

State of New Mexico  
Energy, Minerals and Natural Resources Department

**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary-Designate

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-3 APD form.

Operator Signature Date: 6-13-13

Well information;

Operator Dugan, Well Name and Number Cisco Com # 91R

API# 30-045-35483 Section 34, Township 26 N/S, Range 13 E/W

Conditions of Approval:

(See the below checked and handwritten conditions)

- ☒ Notify Aztec OCD 24hrs prior to casing & cement.
- ☐ Hold C-104 for directional survey & "As Drilled" Plat
- ☐ Hold C-104 for NSL, NSP, DHC
- ☐ Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- ☐ Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
  - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
  - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
  - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
- ☐ Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
- ☒ Regarding Hydraulic Fracturing, review EPA Underground Injection Control Guidance 84
- ☒ Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.
- ☒ Well-bore communication is regulated under 19.15.29 NMAC. This requires well-bore Communication to be reported in accordance with 19.15.29.8.

  
NMOCD Approved by Signature

10-16-2014  
Date

Unit # N2, N2SW CK#  
TR# 2907077  
536729

Form 3160-3  
(April 2004)

NOS-2  
5-BIA  
DUGAN  
HBP Actual  
SW

305,000  
NO

RECEIVED

JUN 27 2013

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Farmington Field Office  
Bureau of Land Management

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.  
SF-078156-A  
6. If Indian, Allottee or Tribe Name  
Navajo Surface Federal Minerals

1a. Type of work: ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.  
NMNM-89374

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.  
Cisco Com #91R

2. Name of Operator  
Dugan Production Corp.

9. API Well No.  
30-045-35483

3a. Address  
709 East Murray Drive  
Farmington, NM 87401

3b. Phone No. (include area code)  
505-325-1821

10. Field and Pool, or Exploratory  
Basin Fruitland Coal ✓

4. Location of Well (Report location clearly and in accordance with any State requirements.)  
At surface 2200' FSL and 1500' FWL ✓ N2SW LAT: 36.44350 N  
At proposed prod. zone Same as above LONG: 108.21034 W NAD83

11. Sec., T. R. M. or Blk and Survey or Area  
Sec. 34, T26N, R13W ✓  
NMPM

14. Distance in miles and direction from nearest town or post office\*  
Approximately 20-miles south 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)  
1500-feet

16. No. of acres in lease  
399.55

17. Spacing Unit dedicated to this well  
W/2 (320.34 acres)  
320.34

18. Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft.  
1550-feet

19. Proposed Depth  
1500-feet ✓

20. BLM/BIA Bond No.  
On File NMB000769

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
6288' G.L. ✓

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:

RCUD OCT 15 '14  
OIL CONS. DIV.

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
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).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

DIST. 3

25. Signature  
Kurt Fagrelus  
Title Geologist

Name (Printed/Typed)  
Kurt Fagrelus

Date  
6/13/2013

Approved by (Signature)  
AFM  
Title

Name (Printed/Typed)  
Office FFO

Date  
10/8/14

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 gelled 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 1310 to 1340 ft. The interval will be fracture stimulated.

THIS APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER NECESSARY PERMITS OR AUTHORIZATIONS FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

NMOCDA

ENTERED  
AFMS  
JUL 1 2013  
BY CW

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

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

District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
District II  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

RECEIVED

JUN 27 2013

Form C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

Farmington Field Office  
Bureau of Land Management  
AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-045-35483	<sup>2</sup> Pool Code 71629	<sup>3</sup> Pool Name Basin Fruitland Coal
<sup>4</sup> Property Code 13689	<sup>5</sup> Property Name CISCO COM	<sup>6</sup> Well Number 91R
<sup>7</sup> OGRID No. 6515	<sup>8</sup> Operator Name DUGAN PRODUCTION CORPORATION	<sup>9</sup> Elevation 6288

<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	34	26 N	13 W		2200	SOUTH	1500	WEST	SAN JUAN

