

Form 3160-3
(April 2004)

RECEIVED

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NOV 28 2007

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-36952
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Dugan Production Corp.		7. If Unit or CA Agreement, Name and No.
3a. Address 709 East Murray Drive Farmington, NM 87401		8. Lease Name and Well No. Flo Jo #93
3b. Phone No. (Include area code) 505-325-1821		9. API Well No. 30-045-34517
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 990' FNL & 990' FWL, Lat. 36.25998 N At proposed prod. zone Same as above, Long. 107.96040 W		10. Field and Pool, or Exploratory Basin Fruitland Coal
11. Sec., T. R. M. or Blk. and Survey or Area 0 Sec. 1, T23N, R11W NMPM		12. County or Parish San Juan
13. State NM		
14. Distance in miles and direction from nearest town or post office* Approx. 35-miles SE of Farmington, New Mexico	15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 990 Feet	16. No. of acres in lease 1760.28 Acres
17. Spacing Unit dedicated to this well N/2-320.28 Acres	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 1,000'	19. Proposed Depth 1110 Feet
20. BLM/BIA Bond No. On File	21. Elevations (Show whether DF, KDB, RT, GL, etc.) GL-6591'	22. Approximate date work will start* ASAP
23. Estimated duration 5-Days	24. Attachments	

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

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

25. Signature <i>Kurt Fagrelus</i>	Name (Printed/Typed) Kurt Fagrelus	Date Nov. 28, 2007
Title Geologist		

Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed) AFM	Date 5/7/08
Title Office FFO		

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.

*(Instructions on page 2)

A water based gel-mud will be used to drill surface and production casing hole.
Standard 2,000 psi BOP will be used to drill production hole. The Fruitland Coal will be completed from approximately 934' - 956'. The interval will be fracture stimulated.

**NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT**

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

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 appeal pursuant to 43 CFR 3165.4

NMOCD

MAY 12 2008

AV

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-102
Revised October 12, 2005
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

NOV 28 2007

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-34517		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 3684	*Property Name FLO JO		*Well Number 93
*OGRID No. 006515	*Operator Name DUGAN PRODUCTION CORPORATION		*Elevation 6591'

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
D	1	23N	11W		990	NORTH	990	WEST	SAN JUAN

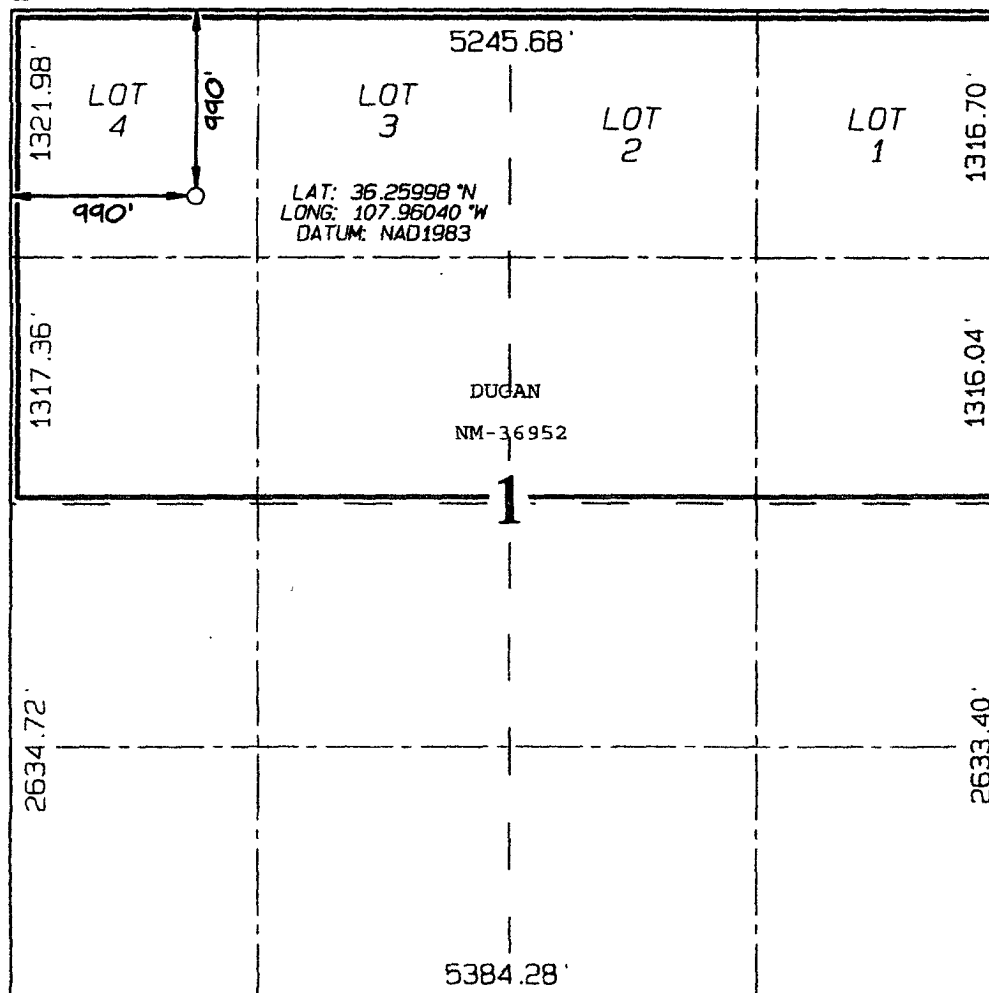
¹¹ Bottom Hole Location If Different From Surface

