

2006 MAY 1 AM 11 50

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED  
070 FARMING

APPLICATION FOR PERMIT TO DRILL OR REENTER

|                                                                                                                                                                                                                        |                                               |                                                                                                                           |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|--|
| 1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER                                                                                                                           |                                               | 5. Lease Serial No.<br>NM-57580                                                                                           |  |
| 1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone |                                               | 6. If Indian, Allottee or Tribe Name                                                                                      |  |
| 2. Name of Operator<br>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.<br>Irish Com #90-S                                                                             |  |
| 3b. Phone No. (include area code)<br>505-325-1821                                                                                                                                                                      |                                               | 9. API Well No.<br>30-045-33725                                                                                           |  |
| 4. Location of Well (Report location clearly and in accordance with any State requirements.)<br>At surface 1200' FSL & 1600' FEL, Lat. 36.49878, Long. 108.18499<br>At proposed prod. zone Same as above               |                                               | 10. Field and Pool, or Exploratory<br>B. Fruit. Coal/Waw Frt. P.C.                                                        |  |
| 11. Sec., T. R. M. or Blk. and Survey or Area<br>Sec. 11, T26N, R13W NMPM                                                                                                                                              |                                               | 12. County or Parish<br>San Juan                                                                                          |  |
| 13. State<br>NM                                                                                                                                                                                                        |                                               | 14. Distance in miles and direction from nearest town or post office*<br>Approx. 20-miles south of Farmington, New Mexico |  |
| 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)<br>1200 Feet                                                                                     | 16. No. of acres in lease<br>320 Acres        | 17. Spacing Unit dedicated to this well<br>B. Fruit. Coal - S/2-320 Acres<br>Waw Fruit. P.C. - SE/4-160 Acres             |  |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.<br>Approx. 850'                                                                                             | 19. Proposed Depth<br>1400 Feet               | 20. BLM/BIA Bond No. on file                                                                                              |  |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.)<br>GL-6077'                                                                                                                                                        | 22. Approximate date work will start*<br>ASAP | 23. Estimated duration<br>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 *Kurt Fagrelus* Name (Printed/Typed) Kurt Fagrelus Date May 1, 2006

Title Geology

Approved by (Signature) *[Signature]* Name (Printed/Typed) Date 8/16/07  
Title AEM Office PFO  
OIL CONS. DIV. 8/16/07

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 Sand, Fruitland Coal and Pictured Cliffs Sandstone will be completed from approximately 1100' - 1260'. The interval will be fracture stimulated.

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

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

NMOC

8-16-07

B

aw

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

MAY 1 AM 11 50

AMENDED REPORT

RECEIVED

070 FARMINGTON NM

WELL LOCATION AND ACREAGE DEDICATION PLAT

|                                                |                                                                   |                                                                                |
|------------------------------------------------|-------------------------------------------------------------------|--------------------------------------------------------------------------------|
| <sup>1</sup> API Number<br><b>30-045-33725</b> | <sup>2</sup> Pool Code<br><b>71629 / 87190</b>                    | <sup>3</sup> Pool Name<br><b>Basin Fruit. Coal / Waw Fruit. Sand P.C. Sand</b> |
| <sup>4</sup> Property Code<br><b>28965</b>     | <sup>5</sup> Property Name<br><b>IRISH COM</b>                    | <sup>6</sup> Well Number<br><b>905</b>                                         |
| <sup>7</sup> GRID No<br><b>006515</b>          | <sup>8</sup> Operator Name<br><b>DUGAN PRODUCTION CORPORATION</b> | <sup>9</sup> Elevation<br><b>6077'</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   |
| 0            | 11      | 26N      | 13W   |         | 1200          | SOUTH            | 1600          | EAST           | 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<br><b>320.0 Acres S/2<br/>160.0 Acres SE/4</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> | 5273.40'                                               | <sup>17</sup> OPERATOR CERTIFICATION<br>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief<br><i>Kurt Fagrelis</i><br>Signature<br>Kurt Fagrelis<br>Printed Name<br>Geology<br>Title<br>April 21, 2006<br>Date                                                                                                                                                           |
| 5280.00'      | <b>ENERGEN NM-57580</b>                                | <b>DUGAN NM-10757</b>                                                                                                                                                                                                                                                                                                                                                                                                                    |
|               | <b>DUGAN NM-10757</b>                                  | <b>ENERGEN NM-57580</b>                                                                                                                                                                                                                                                                                                                                                                                                                  |
|               | LAT: 36.49878°N<br>LONG: 108.18499°W<br>DATUM: NAD1983 | <sup>18</sup> SURVEYOR CERTIFICATION<br>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<br>Date of Survey: APRIL 6, 2006<br>Signature and Seal of Professional Surveyor<br><b>JASON C. EDWARDS</b><br>15269<br>REGISTERED PROFESSIONAL SURVEYOR<br>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

