

Form 3160-3  
(April 2004)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR REENTER

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

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-33025
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	3b. Phone No. (include area code) 505-325-1821	8. Lease Name and Well No. Hugh Lake #91
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface <del>1540'</del> FSL & <del>1455'</del> FEL, Lat. 36.52868 N. At proposed prod. zone Same as above Long. 108.11287 W		9. API Well No. 30-045-33834
11. Sec., T. R. M. or Blk. and Survey or Area Sec. 33, T27N, R12W J NMPM		10. Field and Pool, or Exploratory Basin Fruitland Coal
14. Distance in miles and direction from nearest town or post office* Approx. 25-miles SE of Farmington, New Mexico		12. County or Parish San Juan
13. State NM		
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1435 Feet	16. No. of acres in lease 640.0 Acres	17. Spacing Unit dedicated to this well E/2-320.0 Acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 700'	19. Proposed Depth 1450 Feet	20. BLM/BIA Bond No. on file
21. Elevations (Show whether DF, KDB, RT, GL, etc.) GL-5971'	22. Approximate date work will start* ASAP	23. Estimated duration 6-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 Fagrelis</i>	Name (Printed/Typed) Kurt Fagrelis	Date July 4, 2006
Title Geology		
Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed)	Date 8/29/07
Title AFM	Office PFO	

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)

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

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 1280' - 1295'. The interval will be fracture stimulated.

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

NMOCD

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

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

2006 OCT 5 PM 2 46

RCVD AUG 30 '07  
AMENDED REPORT  
OIL CONS. DIV.

RECEIVED

WELL LOCATION AND ACREAGE DEDICATION PLAT

DIST. 3

*API Number 30-045-33834		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 24278	*Property Name HUGH LAKE		*Well Number 91
*OGRID No 006515	*Operator Name DUGAN PRODUCTION CORPORATION		*Elevation 5964'

<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
J	33	27N	12W		2300	SOUTH	1720	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 320.0 Acres - (E/2)					<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

<div><p>16</p><p>5280.00'</p><p>2640.00'</p><p>1720'</p><p>2300'</p><p>5280.00'</p><p>33</p><p>DUGAN NM-33025</p><p>LAT: 36.53076°N LONG: 108.11383°W DATUM: NAD1983</p></div>	<div><p><sup>17</sup> OPERATOR CERTIFICATION</p><p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p><p><i>Kurt Fagrelus</i> Signature Kurt Fagrelus</p><p>Printed Name Geology</p><p>Title October 5, 2006</p><p>Date</p></div> <div><p><sup>18</sup> SURVEYOR CERTIFICATION</p><p>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.</p><p>Survey Date: SEPTEMBER 25, 2006</p><p>Signature and Seal of Professional Surveyor</p><div><p>JASON C. EDWARDS NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR 15269</p></div><p>JASON C. EDWARDS Certificate Number 15269</p></div>
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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.	30-045-33834
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-33025
7. Lease Name or Unit Agreement Name	Hugh Lake
8. Well Number	91
9. OGRID Number	006515
10. Pool name or Wildcat	Basin Fruitland Coal
11. Elevation (Show whether DR, RKB, RT, GR, etc.) GL-5971'	
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, Farmington, NM

4. Well Location  
Unit Letter J : 1540 feet from the south line and 1435 feet from the east line  
Section 33 Township 27N Range 12W NMPM County San Juan

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: <u>Reserve pit for drilling (lined)</u> <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 Coal will be completed from approximately 1280' - 1295'. The interval will be fracture stimulated.

RCVD AUG 30 '07

OIL CONS. DIV.