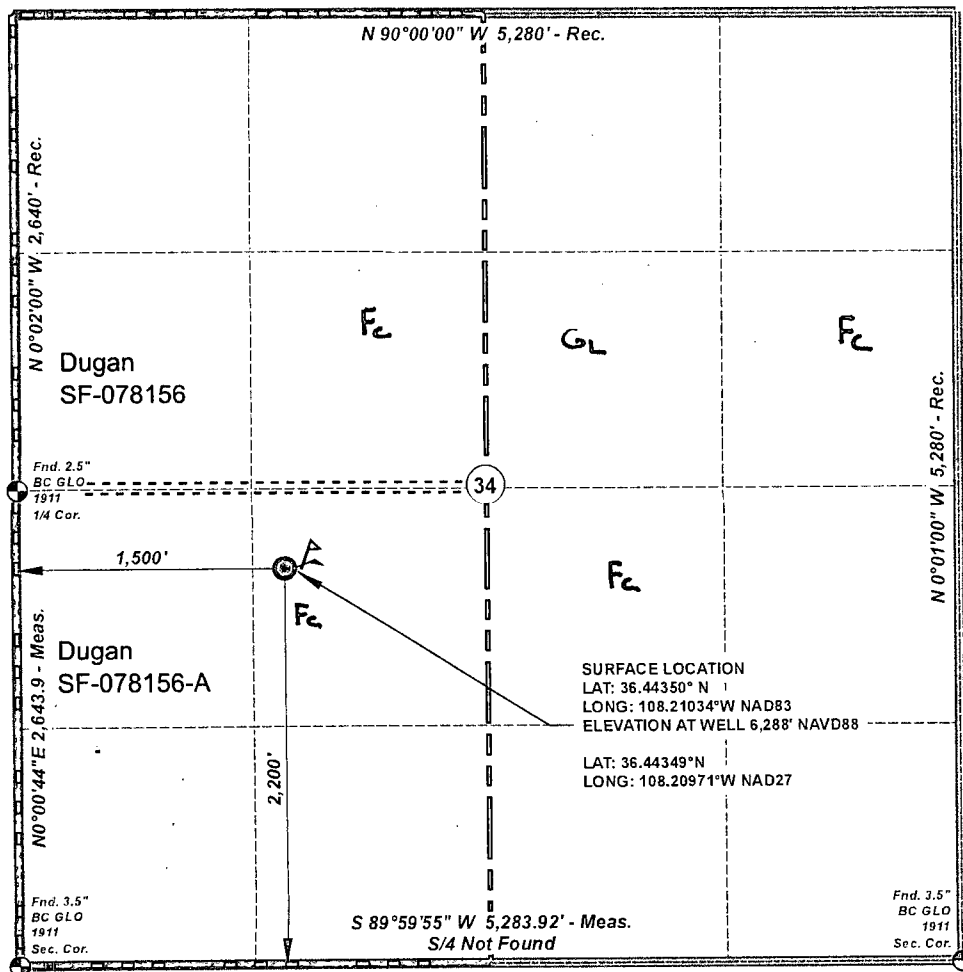
<sup>11</sup> Bottom Hole Location If Different From Surface

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 320.34 W/2 30 <sup>cm</sup>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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RCVD OCT 15 '14  
OIL CONS. DIV.  
DIST. 3

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, 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* 3/4/2013  
Signature Date

Kurt Fagrelus

Printed Name

kfagrelus@duganproduction.com

E-mail Address

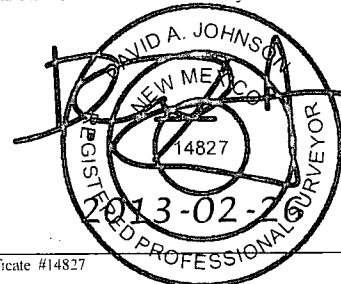
<sup>18</sup> SURVEYOR CERTIFICATION

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.

Feb 11, 2013

Date of Survey

Signature and Seal of Professional Surveyor:



Certificate #14827

**EXHIBIT B**  
**OPERATIONS PLAN**  
Cisco Com #91R

**APPROXIMATE FORMATION TOPS:**

Ojo Alamo	115'
Kirtland	205'
Fruitland	1025'
Pictured Cliffs	1360'
<b>Total Depth</b>	<b>1500'</b>

Catch samples every 10 feet from 1200-feet to total depth.

