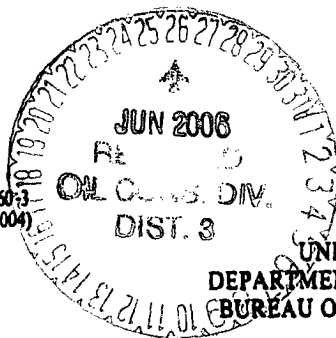


Form 3160-3  
(April 2004)



2006 APR 4 AM 9 50

RECEIVED  
070 FARMING

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
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-0206994
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. Jacobs Com #90
3b. Phone No. (include area code) 505-325-1821		9. API Well No. 30-045-33683
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 1915' FNL & 1920' FWL Lat. 36.78718 Long. 108.26297 At proposed prod. zone Same as above		10. Field and Pool, or Exploratory Basin Fruit. Coal/Harper P.C.
11. Sec., T. R. M. or Blk. and Survey or Area Sec. 25, T30N, R14W NMMP		12. County or Parish San Juan
13. State NM		14. Distance in miles and direction from nearest town or post office* Approx. 4-miles north of Farmington, New Mexico
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1915-Ft.	16. No. of acres in lease 400-Acres	17. Spacing Unit dedicated to this well NE/4 S.26 & NW/4 S.25 (320.0 acres) NW/4 S.25 (160.0 acres) R-11461
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 450'	19. Proposed Depth 1340-Ft.	20. BLM/BIA Bond No. on file NM 0140
21. Elevations (Show whether DF, KDB, RT, GL, etc.) GL-5494'	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:

- |   |  |
|---|--|
| 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 shall be filed with the appropriate Forest Service Office). | 6. 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 March 28, 2006
Title Geology		

Approved by (Signature) Original Signed: Stephen Mason	Name (Printed/Typed)	Date JUN 21 2006
Title	Office	

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, Fruitland Sand and Pictured Cliffs Sand will be perforated and completed. The interval will be fractured.

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

This action is subject to technical and  
procedural review pursuant to 43 CFR 3165.2  
and appeal pursuant to 43 CFR 3165.4

NMOCB

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

District II  
PO Drawer 00, 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

RECEIVED

OTO FARMINGTON NM

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number <b>30-045-33683</b>		*Pool Code 78160 - 71629	*Pool Name HARPER HILL FRUITLAND SAND PICTURED CLIFFS - BASIN FRUITLAND COAL
*Property Code <b>28011</b>	*Property Name JACOBS COM		*Well Number 90S
*OGRID No. 006515	*Operator Name DUGAN PRODUCTION CORPORATION		*Elevation 5494'

<sup>10</sup> Surface Location

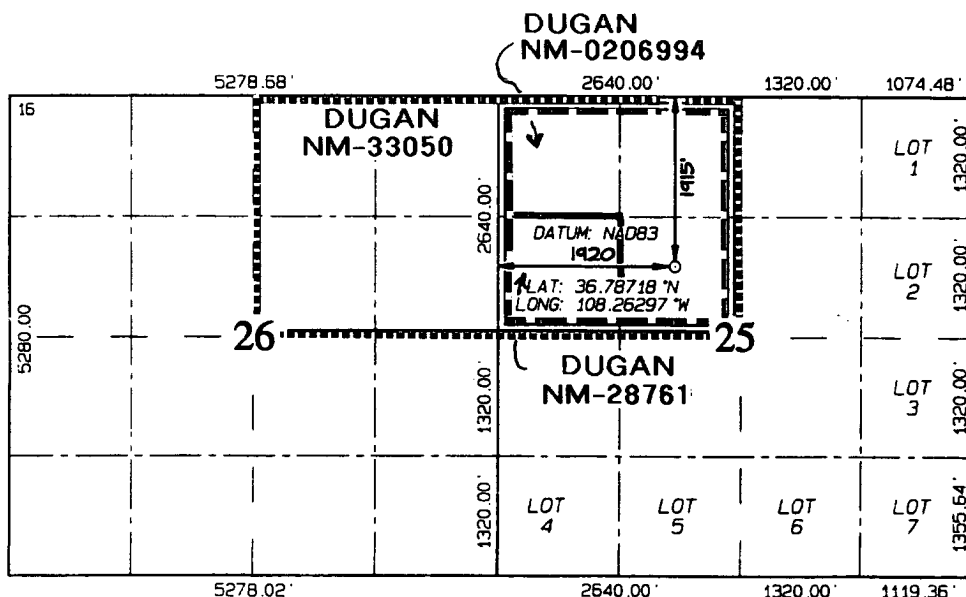
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	25	30N	14W		1915	NORTH	1920	WEST	SAN JUAN