DIST. 3

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 July 4, 2006  
Kurt Fagrelus kfagrelus@duganproduction.com 505-325-1821

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

**For State Use Only** Deputy Oil & Gas Inspector,  
District #3

APPROVED BY: [Signature] TITLE \_\_\_\_\_ DATE SEP 04 2007  
Conditions of Approval (if any):

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 <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Designation and Serial No. NM-33025
2. Name of Operator Dugan Production Corp.	6. If Indian, Allotted or Tribe Name
3. Address and Telephone No. 709 East Murray Drive, Farmington, New Mexico 87401	7. If Unit or CA, Agreement Designation
Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec. 33, T27N, R12W, 1540' FSL & 1435' FEL NMPM	8. Well Name and No. Hugh Lake #91
	9. API Well No. 30-045-33834
	10. Field and Pool, or Exploratory Area Basin Fruitland Coal
	11. County or Parish, State

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

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment <input checked="" type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion <input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back <input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair <input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Altering Casing <input type="checkbox"/> Conversion to Injection
	<input checked="" type="checkbox"/> Other <u>Move Well Pad</u> <input type="checkbox"/> 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.)

Change well pad location from that originally proposed in APD dated July 4, 2006. New location is necessary to avoid proposed NAPI facilities in the area.

New Location: Sec. 33, T27N, R12W, 2300' FSL and 1720' FEL NMPM  
Lat. 36.53076 N., Long. 108.11383 W.

A new Developmental Plan (Exhibit A), Operations Plan (Exhibit B), Pipeline Survey (Plat 2), Cut and Fill Diagram (Plat 3) and Topographic Map (Exhibit E) are attached and replace the respective exhibits submitted with the original APD.

RCVD AUG 30 '07

OIL CONS. DIV.

DIST. 3

A new NM State Form C-102 is included.

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

Signed

*Kurt Feynlin*

Title

Geology

Date

October 5, 2006

This space for Federal or State office use

Approved by

*[Signature]*

Title

Date

*8/29/07*

Conditions of approval, if any:

**EXHIBIT B**  
**OPERATIONS PLAN**  
Hugh Lake #91

**APPROXIMATE FORMATION TOPS:**

Ojo Alamo	155'		
Kirtland	230'	Pictured Cliffs	1295'
Fruitland	930'	<b>Total Depth</b>	<b>1450'</b>

Catch samples every 10 feet from 1200 feet to 1450 feet.

**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>
12-1/4"	8-5/8"	24#	120'	J-55
7"	5-1/2"	14#	1450'	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% CaCl<sub>2</sub>.  
Circulate to surface.

Production Stage-Cement with 120 cf 2%Lodense with  
1/4# celloflake/sx followed by 100 cf Class "B" with  
1/4# celloflake/sx.  
Total cement slurry for production stage is 220 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)

