

RECEIVED

New Mexico Oil Conservation Division, District I
1625 N. French Drive
Hobbs, NM 88240

FEB 09 2009

Form 3160-3
(August 2007)

HOBBSOCD

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

5. Lease Serial No.
NMLC 062524A

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA Agreement, Name and No.
N/A

8. Lease Name and Well No.
Medlin Federal Comp # 115

9. API Well No.
30-048-005-29078

10. Field and Pool, or Exploratory
Wildcat

11. Sec., T. R. M. or Blk. and Survey or Area
Section 8-L, T. 15 S., R. 31 E.

12. County or Parish
Chaves Co.

13. State
NM

1a. Type of work: ☒ DRILL ☐ REENTER

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

2. Name of Operator
Marshall and Winston Inc.

3a. Address
P.O. Box 50880
Midland, Tx 79710-0880

3b. Phone No. (include area code)
(432) 684-6373

4. Location of Well (Report location clearly and in accordance with any State requirements.)*

At surface 330' FWL & 1980' FSL

At proposed prod. zone BHL 330' FEL & 1980' FSL

14. Distance in miles and direction from nearest town or post office*
Approximately 15 miles North of Maljamar, NM & 40 miles East of Artesia, NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
SHL 330 Ft. East of Section Line
BHL 330 Ft. West of Section Line

16. No. of acres in lease
160

17. Spacing Unit dedicated to this well
320 Acres

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
N/A

19. Proposed Depth
TVD 9100 ft, MD 13,125 "
Lower Abo 8700 ft

20. BLM/BIA Bond No. on file
NM 0877

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
4444' GL

22. Approximate date work will start*
03/01/2009

23. Estimated duration
30 to 45 days

24. Attachments

ROSWELL CONTROLLED WATER BASIN

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must 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 must 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 BLM.

25. Signature
Vernon D. Dyer
Title
AGENT

Name (Printed/Typed)
Vernon D. Dyer

Date
1-9-2009

Approved by (Signature)
/s/ Jerry Dutchover

Name (Printed/Typed)
/s/ Jerry Dutchover

Date
FEB 05 2009

Title
Acting Assistant Field Manager,
Lands And Minerals

Office
ROSWELL FIELD OFFICE
APPROVED FOR 2 YEARS

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.

(Continued on page 2)

*(Instructions on page 2)

DECLARED WATER BASIN

CEMENT BEHIND THE 138"
CASING MUST BE CIRCULATED

WITNESS

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS ATTACHED

RECEIVED

State of New Mexico

DISTRICT I

1625 N. FRANKLIN DR., SHELTON, NM 86240

FEB 09 2009

Energy, Minerals and Natural Resources Department

Form C-102

Revised October 12, 2005

DISTRICT II

1301 W. GRAND AVENUE, ALBUQUERQUE, NM 87102

OIL CONSERVATION DIVISION

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

DISTRICT III

1000 Rio Brazos Ed., Aztec, NM 87410

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

DISTRICT IV

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-005-2908		Pool Code -	Pool Name Wildcat And - WOLF CAMP
Property Code 37602	Property Name MEDLIN FEDERAL COM (8)		Well Number 1H
OGRID No. 14187	Operator Name MARSHALL & WINSTON, INC.		Elevation 4445'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	8	15-S	31-E		1980	SOUTH	330	WEST	CHAVES

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
I	8	15-S	31-E		1980	SOUTH	330	EAST	CHAVES

Dedicated Acres	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>SURFACE LOCATION Y=738209.2 N X=647799.1 E</p> <p>LAT.=33.028469° N LONG.=103.851096° W</p> <p>BOTTOM HOLE LOCATION Y=738227.0 N X=652429.6 E</p> <p>GRID AZ. = 89°46'46" HORZ. DIST. = 4631.7'</p>	<p>OPERATOR CERTIFICATION</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><i>Vernon D. Dyer</i> Signature Date VERNON D. Dyer Printed Name</p>
	<p>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>NOVEMBER 21, 2008 Date Surveyed Signature & Seal of Professional Surveyor 12641 Certificate No. GARY KIDSON 12841 RONALD J. KIDSON 3239</p>

PRIVATE SURFACE OWNER AGREEMENT
BLM, Carlsbad Field Office

OPERATOR: Marshall and Winston Inc

WELL NAME: Medlin Federal Com 8 # 1H

FOOTAGE LOCATION: 330 Ft. FWL, 1980 Ft. FSL

BHL: 330 Ft. FWL & 1980 Ft. FSL

SECTION: 08, TOWNSHIP: 15 S RANGE: 31 E

COUNTY: Chaves, STATE: NM

LEASE NUMBER: NMLC 062524 A

STATEMENT OF SURFACE USE

The surface to the subject land is owned by : Bill Medlin etux.
P.O Box 50
Maljamar, NM 88264

The surface owner has been contacted regarding the drilling of the subject well, and an agreement for surface use has been negotiated.

CERTIFICATION: I hereby certify that the statements made in this statement are to the best of my knowledge, true and correct.

Vernon D. Dyer
Signature

NAME: Vernon D. Dyer

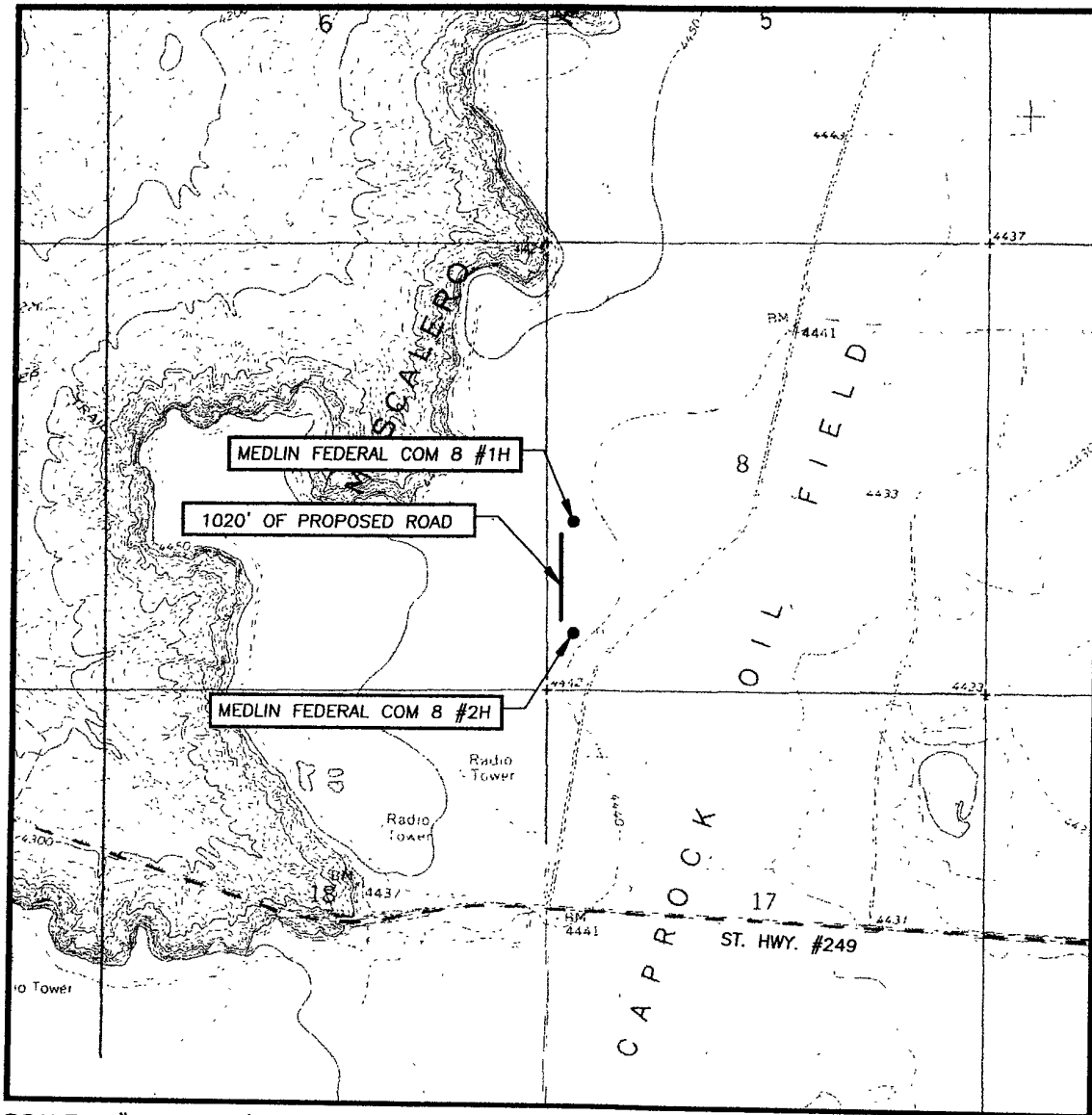
DATE: December, 24th 2008

TITLE: Agent

To expedite your Application to Drill please fax the completed form to the
Bureau of Land Management (505) 234-5927 or (505) 885-9264
Attention: Legal Instruments Examiner
620 E. Green Street
Carlsbad, NM 88220

The original document with signature should be mailed as soon as possible. Thank you for your cooperation.

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
CEDAR POINT SE, N.M. - 10'

SEC. 8 TWP. 15-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY CHAVES STATE NEW MEXICO

DESCRIPTION 1980' FSL & 330' FWL

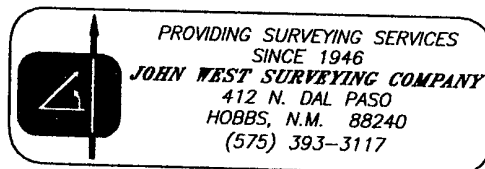
ELEVATION 4445'

OPERATOR MARSHALL & WINSTON, INC.

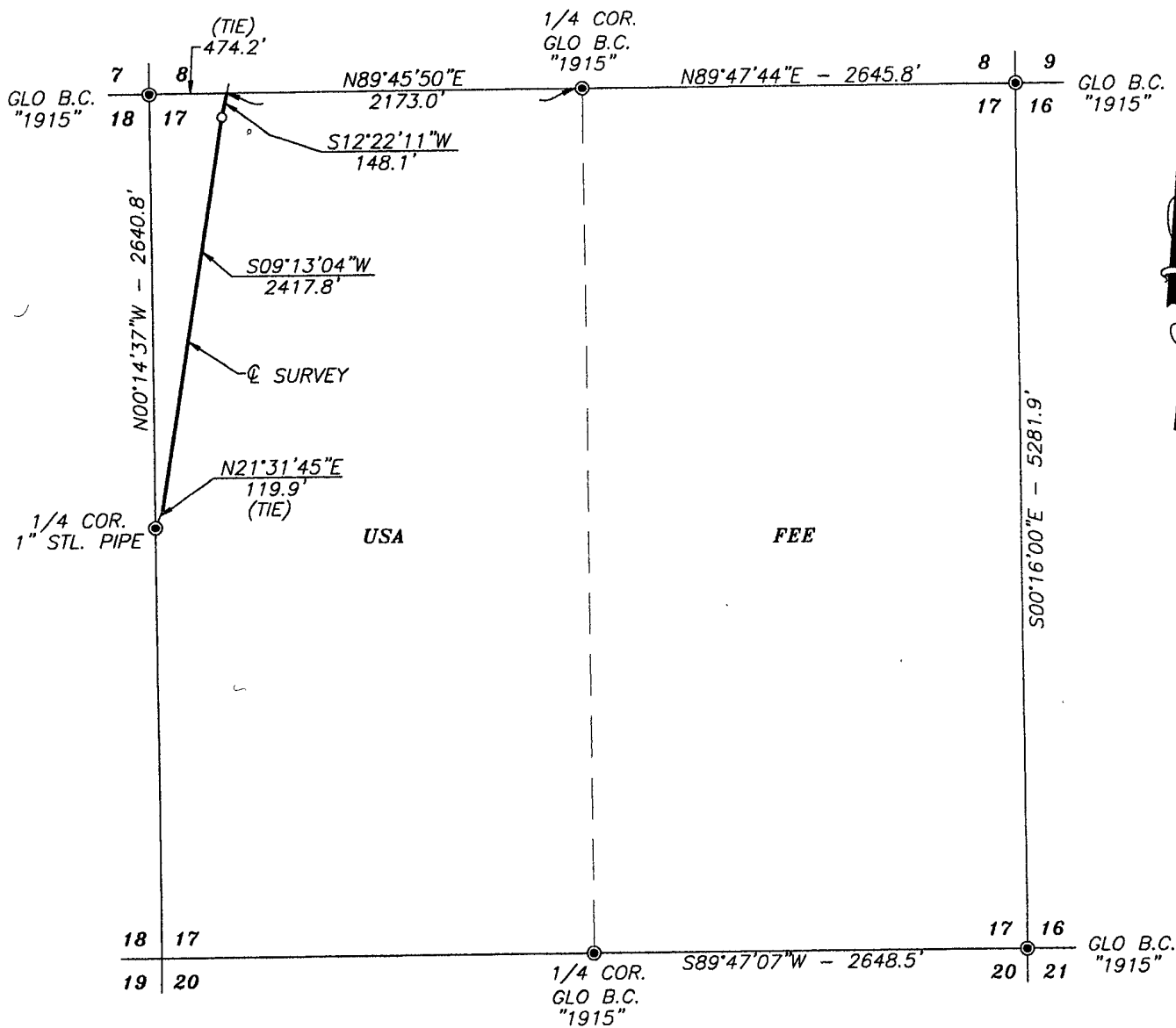
LEASE MEDLIN FEDERAL COM 8

U.S.G.S. TOPOGRAPHIC MAP

CEDAR POINT SE, N.M.