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 320.28 Acres - (N/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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

¹⁶



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.

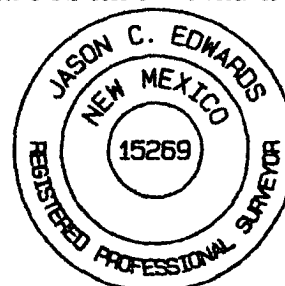
Kurt Fagrelus 11/26/2007
Signature Date
Kurt Fagrelus
Printed Name

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

Survey Date: OCTOBER 24, 2007

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

Submit 3 Copies To Appropriate District
Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
May 27, 2004

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

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-045-
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other		5. Indicate Type of Lease Federal <input checked="" type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator Dugan Production Corp.		6. State Oil & Gas Lease No. Federal NM-36952
3. Address of Operator 709 East Murray Drive, Farmington, NM		7. Lease Name or Unit Agreement Name Flo Jo
4. Well Location Unit Letter <u>D</u> : 990 feet from the <u>north</u> line and 990 feet from the <u>west</u> line Section <u>1</u> Township <u>23N</u> Range <u>11W</u> NMPM County <u>San Juan</u>		8. Well Number #93
11. Elevation (Show whether DR, RKB, RT, GR, etc.) GL-6591'		9. OGRID Number 006515
Pit or Below-grade Tank Application <input checked="" type="checkbox"/> or Closure <input type="checkbox"/>		
Pit type <u>Drilling</u> Depth to Groundwater <u>+100'</u> Distance from nearest fresh water well <u>+1000'</u> Distance from nearest surface water <u>+200'</u>		
Pit Liner Thickness: <u>12</u> mil Below-Grade Tank: Volume <u>bbbs</u> Construction Material <u>Synthetic</u>		

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:
PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐

SUBSEQUENT REPORT OF:
REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: Reserve pit for drilling (lined) ☒

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

See APD cover page.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOC guidelines ☒, a general permit ☐ or an (attached) alternative OCD-approved plan ☐. Modified only as per BLM Conditions of Approval.

SIGNATURE Kurt Fagrelus TITLE Vice President, Exploration DATE 11/28/2007
Kurt Fagrelus kfagrelus@duganproduction.com 505-325-1821

Type or print name E-mail address: Telephone No.

For State Use Only

APPROVED BY: [Signature] TITLE Deputy Oil & Gas Inspector,
Conditions of Approval (if any): District #3 DATE MAY 12 2008

EXHIBIT B
OPERATIONS PLAN
Flo Jo #93

APPROXIMATE FORMATION TOPS:

Ojo Alamo	Surface
Kirtland	Less than 100'
Fruitland	610'
Pictured Cliffs	960'
Total Depth	1110'

Catch samples every 10 feet from 850 feet to total depth.

LOGGING PROGRAM:

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

CASING PROGRAM:

Hole Size	Casing Size	Wt./ft.	Setting Depth	Grade and Condition
12-1/4"	8-5/8"	24#	120'	J-55
7"	5-1/2"	14#	1110'	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" hole to total depth with gel-water mud program to test the Fruitland Coal. 5-1/2", 14#, 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.

CEMENTING PROGRAM:

Surface: Cement to surface with 70 cf Class B + 2% CaCl₂.
Circulate to surface.

Production Stage-Cement with 105 cf 2% lodense with
1/4# celloflake/sx followed by 65 cf Class "B" with
1/4# celloflake/sx.
Total cement slurry for production stage is 170 cf
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 usable 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, pump pressure, slurry density, and slurry volume for the cement job. The log will be sent to the BLM after completion of the job.