**LOGGING PROGRAM:**

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

**CASING PROGRAM:**

Hole <u>Size</u>	Casing <u>Size</u>	<u>Wt./ft.</u>	<u>Setting Depth</u>	<u>Grade and Condition</u>
12-1/4"	8-5/8"	24#	120'	J-55
7-7/8"	5-1/2"	15.5#	1500'	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 7-7/8" hole to total depth with gel-water mud program to test the Fruitland Coal. 5-1/2", 15.5#, 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 75-cf Class B + 2% CaCl<sub>2</sub>.  
Circulate to surface.

Production Stage- Cement w/175-sx Premium Lite FM 3% BWOC  
Calcium Chloride + 0.25 lbs/sx Celloflake + 5 lbs/sk  
LCM-1 + 0.4% BWOC FL-52 + 8% BWOC Bentonite + 0.4%  
BWOC Sodium Metasilicate + 112.3% fresh water (12.1  
lb/gal, 2.13 cu ft/sx - 373-cu ft slurry). Tail  
w/75-sx Type III cement + 1 lb/sk Calcium Chloride +  
0.25 lb/sx Celloflake + 0.2% BWOC FL-52 + 59% fresh  
water (14.6 lb/gal, 1.38 cu ft/sx-103-cu ft slurry).

Total cement slurry for production stage is 475-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 useable 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, 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#.

**Blow-Out Preventer Equipment (BOPE): 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 adjustable 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.

Working pressure for all BOPE will be 2,000 psi or greater.

Will test BOPE (blind rams, pipe rams, choke manifold and surface casing) separately. Each test will include a low pressure test to 250-psig held for five minutes and a high pressure test to 800-psig held for thirty minutes (with no more than a 10-percent pressure drop during the duration of the tests). If a 10-percent or greater pressure drop occurs; a packer will be run to isolate the surface casing and BOPE to locate the source of the leak.✓

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

Gerald Wright

Kurt Fagrelus

John Alexander

632-5150 (H)

325-4327 (H)

325-6927 (H)

330-9585 (M)

320-8248 (M)

320-1935 (M)



United States Department of the Interior  
Bureau of Indian Affairs  
Navajo Region  
Branch of Real Estate Services  
P.O. Box 1060  
Gallup, New Mexico 87305-1060

IN REPLY REFER TO  
N425/Leases/Permits (Minerals)

SEP 12 2014

**7002 0510 0002 6003 8101**  
**CERTIFIED MAIL – RETURN RECEIPT REQUESTED**

RECEIVED

Bureau of Land Management  
Farmington District Office  
6251 College Boulevard, Suite A  
Farmington, New Mexico 87402

SEP 22 2014

Farmington District Office  
6251 College Boulevard, Suite A, Farmington, NM 87402

Dear Sir:

An administrative review has been conducted on the following proposed Application for Permit to Drill (APD) submitted by **Dugan Production Corporation**.

**Cisco Com No. 91R, Federal Lease No: SF-078156-A.** The proposed well is described as 2200'FSL / 1500'FWL, located in Section 34, T. 26 N, R. 13 W, San Juan County, New Mexico. Included in the approved disturbance is a well pad containing 0.36 acres, access road containing 0.79 acres and pipeline containing 1.59 acres, for a combined total of 2.74 acres, more or less. This location is on the Navajo Nation Trust Lands and within Navajo Indian Irrigation Project (NIIP) designated boundaries.  
**(SURFACE ONLY)**

Amended Resolution of the Resources Committee of the Navajo Nation Council No: **RDCJN-05-11** passed on **June 14, 2011**, authorized the Navajo Nation Land Department to issue consent letters for APD's and Construction of Associated Ancillary Facilities. Consent letter dated August 25, 2014, approves the enclosed **Dugan Production Corporation's APD**. Please note that the Resources Committee set certain terms and conditions which must be followed. The Navajo Nation Environmental Protection Agency also set specific terms and conditions which must be followed. Other required clearances from the Navajo Nation have been obtained and are on file.

We concur with approval of the above referenced application, provided enclosed Bureau of Indian Affairs and the Navajo Nation stipulations are adhered to and made a part of the drilling plan.

