

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000

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-43442
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.
Contact: KURT FAGRELIUS E-Mail: kfgrelius@duganproduction.com		8. Lease Name and Well No. Zoe #90
3a. Address 709 EAST MURRAY DRIVE FARMINGTON, NM 87401	3b. Phone No. (include area code) Ph: 505.325.1821 Fx: 505.327.4613	9. API Well No. 30-045-33452
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1350' FSL and 1600' FWL, Lat. 36.1743, Long. 107.5623 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* Approx. 8-miles SW of Blanco Trading Post, NM		11. Sec., T., R., M., or Blk. and Survey or Area K Sec. 19, T24N, R10W NMPM
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1350 Feet	16. No. of Acres in Lease 1271.56 Acres	12. County or Parish San Juan
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 2600 Feet	19. Proposed Depth 1200 Feet	13. State NM
21. Elevations (Show whether DF, KB, RT, GL, etc.) GL-6500	20. BLM/BIA Bond No. on file On File	17. Spacing Unit dedicated to this well W/2-311.56 Acres
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 FAGRELIUS	Date 11/22/05
Title GEOLOGIST		
Approved by Signature <i>[Signature]</i>	Name (Printed/Typed)	Date 3/8/06
Title AFM	Office FFO	

Application approval does not warrant or certify 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.

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 1000' - 1025'. The interval will be fractured.

NMOCD

District I  
PO Box 1980, Hobbs, NM 88241-1980

District II  
PO Drawer DD, Artesia, NM 88211-0719

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

### WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number <b>30-045-33452</b>		*Pool Code <b>71629</b> ✓	*Pool Name <b>BASIN FRUITLAND COAL</b> ✓
*Property Code <b>35496</b>	*Property Name <b>ZOE</b>		*Well Number <b>90</b>
*GRID No. <b>006515</b>	*Operator Name <b>DUGAN PRODUCTION CORPORATION</b>		*Elevation <b>6500'</b>


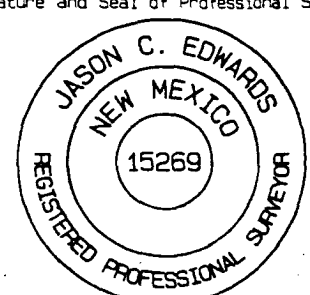
#### <sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	19	24N	10W		1350	SOUTH	1600	WEST	SAN JUAN

#### <sup>11</sup> 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
<sup>12</sup> Dedicated Acres <b>311.56 ACRES - W/2</b>					<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

<sup>16</sup> 1252.68' <b>DUGAN</b> 1337.16' <b>NM-43442</b>		2674.32'		<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  Signature <b>Kurt Fagrelus</b> Printed Name <b>Geology</b> Title <b>Nov. 7, 2005</b> Date
LOT 1				
LOT 2				
LOT 3				
5268.12'	19		5252.28'	<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. Survey Date: <b>SEPTEMBER 26, 2005</b> Signature and Seal of Professional Surveyor  <b>JASON C. EDWARDS</b> Certificate Number 15269
1600'				
LOT 4				
1255.32'	1350'	1311.42'	2622.18'	

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

WELL API NO.	30-045-
5. Indicate Type of Lease Federal STATE <input type="checkbox"/> FEE <input type="checkbox"/>	
6. State Oil & Gas Lease No.	NM-43442
7. Lease Name or Unit Agreement Name	Zoe
8. Well Number	90
9. OGRID Number	006515
10. Pool name or Wildcat Basin Fruitland Coal	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) GL-6500'	
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 _____ bbls; 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 ☐

OTHER: Reserve pit for drilling (lined) ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐

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.

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 1000' - 1025'. The interval will be fractured.

