

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

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

JUN 26 2007

5. Lease Serial No.  
**LC 069157**  
6. If Indian, Allottee or Tribe Name

## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		7. If Unit or CA Agreement, Name and No.	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		8. Lease Name and Well No. <b>Dublin Federal 23 No.2</b>	
2. Name of Operator <b>Marshall: Winston, Inc.</b>		9. API Well No. <b>30-015-35737</b>	
3a. Address <b>PO Box 50880, Midland, TX 79710-0880</b>		10. Field and Pool or Exploration <b>Herradura Bend, Delaware, East</b>	
3b. Phone No. (include area code) <b>432-684-6372</b>		11. Sec., T. R. M. or Blk. and Survey or Area <b>Sec 23, T22S, R28E</b>	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface <b>1980' FSL and 1780' FEL</b> At proposed prod. zone <b>CARLSBAD CONTROLLED WATER BASIN</b>		12. County or Parish <b>Eddy</b>	
14. Distance in miles and direction from nearest town or post office* <b>10 mi from SE Carlsbad, NM</b>		13. State <b>NM</b>	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) <b>860'</b>	16. No. of acres in lease <b>320</b>	17. Spacing Unit dedicated to this well <b>40</b>	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>1320'</b>	19. Proposed Depth <b>6800' 5000'</b>	20. BLM/BIA Bond No. on file <b>NM 0877</b>	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>3180'</b>	22. Approximate date work will start* <b>August 1, 2007</b>	23. Estimated duration <b>20 days</b>	
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.
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.

25. Signature <b>Tom Brandt by C. Vukobratovic agent</b>	Name (Printed/Typed) <b>Tom Brandt</b>	Date <b>25 May 2007</b>
Title <b>Vice President</b>		
Approved by (Signature) <b>/s/ DON PETERSON</b>	Name (Printed/Typed) <b>/s/ DON PETERSON</b>	Date <b>JUN 25 2007</b>
Title <b>FOR FIELD MANAGER</b>	Office <b>CARLSBAD FIELD OFFICE</b>	

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.

APPROVAL FOR TWO YEARS

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)

SEE ATTACHED FOR  
CONDITIONS OF APPROVALAPPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHEDIf earthen pits are used in  
association with the drilling of this  
well, an OCD pit permit must be  
obtained prior to pit construction.

DISTRICT I  
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II  
1301 W. GRAND AVENUE, 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 Department

OIL CONSERVATION DIVISION  
1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 30670	Pool Name Herradura Bend; Delatone, East
Property Code 35709	Property Name DUBLIN FEDERAL 23	Well Number 2
OGRID No. 14187	Operator Name MARSHALL & WINSTON, INC.	Elevation 3180'

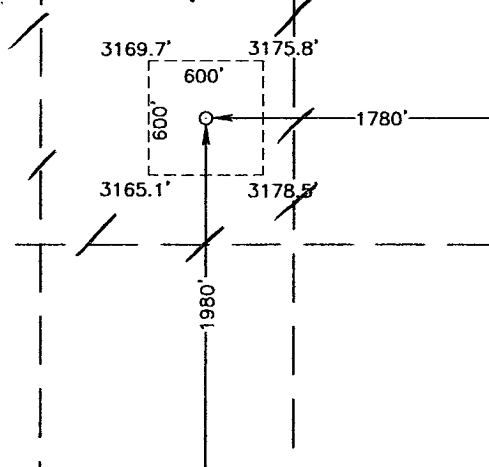
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	23	22-S	28-E		1980	SOUTH	1780	EAST	EDDY

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
Dedicated Acres 40		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