SECTION 17, TOWNSHIP 15 SOUTH, RANGE 31 EAST, N.M.P.M.,
CHAVES COUNTY, NEW MEXICO.



DESCRIPTION

A STRIP OF LAND 50.0 FEET WIDE AND 2565.9 FEET OR 0.486 MILES IN LENGTH CROSSING USA LAND IN SECTION 17, TOWNSHIP 15 SOUTH, RANGE 31 EAST, NMPM, CHAVES COUNTY, NEW MEXICO AND BEING 25.0 FEET LEFT AND 25.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

NOTE: BEARINGS SHOWN HEREON ARE
MERCATOR GRID AND CONFORM TO THE
NEW MEXICO COORDINATE SYSTEM
"NEW MEXICO EAST ZONE" NORTH
AMERICAN DATUM 1983. DISTANCES
ARE SURFACE VALUES.

I HEREBY CERTIFY THAT I DIRECTED AND AM
RESPONSIBLE FOR THIS SURVEY THAT THIS SURVEY IS
TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE
AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET
THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

RONALD J. EIDSON, N.M.P.S. No. 3239

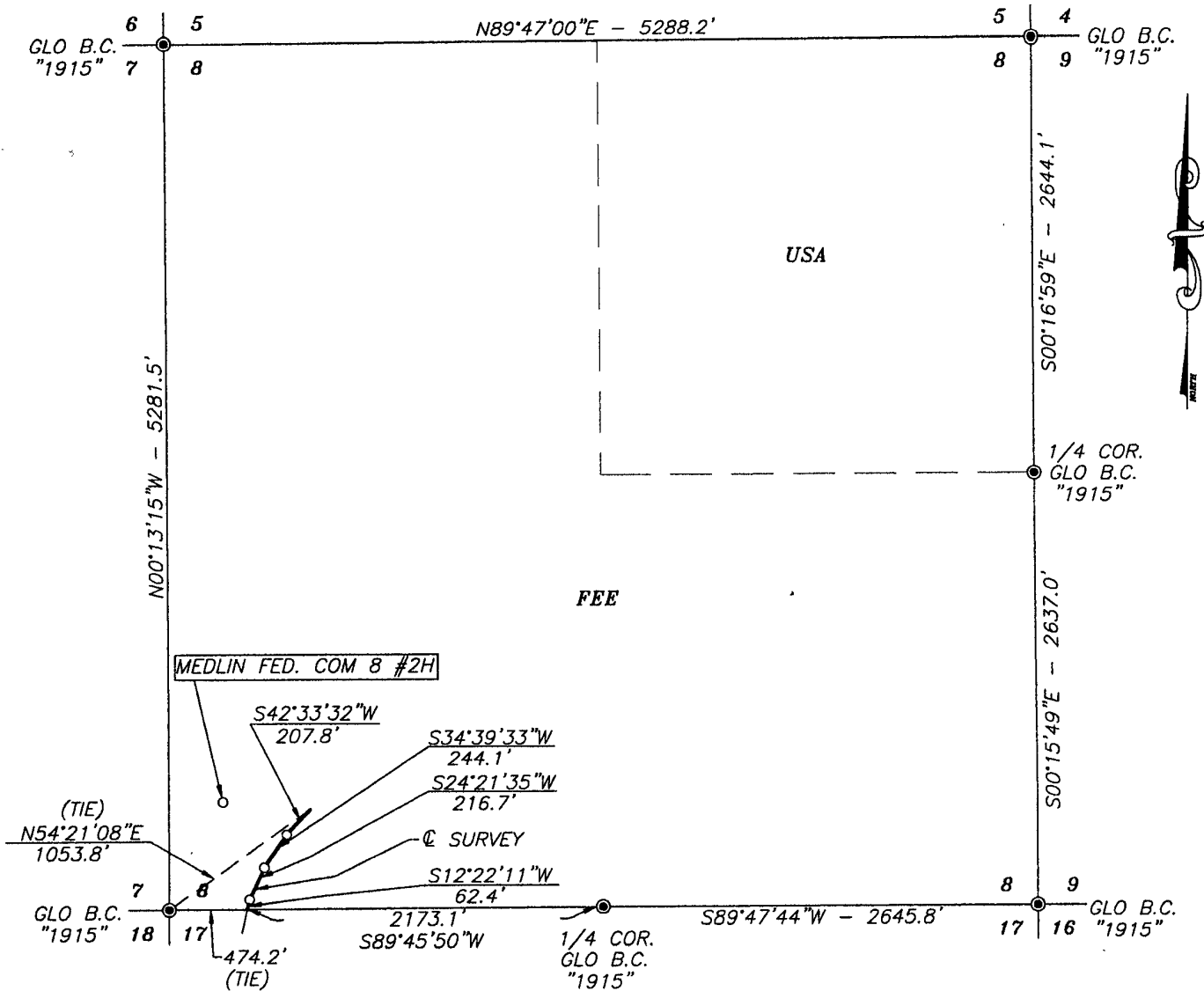
PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

MARSHALL & WINSTON, INC.

CENTERLINE SURVEY OF AN ACCESS ROAD IN
SECTION 17, TOWNSHIP 15 SOUTH, RANGE 31 EAST,
N.M.P.M., CHAVES COUNTY, NEW MEXICO

Survey Date: 11/21/08	Sheet 1 of 1 Sheets
W.O. Number: 08.11.1927	Drawn By: LA
Date: 12/18/08	08111927_ROADS

SECTION 8, TOWNSHIP 15 SOUTH, RANGE 31 EAST, N.M.P.M.,
CHAVES COUNTY, NEW MEXICO.



DESCRIPTION

CENTERLINE SURVEY OF A PIPELINE EASEMENT CROSSING SECTION 8, TOWNSHIP 15 SOUTH, RANGE 31 EAST, NMPM, CHAVES COUNTY, NEW MEXICO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION WHICH LIES N54°21'08"E 1053.8 FEET FROM THE SOUTHWEST CORNER OF SAID SECTION; THEN S42°33'32"W 207.8 FEET; THEN S34°39'33"W 244.1 FEET; THEN S24°21'35"W 216.7 FEET; THEN S12°22'11"W 62.4 FEET TO A POINT ON THE SOUTH LINE OF SAID SECTION WHICH LIES N89°45'50"E 474.2 FEET FROM SAID SOUTHWEST CORNER OF SAID SECTION.

TOTAL LENGTH EQUALS 731.0 FEET OR 44.30 RODS

NOTE: BEARINGS SHOWN HEREON ARE
MERCATOR GRID AND CONFORM TO THE
NEW MEXICO COORDINATE SYSTEM
"NEW MEXICO EAST ZONE" NORTH
AMERICAN DATUM 1983. DISTANCES
ARE SURFACE VALUES.

I HEREBY CERTIFY THAT I HAVE DIRECTED AND AM
RESPONSIBLE FOR THIS SURVEY. THIS SURVEY IS
TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE
AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET
THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

1000 0 1000 2000 FEET
Scale: 1"=1000'

MARSHALL & WINSTON, INC.

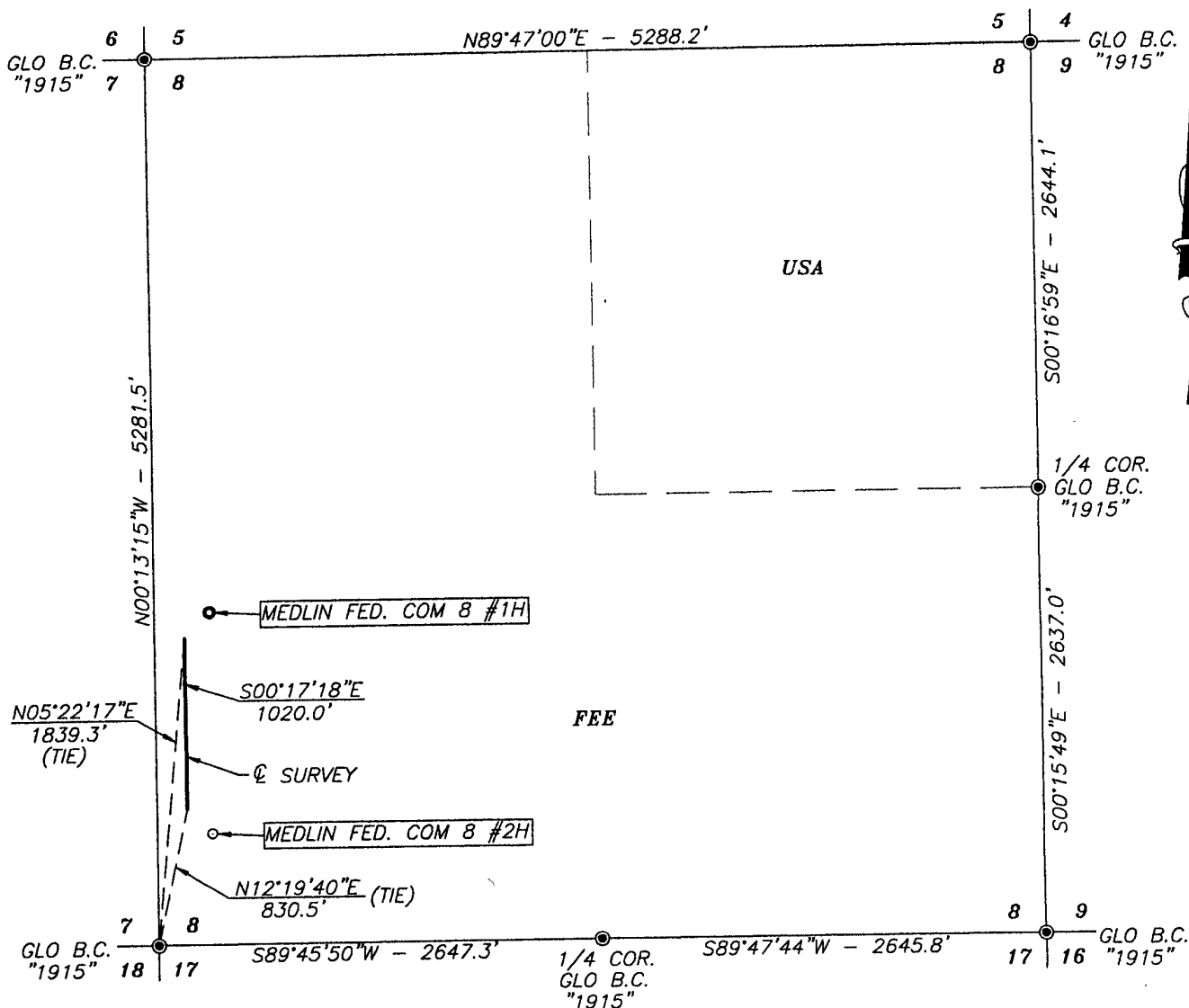
CENTERLINE SURVEY OF AN ACCESS ROAD IN
SECTION 8, TOWNSHIP 15 SOUTH, RANGE 31 EAST,
N.M.P.M., CHAVES COUNTY, NEW MEXICO

Survey Date: 11/21/08	Sheet 1 of 1 Sheets
W.O. Number: 08.11.1927	Drawn By: LA
Date: 12/18/08	08111927_ROADS

RONALD J. EILSON N.M.P.S. No. 3239

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

SECTION 8, TOWNSHIP 15 SOUTH, RANGE 31 EAST, N.M.P.M.,
CHAVES COUNTY, NEW MEXICO.



DESCRIPTION

CENTERLINE SURVEY OF A PIPELINE EASEMENT CROSSING SECTION 8, TOWNSHIP 15 SOUTH, RANGE 31 EAST, NMPM, CHAVES COUNTY, NEW MEXICO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

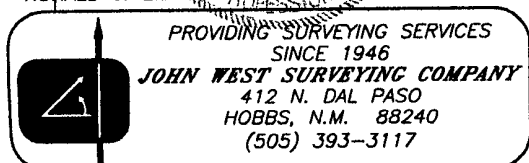
BEGINNING AT A POINT IN THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION WHICH LIES N05°22'17"E 1839.3 FEET FROM THE SOUTHWEST CORNER OF SAID SECTION; THEN S00°17'18"E 1020.0 FEET TO A POINT IN THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION WHICH LIES N12°19'40"E 830.5 FEET FROM SAID SOUTHWEST CORNER OF SAID SECTION.

TOTAL LENGTH EQUALS 1020.0 FEET OR 61.82 RODS

NOTE: BEARINGS SHOWN HEREON ARE
MERCATOR GRID AND CONFORM TO THE
NEW MEXICO COORDINATE SYSTEM
"NEW MEXICO EAST ZONE" NORTH
AMERICAN DATUM 1983. DISTANCES
ARE SURFACE VALUES.