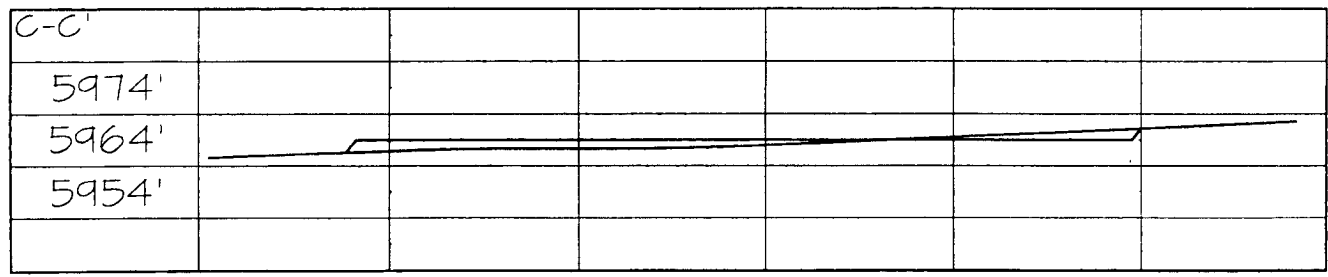
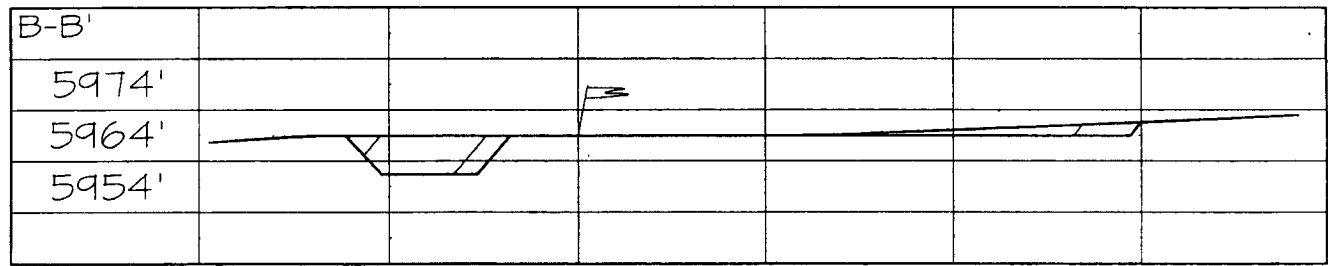
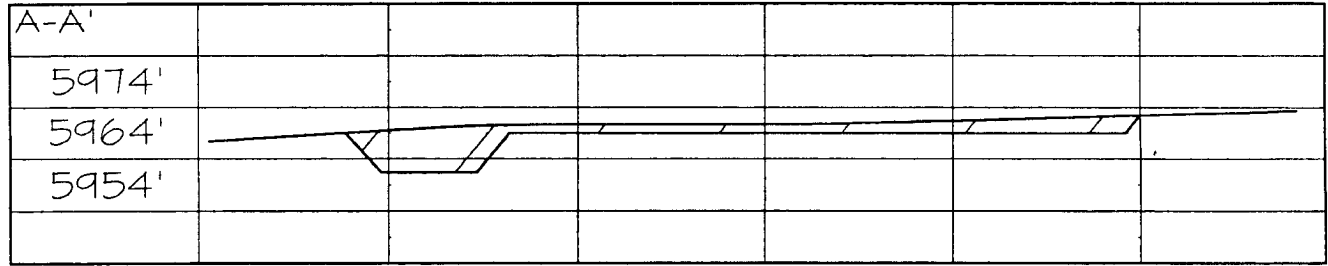
