

Form 3160-3
(August 2007)

HOBBS OCD

AUG 09 2011

New Mexico Oil Conservation Division, District 1

1625 N. French Drive

Hobbs, NM 88240

Federal

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

RECEIVED
SUMMARY 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.

5. Lease Serial No.
NMLC-062178

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2.

1. Type of Well

☒ Oil Well

☐ Gas Well

☐ Other

2. Name of Operator
EOR Operating Co

3a. Address
200 N. Loraine, STE 1440 Midland, TX 79701

3b. Phone No. (include area code)
432-687-0303

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
90° FNL 1360' FEL
Sec. 13 T 8S R 34E

7. If Unit of CA/Agreement, Name and/or No.
Milnesand Unit

8. Well Name and No.
#522

9. API Well No.
30-041-20647

10. Field and Pool or Exploratory Area
Milnesand - San Andres

11. Country or Parish, State
Roosevelt Co, NM

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

TYPE OF SUBMISSION

TYPE OF ACTION

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment Notice

☐ Acidize

☐ Alter Casing

☐ Casing Repair

☐ Change Plans

☐ Convert to Injection

☐ Deepen

☐ Fracture Treat

☐ New Construction

☐ Plug and Abandon

☐ Plug Back

☐ Production (Start/Resume)

☐ Reclamation

☐ Recomplete

☐ Temporarily Abandon

☐ Water Disposal

☐ Water Shut-Off

☐ Well Integrity

☒ Other **RECOMPLICATE**

HORIZONTALLY

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 recomplate 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 must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

The MSU #522 is currently producing from the San Andres perforations located @ 4524'-4570' & 4580'-4625'. Current PBDT is 4702'. EOR proposes to perform the following operation in order to recomplate this well horizontally in the San Andres formation.

1. NU 3k BOPE and POH with rods & tubing.
2. RUWL and RIH with 5 1/2" CIBP. Correlate depth and set CIBP at KOP of 4250'. POH and RDWL.
3. PU 4 3/4" bit and 5 1/2" scraper on tubing. RIH and tag CIBP and test weight. POH and LD bit and scraper.
4. Run 5 1/2" whipstock on tubing to CIBP. Orient whipstock with gyro and set bottom trip anchor on CIBP, POH.
5. PU milling BHA, tag whipstock and mill window in 5 1/2" casing and 8' of new hole. POH with mill assembly.
6. PU drilling BHA and commence drilling with a 20"/100' build rate as per the attached directional plan and survey.
7. At TD, run 3 1/2" 9.3# L80 FJ liner and set from TD to vertical section of 5 1/2" casing. Liner will have packers (PEAK or equivalent) with frac ports and will not be cemented. Number of ports and packers run will be dictated by length and number of shows and porous interval drilled.
8. Fracture treat through ports seperated by packers.

This lateral will be drilled with a closed loop mud system. After milling out the casing window with clear fresh water, the directional interval will be drilled with a polymer based fresh water system using the following parameters:

Hole Size(Inches)	Depth MD/TVD(ft)	Mud Density(ppg)	Viscosity(sec/1000cc)	Plastic Viscosity(cP)	Yield Point(lb/100ft ²)	API Fluid Loss(ml)	pH	LGS%
4.75	KOP-TD	8.4-8.7	34-36	4-10	4-12	10-12	9.5-10.0	<6

Bond No. RLB0011896

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Jana True

Title

Prod. Asst

Signature

Jana True

Date

6/27/11

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

/S/ DAVID R. GLASS

PETROLEUM ENGINEER

Title

Date

AUG 01 2011

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

KZ AUG 11 2011

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)

APPROVED FOR 12 MONTH PERIOD
ENDING AUG 01 2012

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

HOBBS OCD

AUG 09 2011

RECEIVED



Weatherford[®]

Drilling Services

Proposal

EOR OPERATING

MILNESAND UNIT 522

ROOSEVELT CO, NM

WELL FILE: **PLAN 1**

MAY 25, 2011

Weatherford International, Ltd.