|                                                                                                                                                                                                             |  |                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>SUNDRY NOTICES AND REPORTS ON WELLS</b><br>(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. 30-045-33725                                                                                                         |
| 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-57580                                                                                     |
| 3. Address of Operator 709 East Murray Drive, Farmington, New Mexico                                                                                                                                        |  | 7. Lease Name or Unit Agreement Name Irish Com                                                                                    |
| 4. Well Location<br>Unit Letter 0 : 1200 feet from the south line and 1600 feet from the east line<br>Section 11 Township 26N Range 13W NMPM County San Juan                                                |  | 8. Well Number #90-S                                                                                                              |
| 11. Elevation (Show whether DR, RKB, RT, GR, etc.) GL-6077'                                                                                                                                                 |  | 9. OGRID Number 006515                                                                                                            |
| Pit or Below-grade Tank Application <input checked="" type="checkbox"/> or Closure <input type="checkbox"/>                                                                                                 |  | 10. Pool name or Wildcat B. Fruit. Coal/Waw Fruit. P.C.                                                                           |
| 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

|                                                                             |                                           |                                                  |                                          |
|-----------------------------------------------------------------------------|-------------------------------------------|--------------------------------------------------|------------------------------------------|
| <b>NOTICE OF INTENTION TO:</b>                                              |                                           | <b>SUBSEQUENT REPORT OF:</b>                     |                                          |
| PERFORM REMEDIAL WORK <input type="checkbox"/>                              | PLUG AND ABANDON <input type="checkbox"/> | REMEDIAL WORK <input type="checkbox"/>           | ALTERING CASING <input type="checkbox"/> |
| TEMPORARILY ABANDON <input type="checkbox"/>                                | CHANGE PLANS <input type="checkbox"/>     | COMMENCE DRILLING OPNS. <input type="checkbox"/> | P AND A <input type="checkbox"/>         |
| PULL OR ALTER CASING <input type="checkbox"/>                               | MULTIPLE COMPL <input type="checkbox"/>   | CASING/CEMENT JOB <input type="checkbox"/>       |                                          |
| OTHER: Reserve pit for drilling (lined) <input checked="" type="checkbox"/> |                                           | OTHER: <input type="checkbox"/>                  |                                          |

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 Sand, Fruitland Coal and Pictured Cliffs Sandstone intervals will be completed. The intervals will be fracture stimulated.

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 May 1, 2006  
Type or print name Kurt Fagrelus E-mail address: kfagrelus@duganproduction.com Telephone No. 505-325-1821