I HEREBY CERTIFY THAT I DIRECTED AND AM
RESPONSIBLE FOR THIS SURVEY THAT THIS SURVEY IS
TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE
AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET
THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

RONALD J. EBBSON N.M.P.S. No. 3239



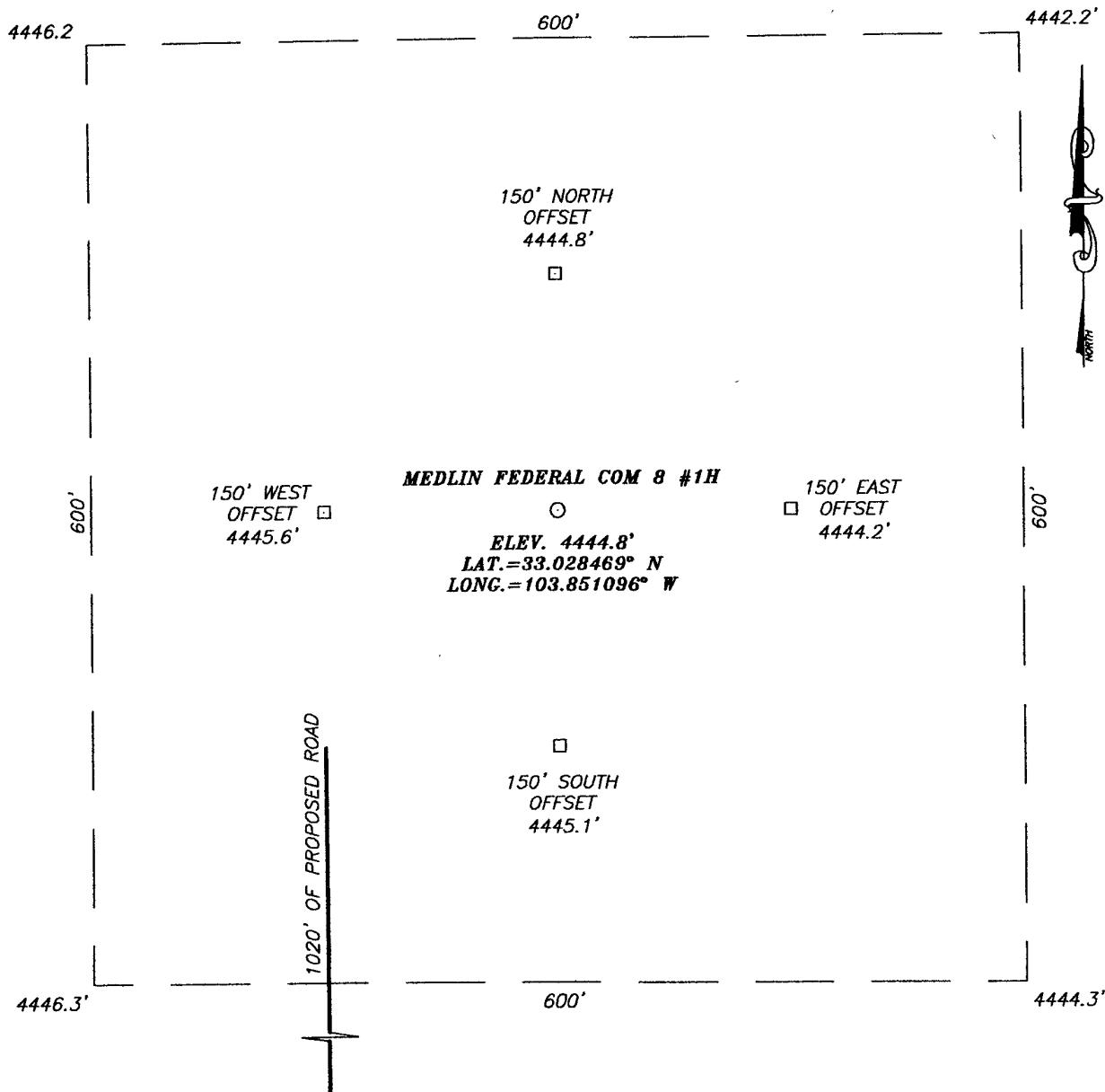
1000 0 1000 2000 FEET
Scale: 1"=1000'

MARSHALL & WINSTON, INC.

CENTERLINE SURVEY OF AN ACCESS ROAD IN
SECTION 8, TOWNSHIP 15 SOUTH, RANGE 31 EAST,
N.M.P.M., CHAVES COUNTY, NEW MEXICO

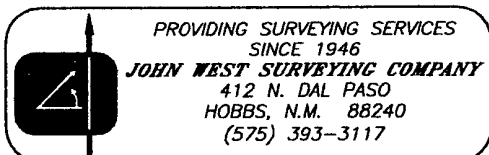
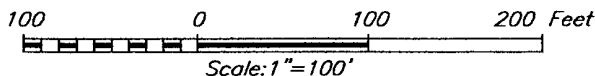
Survey Date: 11/21/08	Sheet 1 of 1 Sheets
W.O. Number: 08.11.1927	Drawn By: LA
Date: 12/18/08	08111927_ROADS

SECTION 8, TOWNSHIP 15 SOUTH, RANGE 31 EAST, N.M.P.M.,
 CHAVES COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF ST. HWY. #249 AND ST. HWY. #172, GO WEST ON ST. HWY. #249 APPROX. 3.0 MILES. TURN RIGHT AND GO NORTHEAST APPROX. 0.6 MILES TO MEDLIN FEDERAL COM 8 #2H WELL PAD AND A PROPOSED ROAD SURVEY. FOLLOW ROAD SURVEY NORTH APPROX. 1200 FEET TO THIS LOCATION.

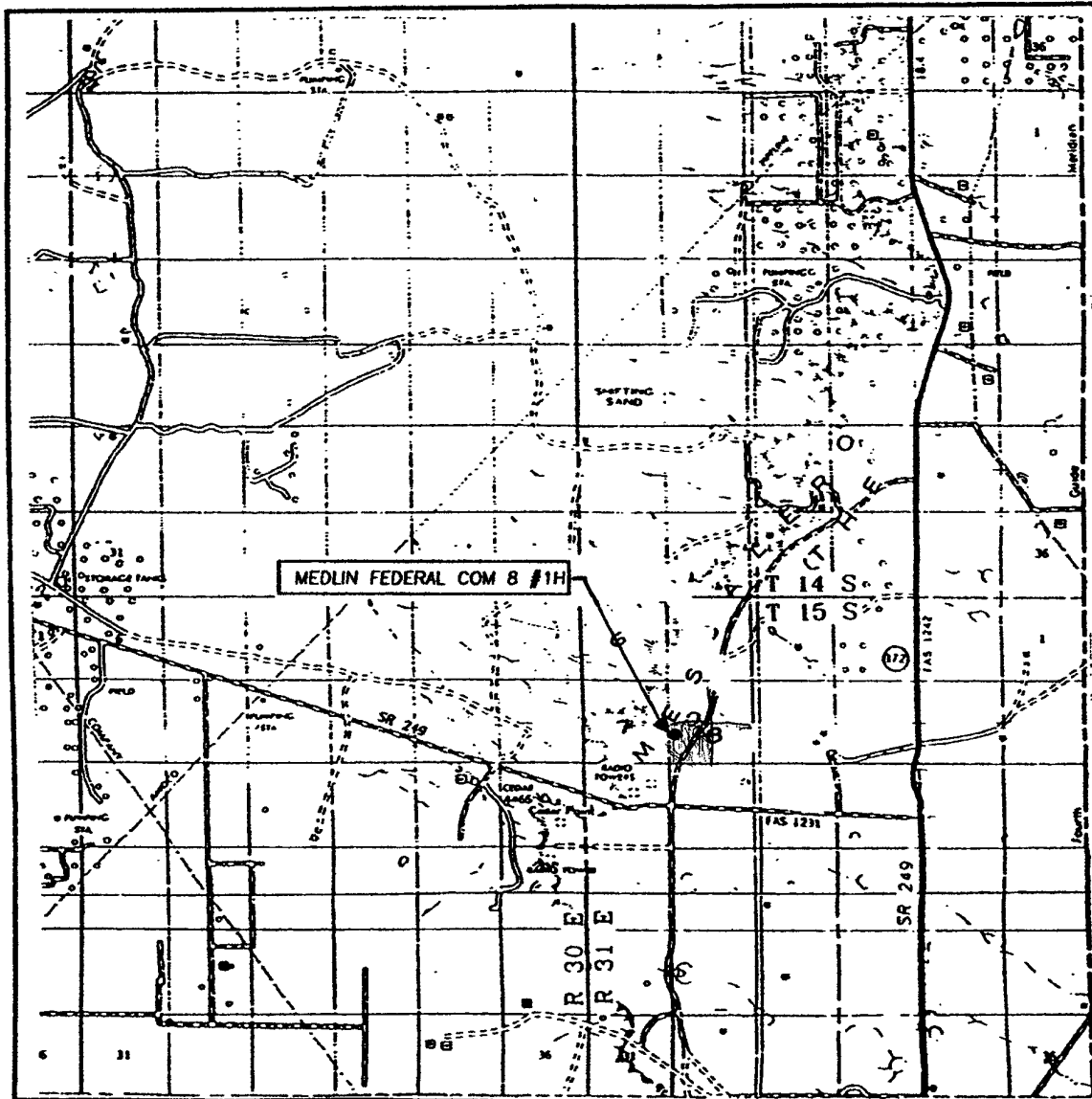


MARSHALL & WINSTON, INC.

MEDLIN FEDERAL COM 8 #1H WELL
 LOCATED 1980 FEET FROM THE SOUTH LINE
 AND 330 FEET FROM THE WEST LINE OF SECTION 8,
 TOWNSHIP 15 SOUTH, RANGE 31 EAST, N.M.P.M.,
 CHAVES COUNTY, NEW MEXICO.

Survey Date: 11/21/08	Sheet 1 of 1 Sheets
W.O. Number: 08.11.1927	Dr By: JC
Date: 11/24/08	08111927
	Scale: 1"=100'

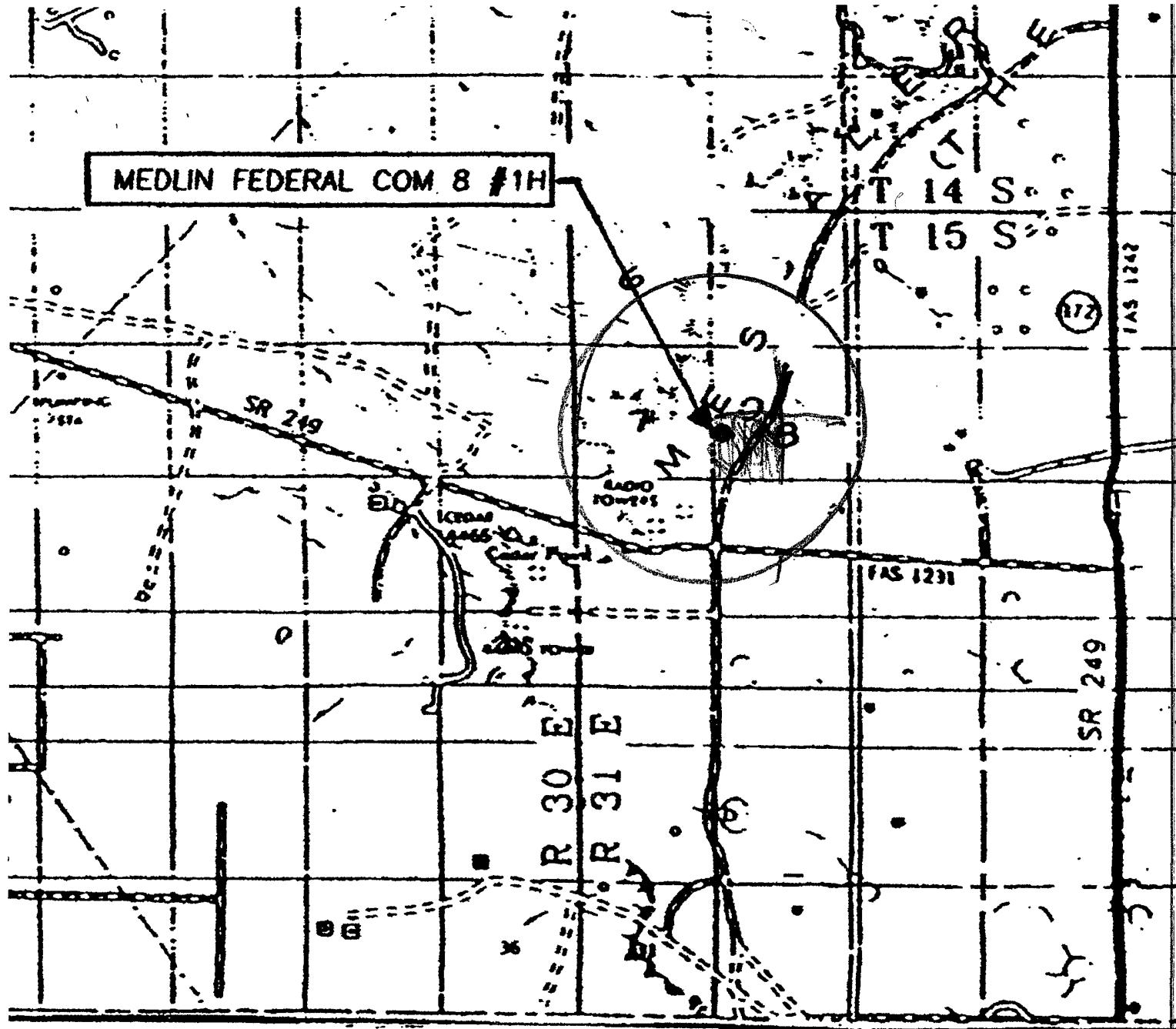
VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 8 TWP. 15-S RGE. 31-E
 SURVEY N.M.P.M.
 COUNTY CHAVES STATE NEW MEXICO
 DESCRIPTION 1980' FSL & 330' FWL
 ELEVATION 4445'
 OPERATOR MARSHALL & WINSTON, INC.
 LEASE MEDLIN FEDERAL COM 8

PROVIDING SURVEYING SERVICES
 SINCE 1946
JOHN WEST SURVEYING COMPANY
 412 N. DAL PASO
 HOBBS, N.M. 88240
 (575) 393-3117



SCALE: 1" =

-S RGE. 31-E

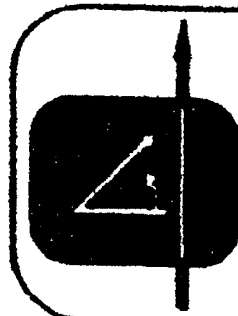
I.M.P.M.