<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 160.00 Acres - NE/4 Sec 26 160.00 Acres - NW/4 Sec 25	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No. <b>R-11461-nsp</b>
---	-------------------------------	----------------------------------	---

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

*Kurt Fagrelus*  
Signature

Kurt Fagrelus

Printed Name  
Geology

Title  
March 30, 2006

Date

<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: DECEMBER 15, 2005

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

WELL API NO.	30-045-33683
5. Indicate Type of Lease	Federal <input checked="" type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.	Federal NM-0206994
7. Lease Name or Unit Agreement Name	Jacobs Com
8. Well Number	90-S
9. OGRID Number	006515
10. Pool name or Wildcat	Basin Fruitland Coal Harper Hill Fruitland P.C.
11. Elevation (Show whether DR, RKB, RT, GR, etc.)	GL-5494'
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>	

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.)

1. Type of Well: Oil Well ☐ Gas Well ☒ Other ☐  
2. Name of Operator Dugan Production Corp.  
3. Address of Operator 709 East Murray Drive  
4. Well Location  
Unit Letter F : 1915 feet from the north line and 1920 feet from the west line  
Section 25 Township 30N Range 14W NMPM County San Juan

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
GL-5494'

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type Drilling Depth to Groundwater 100' Distance from nearest fresh water well 1000' Distance from nearest surface water 200'  
Pit Liner Thickness: 12 mil Below-Grade Tank: Volume \_\_\_\_\_ bbls; Construction Material Synthetic

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.

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, Fruitland Sand and Pictured Cliffs Sand will be completed from approximately 850' - 1200'. 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 Fagrelius TITLE Geology DATE 3/26/2006

Type or print name Kurt Fagrelius  
For State Use Only

kfagrelius@duganproduction.com  
E-mail address:

Telephone No. 325-1821

APPROVED BY: [Signature]  
Conditions of Approval (if any):

TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 4

DATE JUN 26 2006

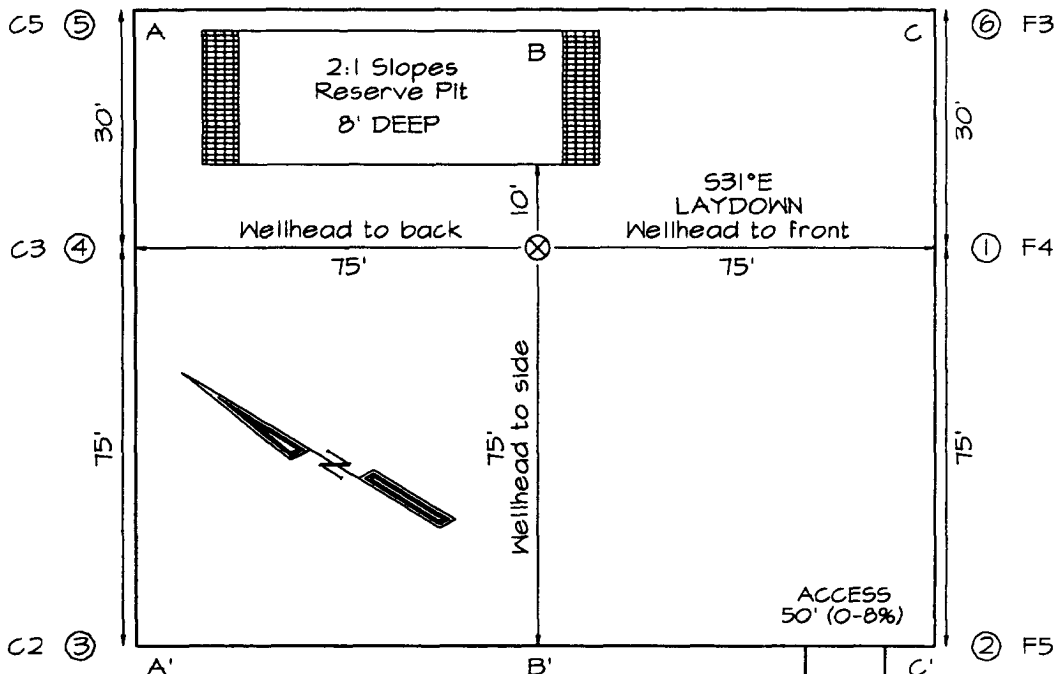
**DUGAN PRODUCTION CORPORATION JACOBS COM #90S  
1915' FNL & 1920' FWL, SECTION 25, T30N, R14W, NMPM  
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 5494'**