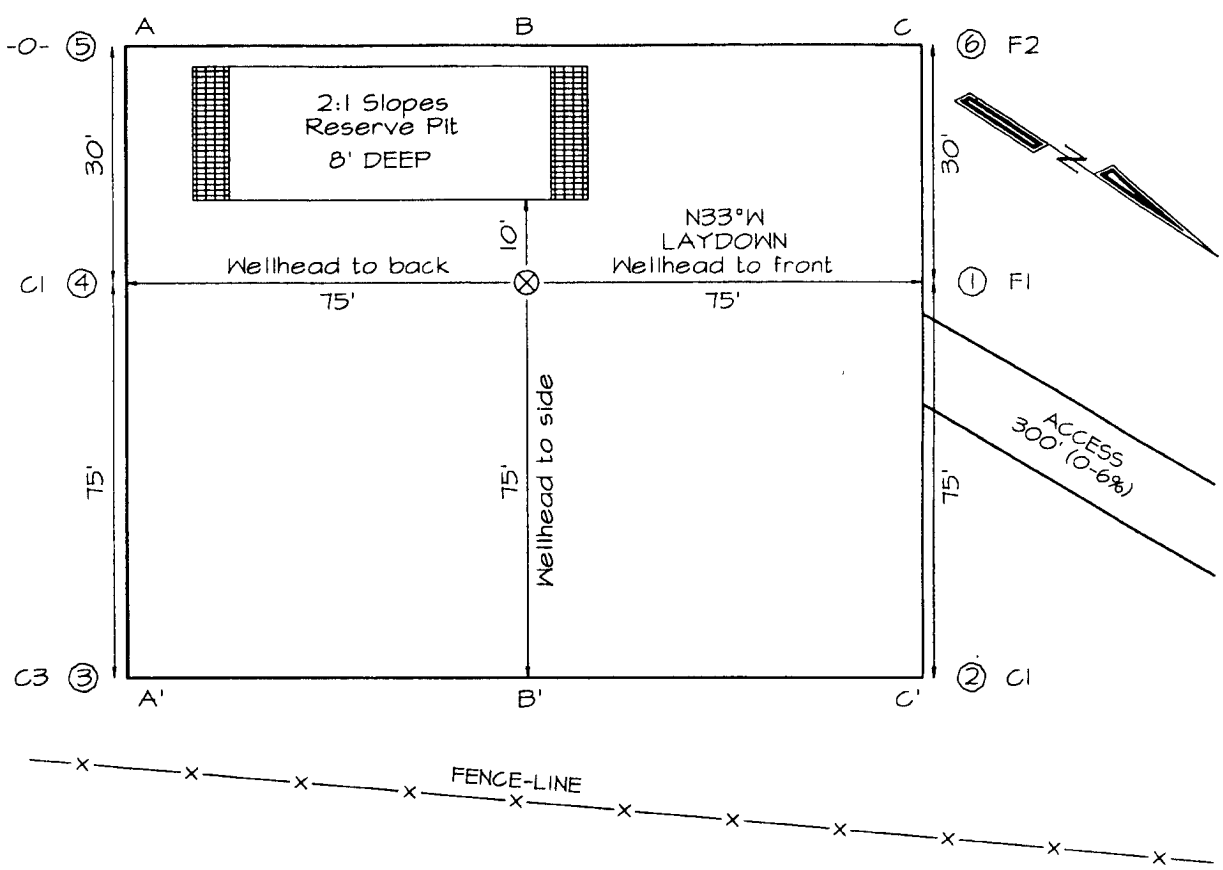
Kurt Fagrelus	325-4327 (H)
	320-8248 (M)