P.O. Box 61028

Midland, TX 79711 USA

+1.432.561.8892 Main

+1.432.561.8895 Fax

www.weatherford.com

EOR Operating

Milnesand Unit 522 Roosevelt Co, NM

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	4234.90	0.00	0.00	4234.90	0.00	0.00	0.00	0.00	0.00	
3	4249.90	3.00	270.00	4249.89	0.00	-0.39	20.00	270.00	0.39	
4	4254.90	3.00	270.00	4254.89	0.00	-0.65	0.00	0.00	0.65	
5	4678.26	87.67	270.00	4526.14	0.00	-275.11	20.00	0.00	275.11	
6	6965.04	87.67	270.00	4619.00	0.00	-2560.00	0.00	0.00	2560.00	Pbhl

FIELD DETAILS

Roosevelt Co, NM (Nad 27)
Geodetic System: US State Plane Coordinate System 1927
Ellipsoid: NAD27 (Clarke 1866)
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010
System Datum: Mean Sea Level
Local North: True North

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
MSU 522	0.00	0.00	957289.90	780147.37	33°37'41.232N	103°24'46.800W	N/A

SITE DETAILS

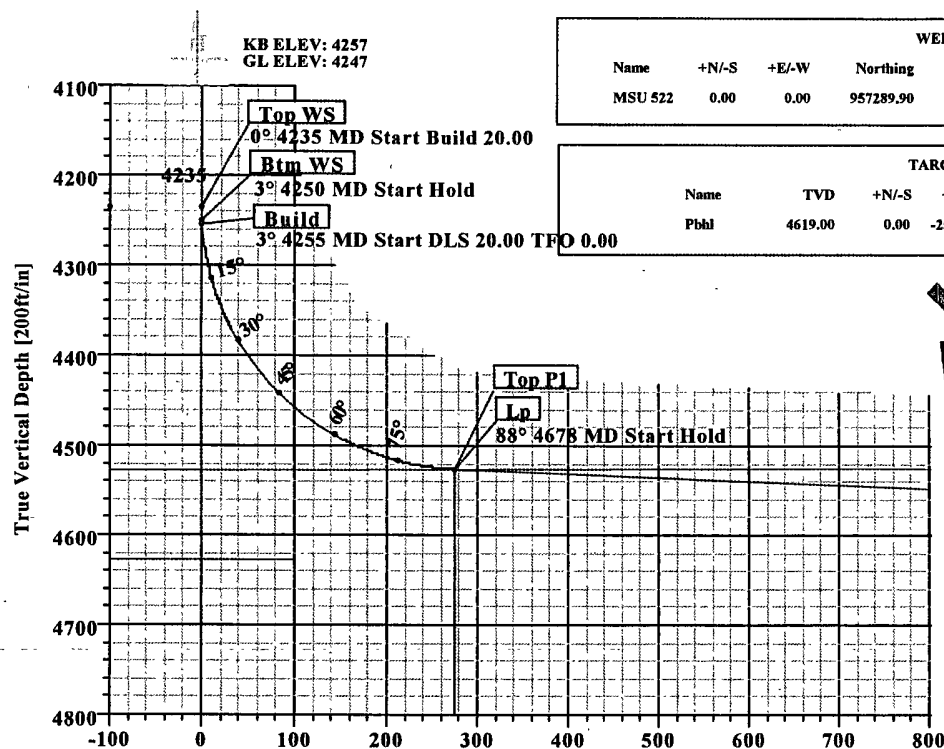
Milnesand Unit 522
Site Centre Latitude: 33°37'41.232N
Longitude: 103°24'46.800W
Ground Level: 4247.00
Positional Uncertainty: 0.00
Convergence: 0.51

