

RCVD MAR 28 '08

OIL CONS. DIV.

DIST. 3

Form 3160-3  
(April 2004)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007

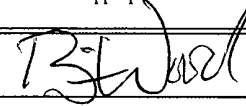
## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM-25453	
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 N/A	
2. Name of Operator MERRION OIL & GAS CORPORATION		7. If Unit or CA Agreement, Name and No. N/A	
3a. Address 610 REILLY AVE. FARMINGTON, NM 87401		8. Lease Name and Well No. SUSCO FED. #10	
3b. Phone No. (include area code) (505) 324-5300		9. API Well No. 30-045-34310	
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 889' FSL & 893' FEL At proposed prod. zone SAME		10. Field and Pool, or Exploratory GAL'GOS GAL'P & BAS. DAK.	
14. Distance in miles and direction from nearest town or post office* 15 AIR MILES SSE OF FARMINGTON		11. Sec., T. R. M. or Blk. and Survey or Area 9-26N-12W NMPM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 636'	16. No. of acres in lease 280	17. Spacing Unit dedicated to this well S W2SE4 (Gallup) & S2 (Dakota)	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. N/A	19. Proposed Depth 6,125'	20. BLM/BIA Bond No. on file NM-0883	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6,048' GL	22. Approximate date work will start* 08/15/2007	23. Estimated duration 2 WEEKS	

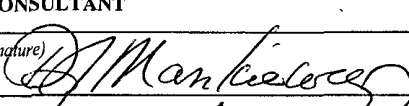
## 24. Attachments

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 	Name (Printed/Typed) BRIAN WOOD	Date 05/02/2007
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Title CONSULTANT	PHONE: (505) 466-8120	FAX: (505) 466-9682
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Approved by (Signature) 	Name (Printed/Typed) J. Mankiewicz	Date 3/25/08
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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)

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

NMOCD

APR 01 2008

NOTIFY AZTEC OCD 24 HRS.  
PRIOR TO CASING & CEMENT

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 & Mining Resources Department  
OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C - 102