Maximum Anticipated Bottom Hole Pressure - 300 psi.

Drilling Fluid - will be fresh water with bentonite (8.9#/gal).

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#.

BOP and Related Equipment will include for a 2000 psi system:

(Exhibit D)

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 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.

Contacts:

Dugan Prod.Corp. Office & Radio Dispatch: 325-1821

Mark Brown	327-3632 (H)
	320-8247 (M)

Kurt Fagrelus	325-4327 (H)
	320-8248 (M)

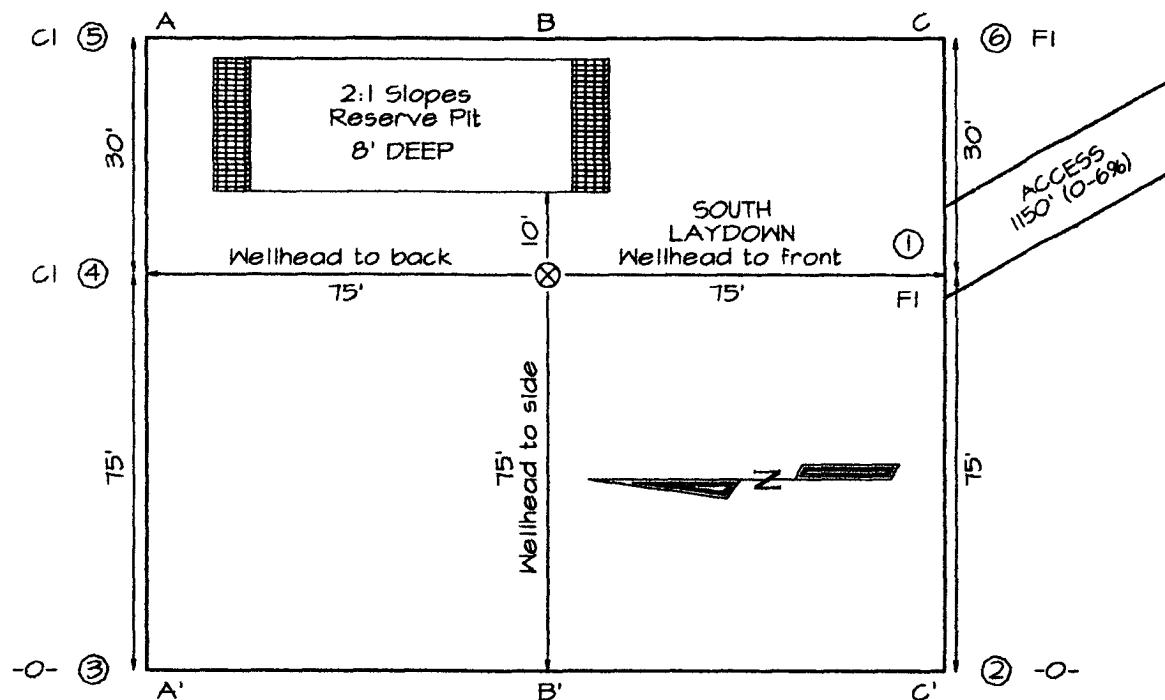
John Alexander	325-6927 (H)
	320-1935 (M)

DUGAN PRODUCTION CORPORATION FLO JO #93
990' FNL & 990' FWL, SECTION 1, T23N, R11W, NMPM
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6591'

PLAT 3.

PLAT NOTE:
 SURFACE OWNER
 Bureau of Land
 Management

LATITUDE: 36.25998° N
 LONGITUDE: 107.96040° W
 DATUM: NAD1983



A-A'						
6601'						
6591'						
6581'						

B-B'						
6601'						
6591'						
6581'						