STATE NEW MEXICO

FSL & 330' FWL

4445'

LL & WINSTON, INC.



PROVIDING SURVEYING
SINCE 1946
JOHN WEST SURVEYING
412 N. DAL PAS
HOBBS, N.M. 88
(575) 393-311

DRILLING PROGNOSIS
MARSHALL & WINSTON, INC.
MEDLIN FEDERAL COM 8-1H
CHAVES COUNTY, NEW MEXICO

LOCATION:

SH: 330' FWL & 1980' FSL, Sec. 8, T-15-S, R-31-E, Chaves County, New Mexico.
BH: 330' FSL & 1980' FSL, Sec. 8, T-15-S, R-31-E, Chaves County, New Mexico.

ELEVATION: 4445' GL

GEOLOGIC NAME OF SURFACE FORMATION: Quaternary Alluvium Deposits

PROPOSED TD: 8700' Lower Abo

SURFACE OWNER: Bill Medlin

BLM LEASE NO.: NMLC 062524 A

API NUMBER: 30 -015-

DRILLING CONTRACTOR: Patriot Drilling.

DIRT CONTRACTOR:

CEMENTING SERVICES: BJ Services, Artesia 505-746-3140

DRILLING MUD:

CASING:

MUDLOGGER: Discovery Logging, Inc. 432-687-1823. Vinnie Yakubanski 432-682-6973
John Chirico 432-699-0335

OPENHOLE LOGS:

WELLHEAD EQUIPMENT: Downing Wellhead, Inc. 432-687-0778 George Yeilding

WATER HAULER:

FENCING: Fas-Line – Sandy 800-281-5988

FLOAT EQUIPMENT: Weatherford – Artesia 505-746-8882 Dennis Potter

DRILLING PROCEDURE:

DRILLING PROCEDURE:

1. Set 70' of 20" conductor pipe and cement to surface.
2. MIRU Patriot. ***Notify BLM – Roswell of intent to spud and of all casing, cementing and BOP tests.***
3. Drill 17-1/2" hole and set 13 3/8" casing at 340' & cement to surface per BJ well recommendation. Notify BLM if cement does not circ. to surface.
4. Wait on cement for 18 hrs. NU 3000# casing head and BOP. Test head to 2000#. Test BOP to 2000#.
5. Drill 12-1/4" hole and set 9-5/8" casing to 3950' and cement to surface per BJ well recommendation. Notify BLM if cement does not circ. to surface.
6. Mudlogger will be on hole below 9- 5/8" casing.
7. Rig up H2S equipment.
8. Drill 8-3/4" hole to 9100' TVD.
9. Run Open Hole Logs from 9100' to intermediate casing.
10. When logs are run successfully set a cement plug from 8300' to 7800'.
11. Trip out of hole and make up 8-3/4" directional BHA to build curve.
12. Trip in hole and kick off curve at 8250' unless changed due to open hole logs.
13. Drill curve and land at 8700' TVD 8974' TMD.
14. Run 7" casing and cement from bottom to 3450' (500' above intermediate) as per BJ well recommendation.
15. Drill a 6-1/8" hole to TD, 8700' TVD 13125 MD.
16. Run 4 1/2" liner with packer and sleeve assembly to TD and hang liner at about 8100' (150' above KOP).



Marshall & Winston, INC

Location: Chaves County, NM
 Field: (Madrin) Sec 8, T15S, R31E
 Facility: Madrin East Com 8 No. 2/H

Slot: No. 1 HSHL
 Well: No. 1 H
 Wellbore: No. 1 PWS

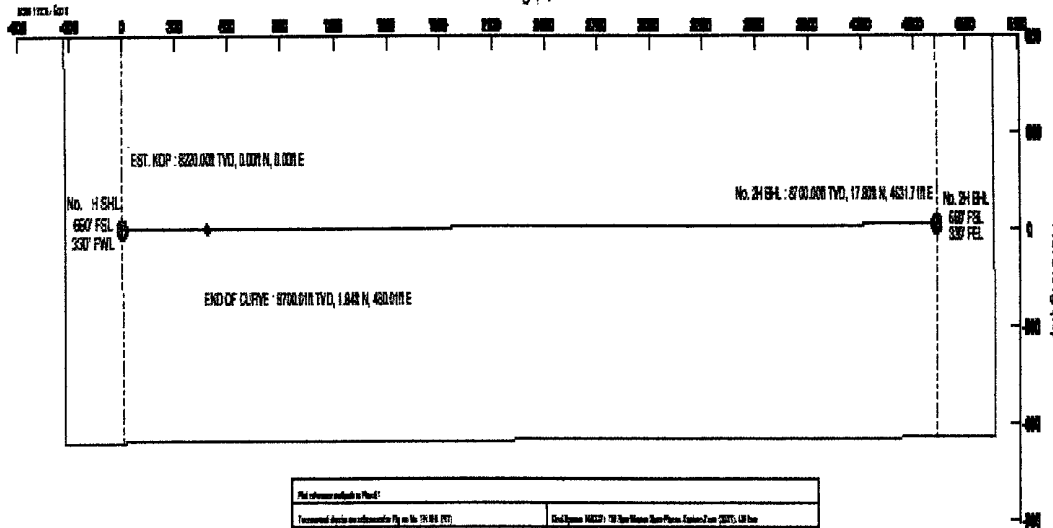


INTEQ

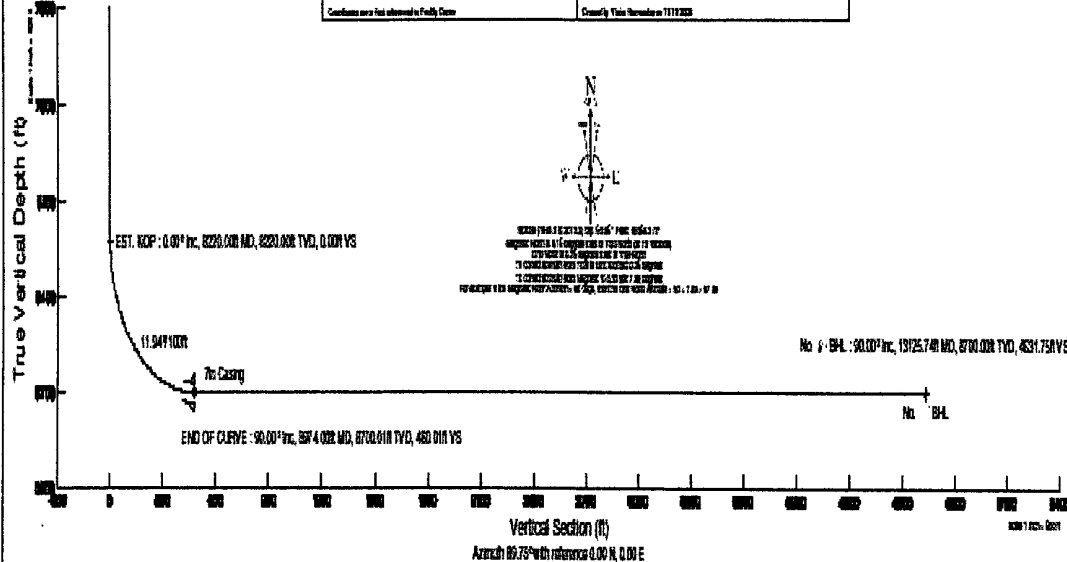
Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (ft/100ft)	VS (ft)
Tie On	0.00	0.000	89.780	0.00	0.00	0.00	0.00	0.00
EST. KOP	8220.00	0.000	89.780	8220.00	0.00	0.00	0.00	0.00
END OF CURVE	8974.00	90.000	89.780	8700.01	1.84	480.01	11.94	480.01
No. 2H BHL	13125.74	90.000	89.780	8700.00	17.80	4631.71	0.00	4631.75

Easting (ft)



Well reference surface is Fixed?	
Horizontal datum reference is UTM No. 15N (ft)	Grid System (NAD83) 70 North Zone Zone Plane: Datum: Zone: 20075, 4800
Mean spheroidal datum reference is UTM No. 15N (ft)	Grid Reference: Grid well
UTM No. 15N (ft) is Mean Sea Level (MSL) (ft)	Grid: True datum
Mean Sea Level is Mean Sea Level (MSL) (ft)	Datum: True datum
Coordinates were not referenced to Fixed datum	Coordinate: True datum is 15N 20075



Vertical Section (ft)
 Azimuth 89.78° with reference 0.00 N, 0.00 E



Planned Wellpath Report

Plan #1
Page 3 of 4



Operator	Marshall & Winston, INC.	Set	No. 2H SHL
Area	Chaves County, NM	Well	No. 1H
Field	(Medlin) Sec 8, T15S, R31E	Wellbore	No. 1H PWB
Facility	Medlin Fed Corn 8 No. 8/H		

WELLPATH DATA (53 stations) † = interpolated/extrapolated station

MB	Inclination	Azimuth	TVD	Vert Seal	North	East	Grid East	Grid North	BLS	Comments
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[m]	[m]	[ft]	
0.00	0.000	89.780	0.00	0.00	0.00	0.00	647804.30	736889.60	0.00	Tie On
8320.00†	0.000	89.780	10220.00	0.00	0.00	0.00	647804.30	736889.60	0.00	1ST KOP
8320.00†	1.936	89.780	8319.24	10.38	0.04	10.38	647814.68	736889.64	1.94	
8420.00†	23.873	89.780	8424.26	41.07	0.16	41.07	647845.76	736889.76	1.94	
8520.00†	35.809	89.780	8520.85	50.74	0.35	50.74	647895.63	736889.95	1.94	
8620.00†	47.745	89.780	8625.29	57.24	0.60	57.24	647961.53	736890.20	1.94	
8730.00†	59.682	89.780	8634.36	237.70	0.91	237.70	648041.58	736890.51	11.94	
8820.00†	71.618	89.780	8675.32	328.64	1.26	328.64	648132.51	736890.86	11.94	
8920.00†	83.554	89.780	8696.98	426.12	1.64	426.12	648230.39	736891.24	11.94	
9074.00†	99.000	89.780	8700.00	480.00	1.89	480.00	648284.26	736891.44	11.94	END OF CORV
9120.00†	90.000	89.780	8700.01	526.01	2.02	526.01	648330.27	736891.62	0.00	
9120.00†	90.000	89.780	8700.01	626.01	2.41	626.01	648430.26	736892.01	0.00	
9220.00†	90.000	89.780	8700.01	726.01	2.79	726.01	648530.25	736892.39	0.00	
9320.00†	90.000	89.780	8700.01	826.01	3.17	826.01	648630.25	736892.77	0.00	
9420.00†	90.000	89.780	8700.01	926.01	3.56	926.01	648730.24	736893.16	0.00	
9520.00†	90.000	89.780	8700.01	1026.01	3.94	1026.01	648830.23	736893.54	0.00	
9630.00†	90.000	89.780	8700.01	1126.01	4.33	1126.01	648930.23	736893.93	0.00	
9730.00†	90.000	89.780	8700.01	1226.01	4.71	1226.01	649030.22	736894.31	0.00	
9830.00†	90.000	89.780	8700.01	1326.01	5.10	1326.01	649130.21	736894.70	0.00	
9920.00†	90.000	89.780	8700.01	1426.01	5.48	1426.01	649230.20	736895.08	0.00	
10020.00†	90.000	89.780	8700.01	1526.01	5.86	1526.01	649330.20	736895.46	0.00	
10120.00†	90.000	89.780	8700.01	1626.01	6.25	1626.01	649430.19	736895.85	0.00	
10220.00†	90.000	89.780	8700.01	1726.01	6.63	1726.01	649530.18	736896.23	0.00	
10320.00†	90.000	89.780	8700.01	1826.01	7.02	1826.01	649630.17	736896.62	0.00	
10420.00†	90.000	89.780	8700.01	1926.01	7.40	1926.01	649730.17	736897.00	0.00	
10520.00†	90.000	89.780	8700.01	2026.01	7.79	2026.01	649830.15	736897.39	0.00	
10620.00†	90.000	89.780	8700.01	2126.01	8.17	2126.01	649930.15	736897.77	0.00	
10720.00†	90.000	89.780	8700.01	2226.01	8.56	2226.01	650030.14	736898.15	0.00	
10820.00†	90.000	89.780	8700.01	2326.01	8.94	2326.01	650130.14	736898.54	0.00	
10920.00†	90.000	89.780	8700.01	2426.01	9.32	2426.01	650230.13	736898.92	0.00	