Revised October 12, 2005  
Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

RECEIVED

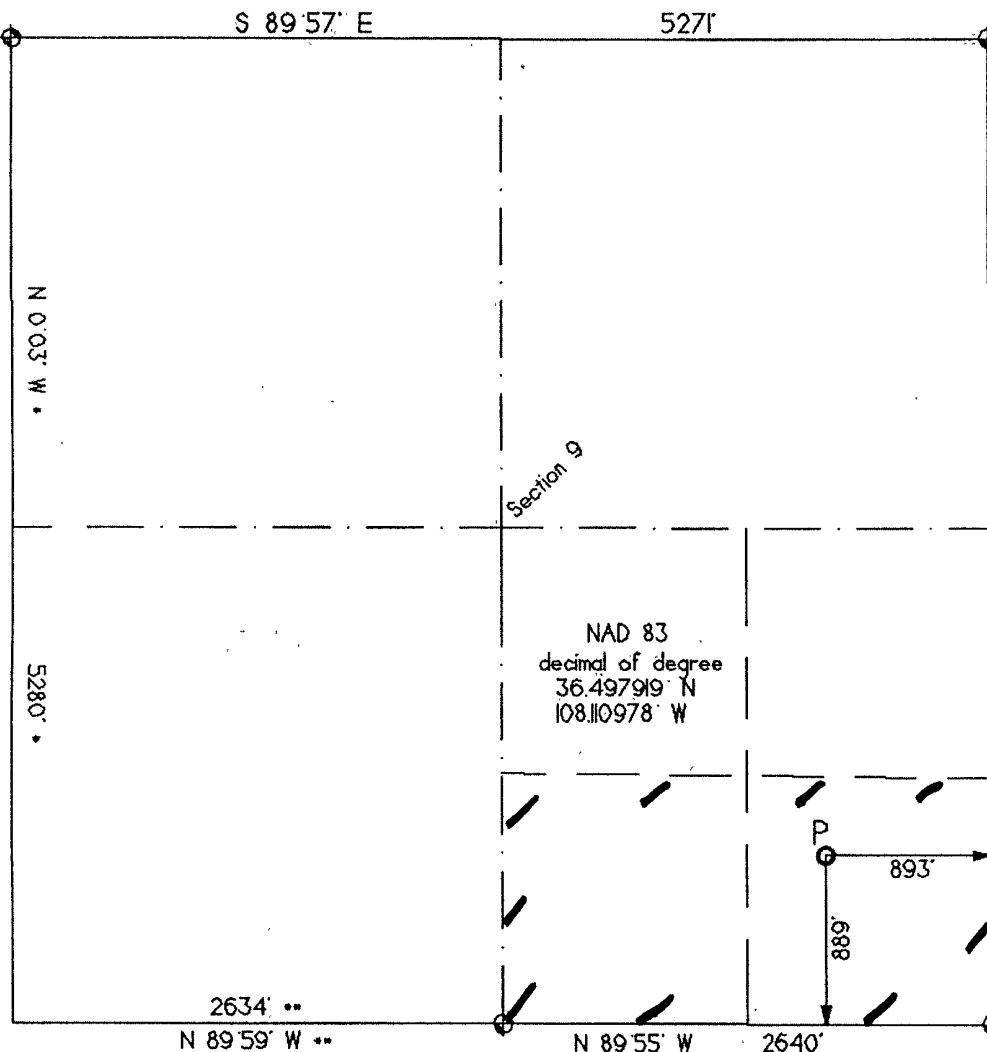
070 FARMINGTON NM ☐ AMENDED REPORT

APA Number <b>30-045- 34310</b>	Pool Code <b>26980</b>	Pool Name <b>GALLEGOS GALLUP (ASSOC.)</b>
Property Code <b>37081</b>	Property Name <b>Susco Fed.</b>	Well Number <b>10</b>
OGRD No. <b>014634</b>	Operator Name <b>MERRION OIL &amp; GAS CORPORATION</b>	Elevation <b>6048'</b>

Surface Location									
UL or Lot <b>P</b>	Sec. <b>9</b>	Twp. <b>26 N.</b>	Rge. <b>12 W.</b>	Lot Ldn.	Feet from >	North/South	Feet from >	East/West	County <b>San Juan</b>
					<b>889'</b>	<b>South</b>	<b>893'</b>	<b>East</b>	

Bottom Hole Location If Different From Surface									
UL or Lot	Sec.	Twp.	Rge.	Lot Ldn.	Feet from >	North/South	Feet from >	East/West	County
Dedicated Acres <b>80</b>		Joint or Infill		Consolidation Code		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.



<b>OPERATOR CERTIFICATION</b>	
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 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 pool agreement or a compulsory pooling order heretofore entered by the division.	
Date	<b>MAY 2, 2007</b>
Signature	<i>Brian Wood</i>
Printed Name	<b>BRIAN WOOD</b>
<b>SURVEYOR CERTIFICATION</b>	
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.	
Date of survey	rev: 03 28 '07
Signature and Seal of Professional Surveyor	
Certificate Number	<b>6844</b>

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 & Mining Resources Department  
OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C - 102  
Revised October 12, 2005  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