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 NMOCD guidelines ☒, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Kurt Fagrelus TITLE Geology DATE 11/7/2005

Type or print name Kurt Fagrelus E-mail address: kfagrelus@duganproduction.com  
For State Use Only Telephone No. 325-1821

APPROVED BY: [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 43 DATE MAR 08 2006  
Conditions of Approval (if any):

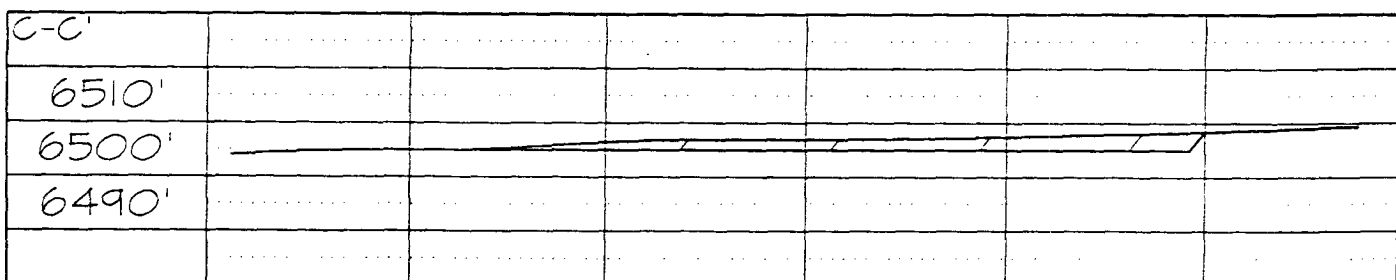
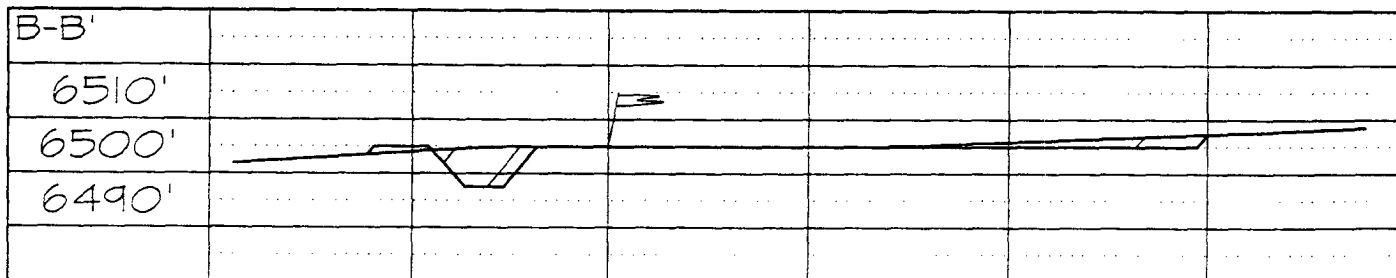
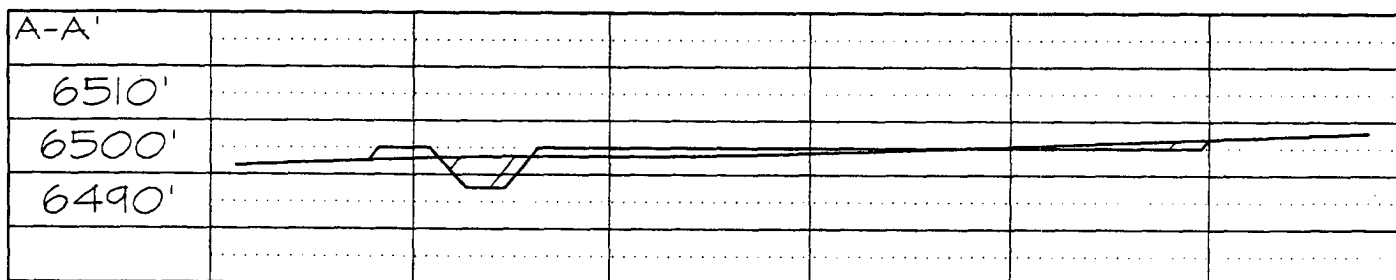
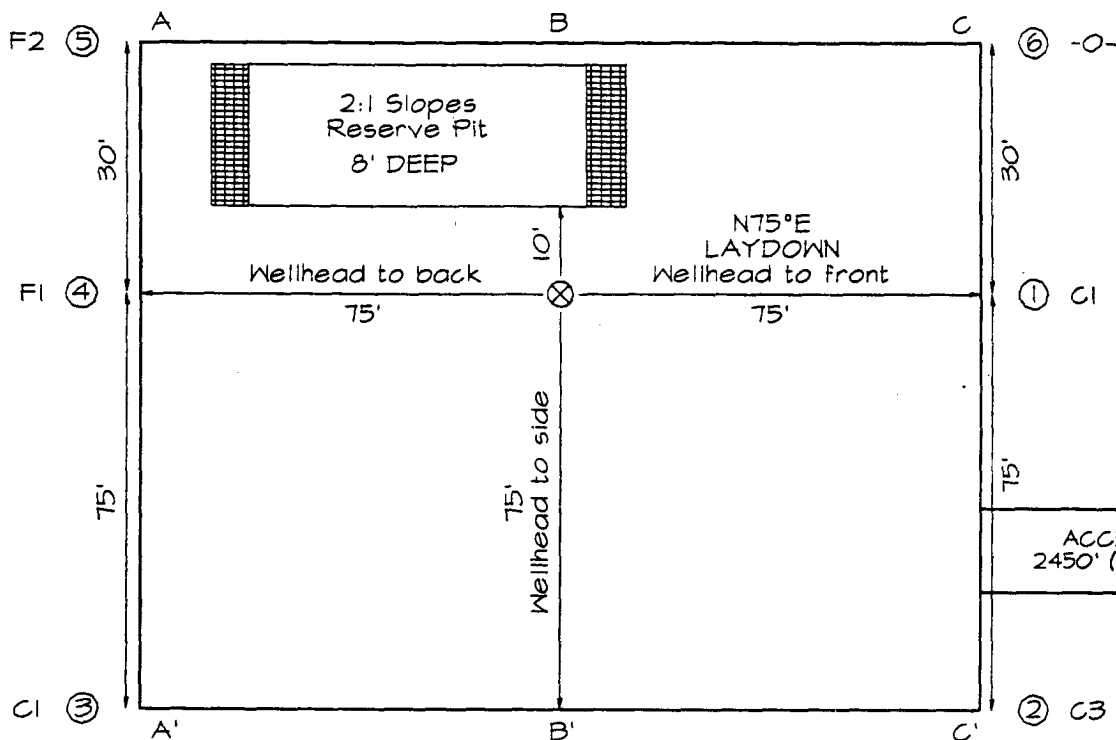
**DUGAN PRODUCTION CORPORATION ZOE #90**  
**1350' FSL & 1600' FWL, SECTION 19, T24N, R10W, NMPM**  
**SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6500'**