TARGET DETAILS

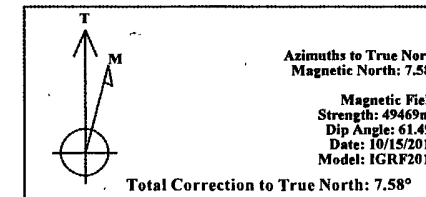
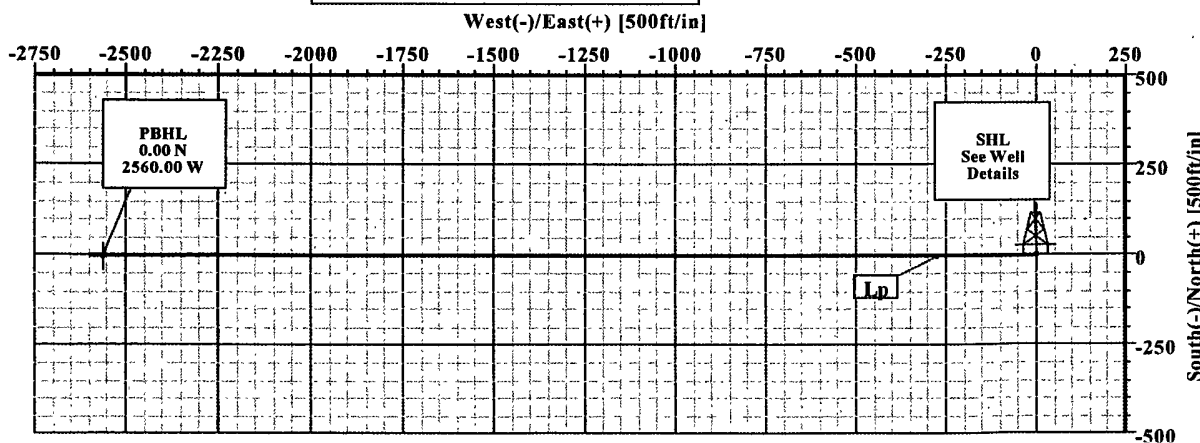
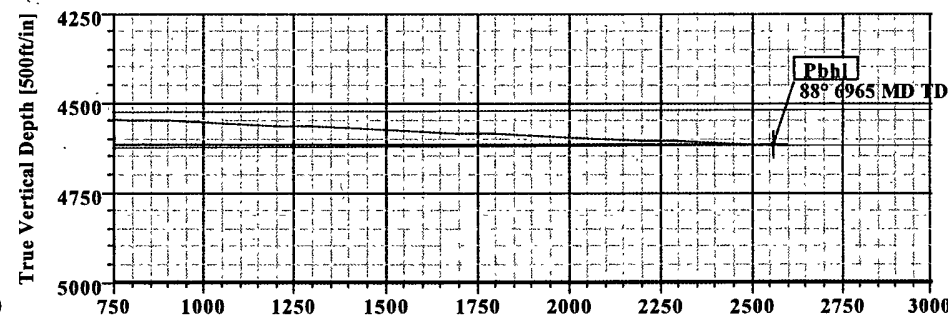
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Pbhl	4619.00	0.00	-2560.00	957267.12	777587.47	Point

FORMATION TOP DETAILS

No.	TVDPath	MDPath	Formation
1	4526.14	4678.26	Top P1



Weatherford



Plan: Plan #1 (MSU 522/1)

Created By: Russell W. Joyner

Date: 5/25/2011

Weatherford International Ltd.

WFT Plan Report Lat, Long



Weatherford

Company: EOR Operating Field: Roosevelt Co, NM (Nad 27) Site: Milnesand Unit 522 Well: MSU 522 Wellpath: 1	Date: 5/25/2011 Co-ordinate(NE) Reference: Well: MSU 522, True North Vertical (TVD) Reference: SITE 4257.0 Section (VS) Reference: Well (0.00N,0.00E,270.00Azi) Survey Calculation Method: Minimum Curvature	Time: 14:33:58 Page: 1 Db: Sybase
---	---	--

Plan: Plan #1 Principal: Yes	Date Composed: 5/25/2011 Version: 1 Tied-to: From Surface
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Field: Roosevelt Co, NM (Nad 27)

Map System: US State Plane Coordinate System 1927 Geo Datum: NAD27 (Clarke 1866) Sys Datum: Mean Sea Level	Map Zone: New Mexico, Eastern Zone Coordinate System: Well Centre Geomagnetic Model: IGRF2010
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Site: Milnesand Unit 522