2007 MAY 7 AM 9 40

WELL LOCATION AND ACREAGE DEDICATION RECEIVED

☐ AMENDED REPORT

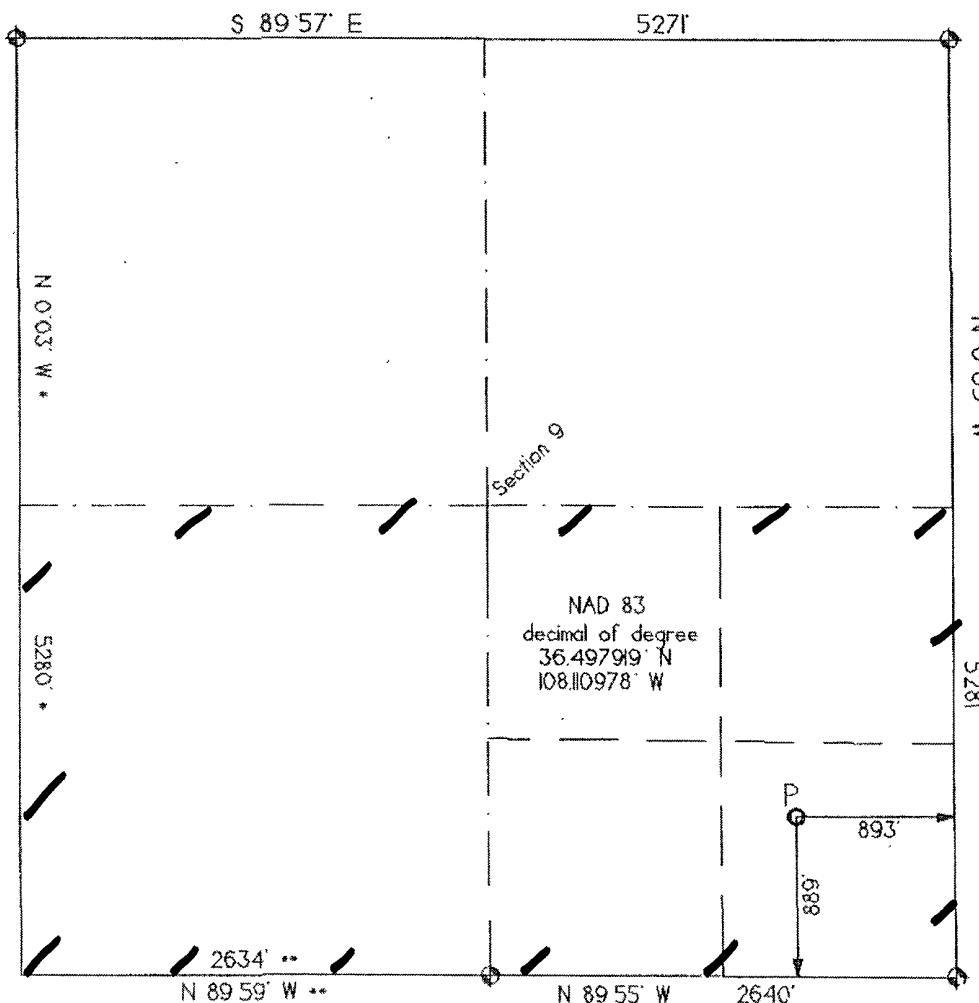
APA Number <b>30-045-34310</b>	Pool Code <b>71599</b>	070 FARRINGTON NM <b>BASIN DAKOTA</b>
Property Code <b>37081</b>	Property Name <b>Susco Fed.</b>	Well Number <b>10</b>
OGRID No. <b>014634</b>	Operator Name <b>MERRION OIL &amp; GAS CORPORATION</b>	Elevation <b>6048'</b>

Surface Location									
UL or Lot	Sec.	Twp.	Rge.	Lot Ltn.	Feet from	North/South	Feet from	East/West	County
P	9	26 N.	12 W.		889'	South	893'	East	San Juan

Bottom Hole Location If Different From Surface									
UL or Lot	Sec.	Twp.	Rge.	Lot Ltn.	Feet from	North/South	Feet from	East/West	County

Dedicated Acres <b>320</b>	Joint or Infill	Consolidation Code <b>C</b>	Order No.
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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.