PLAT 3.

**LATITUDE: 36°17'43"**  
**LONGITUDE: 107°56'23"**  
 DATUM: NAD1927

PLAT NOTE:

\*SURFACE OWNER\*  
 Bureau of Land  
 Management



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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT -" for such proposals

**SUBMIT IN TRIPLICATE**

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Dugan Production Corp.

3. Address and Telephone No.

P.O. Box 420, Farmington, NM 87499 (505) 325 - 1821

Location of Well (Footage, Sec., T., R., M., or Survey Description)

1350' FSL & 1600' FWL (NE/4 SW/4)  
Unit K, Sec. 19, T24N, R10W, NMPM

5. Lease Designation and Serial No.

NM 43442

6. If Indian, Allotted or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Zoe #90

9. API Well No.

30 045 33452

10. Field and Pool, or Exploratory Area

Basin Fruitland Coal

11. County or Parish, State

San Juan, NM

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

TYPE OF SUBMISSION

- ☒ Notice of Intent  
☐ Subsequent Report  
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment  
☐ Recompletion  
☐ Plugging Back  
☐ Casing Repair  
☐ Altering Casing  
☐ Other  
☒ Change of Plans  
☐ New Construction  
☐ Non-Routine Fracturing  
☐ Water Shut-Off  
☐ Conversion to Injection  
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Casing program will be changed as follows:

	Hole Size	Casing Size	Wt./ft.	Setting Depth	Grade
Surface casing	11"	8-5/8"	24#	120'	J-55
Production casing	7"	5-1/2"	14#	1200'	J-55

All cement volumes will remain the same and be circulated to surface

14. I hereby certify that the foregoing is true and correct

Signed

*Kurt Fagrellius*  
Kurt Fagrellius

Title

Geologist

Date

12/13/2005

(This space for Federal or State office use)

Approved by

*B. J. Mankieles*  
B. J. Mankieles

Title

*AFM*

Date

3/8/06

Conditions of approval, if any:

**EXHIBIT B**  
**OPERATIONS PLAN**  
Zoe #90

**APPROXIMATE FORMATION TOPS:**

Ojo Alamo	175'
Kirtland	265'
Fruitland	685'
Pictured Cliffs	1025'
<b>Total Depth</b>	<b>1200'</b>

Catch samples every 10 feet from 950 feet to total depth.

**LOGGING PROGRAM:**

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

**CASING PROGRAM:**

<u>Hole</u> <u>Size</u>	<u>Casing</u> <u>Size</u>	<u>Wt./ft.</u>	<u>Setting</u> <u>Depth</u>	<u>Grade and</u> <u>Condition</u>
9-7/8"	7"	20#	120'	J-55
6-1/4"	4-1/2"	10.5#	1200'	J-55

Plan to drill a 9-7/8" hole and set 120' of 7" OD, 20#, J-55 surface casing. Then plan to drill a 6-1/4" hole to total depth with gel-water mud program to test the Fruitland Coal. 4-1/2", 10.5#, 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.

**CEMENTING PROGRAM:**

Surface: Cement to surface with 70 cf Class B + 2% CaCl<sub>2</sub>.  
Circulate to surface.

Production Stage: Cement with 120 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 185 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.

**WELLHEAD EQUIPMENT:**

Huber 7"x4-1/2" casing head, 1000# WP, tested to 2000#.

Huber 4-1/2"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)

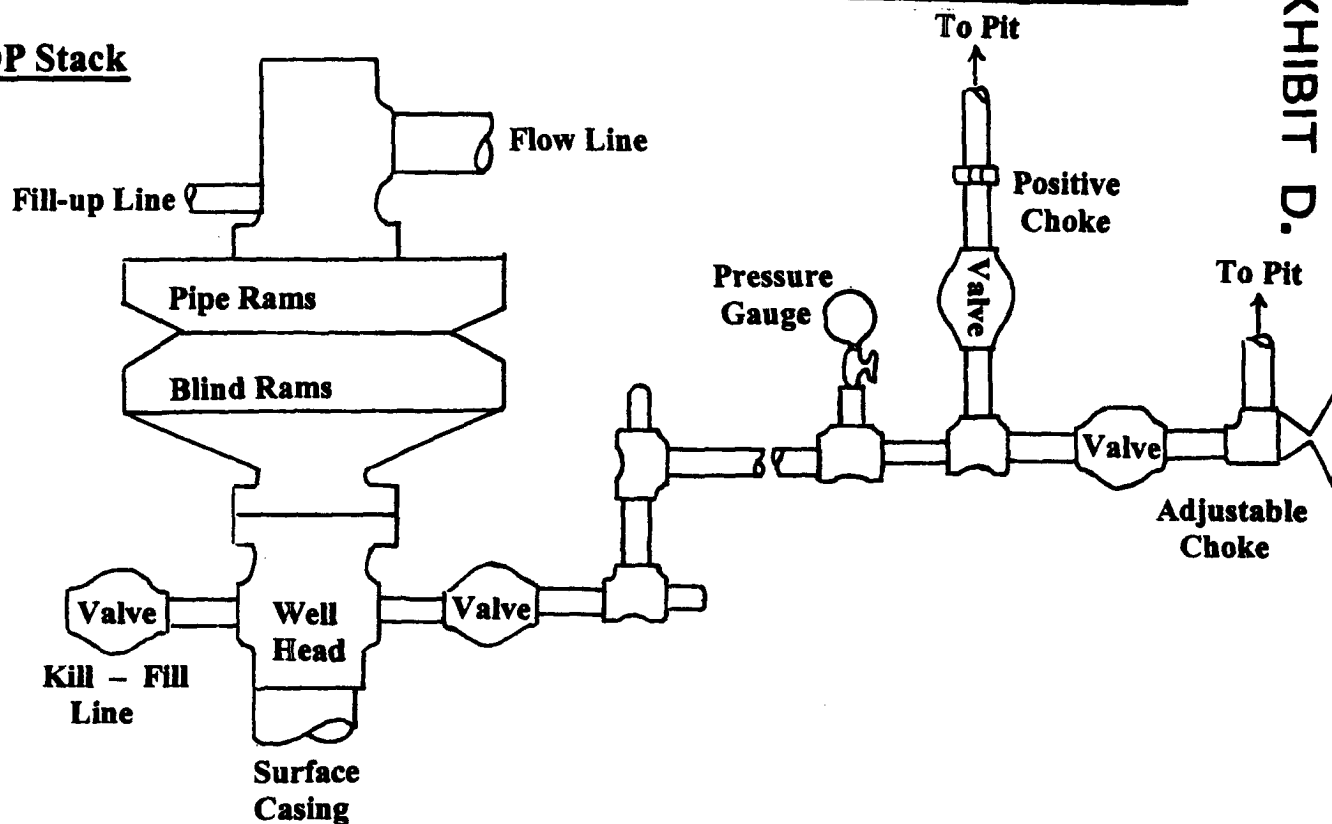
Kurt Fagrelus	325-4327 (H)
	320-8248 (M)