Site Position: From: Geographic Position Uncertainty: 0.00 ft Ground Level: 4247.00 ft	Northing: 957289.90 ft Easting: 780147.37 ft	Latitude: 33 37 41.232 N Longitude: 103 24 46.800 W North Reference: True Grid Convergence: 0.51 deg
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Well: MSU 522 Well Position: +N/-S 0.00 ft Position Uncertainty: 0.00 ft	Slot Name: Northing: 957289.90 ft Easting: 780147.37 ft Latitude: 33 37 41.232 N Longitude: 103 24 46.800 W
---	--

Wellpath: 1 Current Datum: SITE Magnetic Data: 10/15/2011 Field Strength: 49469 nT Vertical Section: Depth From (TVD) ft	Height 4257.00 ft +N/-S ft +E/-W ft	Drilled From: Surface Tie-on Depth: 0.00 ft Above System Datum: Mean Sea Level Declination: 7.58 deg Mag Dip Angle: 61.49 deg Direction deg
0.00	0.00	0.00 270.00

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4234.90	0.00	0.00	4234.90	0.00	0.00	0.00	0.00	0.00	0.00	
4249.90	3.00	270.00	4249.89	0.00	-0.39	20.00	20.00	0.00	270.00	
4254.90	3.00	270.00	4254.89	0.00	-0.65	0.00	0.00	0.00	0.00	
4678.26	87.67	270.00	4526.14	0.00	-275.11	20.00	20.00	0.00	0.00	
6965.04	87.67	270.00	4619.00	0.00	-2560.00	0.00	0.00	0.00	0.00	Pbhl

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Lat	Min	Sec	Long	Min	Sec	Comment
4200.00	0.00	0.00	4200.00	0.00	0.00	0.00	0.00	33	37	41.232	103	24	46.800	
4234.90	0.00	0.00	4234.90	0.00	0.00	0.00	0.00	33	37	41.232	103	24	46.800	Top WS
4249.90	3.00	270.00	4249.89	0.00	-0.39	0.39	20.00	33	37	41.232	103	24	46.805	Btm WS
4254.90	3.00	270.00	4254.89	0.00	-0.65	0.65	0.00	33	37	41.232	103	24	46.808	Build
4300.00	12.02	270.00	4299.55	0.00	-6.54	6.54	20.00	33	37	41.232	103	24	46.877	
4400.00	32.02	270.00	4391.79	0.00	-43.85	43.85	20.00	33	37	41.232	103	24	47.319	
4500.00	52.02	270.00	4465.70	0.00	-110.45	110.45	20.00	33	37	41.232	103	24	48.106	
4600.00	72.02	270.00	4512.38	0.00	-198.31	198.31	20.00	33	37	41.232	103	24	49.145	
4678.26	87.67	270.00	4526.14	0.00	-275.11	275.11	20.00	33	37	41.232	103	24	50.053	Top P1
4700.00	87.67	270.00	4527.02	0.00	-296.83	296.83	0.00	33	37	41.232	103	24	50.310	
4800.00	87.67	270.00	4531.08	0.00	-396.74	396.74	0.00	33	37	41.232	103	24	51.492	
4900.00	87.67	270.00	4535.14	0.00	-496.66	496.66	0.00	33	37	41.232	103	24	52.673	
5000.00	87.67	270.00	4539.20	0.00	-596.58	596.58	0.00	33	37	41.232	103	24	53.855	
5100.00	87.67	270.00	4543.26	0.00	-696.50	696.50	0.00	33	37	41.232	103	24	55.037	
5200.00	87.67	270.00	4547.32	0.00	-796.41	796.41	0.00	33	37	41.232	103	24	56.218	

Weatherford International Ltd.