<p>GEODETIC COORDINATES NAD 27 NME</p> <p>Y=500733.2 N X=585928.1 E</p> <p>LAT.=32.376323° N LONG.=104.054999° W</p> 	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement, or a compulsory pooling order heretofore entered by the division.</p> <p>Tom Brandt <i>My C. Winkler</i> 25 May 2007 <i>agent</i> Signature Date</p> <p>Tom Brandt Printed Name</p>
	<p><b>SURVEYOR CERTIFICATION</b></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>MARCH 6, 2007</p> <p>Date Surveyed JR</p> <p>Signature &amp; Seal of Professional Surveyor</p> <p><i>Ronald J. Eidson</i> 3/23/07 07.11.0277</p>
	<p>Certificate No. GARY EIDSON 12841 RONALD J. EIDSON 3239</p>

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB No 1004-0137  
Expires: March 31, 2007

## SUNDRY NOTICES AND REPORTS ON WELLS

*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

**SUBMIT IN TRIPLICATE- Other instructions on reverse side.**

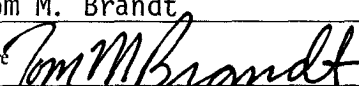
1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Serial No. LC-069157
2. Name of Operator Marshall & Winston, Inc.	6. If Indian, Allottee or Tribe Name
3a. Address 79710-0880 P. O. Box 50880, Midland, TX	7. If Unit or CA/Agreement, Name and/or No
3b. Phone No. (include area code) 432-684-6373	8. Well Name and No. Dublin Federal 23 No. 2
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 1980' FSL + 1780' FEL, Sec. 23, T22S, R28E	9. API Well No.
	10. Field and Pool, or Exploratory Area Loving Brushy Canyon East
	11. County or Parish, State Eddy, NM

## 12. CHECK APPROPRIATE BOX(ES) 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"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other BOP Alteration
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Request alteration to BOP design submitted in BOP diagram w/ APD for subject well. Request that design for equipment be changed to 2000 psi.

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Tom M. Brandt		Title Vice President
Signature 		Date 6/15/07

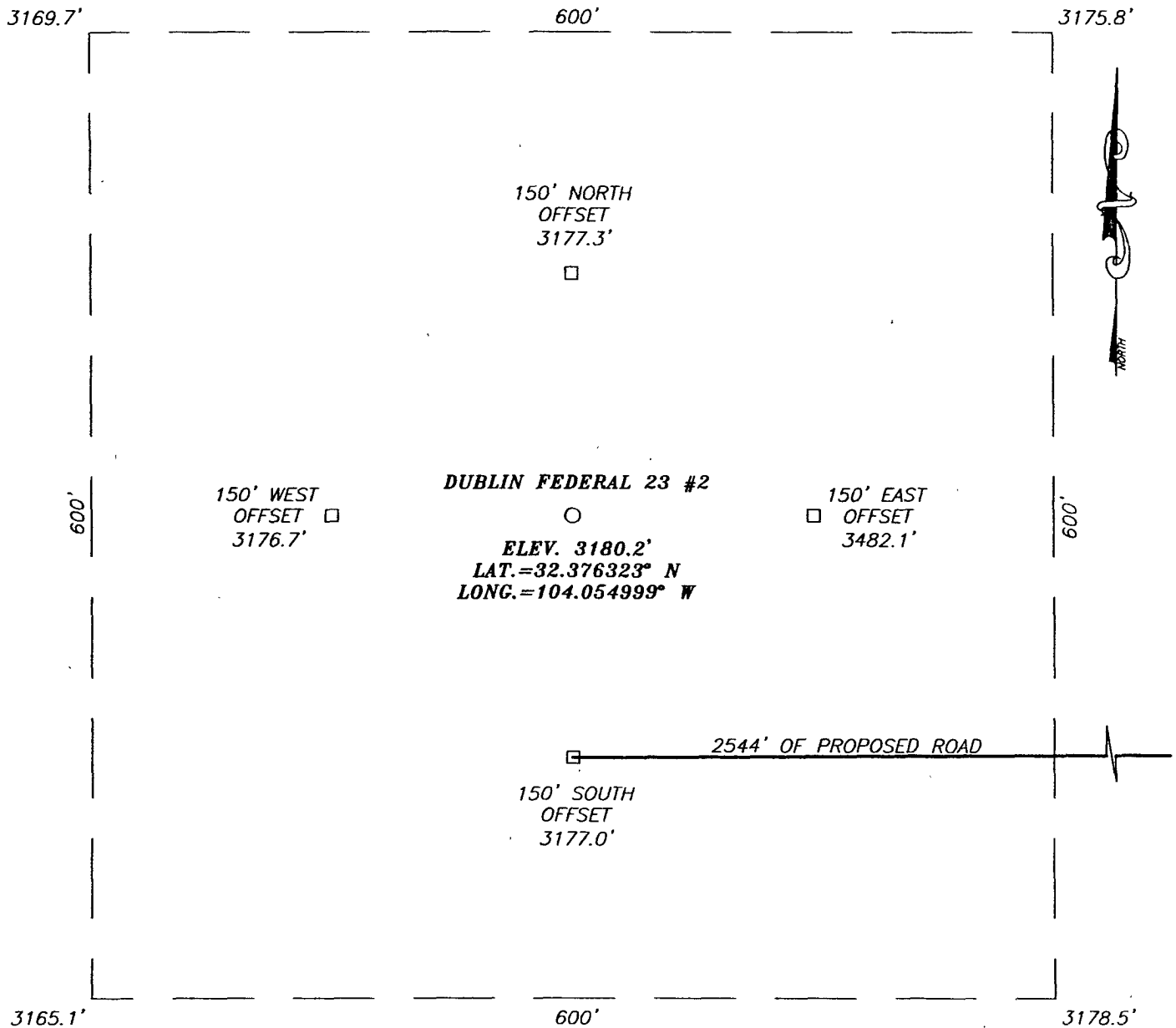
## THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by /s/ DON PETERSON	FOR FIELD MANAGER	Date JUN 25 2007
Conditions of approval, if any, are attached. Approval of this notice 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.		Office CARLSBAD FIELD OFFICE