<b>OPERATOR CERTIFICATION</b>	
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 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 pool agreement or a compulsory pooling order heretofore entered by the division.	
Date	<b>MAY 2, 2007</b>
Signature	<i>Brian Wood</i>
Printed Name	<b>BRIAN WOOD</b>
<b>SURVEYOR CERTIFICATION</b>	
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.	
Date of survey	rev: 03 28 '07
Signature and Seal of Professional Surveyor	
Certificate Number	<b>6844</b>

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> (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- <b>34310</b>
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other		5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator MERRION OIL & GAS CORPORATION		6. State Oil & Gas Lease No. NMNM-025453
3. Address of Operator 610 REILLY AVE., FARMINGTON, NM 87401		7. Lease Name or Unit Agreement Name SUSCO FED.
4. Well Location Unit Letter: P                      889' FML & 893' FEL Section 9                      Township 26 N      Range 12 W      NMPM      SAN JUAN      County		8. Well Number      10
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6,048' GL		9. OGRID Number 014634
Fit or Below-grade Tank Application <input checked="" type="checkbox"/> or Closure <input type="checkbox"/>		10. Pool name or Wildcat GAL'GOS GALLUP & BASIN DAKOTA
Pit type: <u>DRILLING</u> Depth to Groundwater: <u>&gt;200'</u> Distance from nearest fresh water well: <u>&gt;1,000'</u> Distance from nearest surface water: <u>&gt;300'</u>		
Pit Liner Thickness:      12 mil      Below-Grade Tank: Volume      bbls;      Construction Material		

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: DRILLING PIT <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.

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 Brian Wood TITLE: CONSULTANT

DATE: MAY 2, 2007

Type or print name: BRIAN WOOD

E-mail address: brian@permitswest.com

Telephone No.: (505) 466-8120

**For State Use Only**

Deputy Oil & Gas Inspector,  
District #3

APPROVED BY: [Signature] TITLE

DATE APR 01 2008

Conditions of Approval (if any):

Merrion Oil & Gas Corporation  
Susco Fed. 10  
889' FSL & 893' FEL  
Sec. 9, T. 26 N., R. 12 W.  
San Juan County, New Mexico

PAGE 1

## Drilling Program

### 1. ESTIMATED FORMATION TOPS

<u>Formation</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
Nacimiento	0'	12'	+6,048'
Kirtland Shale	203'	215'	+5,845'
Fruitland	973'	985'	+5,075'
Main Fruitland	1,248'	1,260'	+4,800'
Pictured Cliffs	1,293'	1,305'	+4,755'
Lewis Shale	1,393'	1,405'	+4,655'
La Ventana	2,098'	2,110'	+3,950'
Menefee Shale	2,743'	2,755'	+3,305'
Point Lookout Sandstone	3,773'	3,785'	+2,275'
Mancos Shale	3,973'	3,985'	+2,075'
Gallup Sandstone	4,823'	4,835'	+1,225'
Greenhorn Limestone	5,713'	5,725'	+335'
Dakota Sandstone	5,873'	5,895'	+175'
Total Depth (TD)	6,125'	6,128'	-72'

### 2. NOTABLE ZONES

#### Gas & Oil Zones

Fruitland  
Pictured Cliffs  
Gallup  
Dakota

#### Water Zones

Nacimiento  
Fruitland

#### Coal Zones

Fruitland

Water zones will be protected with casing, cement, and weighted mud. Fresh water found while drilling will be recorded.

Merrion Oil & Gas Corporation  
Susco Fed. 10  
889' FSL & 893' FEL  
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San Juan County, New Mexico

PAGE 2

### 3. PRESSURE CONTROL

The drilling contract has not been awarded. Thus, the exact BOP model to be used is not yet known. (A typical double ram 2,000 psi model is on PAGE 3.) Minimum working pressure will be 2,000 psi. Pressure calculations are:

$$\begin{aligned} 0.29 \text{ psi/foot} \times 6,125' &= 1,776 \text{ psi maximum expected bottom hole pressure} \\ - 0.22 \text{ psi/foot} \times 6,125' &= 1,348 \text{ psi gas cut column} \\ 428 \text{ psi} &\text{ maximum expected surface pressure} \end{aligned}$$

BOP pressure tests will be conducted at time of installation and before drilling out the surface casing shoe. Ram type preventer will be tested to  $\approx 1,000$  psi. The BOP will be activated on each bit trip and the activation recorded in the driller's log. A 2,000 psi working pressure choke manifold, kill line from the mud pump, and kelly cock valve will be installed. Stabbing valves for drill pipe and drill collars will be available on the rig floor.