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

**DUGAN PRODUCTION CORPORATION HUGH LAKE # 91**  
**2300' FSL & 1720' FEL, SECTION 33, T27N, R12W, NMPM**  
**SAN JUAN COUNTY, NEW MEXICO ELEVATION: 5964'**

**LATITUDE: 36.53076° N**  
**LONGITUDE: 108.11383° W**  
 DATUM: NAD1983

PLAT NOTE.  
 \*SURFACE OWNER\*  
 Navajo Tribal Trust

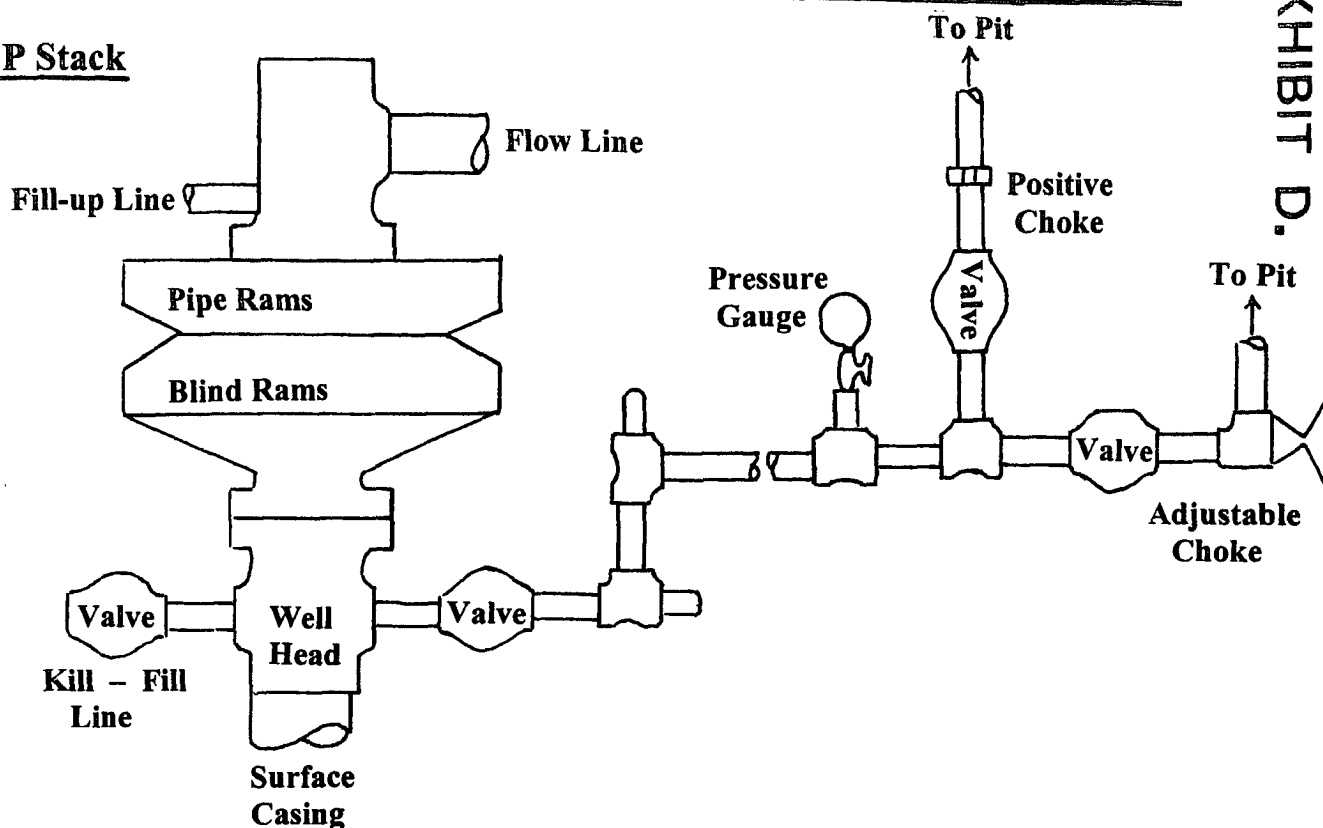


Note: Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least two (2) working days prior to construction

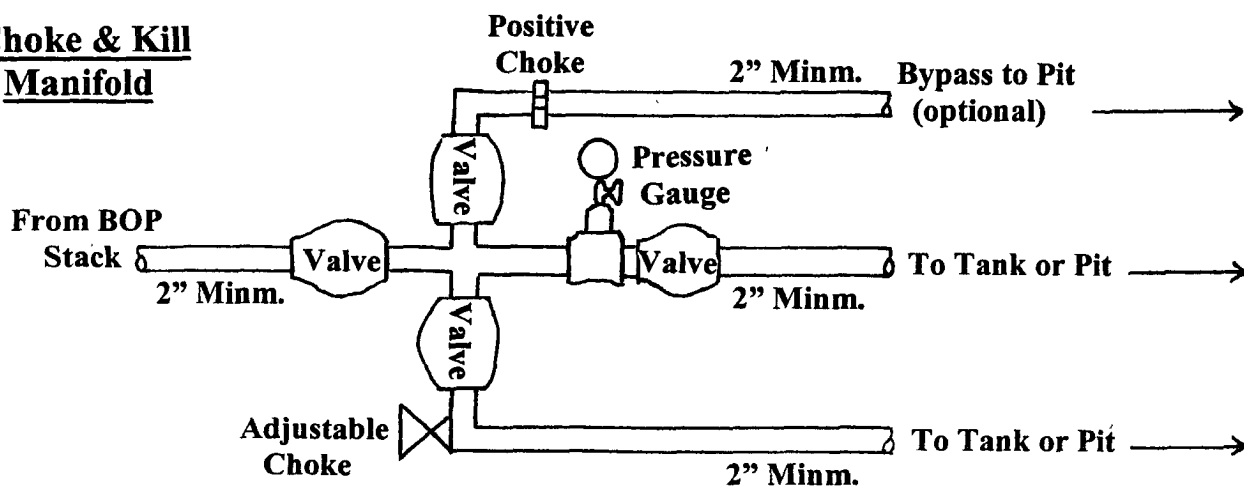
# Well Control Equipment Schematic for 2,000 psi BOP

EXHIBIT D.

## BOP Stack



## Choke & Kill Manifold



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

DUGAN PRODUCTION CORP.  
HUGH LAKE #91