NMCCD

Any questions regarding this application may be directed to Ms. Bertha Spencer, Supervisory Realty Specialist, Branch of Leases/Permits Section (Minerals) at (505) 863-8336.

Sincerely,

A handwritten signature in black ink, appearing to be 'SAB' followed by a long horizontal stroke.

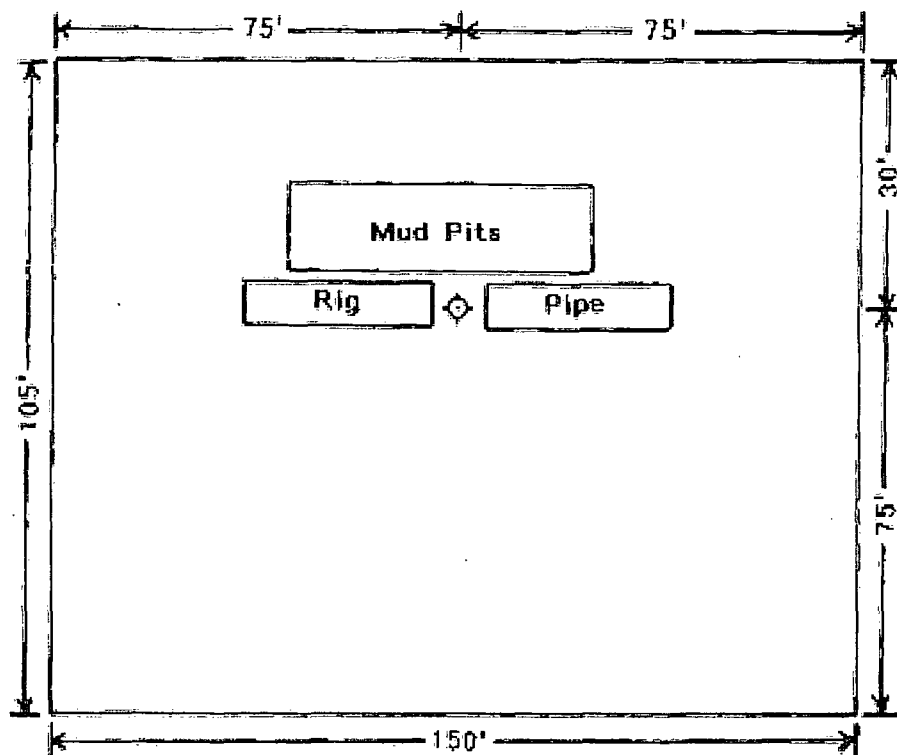
Regional Director, Navajo

Enclosures

cc: Dugan Production Corporation, 709 East Murray Drive, Farmington, NM 87401  
Navajo Nation, Attn: Minerals Depart, P.O. Box 1910, Window Rock, AZ 86515  
Navajo Nation, Division of Natural Resources, Attn: Project Review Office  
BIA-Navajo Indian Irrigation Project, 304 N. Auburn, Suite B, Farmington, NM 87401

