

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

New Mexico Oil Conservation Division, District 1

1635 N. French Drive
HOBBS, NM 88240FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014

Amended

OCT 16 2012

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.

RECEIVED

SUBMIT IN TRIPLICATE - Other instructions on page 2.

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
EOR Operating Company3a. Address
200 N. Loraine STE 1440
Midland, TX 797013b. Phone No. (include area code)
432-687-03034. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1360 FNL & 90 FEL
Sec. 13 T-08S, R-34E7. If Unit of CA/Agreement, Name and/or No
Milnesand Unit8. Well Name and No
#5249. API Well No.
30-041-2064910. Field and Pool or Exploratory Area
Milnesand-San Andres11. County or Parish, State
Roosevelt

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other <u>Recomplete</u>
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	<u>horizontally</u>
	☐ Convert to Injection	☐ Plug Back	☐ 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 recomplete 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 #524 is currently producing from the San Andres perforations located @ 4536'-4568', 4576'-4616' & 4624'-4626'. Current PBD is 4740'. EOR Operating proposed the attached plans to recomplete this well horizontally in the San Andres formation.

A representative of EOR Operating will contact BLM 24 hours prior to the beginning of procedures as well as any BOPE tests.

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

APPROVED FOR 12 MONTH PERIOD
ENDING OCT 05 2013

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

Jana True

Title Mgr-Production/Regulatory

Signature

Date 09/21/2012

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

/S/ DAVID R. GLASS

PETROLEUM ENGINEER

Title

Date

OCT 05 2012

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

ROSWELL 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)

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

OCT 25 2012



Weatherford

HOBBS OCD

OCT 16 2012

RECEIVED

Drilling Services

Proposal

EOR OPERATING

MILNESAND UNIT 524

ROOSEVELT CO, NM

WELL FILE: **PLAN 1 DRAFT**

SEPTEMBER 12, 2012

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 524 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	4400.00	0.00	0.00	4400.00	0.00	0.00	0.00	0.00	0.00	
3	4415.00	2.00	90.00	4415.00	0.00	0.26	13.33	90.00	0.26	
4	4420.00	2.00	90.00	4419.99	0.00	0.44	0.00	0.00	0.44	
5	4772.26	90.06	90.00	4641.18	0.00	229.74	25.00	0.00	229.74	
6	9412.53	90.06	90.00	4636.00	0.00	4870.00	0.00	0.00	4870.00	PBHL

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
MSU 524	0.00	0.00	956076.23	822529.49	33°37'28.812N	103°24'34.524W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	4636.00	0.00	4870.00	956119.72	827399.29	Point

SITE DETAILS

Milnesand Unit 524
Site Centre Latitude: 33°37'28.812N
Longitude: 103°24'34.524W
Ground Level: 4240.00
Positional Uncertainty: 0.00
Convergence: 0.51

FIELD DETAILS

Roosevelt Co, NM (Nad 83)
Geodetic System: US State Plane Coordinate System 1983
Ellipsoid: GRS 1980
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010
System Datum: Mean Sea Level
Local North: True North