WFT Plan Report Lat, Long



Weatherford

Company: EOR Operating Field: Roosevelt Co, NM (Nad 27) Site: Milhesand Unit 522 Well: MSU 522 Wellpath: 1	Date: 5/25/2011 Co-ordinate(NE) Reference: Well: MSU 522, True North Vertical (TVD) Reference: SITE 4257.0 Section (VS) Reference: Well (0.00N:0.00E,270.00Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
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Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Lat Min	Sec	Long Min	Sec	Comment
5300.00	87.67	270.00	4551.38	0.00	-896.33	896.33	0.00	33	37	41.232	103	24 57.400
5400.00	87.67	270.00	4555.44	0.00	-996.25	996.25	0.00	33	37	41.232	103	24 58.581
5500.00	87.67	270.00	4559.51	0.00	-1096.17	1096.17	0.00	33	37	41.232	103	24 59.763
5600.00	87.67	270.00	4563.57	0.00	-1196.08	1196.08	0.00	33	37	41.232	103	25 0.945
5700.00	87.67	270.00	4567.63	0.00	-1296.00	1296.00	0.00	33	37	41.232	103	25 2.126
5800.00	87.67	270.00	4571.69	0.00	-1395.92	1395.92	0.00	33	37	41.232	103	25 3.308
5900.00	87.67	270.00	4575.75	0.00	-1495.84	1495.84	0.00	33	37	41.232	103	25 4.489
6000.00	87.67	270.00	4579.81	0.00	-1595.75	1595.75	0.00	33	37	41.232	103	25 5.671
6100.00	87.67	270.00	4583.87	0.00	-1695.67	1695.67	0.00	33	37	41.232	103	25 6.853
6200.00	87.67	270.00	4587.93	0.00	-1795.59	1795.59	0.00	33	37	41.231	103	25 8.034
6300.00	87.67	270.00	4591.99	0.00	-1895.51	1895.51	0.00	33	37	41.231	103	25 9.216
6400.00	87.67	270.00	4596.05	0.00	-1995.42	1995.42	0.00	33	37	41.231	103	25 10.397
6500.00	87.67	270.00	4600.11	0.00	-2095.34	2095.34	0.00	33	37	41.231	103	25 11.579
6600.00	87.67	270.00	4604.18	0.00	-2195.26	2195.26	0.00	33	37	41.231	103	25 12.761
6700.00	87.67	270.00	4608.24	0.00	-2295.18	2295.18	0.00	33	37	41.231	103	25 13.942
6800.00	87.67	270.00	4612.30	0.00	-2395.09	2395.09	0.00	33	37	41.231	103	25 15.124
6900.00	87.67	270.00	4616.36	0.00	-2495.01	2495.01	0.00	33	37	41.231	103	25 16.305
6965.04	87.67	270.00	4619.00	0.00	-2560.00	2560.00	0.00	33	37	41.231	103	25 17.074 Pbh

Targets

Name	Description Dip. Dir.	TVD ft	+N/S ft	+E/W ft	Map Northing ft	Map Easting ft	Latitude Deg Min Sec	Longitude Deg Min Sec
Pbh		4619.00	0.00	-2560.00	957267.12	777587.47	33 37 41.231 N	103 25 17.074 W

Casing Points

MD	TVD	Diameter	Hole Size	Name

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
4678.26	4526.14	Top P1		-0.18	270.00
	0.00	P3		-0.17	270.00

Annotation

MD ft	TVD ft	
4234.90	4234.90	Top WS
4249.90	4249.89	Btm WS
4254.90	4254.89	Build
4678.26	4526.14	Lp
6965.04	4619.00	Pbh

**Weatherford®****Weatherford Drilling Services**

GeoDec v5.03

Report Date: May 24, 2011
Job Number: _____
Customer: EOR Operating
Well Name: Milnesand Unit MSU 522
API Number: _____
Rig Name: _____
Location: Roosevelt Co, NM
Block: _____
Engineer: RWJ

Geodetic Latitude / Longitude	Geodetic Latitude / Longitude
System: Latitude / Longitude	System: Latitude / Longitude
Projection: Geodetic Latitude and Longitude	Projection: Geodetic Latitude and Longitude
Datum: NAD 1927 (NADCON CONUS)	Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866	Ellipsoid: Clarke 1866
Latitude 33.6281200 DEG	Latitude 33.6281200 DEG
Longitude -103.4130000 DEG	Longitude -103.4130000 DEG

Geodetic Location WGS84 Elevation = 0.0 Meters
Latitude = 33.62812° N 33° 37 min 41.232 sec
Longitude = 103.41300° W 103° 24 min 46.800 sec