**For State Use Only**

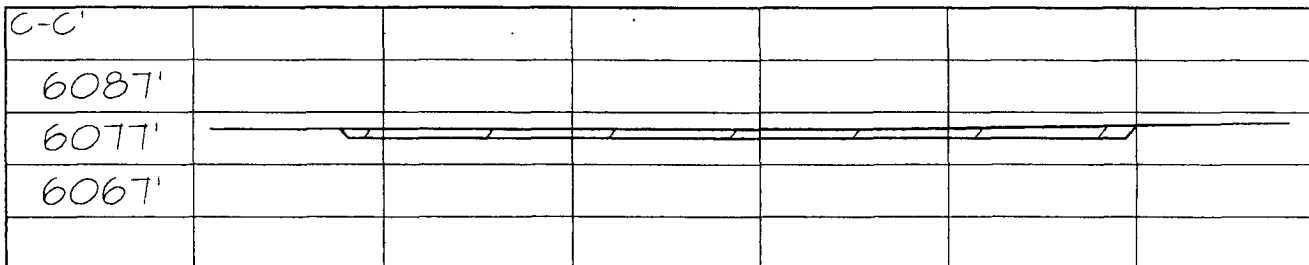
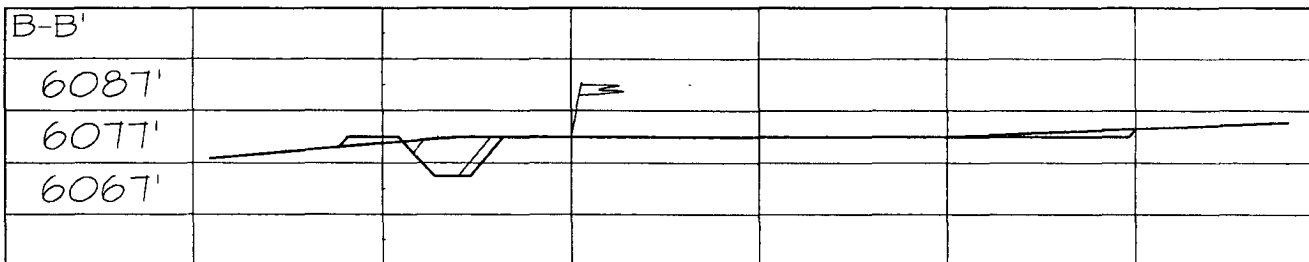
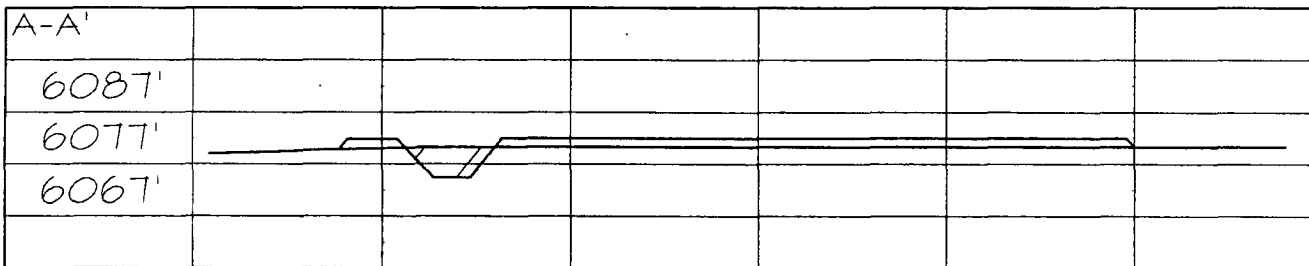
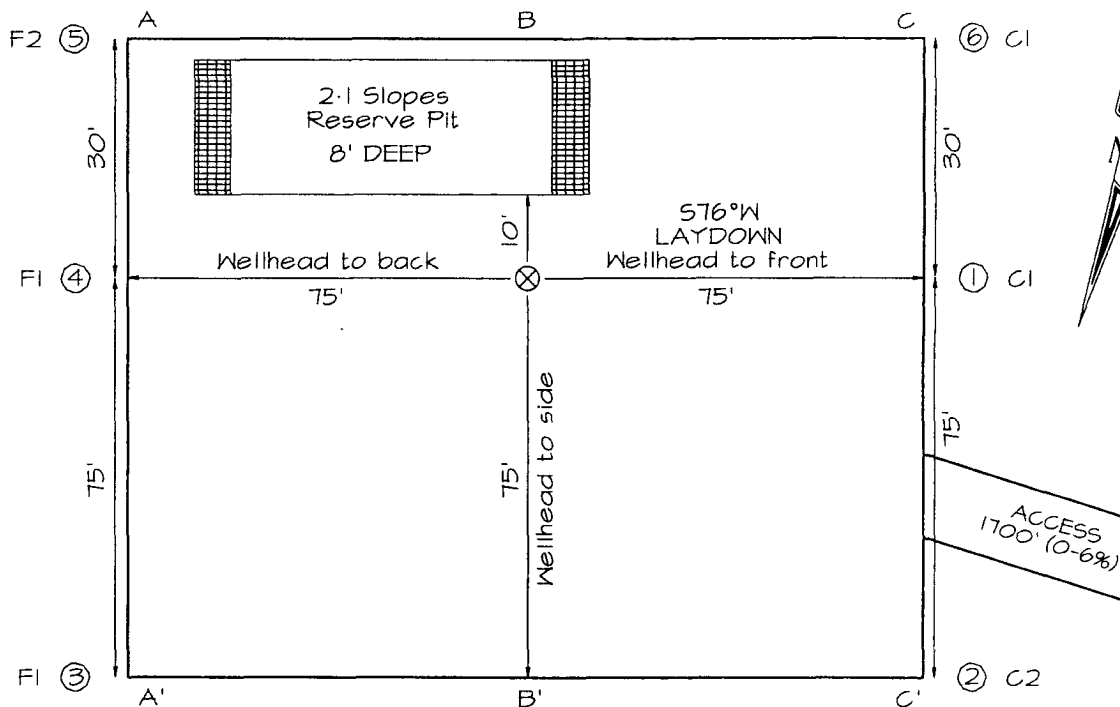
APPROVED BY: [Signature] TITLE Deputy Oil & Gas Inspector DATE AUG 16 2007  
Conditions of Approval (if any): District #3