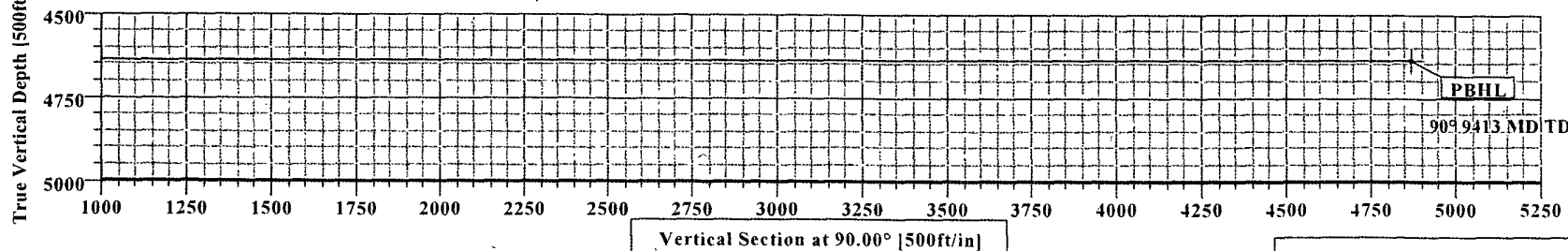
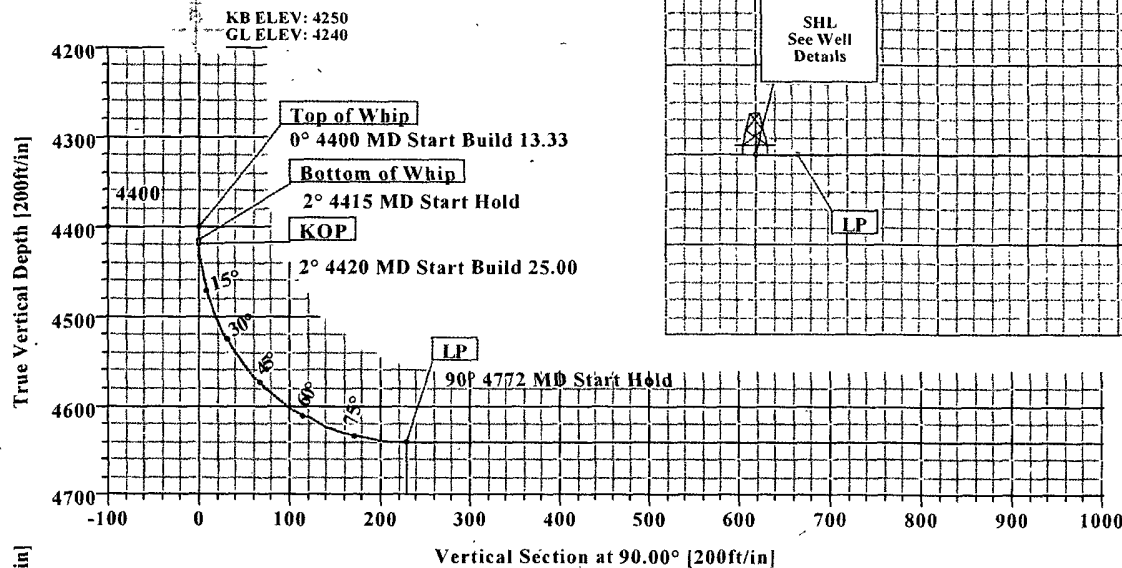
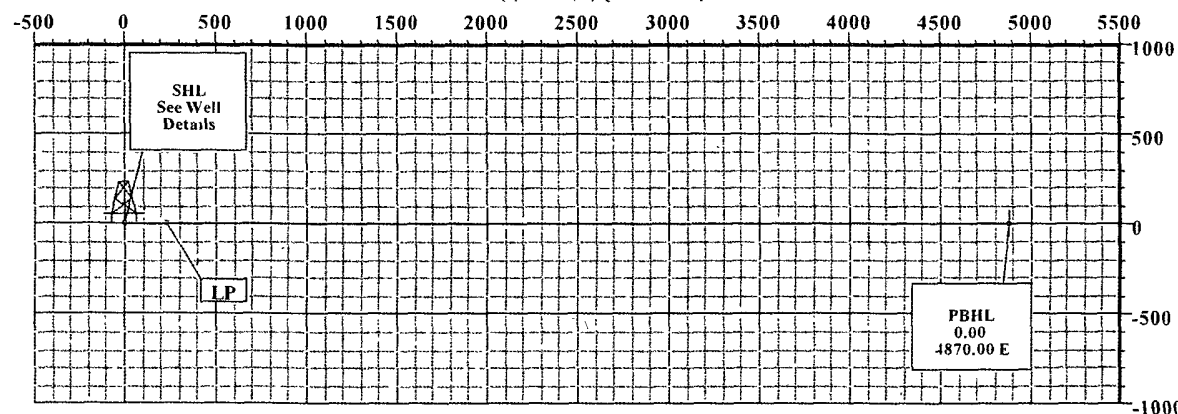


Azimuths to True North
Magnetic North: 7.41°

Magnetic Field
Strength: 49335nT
Dip Angle: 61.45°
Date: 2/1/2013
Model: IGRF2010

Total Correction to True North: 7.41°

West(-)/East(+) [1000ft/in]



Plan: Plan #1 (MSU 524/1)

Created By: Patrick Rudolph

Date: 9/12/2012

Weatherford International Ltd.