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.

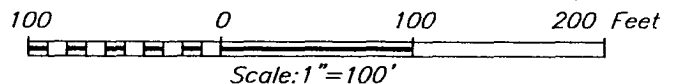
(Instructions on page 2)

**SECTION 23, TOWNSHIP 22 SOUTH, RANGE 28 EAST, N.M.P.M.,**  
 EDDY COUNTY, NEW MEXICO



**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF ST. HWY #31 AND CO. RD. #606 (U.S. REFINERY RD.) GO NORTH ON CO. RD. #606 APPROX. 3.6 MILES. TURN RIGHT AND GO NORTHEAST APPROX. 0.5 MILES, VEER LEFT AND CONTINUE NORTHEAST APPROX. 0.8 MILES. TURN LEFT AND GO NORTHWEST APPROX. 0.2 MILES, VEER RIGHT AND GO NORTHEAST APPROX. 0.2 MILES, VEER LEFT AND GO NORTH APPROX. 0.4 MILES TO THE EXISTING DUBLIN FEDERAL 23 #1 WELL. FOLLOW PROPOSED ROAD SURVEY APPROX. 2544 FEET TO THIS LOCATION.



**MARSHALL & WINSTON, INC.**

DUBLIN FEDERAL 23 #2 WELL  
 LOCATED 1980 FEET FROM THE SOUTH LINE  
 AND 1780 FEET FROM THE EAST LINE OF SECTION 23,  
 TOWNSHIP 22 SOUTH, RANGE 28 EAST, N.M.P.M.,  
 EDDY COUNTY, NEW MEXICO.