### 4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	<u>Pounds/Foot</u>	<u>Grade</u>	<u>Age</u>	<u>Connections</u>	<u>Depth Set</u>
12-1/4"	8-5/8"	24	J-55	New	ST & C	320'
7-7/8"	4-1/2"	11.6	J-55	New	LT & C	6,120'

Surface casing will be cemented to surface with  $\approx 264$  cubic feet ( $\approx 224$  sacks) Class B neat + 1/4 pound per sack cello-flake + 2% to 4%  $\text{CaCl}_2$ . Yield = 1.18 cubic feet per sack. Weight = 15.6 pounds per gallon. Excess = 100%. A centralizer will be placed on the bottom joint.

Production casing hole will be cemented in two stages to the surface with  $\approx 2,120$  cubic feet. Excess:  $\geq 50\%$  (actual volumes will be based on caliper survey). DV tool will be  $\approx 50'$  below the top of the Mancos shale. Thus, DV tool will be set at  $\approx 4,025'$ . Will install 2 centralizers to bracket DV tool,  $\approx 6$  centralizers over Dakota, and  $\approx 8$  centralizers over Gallup.

Merrion Oil & Gas Corporation  
Susco Fed. 10  
889' FSL & 893' FEL  
Sec. 9, T. 26 N., R. 12 W.  
San Juan County, New Mexico

PAGE 4

First stage ( $\approx 2,100'$ ) of long string cement will cover Gallup and Dakota zones. Lead with  $\approx 250$  sacks Premium light high strength with 2% KCl + 0.2% CD-32 + 0.5% FL-52 + 1/2 pound per sack cello flake + 2% pheno seal (= 2.01 cubic feet per sack & 12.5 pounds per gallon. Tail with  $\approx 150$  sacks Type III + 0.3% CD-32 + 0.2% FL-52 + 5% A-10 + 1/4 pound per sack cello flake 2% pheno seal (= 1.54 cubic feet per sack & 14.2 pounds per gallon).

Second stage of cement will cover  $\approx 4,025'$  from DV tool to surface. Lead with  $\approx 480$  sacks Type III + 1/4 pound per sack flake + 8% gel + 2% pheno seal (= 2.60 cubic feet per sack & 11.9 pounds per gallon). Tail with  $\approx 100$  sacks Type III neat (= 1.39 cubic feet per sack & 14.5 pounds per gallon).

#### 5. MUD PROGRAM

Surface hole will be drilled with fresh water based spud mud at  $\approx 8.4$  pounds per gallon. Lime and gel will be added as needed for viscosity. Production hole will be drilled with a fresh water based low solids non dispersed mud with a weight of  $< 9.0$  pounds per gallon and water loss of  $< 10$  cc. Starch will be added as needed. Producing or sensitive zones will be air drilled.

#### 6. CORES, TESTS, & LOGS

No cores or drill stem tests are planned. DIL-FDC-GR logs will be run from TD to the base of the surface casing.

#### 7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, nor hydrogen sulfide are expected.

Merrion Oil & Gas Corporation  
Susco Fed. 10  
889' FSL & 893' FEL  
Sec. 9, T. 26 N., R. 12 W.  
San Juan County, New Mexico