Planned Wellpath Report

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Operator	Marshall & Winston, INC	Slut	No. 1 H SH
Area	Chaves County, NM	Well	No. 1 H
Field	(Medlin) Sec 8, T15S, R31E	Wellbore	No. 1 H PWB
Facility	Medlin Fed. Cont. 8 No. 1 H		

WELLPATH DATA (53 stations)					? = interpolated/extrapolated station					Comments
MD (ft)	Inclination [°]	Azimuth [°]	TVL (ft)	Vert. Sec. (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	DL-S (ft)	
11020.00	90.000	45.780	8700.00	2526.00	9.71	2525.99	630320.12	730890.31	0.30	
11120.00	90.000	45.780	8700.00	2626.00	10.09	2625.99	630420.11	730890.69	0.30	
11220.00	90.000	45.780	8700.00	2726.00	10.48	2725.99	630520.11	730900.08	0.30	
11320.00	90.000	45.780	8700.00	2826.00	10.86	2825.99	630620.10	730900.46	0.30	
11420.00	90.000	45.780	8700.00	2926.00	11.23	2925.99	630720.09	730900.84	0.30	
11520.00	90.000	45.780	8700.00	3026.00	11.61	3025.99	630820.08	730901.23	0.30	
11620.00	90.000	45.780	8700.00	3126.00	12.01	3125.99	630920.08	730901.61	0.30	
11720.00	90.000	45.780	8700.00	3226.00	12.40	3225.99	631020.07	730902.00	0.30	
11820.00	90.000	45.780	8700.00	3326.00	12.79	3325.99	631120.06	730902.38	0.30	
11920.00	90.000	45.780	8700.00	3426.00	13.17	3425.99	631220.05	730902.77	0.30	
12020.00	90.000	45.780	8700.00	3526.00	13.55	3525.98	631320.05	730903.15	0.30	
12120.00	90.000	45.780	8700.00	3626.00	13.94	3625.98	631420.04	730903.53	0.30	
12220.00	90.000	45.780	8700.00	3726.00	14.32	3725.98	631520.03	730903.92	0.30	
12320.00	90.000	45.780	8700.00	3826.00	14.70	3825.98	631620.02	730904.30	0.30	
12420.00	90.000	45.780	8700.00	3926.00	15.09	3925.98	631720.01	730904.69	0.30	
12520.00	90.000	45.780	8700.00	4026.00	15.47	4025.98	631820.00	730905.07	0.30	
12620.00	90.000	45.780	8700.00	4126.00	15.86	4125.98	631920.00	730905.46	0.30	
12720.00	90.000	45.780	8700.00	4226.00	16.24	4225.98	632020.00	730905.84	0.30	
12820.00	90.000	45.780	8700.00	4326.00	16.63	4325.98	632120.00	730906.23	0.30	
12920.00	90.000	45.780	8700.00	4426.00	17.01	4425.98	632220.00	730906.61	0.30	
13020.00	90.000	45.780	8700.00	4526.00	17.39	4525.98	632320.00	730907.00	0.30	
13120.00	90.000	45.780	8700.00	4626.00	17.78	4625.98	632420.00	730907.38	0.30	
13155.74	90.000	45.780	8700.00	4631.75	17.80	4631.71	632435.70	730907.40	0.30	No. 2 H SH



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Operator	Marshall & Winston, INC	Slot	No. 1 H SHL
Area	Chaves County, NM	Well	No. 1 H
Field	(Medlin) Sec 8, T15S, R31E	Wellbore	No. 1 H PWB
Facility	Medlin Fed Com 8 No. 1 H		

WELLPATH DATA (S3 stations) † = interpolated/extrapolated station

MD (ft)	Inclination [°]	Azimuth [°]	TVL (ft)	Vert. Sect (ft)	North (ft)	East (ft)	Grid East (m)	Grid North (m)	DLS [ft/m]	Comments
11020.04	90.000	49.780	8700.01	2525.01	9.71	2525.99	650320.12	736899.21	0.30	
11120.04	90.000	49.780	8700.01	3025.01	10.09	2625.99	650420.11	736899.69	0.30	
11220.04	90.000	49.780	8700.01	3525.01	10.48	2725.99	650520.11	736900.08	0.30	
11320.03	90.000	49.780	8700.01	3825.01	10.56	2825.99	650620.10	736900.46	0.30	
11420.03	90.000	49.780	8700.01	4325.01	11.25	2925.99	650720.09	736900.84	0.30	
11520.03	90.000	49.780	8700.00	4825.01	11.63	3025.99	650820.08	736901.23	0.30	
11620.03	90.000	49.780	8700.00	5325.01	12.01	3125.99	650920.08	736901.61	0.30	
11720.03	90.000	49.780	8700.00	5825.01	12.40	3225.99	651020.07	736902.00	0.30	
11820.03	90.000	49.780	8700.00	6325.01	12.78	3325.99	651120.06	736902.38	0.30	
11920.03	90.000	49.780	8700.00	6825.01	13.17	3425.99	651220.05	736902.77	0.30	
12020.03	90.000	49.780	8700.00	7325.01	13.55	3525.98	651320.05	736903.15	0.30	
12120.03	90.000	49.780	8700.00	7825.01	13.94	3625.98	651420.04	736903.53	0.30	
12220.03	90.000	49.780	8700.00	8325.01	14.32	3725.98	651520.03	736903.92	0.30	
12320.03	90.000	49.780	8700.00	8825.01	14.70	3825.98	651620.02	736904.30	0.30	
12420.03	90.000	49.780	8700.00	9325.01	15.09	3925.98	651720.01	736904.69	0.30	
12520.03	90.000	49.780	8700.00	9825.01	15.47	4025.98	651820.01	736905.07	0.30	
12620.03	90.000	49.780	8700.00	10325.01	15.86	4125.98	651920.00	736905.46	0.30	
12720.03	90.000	49.780	8700.00	10825.01	16.24	4225.98	652020.99	736905.84	0.30	
12820.03	90.000	49.780	8700.00	11325.01	16.63	4325.98	652120.98	736906.23	0.30	
12920.03	90.000	49.780	8700.00	11825.01	17.01	4425.98	652220.98	736906.61	0.30	
13020.03	90.000	49.780	8700.00	12325.01	17.39	4525.98	652320.97	736906.99	0.30	
13120.03	90.000	49.780	8700.00	12825.01	17.78	4625.98	652420.96	736907.38	0.30	
13125.74	90.000	49.780	8700.00	12825.74	17.80	4631.71	652435.70	736907.40	0.30	No. 2 H SHL



Planned Wellpath Report

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GENERAL INFORMATION			
Operator	Marshall & Winston, INC	Sho	No. 1H SHL
Area	Chaves County, NM	Well	No. 1H
Field	(Medlin) Sec 8, T15S, R31E	Wellbore	No. 1H PWB
Facility	Medlin Fed Com 8 No. 1H		

REPORTS INFORMATION			
Projection System	NAD27 / T.M. New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Victor Hernandez
Scale	0.999934	Report Generated	11/19/2008 at 10:01:37 AM
Convergence at slot	0.26" East	Database/Source File	WA_Medlin/No. 2H_PWB.xml

WELL PATH INFORMATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North(ft)	East(ft)	Easting(USN)	Northing(USN)	Latitude	Longitude
Slot Location	0.00	0.00	647804.30	736889.60	33°01'29.430"N	103°51'03.956"W
Facility Reference Pt			647804.30	736889.60	33°01'29.430"N	103°51'03.956"W
Field Reference Pt			647804.30	736889.60	33°01'29.430"N	103°51'03.956"W

WELL PATH DATA			
Calculation method	Minimum curvature	Rig on No. 1H SHL (RT) to Facility Vertical Datum	15.00ft
Horizontal Reference Pt	Facility Center	Rig on No. 1H SHL (RT) to Mean Sea Level	4462.00ft
Vertical Reference Pt	Rig on No. 1H SHL (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 1H SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	90.75°



Planned Wellpath Report

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REFERENCE DATA				WELL INFORMATION	
Operator	Marshall & Winston, INC			Shot	No. CH SHL
Area	Clayton County, NY			Well	No. EH
Field	(Medlin) Sec 8, T15S, R31E			Wellbore	No. EH PWB
Facility	Medlin Fed Com S No. 711				

HOLE & CASING SECTIONS		Ref Wellbore: No. 2H PWB		Ref Wellpath: Plan #1						
String/Diameter	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start N/S (ft)	Start E/W (ft)	End N/S (ft)	End E/W (ft)	
17 5/8 in Open Hole	0.00	250.00	250.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00
13 3/8 in Conductor	0.00	250.00	250.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00
12 25 in Open Hole	250.00	3650.00	3700.00	250.00	3950.00	0.00	0.00	0.00	0.00	0.00
9.025 in Casing	250.00	3650.00	3700.00	250.00	3950.00	0.00	0.00	0.00	0.00	0.00
8.75 in Open Hole	3950.00	8574.00	5024.00	3950.00	8700.00	0.00	0.00	0.84	480.01	480.01
7 in Casing	3950.00	8574.00	5024.00	3950.00	8700.00	0.00	0.00	0.84	480.01	480.01
6.125 in Open Hole	8574.00	13125.74	4151.74	8700.00	NA	1.84	480.01	NA	NA	NA

TARGETS									
Name	MD (ft)	TVD (ft)	North (ft)	East (ft)	Grid East (m)	Grid North (m)	Latitude	Longitude	Shape
1) No. 4H BHL	13125.74	8700.00	17.80	4631.71	652435.70	736907.40	33°01'59.93"N	100°57'09.358"W	poi

SURVEY PROGRAM		Ref Wellbore: No. 2H PWB		Ref Wellpath: Plan #1			
Start MD (ft)	End MD (ft)	Positional Uncertainty Model		Log Name/Comment		Wellbore	
18.00	13125.74	NavTrak (Standard)				No. 2H PWB	

AFE No. API# Permit No. Project No.	<div style="text-align: center;"> </div> Modlin Federal Cont # 2H Chas. County, WI Proposed Wellbore Sketch	AFE Information Dry Hole: Date: Proposed TD: 15MB TMC 1028' TWD
<div style="display: flex; align-items: center;"> </div>		
15MB TMC 1028' Surface Location: Chas. County, WI 15MB TMC 1028'		

**Marshall and Winston
Medlin Federal Com 8 #1H**

DRILLING PROGRAM

1. The **Geological Surface Formation** is recent Permian with Quaternary Alluvium and other surficial deposits.

2. **Estimated Tops of Geological Markers:**

<u>FORMATION</u>	<u>DEPTH</u>
Quaternary alluvials	Surface
Rustler	?
Yates	2312'
Queen	3090'
San Andres	3940'
Abo Shale	7340'
Lower Abo Dolomite	8585'
WolfcampLS	8675'

Estimated depths at which water, oil, gas, or other mineral-bearing formations are expected to be encountered:

<u>SUBSTANCE</u>	<u>DEPTH</u>
Oil	Lower Abo 8700
Fresh Water	None anticipated

All fresh water and prospectively valuable minerals (as described by BLM) encountered during drilling will be recorded by depth and adequately protected.

3. Proposed Casing Program:

Casing condition is new pipe and the Safety Factor parameters in accordance with Onshore Orders are: Collapse = 1.125 psi, Burst = 1.0 psi, Tension = 1.8 psi.