**LATITUDE: 36.78718° N**  
**LONGITUDE: 108.26297° W**

DATUM: NAD1927

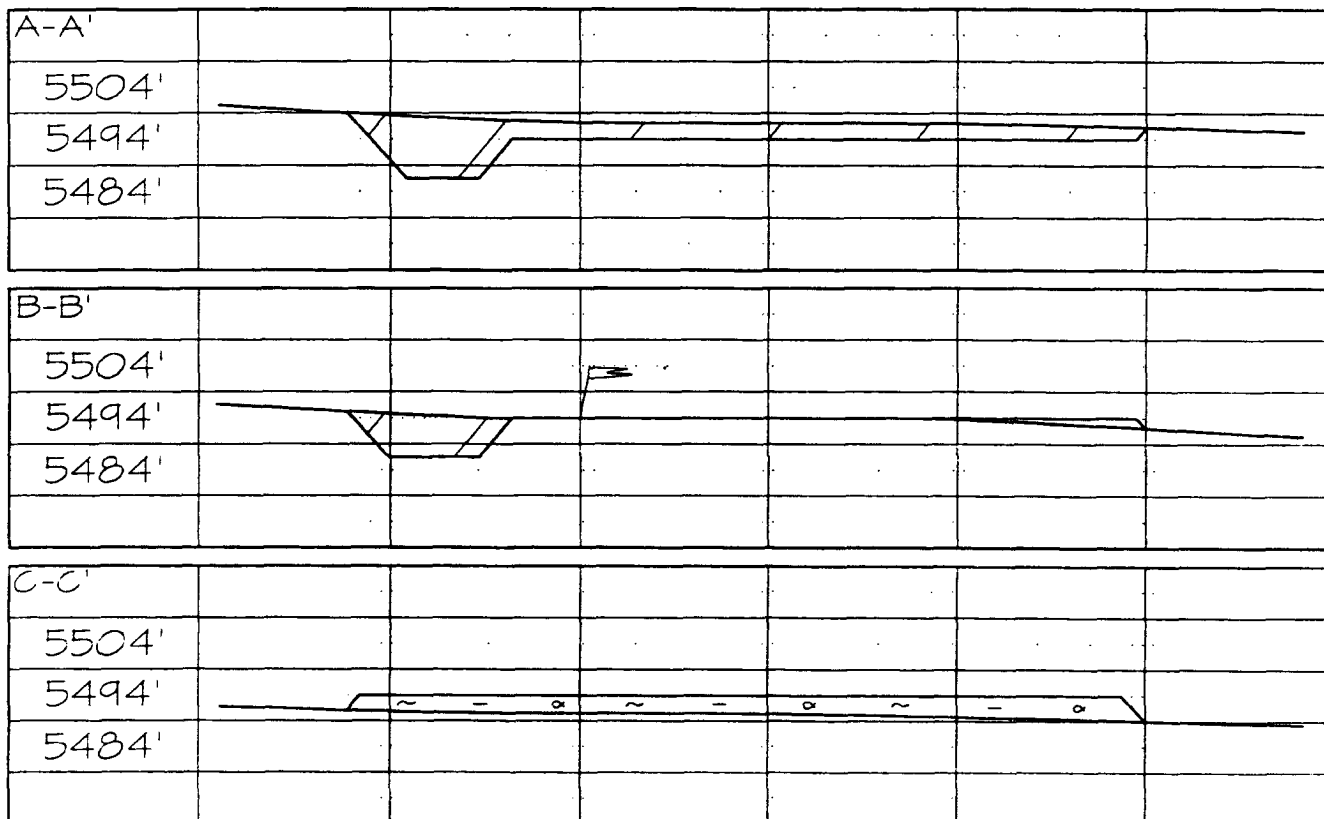
PLAT NOTE:

\*SURFACE OWNER\*\*  
Bureau of Land  
Management



## EPFS PIPELINE

EXISTING ROADWAY



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

**EXHIBIT B**  
**OPERATIONS PLAN**  
**Jacobs Com #90-S**

**APPROXIMATE FORMATION TOPS:**

Kirtland	Surface
Fruitland	775'
Pictured Cliffs	1184'
<b>Total Depth</b>	<b>1340'</b>

Catch samples every 10 feet from 900 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>
11"	8-5/8"	20#	120'	J-55
7"	5-1/2"	14#	1340'	J-55

Plan to drill a 11" hole and set 120' of 8-5/8" OD, 20#, J-55 surface casing. Then plan to drill a 7" hole to total depth with gel-water mud program to test the Fruitland Coal, Fruitland Sand and Pictured Cliffs Sand. 5-1/2", 14#, J-55 production casing will be run and cemented. Cased hole GR-CCL-CNL log will be run. Productive zones 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 140 cf 2% lodense with  
1/4# celloflake/sx followed by 75 cf Class "B" with  
1/4# celloflake/sx.  
Total cement slurry for production stage is 215 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 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)

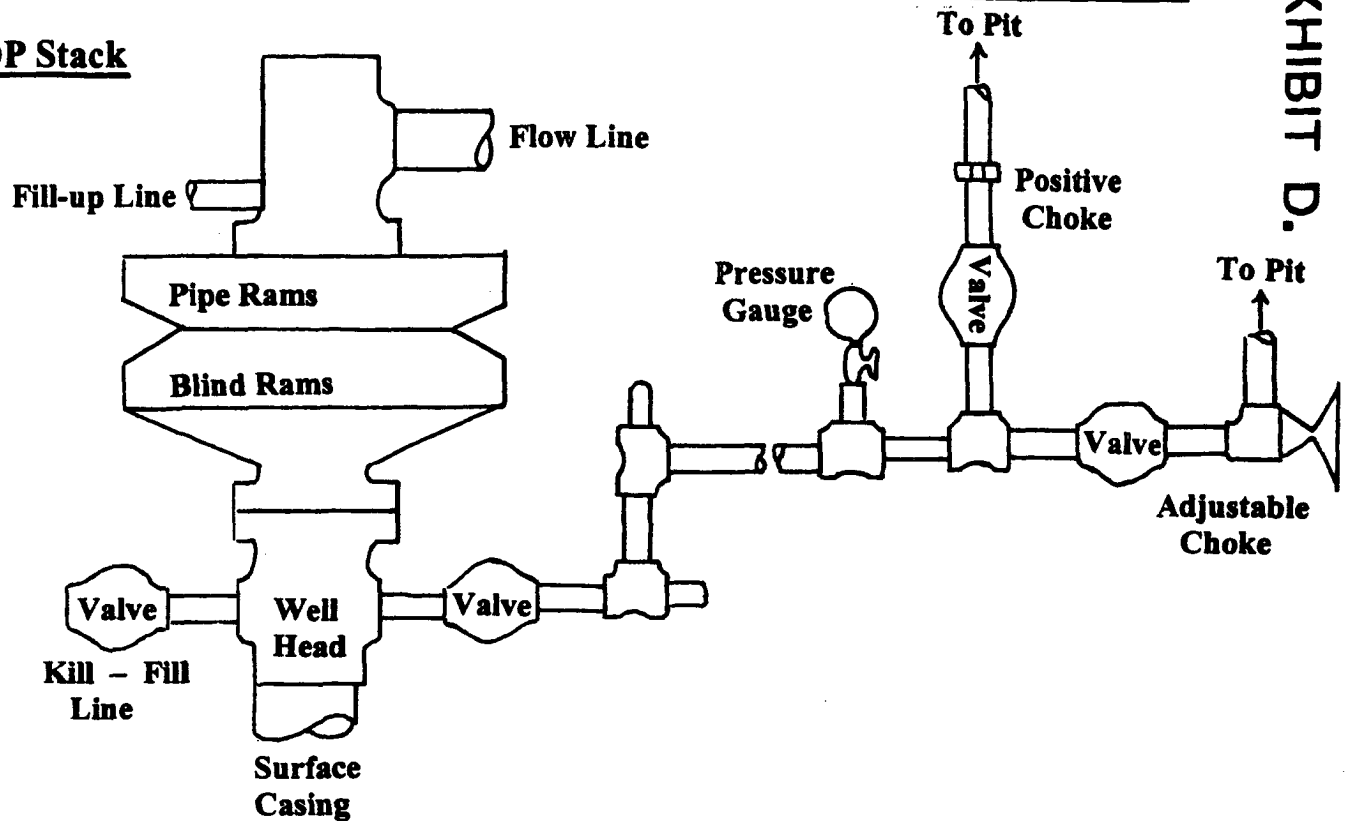
Kurt Fagrelus	325-4327 (H)
	320-8248 (M)