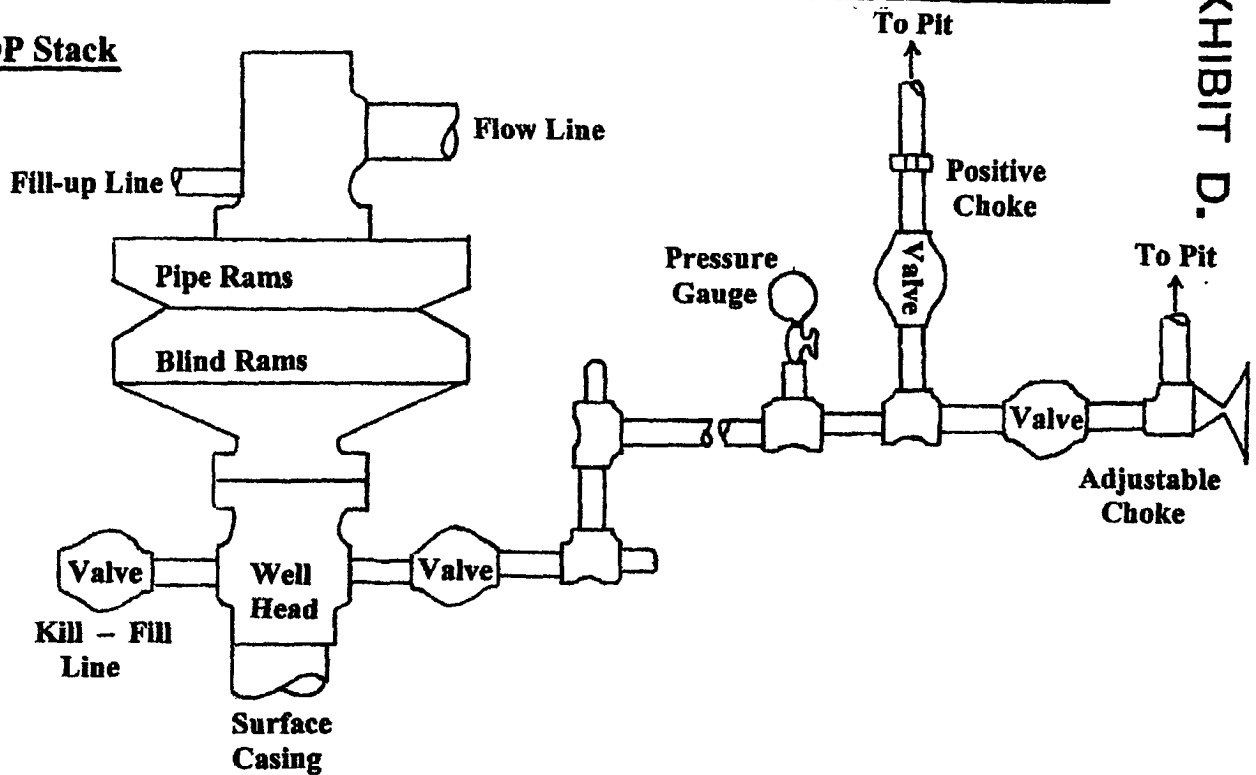
C-C'						
6601'						
6591'						
6581'						

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

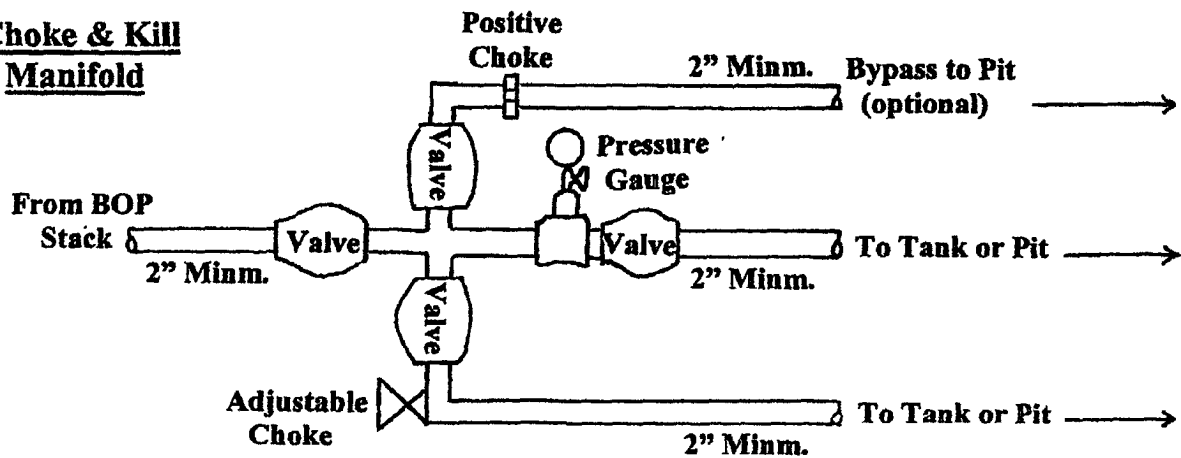
Well Control Equipment Schematic for 2,000 psi BOP

EXHIBIT D.

BOP Stack



Choke & Kill Manifold



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

DUGAN PRODUCTION CORP.

Flo Jo #93