O.D., In	Depth, MD	Weight, Lb/ft	Grade	Conn.	Collapse Psi SF= 1.125	Burst Psi SF = 1.0	Tension Kips SF=1.8	Test, Psi
13-3/8"	Surface To 340'	48.0	N-80	STC	770	1,730	322	2,000
9-5/8"	Surface To 3,950'	36.0	J-55	STC	2,020	3,520	394	1,500
7"	Surface To 8,974'	26.0	P-110	LTC	6,210	9,960	693	1,500
4-1/2"	Surface To 13,250	11.6	P-110	LTC	7,560	10,690	279	1,500

4. Proposed Cementing Program

WELL DATA

ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
17.500 HOLE	340	340

SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
13.375	12.715	48	340	340

Float Collar set @ 300 ft
 Mud Density 8.50 ppg
 Est. Static Temp. 82 ° F
 Est. Circ. Temp. 80 ° F

VOLUME CALCULATIONS

340 ft x 0.6946 cf/ft with 100 % excess = 472.4 cf
 40 ft x 0.8818 cf/ft with 0 % excess = 35.3 cf (inside pipe)
TOTAL SLURRY VOLUME = 507.6 cf
 = 90 bbls

FLUID SPECIFICATIONS

FLUID	VOLUME CU-FT	VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Cement Slurry	508	/ 1.3	= 380 sacks Premium Plus C Cement + 2% bwoc Calcium Chloride + 0.25 lbs/sack Cello Flake + 0.005 gps FP-6L + 0.005 lbs/sack Static Free + 56.2% Fresh Water
Displacement			47.1 bbls Displacement Fluid

CEMENT PROPERTIES

SLURRY NO. 1

Slurry Weight (ppg)	14.80
Slurry Yield (cf/sack)	1.35
Amount of Mix Water (gps)	6.34
Amount of Mix Fluid (gps)	6.34

WELL DATA

ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
12.715 CASING	400	400
12.250 HOLE	3,950	3,950

SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
9.625	9.001	32.3	3,950	3,950

Float Collar set @	3,910 ft
Mud Density	8.50 ppg
Est. Static Temp.	106 ° F
Est. Circ. Temp.	98 ° F

VOLUME CALCULATIONS

400 ft	x	0.3765 cf/ft	with	0 % excess	=	150.6 cf
2,750 ft	x	0.3132 cf/ft	with	100 % excess	=	1722.5 cf
800 ft	x	0.3132 cf/ft	with	50 % excess	=	375.8 cf
40 ft	x	0.4419 cf/ft	with	0 % excess	=	17.7 cf (inside pipe)
TOTAL SLURRY VOLUME					=	2266.6 cf
					=	404 bbls

FLUID SPECIFICATIONS

<u>FLUID</u>	<u>VOLUME CU-FT</u>	<u>VOLUME FACTOR</u>	<u>AMOUNT AND TYPE OF CEMENT</u>
Lead Slurry	1873	/ 2.4	= 765 sacks (50:50) Poz (Fly Ash):Premium Plus C Cement + 0.005 lbs/sack Static Free + 5% bwow Sodium Chloride + 0.25 lbs/sack Cello Flake + 5 lbs/sack LCM-1 + 0.005 gps FP-6L + 10% bwoc Bentonite + 134.7% Fresh Water
Tail Slurry	394	/ 1.3	= 300 sacks Premium Plus C Cement + 0.005 lbs/sack Static Free + 1% bwoc Calcium Chloride + 0.25 lbs/sack Cello Flake + 0.005 gps FP-6L + 56.1% Fresh Water
Displacement			307.7 bbls Displacement Fluid

CEMENT PROPERTIES

	SLURRY NO. 1	SLURRY NO. 2
Slurry Weight (ppg)	11.80	14.80
Slurry Yield (cf/sack)	2.45	1.34
Amount of Mix Water (gps)	13.57	6.33
Amount of Mix Fluid (gps)	13.57	6.33

WELL DATA

ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
9.001 CASING	3,950	3,950
8.750 HOLE	8,974	8,700

SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
7.000	6.094	32	8,974	8,700

Float Collar set @	8,934 ft
Mud Density	8.90 ppg
Est. Static Temp.	141 ° F
Est. Circ. Temp.	128 ° F

VOLUME CALCULATIONS

500 ft	x	0.1746 cf/ft	with	0 % excess	=	87.3 cf
3,550 ft	x	0.1503 cf/ft	with	50 % excess	=	800.5 cf
1,474 ft	x	0.1503 cf/ft	with	50 % excess	=	332.4 cf
40 ft	x	0.2026 cf/ft	with	0 % excess	=	8.1 cf (inside pipe)
TOTAL SLURRY VOLUME					=	1228.3 cf
					=	219 bbls

FLUID SPECIFICATIONS

<u>FLUID</u>	<u>VOLUME CU-FT</u>	<u>VOLUME FACTOR</u>	<u>AMOUNT AND TYPE OF CEMENT</u>
Lead Slurry	888	1.24	= 365 sacks (50:50) Poz (Fly Ash):Premium Plus H Cement + 0.125 lbs/sack Cello Flake + 5 lbs/sack LCM-1 + 10% bwoc Bentonite + 0.2% bwoc FL-52A
Tail Slurry	340	1.1	= 290 sacks Premium Plus H Cement + 1% bwoc FL-62 + 0.4% bwoc FL-52A + 45.8% Fresh Water
Displacement			322.3 bbls Displacement

CEMENT PROPERTIES

	SLURRY NO. 1	SLURRY NO. 2
Slurry Weight (ppg)	11.60	15.60
Slurry Yield (cf/sack)	2.45	1.19
Amount of Mix Water (gps)	13.73	5.16

SLURRIES WILL BE TESTED BEFORE PUMPING JOB.

WELL DATA

ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
6.094 CASING	8,974	8,700
6.125 HOLE	13,125	8,700

SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
4.500	4.000	11.6	13,125	8,700

FLUID	VOLUME CU-FT	VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Cement Slurry	898	/ 1.	= 695 sacks (50:50) Poz (Fly Ash):Class H Cement + 0.005 lbs/sack Static Free + 5% bwow Sodium Chloride + 0.1% bwoc R-3 + 0.2% bwoc CD-32 + 0.005 gps FP-6L + 2% bwoc Bentonite + 0.3% bwoc FL-52A + 58.4% Fresh Water
Displacement			203.4 bbls Displacement

CEMENT PROPERTIES

SLURRY NO. 1	
Slurry Weight (ppg)	14.20
Slurry Yield (cf/sack)	1.30
Amount of Mix Water (gps)	5.88
Amount of Mix Fluid (gps)	5.89

5. Proposed Pressure Control Equipment

Will install on the 13 3/8" surface casing, a 3000 psi rated casing head and BOPE. Prior to drilling out of the 13 3/8" shoe, we will test the casing head to 2,000 psi and test the BOP to 2,000 psi. using a third party tester. Prior to drilling beyond the 9 5/8" shoe the BOPE shall be tested to 3,000 psi by a third party tester as per the Onshore Orders.

The mud system shall be a Closed Loop System. An 'NMOCD C -144 Form' has been submitted to the NMOCD for approval.

7. Auxiliary Equipment:
None

6 Proposed Drilling Fluid Program :

<u>Depth</u>	<u>Medium Type</u>	<u>Estimated Weight</u>
0 – 340'	Fresh H2O Mud	8.4 – 8.6 ppg
340'–3950'	Brine Water	10.0–10.1ppg
3950' – 8974'	Fresh Water & Brine	8.6 – 9.5 ppg
8974' – 13125'	2% KCL	8.4- 8.9 ppg

8. Logging Program :

Mud logging	2 man unit from 3950' to TD
Electric Logging	DST / CNL / LDT / CAL / GR, DLL / GR / Borehole Imaging Log
Coring	Side wall cores in Pilot Hole

9. Potential Hazards:

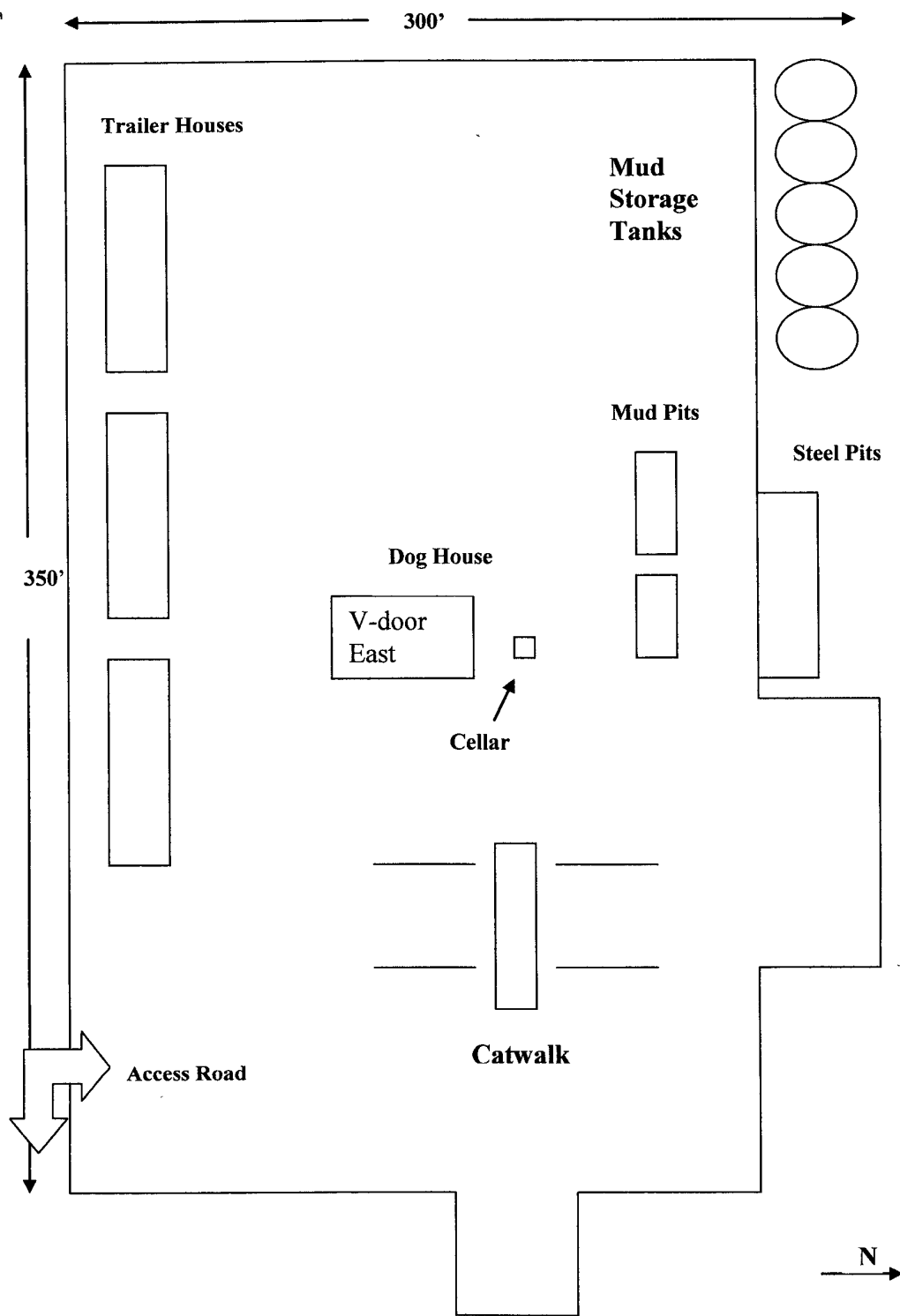
No abnormal pressures or temperatures are anticipated. (BHP 4000 psi, BHT 175 deg)
The area has a potential for H2S and the following measures will be taken:

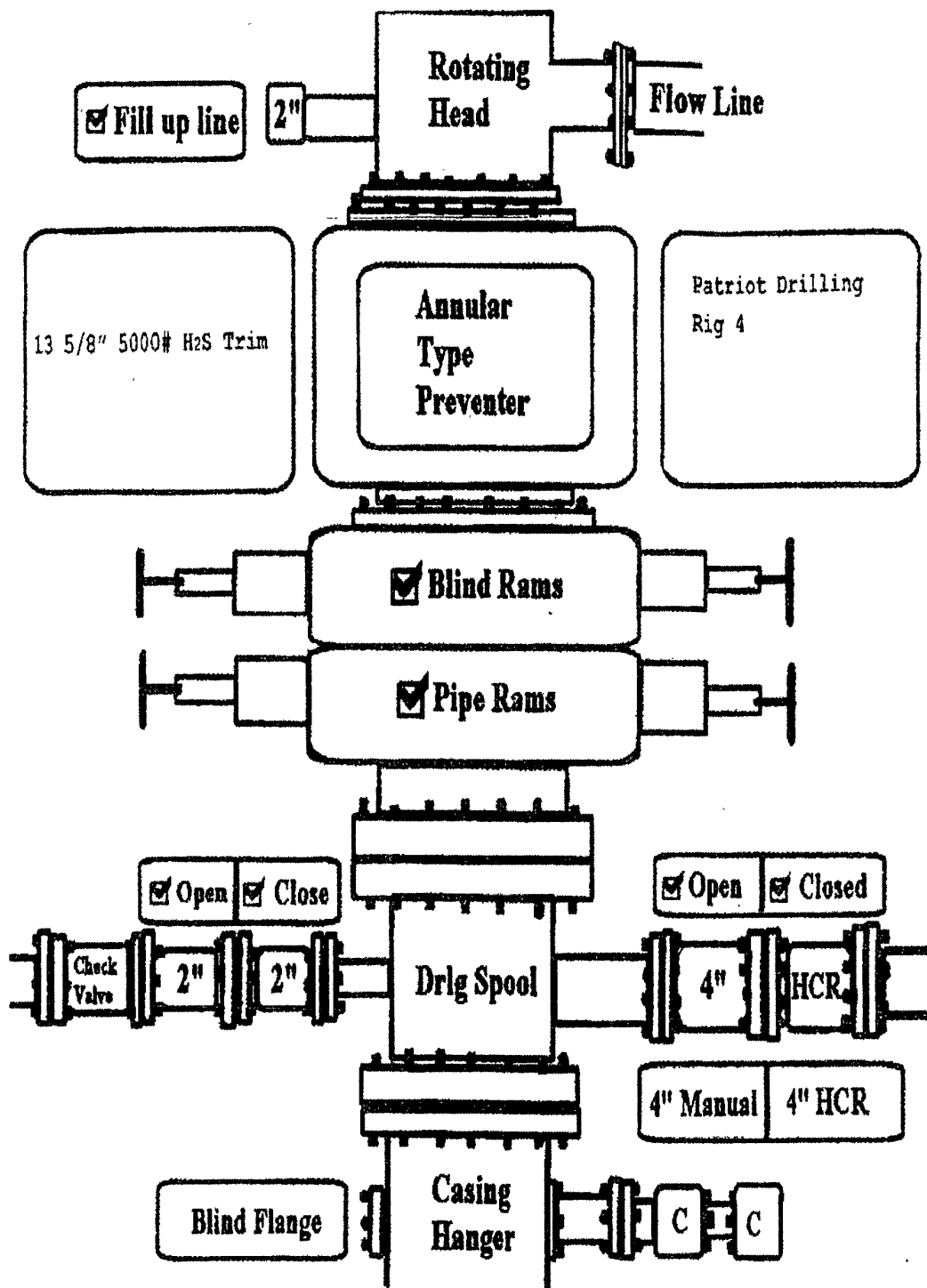
- All personnel will be H2S trained and qualified
- H2S alarms and detection systems will be utilized -
- A windsock will be visible at all times
- Flags or warning signs will be visible for road traffic