Survey Date: 03/15/07	Sheet 1 of 1 Sheets
W.O. Number: 07.11.0277	Dr By: J.R.
Date: 03/21/07	Rev 1: N/A
Disk: CD#7	07110277
	Scale: 1"=100'

PROVIDING SURVEYING SERVICES  
 SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
 412 N. DAL PASO  
 HOBBS, N.M. 88240  
 (505) 393-3117



CONTOUR INTERVAL:  
LOVING, N.M. - 10'  
INDIAN FLAT, N.M. - 10'

LOVING, N.M. - 10'  
INDIAN FLAT, N.M. - 10'

INDIAN FLAT, N.M. - 10'

INDIAN FLAT, N.M. - 10'

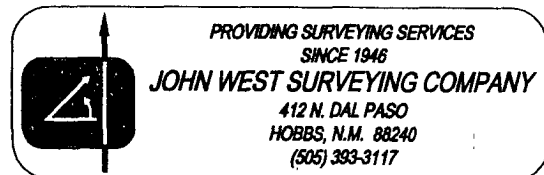
INDIAN FLAT, N.M. - 10'

INDIAN FLAT, N.M. - 10'

INDIAN FLAT, N.M. - 10'

INDIAN FLAT, N.M. - 10'

INDIAN FLAT, N.M. - 10'



# MARSHALL & WINSTON, INC.

## DRILLING PLAN

### DUBLIN FEDERAL 23 No. 2

EDDY COUNTY, NEW MEXICO: U/L J S23 T22S R28E 1,980' FSL, 1,780' FEL

#### 1. SURFACE:

GL 3,180': Tan/red & tan/brown/gray, loamy silty sands mixed with caliche and lag gravels.

#### 2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS: (EST. KB 3192')

Formation	Est. Top from KB	Est. Subsea Top	BERINGS
T/Salt	470'	+2722'	Barren
B/Salt	2760'	+432'	Barren
T/Lamar Lm.	2780'	+412'	Barren
T/Bell Canyon	2804'	+388'	Oil/Gas
T/Cherry Canyon	3670'	- 478'	Oil/Gas

#### 3. CASING PROGRAM:

Proposed Drilling Depth: 5,000' TVD

Hole Size	Type	Intervals	Purpose	Condition
24"	20"	0-40'	Conductor	Cont. Discretion
12 1/4"	8 5/8", 32#, J-55, STC	0-450'	Surface	New
7 7/8"	5 1/2", 15.5#, J-55, STC	0-5,000'	Production	New
		<b>Collapse</b>	<b>Burst</b>	<b>Tension</b>
	8 5/8"	2530 psi	2950 psi	244,000 lbs.
	5 1/2"	4040 psi	4270 psi	172,000 lbs.

#### 4. MUD PROGRAM:

Depth	Mud Type	Weight	FV	PV	YP	FL	Ph
0-450'	FW	8.5-9.2ppg	45-35	NC	NC	NC	9.5
450'-3500'	BW	10.0-10.2	28-30	NC	NC	NC	9.5
3500'-5000'	BW/Poly.	10.0-10.5	32-55	12-20	12-22	10-15	9.5-10.0

## 5. TESTING, LOGGING AND CORING PROGRAM:

### TESTING:

Drill stem tests may be performed on significant shows in zones of interest, but none are anticipated.

### LOGGING:

Run No. 1: GL – DLL - MGRD TD to surface casing.

Run No. 2: GR – DSNSD TD to base of salt.

### CORING:

No cores are anticipated.

## 6. CEMENT PROGRAM:

Interval: Surface Casing

0-450' cement circulated to surface

Cement Volume: 300sx (390 ft<sup>3</sup>) 100% excess

Slurry Weight (ppg) 14.8

Slurry Yield (ft<sup>3</sup>/sx) 1.3

Amount of Water (gps) 6.36

Type of Cement: Class "C" + 2% bwoc CaCl

Interval: Production Casing (Two stage DV tool @ 3,000')

1<sup>st</sup> Stage: 5,000'-3,000'

Cement Volume: 400 sx (520 ft<sup>3</sup>) 50% excess

Slurry Weight (ppg) 14.8

Slurry Yield (ft<sup>3</sup>/sx) 1.3

Amount of Water (gps) 6.36

Type of Cement: Class "C"