DUGAN PRODUCTION CORPORATION IRISH COM #90S  
1200' FSL & 1600' FEL, SECTION 11, T26N, R13W, NMPM  
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6077'

LATITUDE: 36.49878° N  
LONGITUDE: 108.18499° W  
DATUM: NAD1983

PLAT NOTE:

\*SURFACE OWNER\*  
Navajo Tribal Trust



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**  
Irish Com #90-S

**APPROXIMATE FORMATION TOPS:**

|           |         |                    |              |
|-----------|---------|--------------------|--------------|
| Ojo Alamo | Surface |                    |              |
| Kirtland  | 80'     | Pictured Cliffs    | 1240'        |
| Fruitland | 930'    | <b>Total Depth</b> | <b>1400'</b> |

Catch samples every 10 feet from 1100 feet to 1400 feet.

**LOGGING PROGRAM:**

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

**CASING PROGRAM:**

|             |             |                |              |                  |
|-------------|-------------|----------------|--------------|------------------|
| Hole        | Casing      |                | Setting      | Grade and        |
| <u>Size</u> | <u>Size</u> | <u>Wt./ft.</u> | <u>Depth</u> | <u>Condition</u> |
| 12-1/4"     | 8-5/8"      | 24#            | 120'         | J-55             |
| 7"          | 5-1/2"      | 14#            | 1400'        | 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 Sand, Fruitland Coal and Pictured Cliffs Sandstone. 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% CaCl<sub>2</sub>.  
Circulate to surface.

Production Stage-Cement with 120 cf 2%Lodense with  
1/4# celloflake/sx followed by 95 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) |