Indian Fire and Safety, 3317 N.W. Country Rd., Hobbs, NM will deliver the onsite H2S Safety Packet prior to drilling below the 9 5/8" casing shoe. A H2S Contingency Plan will be submitted and delivered to the rig at that time and will conform to the NMOCD and Onshore Order regulations.

10 Anticipating Starting Date:

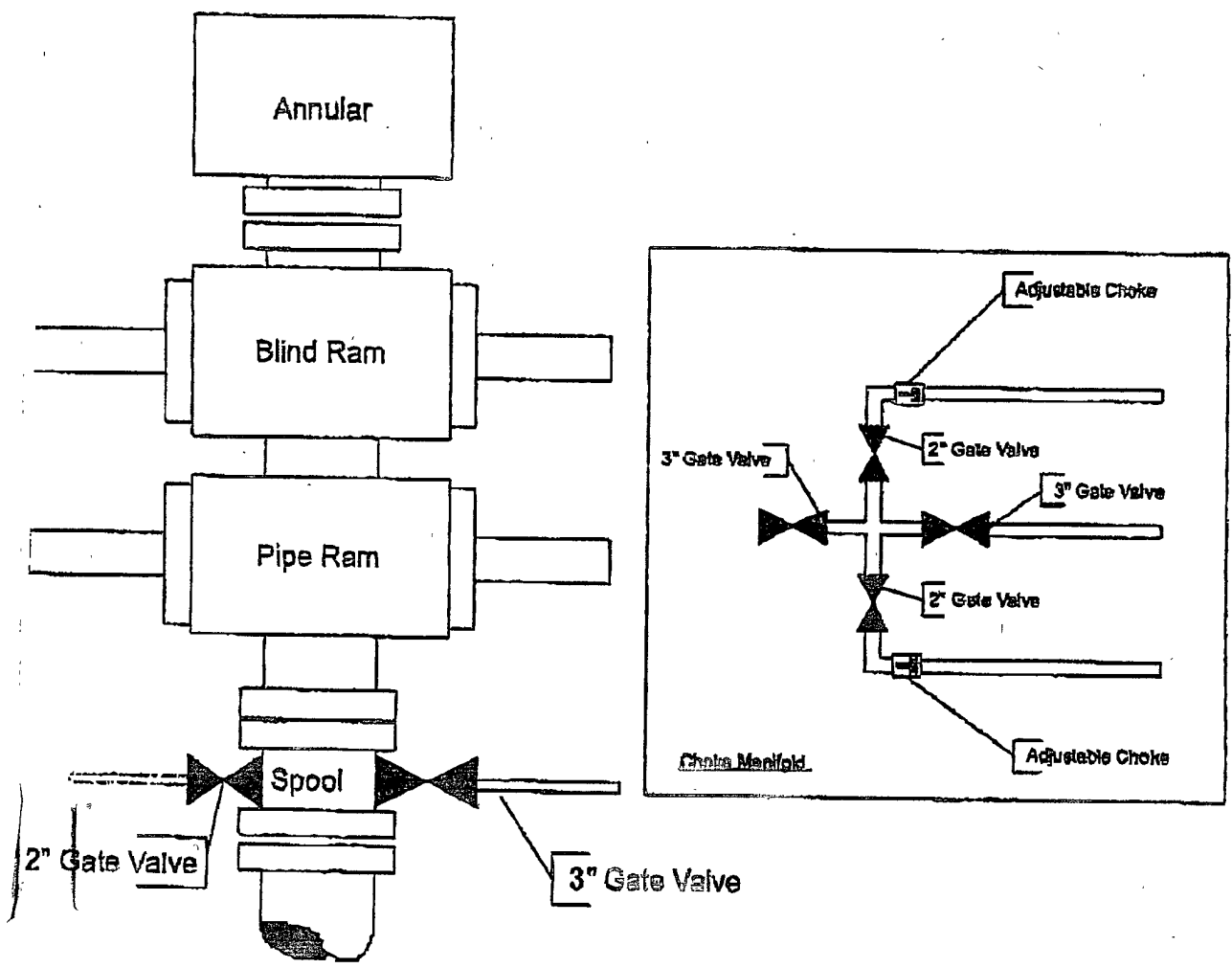
March 1st, 2009 or when a rig becomes available.





5M BOPE SCHEMATIC

3000 psi BOPE with rig



Marshall & Winston
Medlin Fed Com 8 # 1H

H2S Emergency Procedures

In the case of a release of gas containing H₂S, the first responder(s) must isolate the area and prevent entry by other persons into the 100 ppm ROE. Additionally the first responder(s) must evacuate any public places encompassed by the 100 ppm ROE. First responder(s) must take care not to injure themselves during this operation. Marshall and Winston Inc. and/or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm ROE.

All responders must have training in the detection of H₂S, measures for protection against the gas, equipment used for protection and emergency response. Additionally, responders must be equipped with H₂S monitors and air packs in order to control the release. Use the "buddy system" to ensure no injuries during the response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved, NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H₂S and SO₂:

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H ₂ S	1.189 Air = 1.0	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	2.21 Air = 1.0	2 ppm	N/A	1000 ppm

Contacting Authorities

Marshall and Winston Inc.'s personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Marshall and Winston Inc.'s response must be in coordination with the State of New Mexico's Hazardous Materials Emergency Response Plan' (HMER)

Marshall & Winston, Incorporated.

P.O. Box 50880 Midland, TX., 79710-0880

OFFICE 1-(432)- 684-6373, Fax 1-(432)-687-2684

<u>COMPANY PERSONNEL:</u>	<u>Cell Phone #</u>
Otis Holt (Wellsite Supervisor)	1-(325)-206-1528
Gabe Herrera (Marshall & Winston – Engineer)	1-(432)-260-8650
Tom Brandt (Marshall & Winston – Operations)	1-(432)-553-9747
<u>George Watters (Marshall & Winston – Geologist)</u>	<u>1-(432)-631-2051</u>

Emergency Phone Numbers

Artesia

State Police-----1-(575) 746 -2703
City Police-----1-(575) 746 -2703
Sheriffs Trailer Houses Office-----1-(575) 746 -9888
Ambulance----- 911-----
Fire Department ----- Mud Storage-- 1-(575) 746 -2701
LEPC (Local Emergency Planning Committee)----- Tanks ----1-(575) 746 -2122
NMOCD----- 1-(575) 748 -1283

Carlsbad

State Police-----1-(575) 885 -3137
City Police-----1-(575) 885 -2111 Mud Pits
Sheriffs Office-----1-(575) 887 -7551 Steel Pits
Ambulance----- 911 -----
Fire Department.-----1-(575) 885 - 2111
 Dog House
LEPC (Local Emergency Planning Committee)-----1-(575) 887 - 3798
US Bureau of Land Management -----1-(575) 887 - 6544
New Mexico Emergency Response Commission (Santa Fe) -1-(505) 476 -9600
24 HR -----1-(505) 827 -9126
New Mexico State Emergency Operations Center -----1-(505) 476 -9635
National Emergency Response Center (Washington, DC) ---1-(800) 424 -8802

Other

Boots & Coots IWC-----1-800-256-9688 or 1-(281) 931 -8884
Cudd Pressure Control-----1- (915) 699-0139 or 1-(915) 563 -3356
Halliburton-----1-(575) 746-2757
B.J. Services-----1-(575) 746-3569 Catwalk
 Access Road

Air Ambulance

Flight For Life, 4000 24th St., Lubbock, TX -----1-(806) 743 - 9911
Aerocare, Rt 3 Box49-F, Lubbock, TX -----1-(806) 747- 8923
Med Flight Air Amb, 2301 Yale Blvd SE #D3, Albuq, NM -----1-(505) 842 -N4433
S B Air Med Svc, 2505 Clark Carr Loop SE, Albuq, NM -----1-(505) 842 - 4949

SURFACE USE PLAN
Marshall & Winston Incorporated
Medlin Federal Com 8 # 1 H
Section 08, T. 15 S., R. 31 E

1. Existing Roads:

NMOCD Form C-102, Well Location and Acreage Dedication Plat

Topo / Location Verification is a reproduction of a USGS topographic Map, showing New Mexico State Highways, existing and proposed roads. Directions to location are given: From the intersection of State Highway 249 and State Highway 172 (route from Hagerman to Maljamar), go West on State Road 249 approximately 3.0 miles, turn right and go North approximately 0.6 miles to the Medlin Fed Com 8 # 2H well Pad and a proposed road Survey. Follow Road survey North approximately 1200 Feet to this location. All existing roads will be maintained in a condition to or better than the current conditions. Any new roads will be constructed to BLM specifications.

- 2. Planned Access Roads:** 1020.00 Ft. of a proposed road from the proposed Medlin Fed Com 8 # 2H location shall access the Medlin Fed Com 8 # 1H. A BLM ROW is required for 2565 feet from State Highway 249 to the private surface land as submitted in regards to the Medlin Fed Com 8 # 2H. .

3. Locations of Existing Wells in a One-mile radius –

1. Water Wells – None known
2. Disposal wells – None known
3. Drilling wells – None known
4. Producing wells- None known
5. Abandoned wells – None known
- 6.

- 4. If a completion on this well is a producer,** Marshall and Winston Inc. will furnish maps and / or plats showing on site facilities or off site facilities if needed. This will be accompanied by a Sundry Notice. .

5. Location and Type of Water Supply:

Water will be purchased from the rancher's wells trucked over the access roads.

6. Source of Construction Material:

If possible, construction will be obtained from the Medlin Ranch. If additional material is needed, it will be purchased from a local source. Material will be transported over the access route as shown on.

7. Methods of Handling Waste Material:

- A. Drill cuttings will be separated by a series of solids removal equipment and stored in steel containment pits and then hauled to a state- approved disposal facility.
- B. All trash, junk and other waste material will be contained in trash cages or bins to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary land fill.
- C. Salts remaining after completion of well will be picked up by supplier including broken sacks.
- D. Sewage from any living quarters will drain into holding tanks and be cleaned out periodically. A Porta-John will be provided for the rig crews. This equipment will be properly maintained during the drilling operations and removed upon completion of the well.
- E. Drilling fluids will be contained in the steel pits in a closed circulating system. Fluids will be cleaned and reused Water produced during testing will be contained in the steel pits and disposed of at a state approved disposal facility. Any oil or condensate produced will be stored in test tanks until sold and hauled from the site.

8. Ancillary Facilities:

- A. No camps or airstrips to be constructed.

9. Well Site Layout:

- A. Exhibit 'G' shows location and rig layout.
- B. Mud pits in the closed circulating system will be steel pits and the cuttings will be stored in steel containment pits.
- C. Cuttings will be stored in steel pits until they are hauled to a state-approved disposal facility
- D. If the well is a producer, those areas of the location not essential top production facilities will be reclaimed and seeded per BLM requirements.

(con't)

10. Plans for Restoration of Surface:

Rehabilitation of the location will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be notified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be loacted overt the disturbed area to the extent possible. Re-vegetation. Procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be re-contoured to match the existing terrain. Topsoil will be spread to the extent possible. Re-vegetation will comply with BLMM standards.

Should the well be a producer, the previously noted procedures will apply to those areas which are not required form production facilities.