2<sup>nd</sup> Stage: 3,000'-0' circulate cement to surface

Cement Volume: 780 ft<sup>3</sup> 50% excess

Lead Slurry: 600 sx (35:65) Poz (Fly Ash) Class "C" Cement  
+ 1% bwoc CaCl + 0.25 lbs./sx Cello Flake

Tail Slurry: 100 sx Class "C" Cement

	<u>Lead Slurry</u>	<u>Tail Slurry</u>
Slurry Weight (ppg)	12.50	14.8
Slurry Yield (ft <sup>3</sup> /sx)	1.96	1.33
Amount of Water (gps)	10.22	6.33

\*Volumes may be altered after actual borehole volumes are calculated from open hole caliper log.

Estimated BHP: Normal pressures are anticipated with max BHP in Cherry Canyon of 1860 psi (equivalent mud weight 8.4 ppg)

**7. PRESSURE CONTROL EQUIPMENT:**

*See  
COA*  
A BOP equivalent to attached BOP diagram will be nipped up on the surface casinghead and the BOP stack, choke, kill lines, Kelly cocks, inside BOP etc. will be hydrostatically tested to 70% of internal yield pressure of casing or 2500 psig, whichever is less with rig pump.

A function test to insure that the preventers are operating correctly will be performed on each trip.

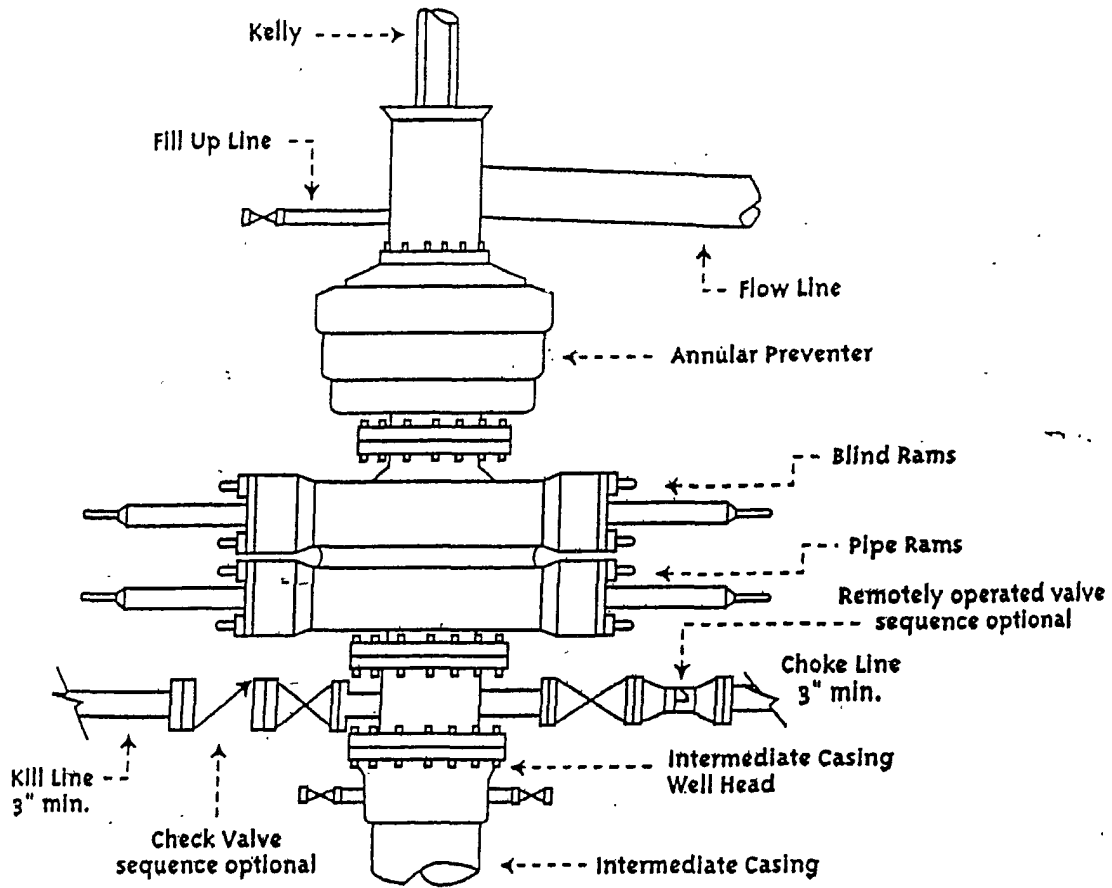
**8. HYDROGEN SULFIDE GAS:** Not anticipated