WFT Plan Report Lat, Long



Weatherford

Company: EOR Operating Field: Roosevelt Co, NM (Nad:83) Site: Milnesand Unit 524 Well: MSU 524 Wellpath: 1	Date: 9/12/2012 Co-ordinate(NE) Reference: Well: MSU 524 True North Vertical (TVD) Reference: SITE 4250.0 Section (VS) Reference: Well (0.00N:0.00E:90.00Azi) Survey Calculation Method: Minimum Curvature Db: Sybase	Time: 12:33:54 Page: 1											
Plan: Plan #1 Principal: Yes													
Date Composed: 9/12/2012 Version: 1 Tied-to: From Surface													
Field: Roosevelt Co, NM (Nad:83)													
Map System: US State Plane Coordinate System 1983 Geo Datum: GRS 1980 Sys Datum: Mean Sea Level													
Map Zone: New Mexico, Eastern Zone Coordinate System: Well Centre Geomagnetic Model: IGRF2010													
Site: Milnesand Unit 524													
Site Position: From: Geographic Position Uncertainty: 0.00 ft Ground Level: 4240.00 ft													
Northing: 956076.23 ft Easting: 822529.49 ft Latitude: 33 37 28.812 N Longitude: 103 24 34.524 W North Reference: True Grid Convergence: 0.51 deg													
Well: MSU 524 Slot Name:													
Well Position: +N/-S 0.00 ft Northing: 956076.23 ft Latitude: 33 37 28.812 N +E/-W 0.00 ft Easting: 822529.49 ft Longitude: 103 24 34.524 W													
Position Uncertainty: 0.00 ft													
Wellpath: 1													
Current Datum: SITE Magnetic Data: 2/1/2013 Field Strength: 49335 nT Vertical Section: Depth From (TVD) ft 4636.00													
Height: 4250.00 ft Drilled From: Surface Tie-on Depth: 0.00 ft Above System Datum: Mean Sea Level Declination: 7.41 deg Mag Dip Angle: 61.45 deg +N/-S ft 0.00 +E/-W ft 0.00 Direction deg 90.00													
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				
4400.00	0.00	0.00	4400.00	0.00	0.00	0.00	0.00	0.00	0.00				
4415.00	2.00	90.00	4415.00	0.00	0.26	13.33	13.33	0.00	90.00				
4420.00	2.00	90.00	4419.99	0.00	0.44	0.00	0.00	0.00	0.00				
4772.26	90.06	90.00	4641.18	0.00	229.74	25.00	25.00	0.00	0.00				
9412.53	90.06	90.00	4636.00	0.00	4870.00	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	
4400.00	0.00	0.00	4400.00	0.00	0.00	0.00	0.00	33	37	28.812	103	24 34.524	Top of Whip
4415.00	2.00	90.00	4415.00	0.00	0.26	0.26	13.33	33	37	28.812	103	24 34.521	Bottom of Whip
4420.00	2.00	90.00	4419.99	0.00	0.44	0.44	0.00	33	37	28.812	103	24 34.519	KOP
4440.00	7.00	90.00	4439.93	0.00	2.00	2.00	25.00	33	37	28.812	103	24 34.500	
4460.00	12.00	90.00	4459.65	0.00	5.30	5.30	25.00	33	37	28.812	103	24 34.461	
4480.00	17.00	90.00	4479.00	0.00	10.31	10.31	25.00	33	37	28.812	103	24 34.402	
4500.00	22.00	90.00	4497.85	0.00	16.98	16.98	25.00	33	37	28.812	103	24 34.323	
4520.00	27.00	90.00	4516.04	0.00	25.28	25.28	25.00	33	37	28.812	103	24 34.225	
4540.00	32.00	90.00	4533.44	0.00	35.12	35.12	25.00	33	37	28.812	103	24 34.109	
4560.00	37.00	90.00	4549.92	0.00	46.44	46.44	25.00	33	37	28.812	103	24 33.975	
4580.00	42.00	90.00	4565.35	0.00	59.16	59.16	25.00	33	37	28.812	103	24 33.824	
4600.00	47.00	90.00	4579.61	0.00	73.18	73.18	25.00	33	37	28.812	103	24 33.659	
4620.00	52.00	90.00	4592.60	0.00	88.38	88.38	25.00	33	37	28.812	103	24 33.479	
4640.00	57.00	90.00	4604.21	0.00	104.66	104.66	25.00	33	37	28.812	103	24 33.286	
4660.00	62.00	90.00	4614.35	0.00	121.88	121.88	25.00	33	37	28.812	103	24 33.083	

Weatherford International Ltd.