**EXHIBIT C.**

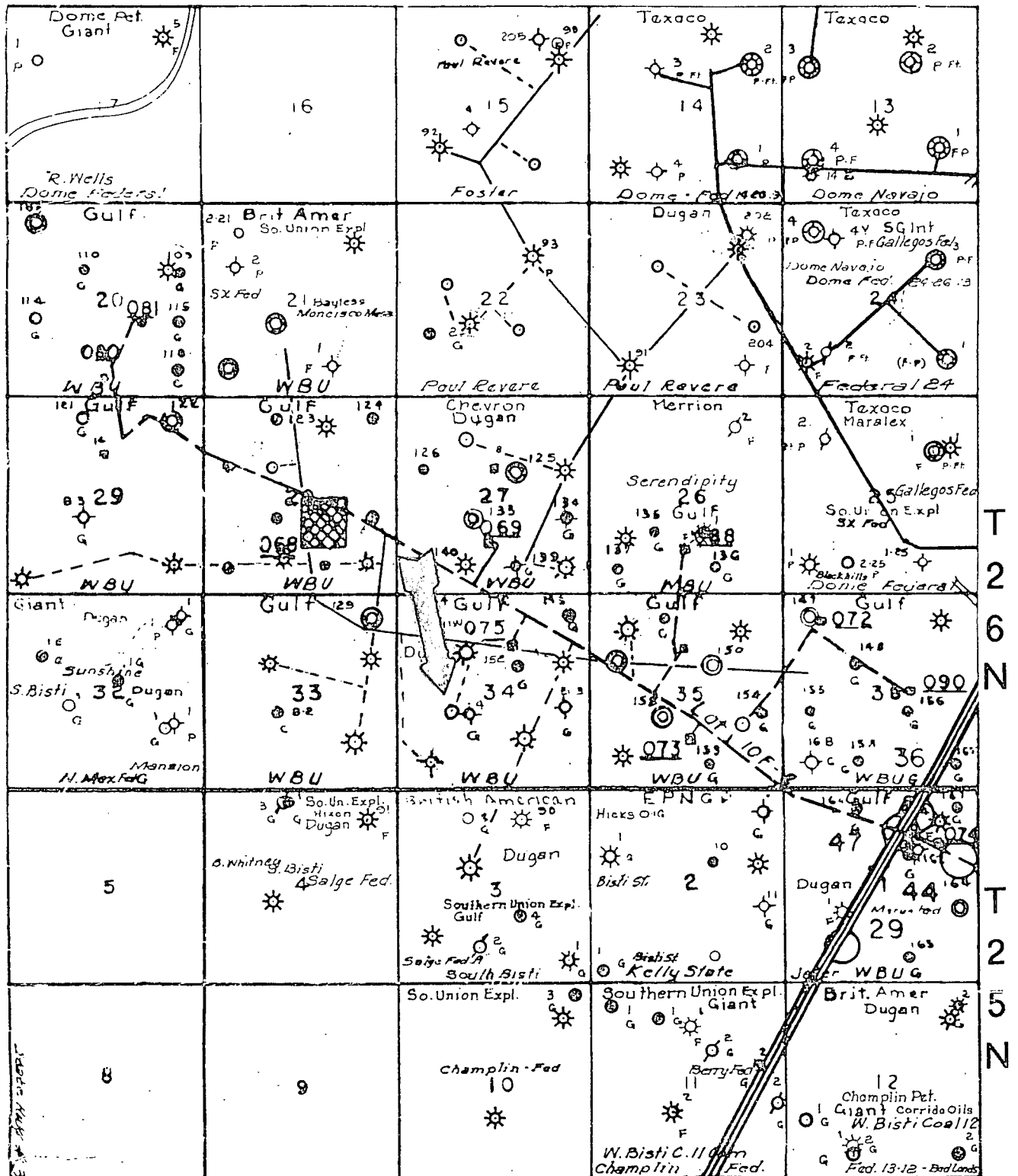
**Typical Location  
For a Fruitland Coal Well**