**9. START DATE/COMPLETION DATE:** 8/1/07 / completion approximately 20 days

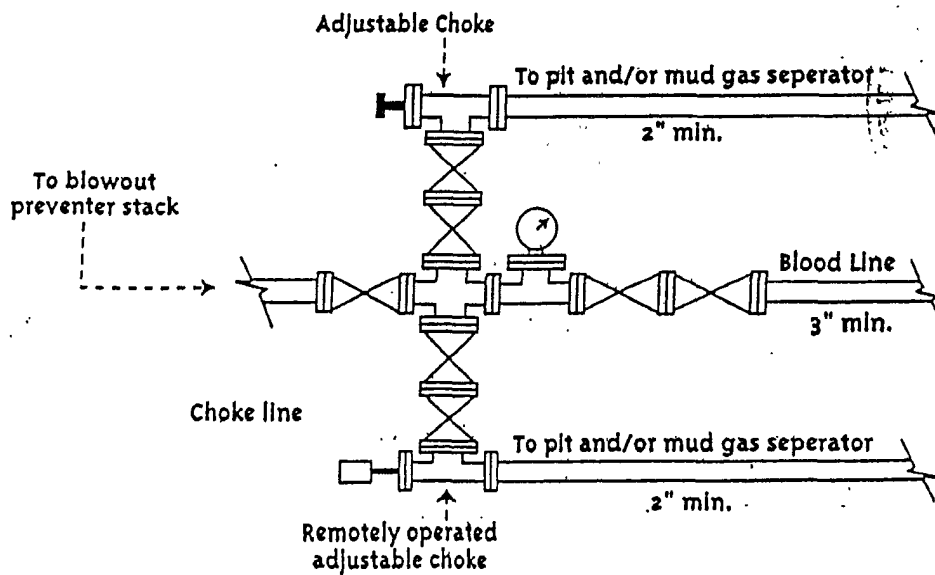
**10. LOCATION ACCESS DIRECTIONS:** See plat.



# Typical 5,000 psi Pressure System Schematic Annular Double Ram Preventer Stack



## Typical 3,000 psi choke manifold assembly with at least these minimum features



# **SURFACE USE PLAN**

## **Dublin Federal 23 No. 2**

LOCATION: U/L J Sec. 23, T22S, R28E 1980 FSL and 1780 FEL  
Lease No. : LC 069157

EXISTING ROADS: (see Vicinity Map)

Directions to the location follow: From intersection of SH 31 and CR 606 (US Refinery Road) travel northwest on CR 606 approximately 3.5 miles following plat from this point to the northeast.

ACCESS ROAD: A new access road of approximately 2,544' will be built to the location. This access road has been archeologically surveyed and cleared for construction. (see Arch report)

EXISTING WELLS: The Dublin Federal 23 No. 1 also exists in Section 23.

LOCATION OF EXISTING OR PROPOSED FACILITIES: Flow lines will run parallel to the existing roads where the archeological surveys have been completed and cleared for development. This activity shall exist within the lease boundary of the Dublin Federal 23 No. 1 in Section 23.

SOURCE OF CONSTRUCTION MATERIALS: Construction material (caliche) required for the access road and well site pad will be obtained on location, if available, or from an approved pit. No surface materials shall be disturbed except those necessary for actual grading and construction of the drill site and access road.