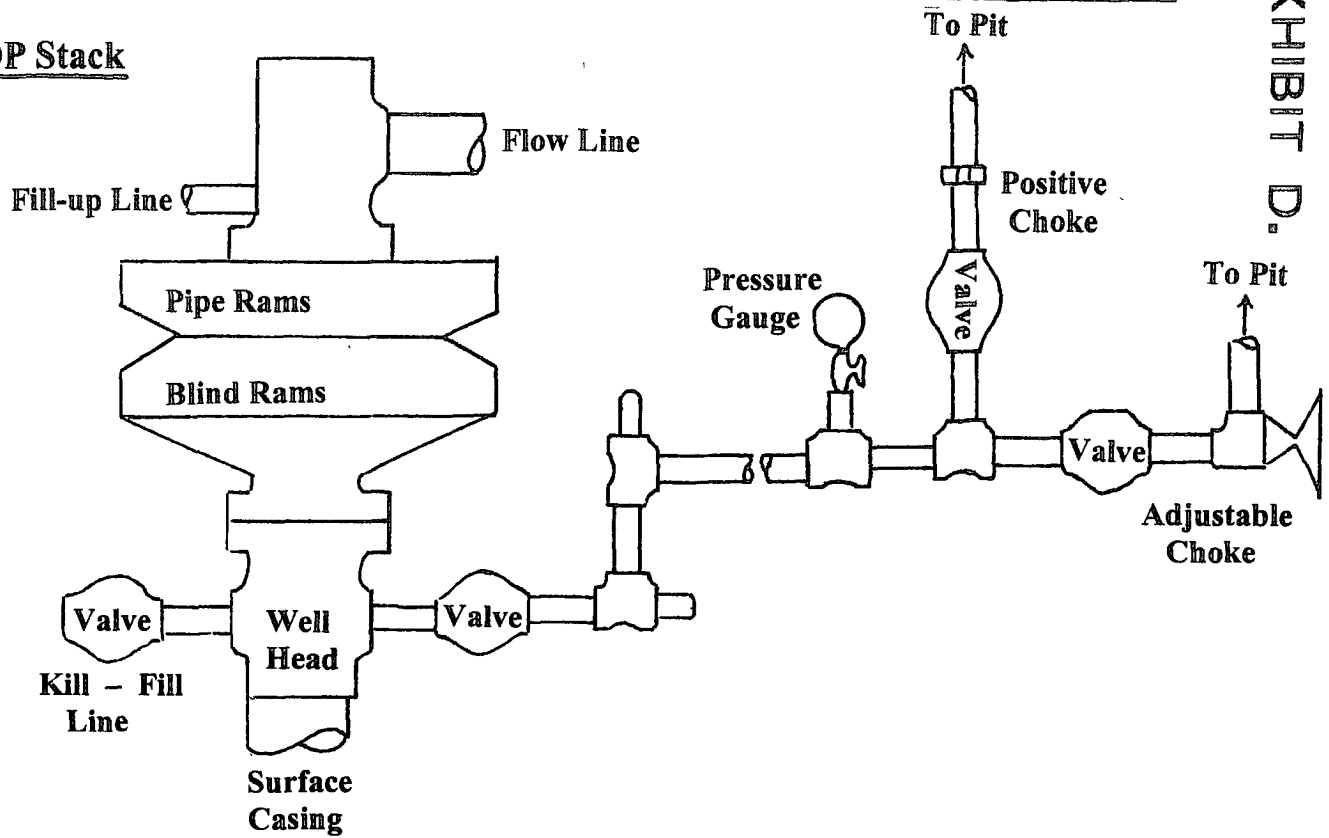
|               |              |
|---------------|--------------|
| Kurt Fagrelus | 325-4327 (H) |
|               | 320-8248 (M) |

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

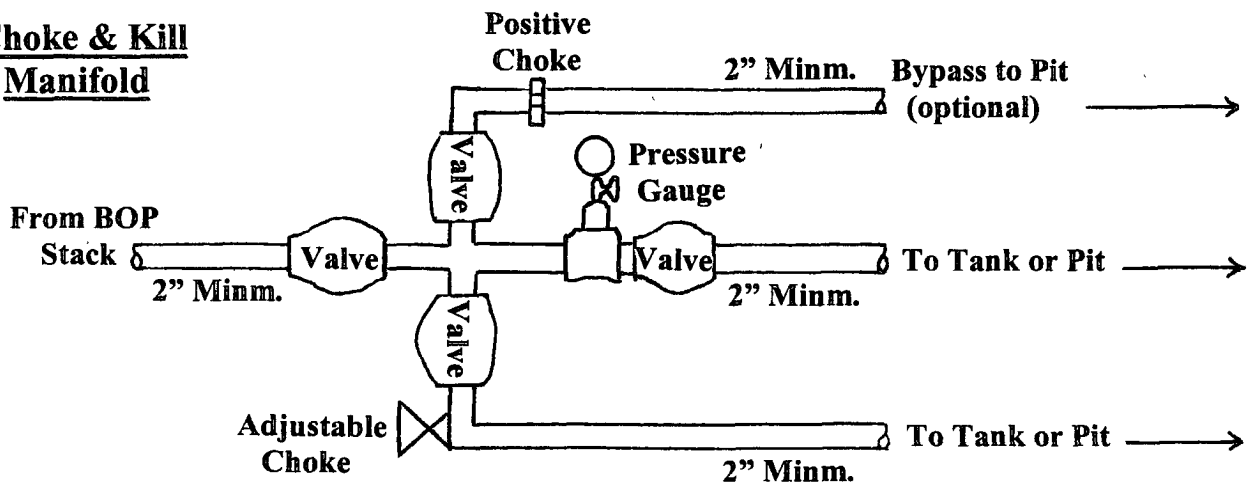
# Well Control Equipment Schematic for 2,000 psi BOP

EXHIBIT D.

## BOP Stack



## Choke & Kill Manifold



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

DUGAN PRODUCTION CORP.  
IRISH COM #90-S