**DUGAN PRODUCTION CORP.**  
Cisco Com #91R



# EXHIBIT F.



R13W

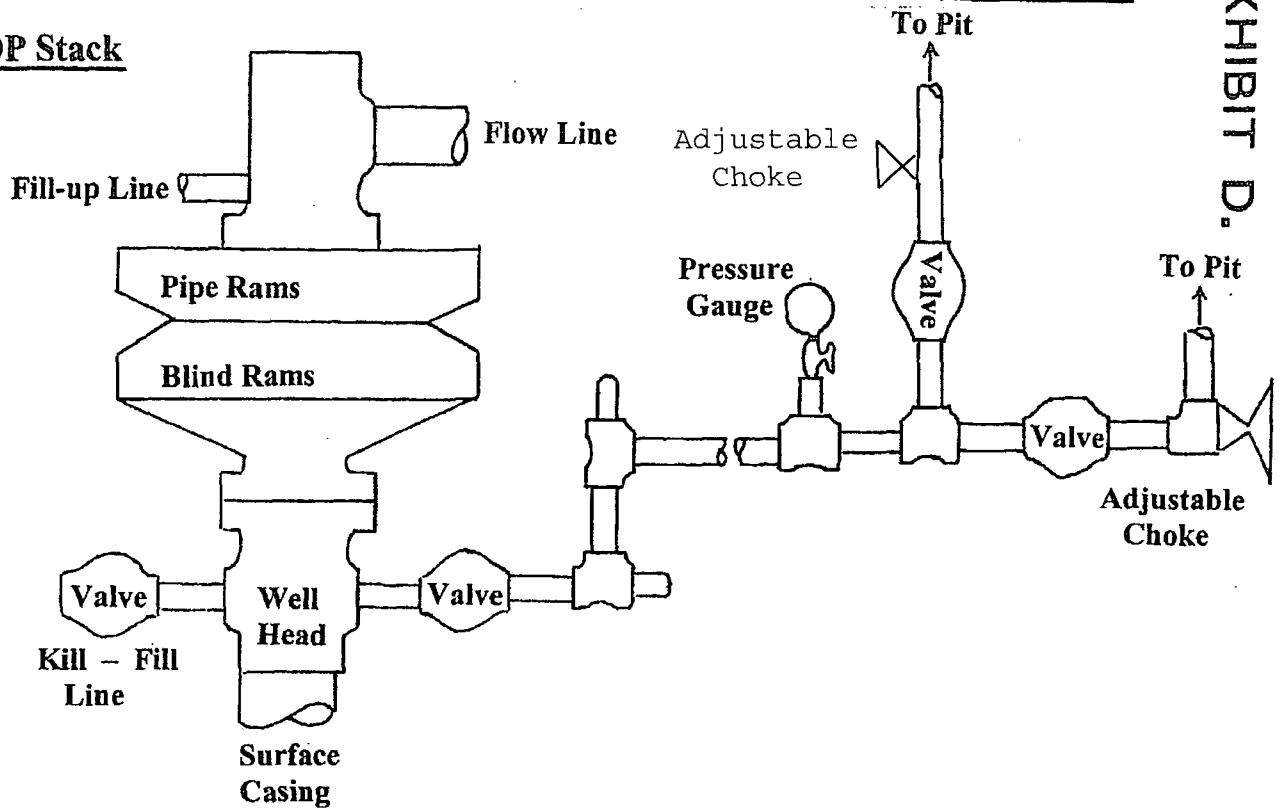
Dugan Production Corp.

Cisco Com #91R

# Well Control Equipment Schematic for 2,000 psi BOP

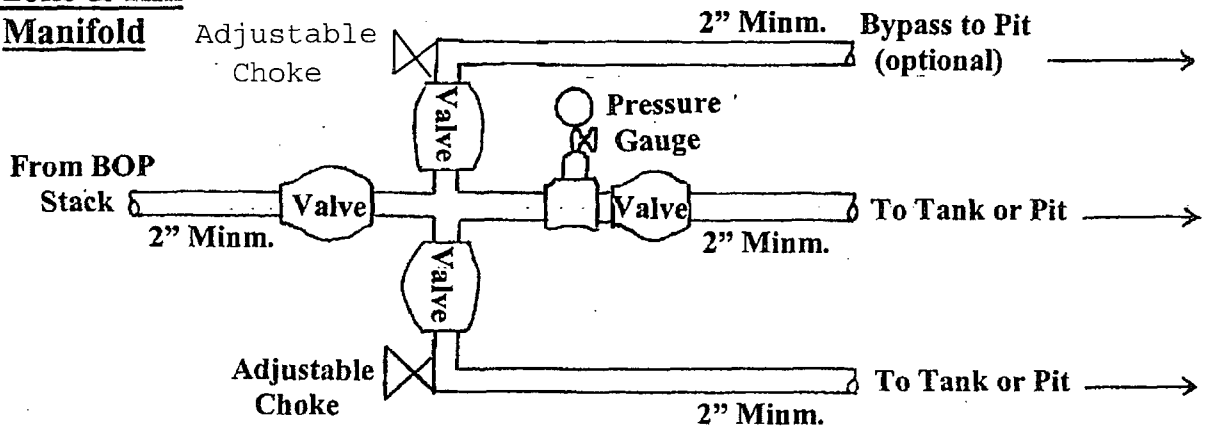
EXHIBIT D.

## BOP Stack



## Choke & Kill

### Manifold



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

DUGAN PRODUCTION CORP.  
Cisco Com #91R