11. Other Information:

- A. Topography consists of a sloping plane with loose tan sands. Vegetation is mainly Yucca, Mesquite and Shin Oak.
- B. The well site is on the surface owned by Medlin Ranch. The land is used mainly for cattle ranching, and oil and gas production.
- C. An Archaeological survey will be conducted on the location and proposed roads, and this report will be filed with the Bureau of Land Management in the Carlsbad BLM office.
- D. There is a Medlin Ranch house within 1 ½ miles of this location.

12. Private Surface Owner Agreement: The surface of the subject land is owned by Bill Medlin, P.O. Box 50, Maljamar, NM 88265.

**PECOS DISTRICT - RFO
CONDITIONS OF APPROVAL**

February 4, 2009

Applicant: Marshall and Winston Inc.

Lease No.: NMLC-062524A

Well Name: Medlin Federal Com 8 #1-H

Surface Hole: 1980' FSL & 330' FWL,

Bottom Hole: 1980' FSL & 330' FEL,

Location: Sec. 8, T15S-R37E,

Chaves County, New Mexico, NMPM.

GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

I. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD (Filing of a Sundry Notice is required for this 60 day extension).

II. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

III. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations (access road and/or well pad). Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

IV. CONSTRUCTION

A. NOTIFICATION:

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Roswell Field Office at (505) 627-0247 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved Application for Permit to Drill and Conditions of Approval on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL:

The topsoil will be stripped to approximately 6 inches in depth within the area designated for construction of the well pad. The operator shall stockpile the stripped topsoil on the side of the well pad. The topsoil will be used for interim and final reclamation of the surface disturbance created by the construction of the well pad.

C. CLOSED SYSTEMS OR STEEL TANKS: No reserve pit will be used.

D. FEDERAL MINERAL MATERIALS PIT:

If the operator elects to surface the access road and/or well pad, payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Roswell Field Office at (505) 627-0236.

E. WELL PAD SURFACING:

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational need.

F. ON LEASE ACCESS ROADS:

Road Egress and Ingress

The on lease access road shall be constructed to access the corner of the well pad.

Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

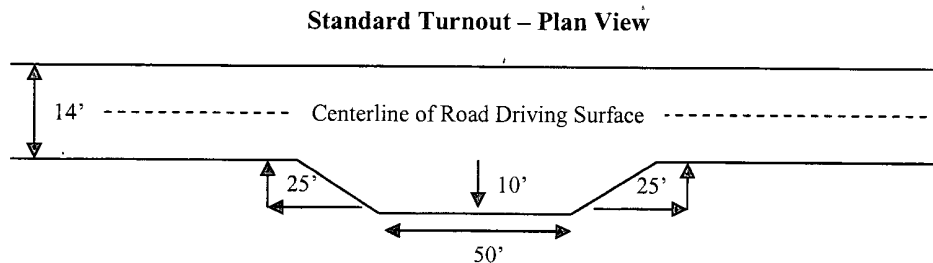
The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Turnouts

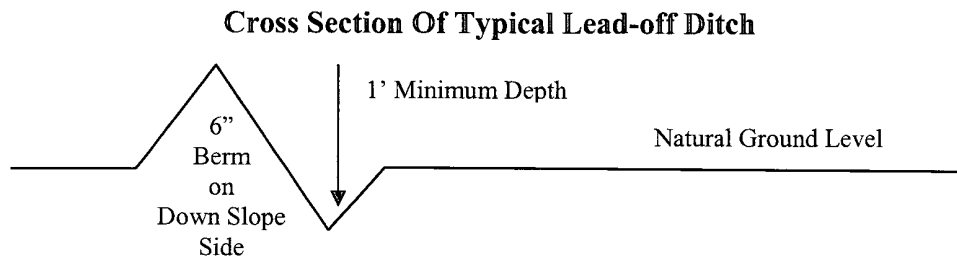
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:



Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outslowing and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula For Spacing Interval Of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

Fence Requirement

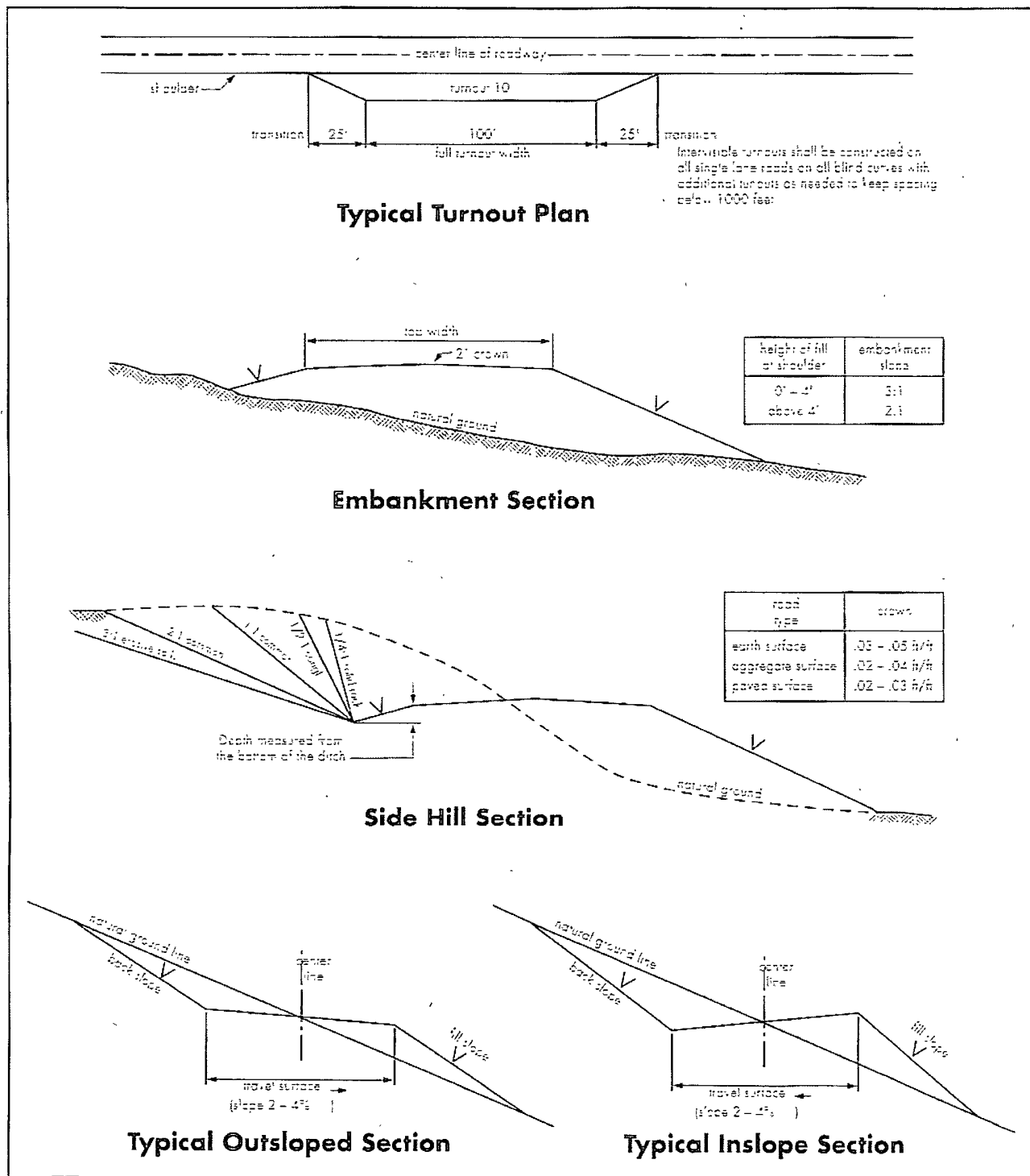
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



V. DRILLING

DRILLING OPERATIONS REQUIREMENTS

1. Call the Roswell Field Office, 2909 West Second St., Roswell, NM 88201. During office hours call (575) 627-0205 or after office hours call (575) 910-6024. Engineer on call during office hours call (575) 627-0275 or after office hours call (575) 626-5749.
2. The BLM is to be notified a minimum of 24 hours in advance for a representative to witness:
 - a. Spudding well
 - b. Setting and/or Cementing of all casing strings

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

BOPE Tests

3. 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.
4. Include the API Number assigned to well by NMOCD on the subsequent report of setting the first casing string.
5. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.
6. The operator will accurately measure the drilling rate in ft/min to set the base of the usable water protection casing string(s) opposite competent rock. The record of the drilling rate along with the caliper-gamma ray-neutron well log run to surface will be submitted to this office as well as all other logs run on the borehole 30 days from completion
7. Air, air-mist or fresh water and non toxic drilling mud shall be used to drill to the base of the usable water protection casing string(s). Any polymers used will be water based and non-toxic.

B. CASING

1. The 8 5/8 inch usable water protection casing string(s) shall be set at approximately 340 feet in competent bedrock.

If not the operator is required to set usable water protecting casing in the next thick competent bedding (i.e. 15 to 25 ft or greater) encountered and cemented to the surface.

- a. If cement does not circulate to the surface, the Roswell Field 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.

- b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin or 500 pounds compression strength, whichever is greater. (This is to include the lead cement).
 - c. 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.
 - d. If cement falls back, remedial action will be done prior to drilling out that string.
- 2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is **sufficient to circulate to the surface**. If cement does not circulate see B.1.a-d above.
 - 3. The minimum required fill of cement behind the 7 inch production casing is **sufficient to tie back 500 feet above the uppermost perforation in the pay zone**. If cement does not circulate, 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.
 - 4. There is no required fill of cement behind the 4-1/2 inch production casing since a Peak Systems Iso-Pak liner will be used for lateral and will not require cementing.
 - 5. 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 joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL:

- 1. Before drilling below the 13-3/8 inch surface casing shoe, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve. Before drilling below the 9-5/8 inch intermediate casing shoe, the blowout preventer assembly shall consist of a minimum of One Annular Preventer, Two Ram-Type Preventers, and a Kelly Cock/Stabbing Valve.
- 2. Before drilling below the 13-3/8 inch surface casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be **2000** psi. Before drilling below the 9-5/8 inch intermediate casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be **3000** psi.
- 3. The BOPE shall be installed before drilling below the 13-3/8 inch surface casing and the 9-5/8 inch intermediate casing and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
 - a. The BLM Roswell Field office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - b. The tests shall be done by an independent service company.

c. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. 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.

d. 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 BLM Roswell Field Office at 2909 West Second Street, Roswell, New Mexico 88201.

e. Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.

e. Testing must be done in a safe workman like manner. Hard line connections shall be required.

VI. PRODUCTION

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Containment Structures

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, Juniper Green (Standard Environmental Color Chart June 2008).

VRM Facility Requirement – VRM Class IV

Low-profile tanks not greater than eight-feet-high shall be used.

VII. INTERIM RECLAMATION

Earthwork for interim and final reclamation must be completed within 6 months of well completion or well plugging (weather permitting).

During the life of the development, all disturbed areas not needed for active support of production operations should undergo “interim” reclamation in order to minimize the environmental impacts of development on other resources and uses.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used in road repairs, fire walls or for building other roads and

locations. In addition, in order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

SEED MIX FOR Loamy, SD-3 Ecological Site Loamy CP-2 Gyp Upland CP-2		
Common Name and Preferred Variety	Scientific Name	Pounds of Pure Live Seed Per Acre
Blue grama,	(<i>Bouteloua gracilis</i>)	4.0
Sideoats grama,	(<i>Bouteloua curtipendula</i>)	1.0
Sand dropseed	(<i>Sporobolus cryptandrus</i>)	0.5
Vine mesquite	(<i>Panicum obtusum</i>)	1.0
Plains bristlegrass	(<i>Setaria macrostachya</i>)	1.0
Indian blanketflower	(<i>Gaillardia aristata</i>)	0.5
Desert or Scarlet Globemallow	(<i>Sphaeralcea ambigua</i>) or (<i>S. coccinea</i>)	1.0
Annual sunflower	(<i>Helianthus annuus</i>)	<u>0.75</u>
TOTAL POUNDS PURE LIVE SEED(pls) PER ACRE		9.75
Certified Weed Free Seed		
If one species is not available, increase ALL others proportionately.		
Use No Less than 4 species, including one forb.		
No less than 9.75 pounds pls per acre shall be applied		

C. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

- a. Upon abandonment of the well and/or when the access road is no longer in service, a Notice of Intent for Final Abandonment with the proposed surface restoration procedure must be submitted for approval.
- b. Upon abandonment of the well, all casing shall be cut-off at the base of the cellar or 3-feet below final restored ground level (whichever is deeper). A 4-inch pipe, 10 feet in length, shall be installed 4 feet above ground and embedded in cement. The following information shall be permanently inscribed on the dry hole marker: Well name and number, the name of the operator, the lease serial number, the surveyed location (the quarter-quarter section, section, township and range or other authorized survey designation acceptable to the authorized officer; such as metes and bounds).

- c. Surface Reclamation must be completed within 6 months of well plugging. If the operator proposes to modify the plans for surface reclamation approved on the APD, the operator must attach these modifications to the Subsequent Report of Plug and Abandon using Sundry Notices and Reports on Wells, Form 3160-5.