FLATS

Well Number: 1

Hydrogen sulfide drilling operations plan:

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Other proposed operations facets description:

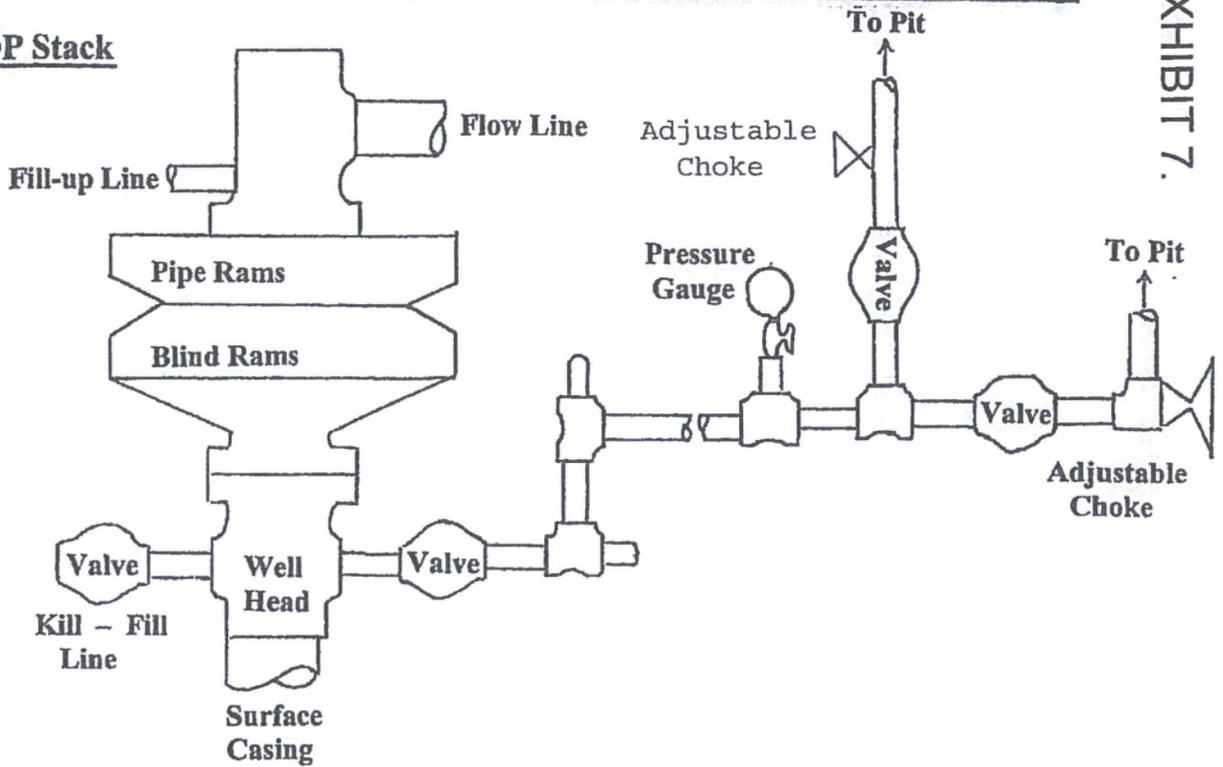
Other proposed operations facets attachment:

Other Variance attachment:

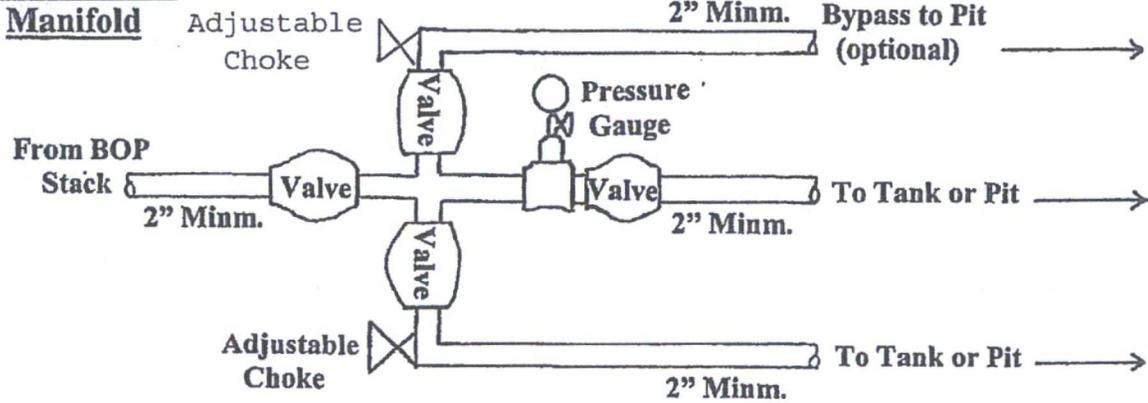
Well Control Equipment Schematic for 2,000 psi BOP

EXHIBIT 7.

BOP Stack



Choke & Kill



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

DUGAN PRODUCTION CORP.
Flats #1

Directions from the Intersection of US Hwy 64 & US Hwy 550
in Bloomfield, NM to Dugan Production Corporation Flats #1
1000' FNL & 660' FEL, Section 6, T23N, R11W, N.M.P.M., San Juan County, NM

Latitude: 36.260542°N Longitude: 108.036946°W Datum: NAD1983

From the intersection of US Hwy 64 & US Hwy 550 in Bloomfield, NM, travel Southerly on US Hwy 550 for 24.0 miles to County Road #7500 @ Mile Marker #127.4;

Go Right (South-westerly) on County Road #7500 for 7.2 miles to fork in roadway;

Go Left (Westerly) which is straight remaining on County Road #7500 for 1.0 mile to fork in roadway;

Go Left (Southerly) which is straight remaining on County Road #7500 for 7.4 miles to fork in roadway;

Go Left (South-westerly) exiting County Road #7500 for 1.0 miles to begin new access on right-hand side of un-improved roadway, which continues for 4802.7' to staked Dugan Flats #1 location.