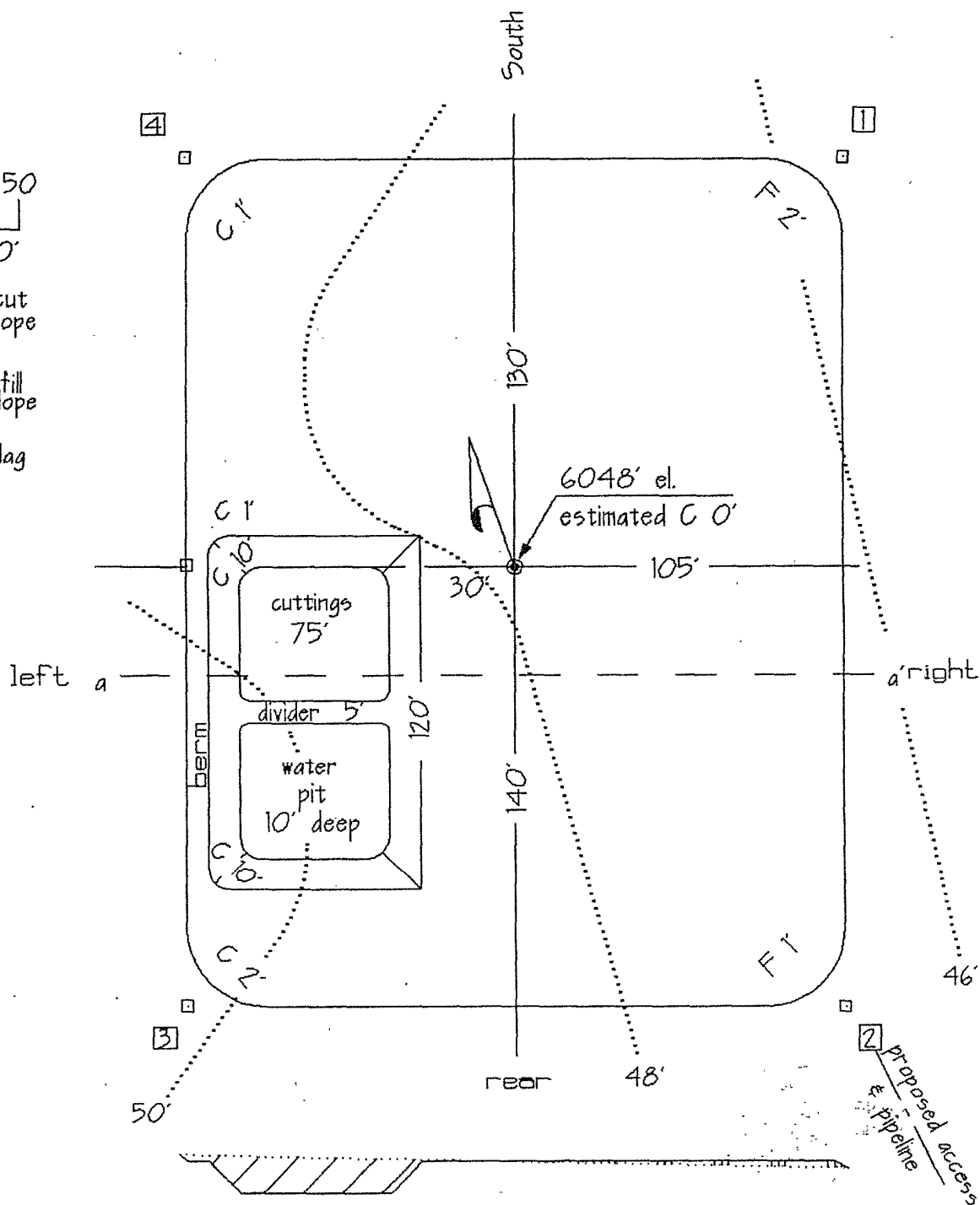
PAGE 5

8. OTHER INFORMATION

The anticipated spud date is upon approval. It is expected it will take about  $\approx$ 2 weeks to drill and  $\approx$ 2 weeks to complete the well.