Magnetic Declination =	7.58°	[True North Offset]	
Local Gravity =	.9989 g	Checksum =	6758
Local Field Strength =	49465 nT	Magnetic Vector X =	23402 nT
Magnetic Dip =	61.49°	Magnetic Vector Y =	3112 nT
Magnetic Model =	IGRF-2010g11	Magnetic Vector Z =	43468 nT
Spud Date =	Oct 15, 2011	Magnetic Vector H =	23608 nT

Signed: _____

Date: _____

MILNESAND UNIT 522 P1 SVY

Weatherford International Ltd.
WFT Plan Report Lat, Long

Company: EOR Operating
Time: 14:34:34 Page: 1
Field: Roosevelt Co, NM (Nad 27)
Reference: Well: MSU 522, True North
Site: Milnesand Unit 522
Reference: SITE 4257.0
Well: MSU 522
Reference: Well (0.00N,0.00E,270.00Azi)
Wellpath: 1
Method: Minimum Curvature Db: Sybase

Date: 5/25/2011
Co-ordinate(NE)
Vertical (TVD)
Section (VS)
Survey Calculation

Plan: Plan #1
5/25/2011

Date Composed:

1
Principal: Yes
From Surface

Version:

Tied-to:

Field: Roosevelt Co, NM (Nad 27)

Map System: US State Plane Coordinate System 1927
New Mexico, Eastern Zone
Geo Datum: NAD27 (Clarke 1866)
Well Centre
Sys Datum: Mean Sea Level
IGRF2010

Map Zone:
Coordinate System:
Geomagnetic Model:

Site: Milnesand Unit 522

Site Position:
33 37 41.232 N
From: Geographic
103 24 46.800 W
Position Uncertainty: 0.00 ft
True
Ground Level: 4247.00 ft
0.51 deg

Northing: 957289.90 ft Latitude:
Easting: 780147.37 ft Longitude:
North Reference:
Grid Convergence:

Well: MSU 522

Slot Name:

Well Position: +N/-S 0.00 ft
33 37 41.232 N
+E/-W 0.00 ft
103 24 46.800 W
Position Uncertainty: 0.00 ft

Northing: 957289.90 ft Latitude:
Easting : 780147.37 ft Longitude:

Wellpath: 1
Surface

Drilled From:

Tie-on Depth:

0.00 ft
Current Datum: SITE
Datum: Mean Sea Level
Magnetic Data: 10/15/2011

Height 4257.00 ft Above System
Declination:

MILNESAND UNIT 522 P1 SVY

7.58 deg

Field Strength:

49469 nT

Mag Dip Angle:

61.49 deg

Vertical Section:Depth From (TVD)

+N/-S

+E/-W

Direction

ft

ft

ft

deg

0.00

0.00

0.00

270.00

Plan Section Information

MD	Incl	Azim	TVD	+N/-S	+E/-W	DLS	Build
Turn	TFO	Target					
ft	deg	deg	ft	ft	ft		
deg/100ft	deg/100ft	deg/100ft	deg				
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00						
4234.90	0.00	0.00	4234.90	0.00	0.00	0.00	0.00
0.00	0.00						
4249.90	3.00	270.00	4249.89	0.00	-0.39	20.00	20.00
0.00	270.00						
4254.90	3.00	270.00	4254.89	0.00	-0.65	0.00	0.00
0.00	0.00						
4678.26	87.67	270.00	4526.14	0.00	-275.11	20.00	20.00
0.00	0.00						
6965.04	87.67	270.00	4619.00	0.00	-2560.00	0.00	0.00
0.00	0.00	Pbhl					
Survey							