METHODS FOR HANDLING WASTE DISPOSAL: All drilling fluids and cuttings shall be disposed of pursuant to the NMOCD Regulatory Performa. Drilling pits shall be lined as per the C-144. All other waste generated by drilling, completion and testing of this well will be removed from the location within 30 days of completion activities. A Porta-John will be provided fro the crews which shall be properly maintained at all times.

ANCILLARY FACILITIES: Drilling, completion and/or testing of this well will require temporary test facilities. Any oil produced during completion will be stored in tanks until sold.

WELLSITE LAYOUT: Refer to the "Drilling Pad Layout" attached for details.

SURFACE RESTORATION: Surface reclamation shall be in accordance with BLM requirements and infield decisions at the time.

OTHER INFORMATION: Surface ownership and drill site access is under the jurisdiction of the BLM, 620 E. Greene St., Carlsbad, NM 88220 (505-887-6544) or Barry Hunt 505-361-4078 (cell). The Drilling Contractor has not yet been determined.

## OPERATOR'S REPRESENTATIVE

### Dublin Federal 23 No. 2 APD

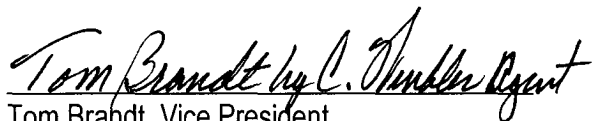
The field representative responsible for assuring compliance with the approved surface use and drilling operations plan is as follows:

Mr. Tom Brandt  
Marshall & Winston, Inc.  
PO Box 50880  
Midland, TX 79710-0880

432-684-6373 (office)  
432-553-9747 (cell)

#### CERTIFICATION:

I hereby certify that I have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in the plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Marshall & Winston, Inc., and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of 18 USC 1001 for the filing of a false statement.



Tom Brandt, Vice President  
Marshall & Winston, Inc.

Date: 25 May 2007

## CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Marshall and Winston, Inc.  
Well Name & No. Dublin Federal 23 # 2  
Location: 1980'FSL, 1780'FEL, SEC23, T22S, R28E, Eddy County, NM  
Lease: LC-069157

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### I. DRILLING OPERATIONS REQUIREMENTS:

- A. The Bureau of Land Management (BLM) is to be notified a minimum of 4 hours in advance for a representative to witness:
1. Spudding well
  2. Setting and/or Cementing of all casing strings
  3. BOPE tests
- Eddy County call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822
- B. A Hydrogen Sulfide (H<sub>2</sub>S) Drilling Plan is N/A.
- C. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

### II. CASING:

- A. The 8.625 inch surface casing shall be set above the salt, at least 25 feet into the Rustler Anhydrite @ approximately 450 feet and cemented to the surface.
1. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
  2. Wait on cement (WOC) time for a primary cement job will be a minimum of 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compression strength, whichever is greater. (This is to include the lead cement)
  3. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compression strength, whichever is greater.
  4. If cement falls back, remedial action will be done prior to drilling out that string.
- B. The minimum required fill of cement behind the 5.5 inch production casing is cement shall circulate to the surface.
- C. If hardband drill pipe is rotated inside casing; returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool I joints of the drill pipe will be installed prior to continuing drilling operations.

### **III. PRESSURE CONTROL:**

- A. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2.
- B. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 2000 psi.
- C. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - 1. The tests shall be done by an independent service company.
  - 2. The results of the test shall be reported to the appropriate BLM office.
  - 3. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
  - 4. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi in accordance with API RP 53, section 17. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
  - 5. **Per Onshore Order # 2.I.D.1, testing procedures shall only apply to the approved working pressures of the BOP / BOPE, not the working pressures of equipment rated higher than required.**

### **IV. HAZARDS:**

- A. Our geologist has indicated that there is potential for lost circulation in the Delaware and the Bone Spring.

**Engineering can be reached at 505-706-2779 for any variances necessary.**

**FWright 6/13/07**