front

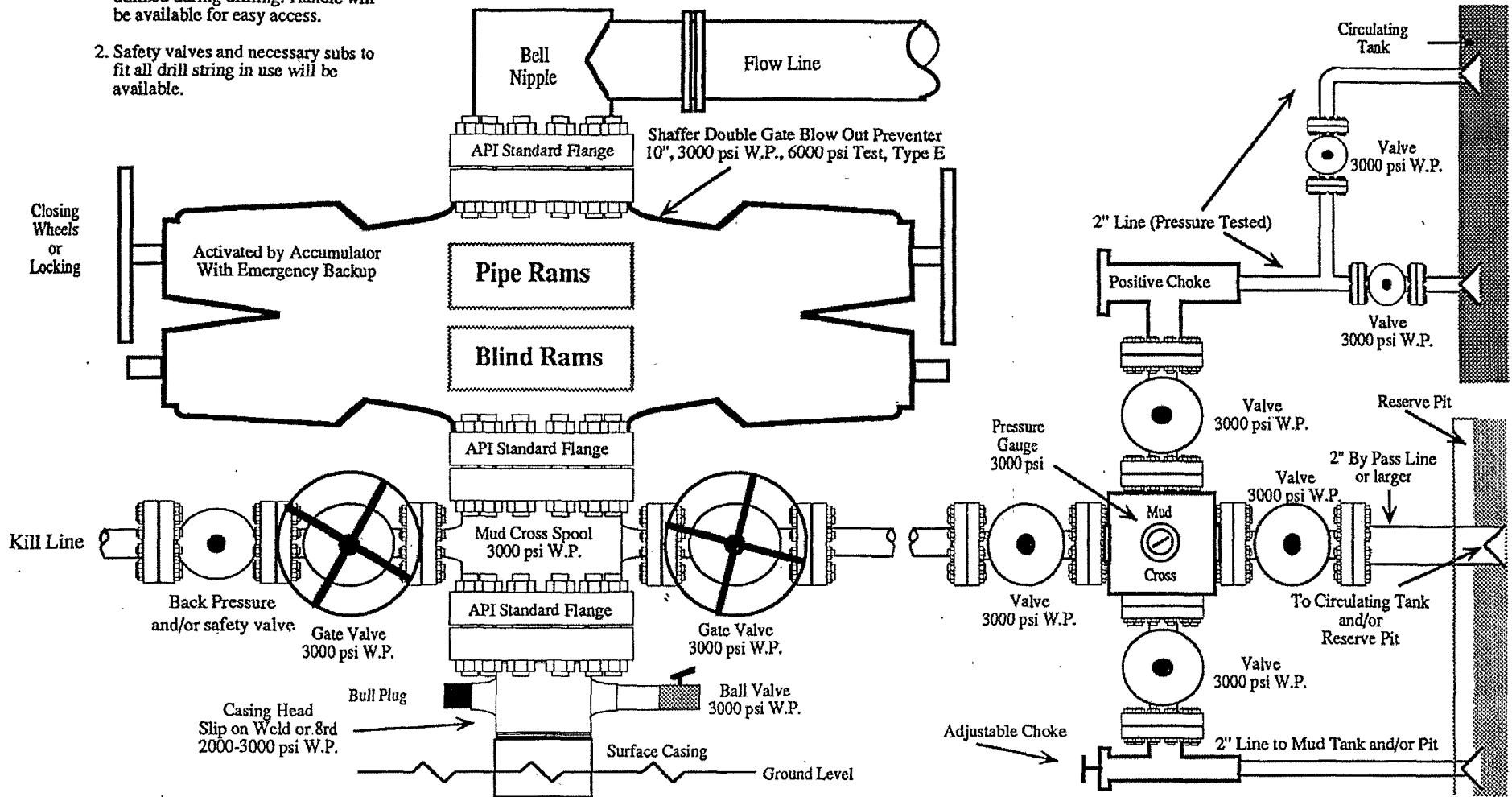


Cross section

# 2,000 PSI BOP SYSTEM

Note: 1. An upper Kelly cock valve will be utilized during drilling. Handle will be available for easy access.

2. Safety valves and necessary subs to fit all drill string in use will be available.



Note: This equipment is designed to meet requirements for a 2-M rating standard per 43 CFR part 3160 (amended). Proper operation and testing of equipment will be carried out per standard. 2,000 psi equipment can be substituted in the drawing to meet minimum requirements per standard.