Min	MD	Incl	Azim	TVD	N/S	E/W	VS	DLS	Lat
	Sec	Long	Min	Sec	Comment	ft	ft	deg/100ft	
	ft	deg	deg	ft	ft				
	4200.00	0.00	0.00	4200.00	0.00	0.00	0.00	0.00	33
37	41.232	103	24 46.800						
	4234.90	0.00	0.00	4234.90	0.00	0.00	0.00	0.00	33
37	41.232	103	24 46.800	Top ws					
	4249.90	3.00	270.00	4249.89	0.00	-0.39	0.39	20.00	33
37	41.232	103	24 46.805	Btm ws					
	4254.90	3.00	270.00	4254.89	0.00	-0.65	0.65	0.00	33
37	41.232	103	24 46.808	Build					
	4300.00	12.02	270.00	4299.55	0.00	-6.54	6.54	20.00	33
37	41.232	103	24 46.877						
	4400.00	32.02	270.00	4391.79	0.00	-43.85	43.85	20.00	33
37	41.232	103	24 47.319						
	4500.00	52.02	270.00	4465.70	0.00	-110.45	110.45	20.00	33
37	41.232	103	24 48.106						
	4600.00	72.02	270.00	4512.38	0.00	-198.31	198.31	20.00	33
37	41.232	103	24 49.145						
	4678.26	87.67	270.00	4526.14	0.00	-275.11	275.11	20.00	33
37	41.232	103	24 50.053	Top P1					
	4700.00	87.67	270.00	4527.02	0.00	-296.83	296.83	0.00	33
37	41.232	103	24 50.310						
	4800.00	87.67	270.00	4531.08	0.00	-396.74	396.74	0.00	33
37	41.232	103	24 51.492						
	4900.00	87.67	270.00	4535.14	0.00	-496.66	496.66	0.00	33
37	41.232	103	24 52.673						
	5000.00	87.67	270.00	4539.20	0.00	-596.58	596.58	0.00	33
37	41.232	103	24 53.855						
	5100.00	87.67	270.00	4543.26	0.00	-696.50	696.50	0.00	33

MILNESAND UNIT 522 P1 SVY									
37	41.232	103	24	55.037					
	5200.00	87.67	270.00	4547.32	0.00	-796.41	796.41	0.00	33
37	41.232	103	24	56.218					
	5300.00	87.67	270.00	4551.38	0.00	-896.33	896.33	0.00	33
37	41.232	103	24	57.400					
	5400.00	87.67	270.00	4555.44	0.00	-996.25	996.25	0.00	33
37	41.232	103	24	58.581					
	5500.00	87.67	270.00	4559.51	0.00	-1096.17	1096.17	0.00	33
37	41.232	103	24	59.763					
	5600.00	87.67	270.00	4563.57	0.00	-1196.08	1196.08	0.00	33
37	41.232	103	25	0.945					
	5700.00	87.67	270.00	4567.63	0.00	-1296.00	1296.00	0.00	33
37	41.232	103	25	2.126					
	5800.00	87.67	270.00	4571.69	0.00	-1395.92	1395.92	0.00	33
37	41.232	103	25	3.308					
	5900.00	87.67	270.00	4575.75	0.00	-1495.84	1495.84	0.00	33
37	41.232	103	25	4.489					
	6000.00	87.67	270.00	4579.81	0.00	-1595.75	1595.75	0.00	33
37	41.232	103	25	5.671					
	6100.00	87.67	270.00	4583.87	0.00	-1695.67	1695.67	0.00	33
37	41.232	103	25	6.853					
	6200.00	87.67	270.00	4587.93	0.00	-1795.59	1795.59	0.00	33
37	41.231	103	25	8.034					
	6300.00	87.67	270.00	4591.99	0.00	-1895.51	1895.51	0.00	33
37	41.231	103	25	9.216					
	6400.00	87.67	270.00	4596.05	0.00	-1995.42	1995.42	0.00	33
37	41.231	103	25	10.397					
	6500.00	87.67	270.00	4600.11	0.00	-2095.34	2095.34	0.00	33
37	41.231	103	25	11.579					
	6600.00	87.67	270.00	4604.18	0.00	-2195.26	2195.26	0.00	33
37	41.231	103	25	12.761					
	6700.00	87.67	270.00	4608.24	0.00	-2295.18	2295.18	0.00	33
37	41.231	103	25	13.942					
	6800.00	87.67	270.00	4612.30	0.00	-2395.09	2395.09	0.00	33
37	41.231	103	25	15.124					
	6900.00	87.67	270.00	4616.36	0.00	-2495.01	2495.01	0.00	33
37	41.231	103	25	16.305					
	6965.04	87.67	270.00	4619.00	0.00	-2560.00	2560.00	0.00	33
37	41.231	103	25	17.074	Pbh1				