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

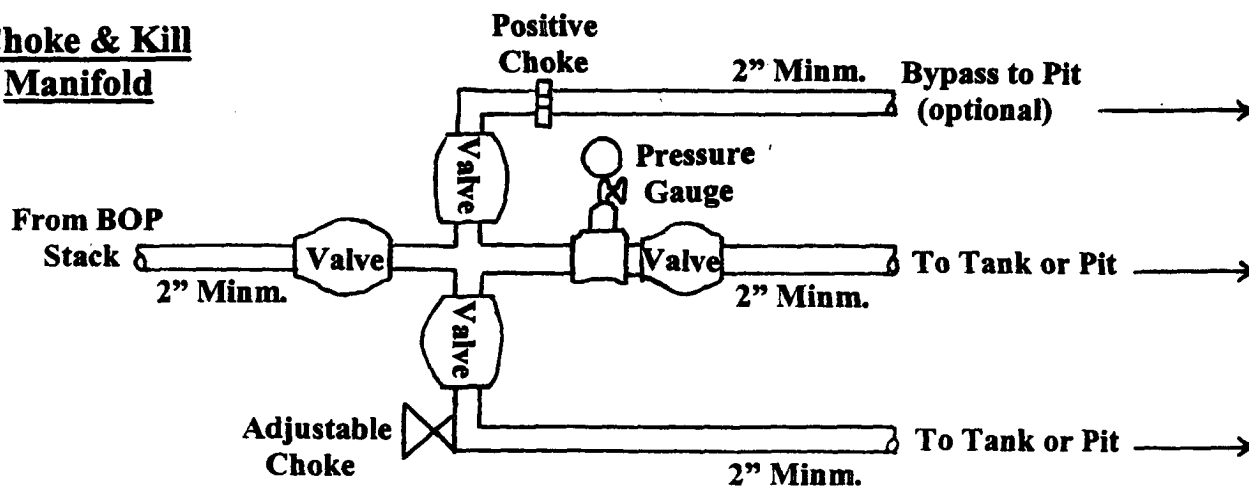
# Well Control Equipment Schematic for 2,000 psi BOP

EXHIBIT D.

## BOP Stack



## Choke & Kill Manifold



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

DUGAN PRODUCTION CORP.

Zoe #90