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

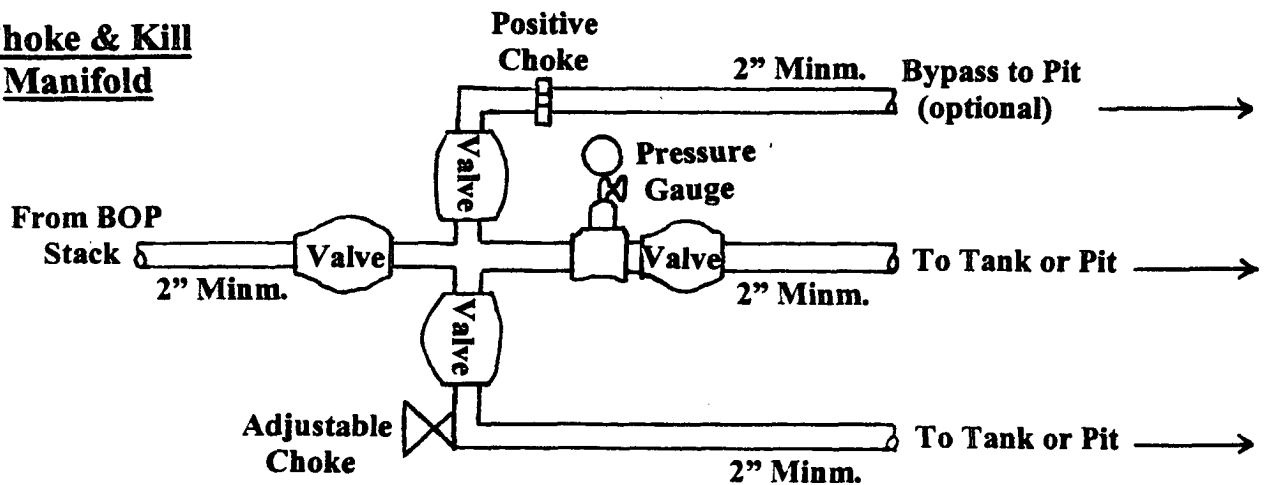
# Well Control Equipment Schematic for 2,000 psi BOP

EXHIBIT D.

## BOP Stack



## Choke & Kill Manifold



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

DUGAN PRODUCTION CORP.  
JACOBS COM #90-S