Targets

Map		<-----		Latitude		---<---		Longitude		---		Map	
Name		Description		TVD		+N/-S		+E/-W		Northing			
Easting	Deg	Min	Sec	Dip.	Dir.	ft		ft		ft			
Pbh1						4619.00	0.00	-2560.00		957267.12			
777587.47	33	37	41.231	N	103	25	17.074	W					

Casing Points

MD	TVD	Diameter	Hole Size	Name
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Formations

MILNESAND UNIT 522 P1 SYV

MD	TVD	Formations	Lithology
ft	Dip Angle ft	Dip Direction	
	deg	deg	
4678.26	4526.14	Top P1	
	-0.18	270.00	
	0.00	P3	
	-0.17	270.00	
Annotation			
MD	TVD		
ft	ft		
4234.90	4234.90	Top WS	
4249.90	4249.89	Btm WS	
4254.90	4254.89	Build	
4678.26	4526.14	Lp	
6965.04	4619.00	Pbhl	

**PECOS DISTRICT - RFO
CONDITIONS OF APPROVAL**

HOBBS OCD

AUG 09 2011

OPERATORS NAME: EOR Operating Co.
LEASE NO.: LC-062178
WELL NAME & NO: Milnesand Unit Well No. 522
SURFACE HOLE FOOTAGE: 90' FNL & 1360' FEL
BOTTOM HOLE FOOTAGE: 90' FNL & 1360' FWL
LOCATION: Section 13, T. 8 S., R. 34 E., NMPM
COUNTY: Roosevelt County, New Mexico

RECEIVED

A. 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) 420-2832. 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. Setting And/Or Cementing Any Casing String That May Be Run
 - b. 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. This lateral will be drilled with a closed loop mud system. After milling out the 5-1/2 inch production casing window with clear fresh water, the directional interval will be drilled with a 4-3/4 inch bit using a polymer based fresh water system.

B. CASING

1. There is no required fill of cement behind the 3-1/2 inch production liner since packers with frac ports will be used for lateral and will not require cementing.
2. 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.
3. Any casing set shall be new or reconditioned and tested casing and meet API standards for new casing. The use of reconditioned and tested casing shall be subject to approval by the authorized officer. Approval will be contingent upon the wall thickness of any casing being verified to be at least 87-1/2 per cent of the nominal wall thickness of new casing.

C. PRESSURE CONTROL:

1. Before milling out the 5-1/2 inch production casing window, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve.
2. Before milling out the 5-1/2 inch production casing window, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 2000 psi.

3. The BOPE shall be installed before milling out the 5-1/2 inch production casing window 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 24 hours in advance for a representative to witness the tests.
- b. 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.
- c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test will be submitted to the BLM Roswell Field Office at 2909 West Second Street, Roswell, New Mexico 88201.
- d. 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.

D. MUD PROGRAM REQUIREMENTS:

The drilling operations of this well will be conducted in accordance with the Onshore Oil and Gas Order No. 2 as provided in 43 CFR 3164.1. This includes well control equipment and its testing, mud system and associated equipment, and the casing and cementing.

- a. Sufficient quantities of mud materials shall be maintained at the well site, at all times, for the purpose of assuring well control.
- b. A mud test shall be performed at least every 24 hours after mudding up to determine, as applicable density, viscosity, gel strength, filtration, and PH.
- c. Visual mud monitoring equipment shall be in place to detect volume changes indicating loss or gain of circulating fluid volume.

E. SPECIAL STIPULATION:

If frac ponds are necessary submit for approval a right-of-way application or sundry notice (Form 3160-5) to the BLM, Roswell Field Office 2909 West Second, Roswell, NM 88201. If frac pond is located on private/State surface and support the enhanced production of federal minerals BLM approval is necessary.

The frac pond will only be authorized to contain freshwater and testing of water quality is required. Additives are not allowed without consent of the authorized officer. If at any time the water in the frac pond becomes polluted with salts or other contaminants, use of the frac pond will cease and desist, and all liquids will be removed from the frac pond and disposed of properly. Mineral materials extracted during construction of the frac pond will be stored on-location and/or used for constructing the frac pond.