WFT Plan Report Lat, Long



Weatherford

Company:	EOR Operating	Date:	9/12/2012	Time:	12:33:54	Page:	2
Field:	Roosevelt Co. NM (Nad:83)	Co-ordinate(NE) Reference:	Well: MSU 524 True North				
Site:	Milnesand Unit 524	Vertical (TVD) Reference:	SITE 4250.0				
Well:	MSU 524	Section (VS) Reference:	Well (0'00N;0'00E;90'00Azi)				
Wellpath:	1	Survey Calculation Method:	Minimum Curvature	Db:	Sybase		

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
4680.00	67.00	90.00	4622.96	0.00	139.93	139.93	25.00	33	37	28.812	103	24	32.869	
4700.00	72.00	90.00	4629.96	0.00	158.66	158.66	25.00	33	37	28.812	103	24	32.648	
4720.00	77.00	90.00	4635.31	0.00	177.92	177.92	25.00	33	37	28.812	103	24	32.420	
4740.00	82.00	90.00	4638.95	0.00	197.58	197.58	25.00	33	37	28.812	103	24	32.187	
4760.00	87.00	90.00	4640.87	0.00	217.48	217.48	25.00	33	37	28.812	103	24	31.952	
4772.26	90.06	90.00	4641.18	0.00	229.74	229.74	25.00	33	37	28.812	103	24	31.807	LP
4800.00	90.06	90.00	4641.15	0.00	257.48	257.48	0.00	33	37	28.812	103	24	31.479	
4900.00	90.06	90.00	4641.04	0.00	357.48	357.48	0.00	33	37	28.812	103	24	30.297	
5000.00	90.06	90.00	4640.93	0.00	457.48	457.48	0.00	33	37	28.812	103	24	29.114	
5100.00	90.06	90.00	4640.81	0.00	557.48	557.48	0.00	33	37	28.812	103	24	27.932	
5200.00	90.06	90.00	4640.70	0.00	657.48	657.48	0.00	33	37	28.812	103	24	26.749	
5300.00	90.06	90.00	4640.59	0.00	757.48	757.48	0.00	33	37	28.812	103	24	25.566	
5400.00	90.06	90.00	4640.48	0.00	857.48	857.48	0.00	33	37	28.812	103	24	24.384	
5500.00	90.06	90.00	4640.37	0.00	957.48	957.48	0.00	33	37	28.812	103	24	23.201	
5600.00	90.06	90.00	4640.26	0.00	1057.48	1057.48	0.00	33	37	28.812	103	24	22.019	
5700.00	90.06	90.00	4640.14	0.00	1157.48	1157.48	0.00	33	37	28.812	103	24	20.836	
5800.00	90.06	90.00	4640.03	0.00	1257.48	1257.48	0.00	33	37	28.812	103	24	19.654	
5900.00	90.06	90.00	4639.92	0.00	1357.48	1357.48	0.00	33	37	28.812	103	24	18.471	
6000.00	90.06	90.00	4639.81	0.00	1457.48	1457.48	0.00	33	37	28.812	103	24	17.289	
6100.00	90.06	90.00	4639.70	0.00	1557.48	1557.48	0.00	33	37	28.812	103	24	16.106	
6200.00	90.06	90.00	4639.59	0.00	1657.48	1657.48	0.00	33	37	28.812	103	24	14.923	
6300.00	90.06	90.00	4639.47	0.00	1757.48	1757.48	0.00	33	37	28.812	103	24	13.741	
6400.00	90.06	90.00	4639.36	0.00	1857.48	1857.48	0.00	33	37	28.811	103	24	12.558	
6500.00	90.06	90.00	4639.25	0.00	1957.48	1957.48	0.00	33	37	28.811	103	24	11.376	
6600.00	90.06	90.00	4639.14	0.00	2057.48	2057.48	0.00	33	37	28.811	103	24	10.193	
6700.00	90.06	90.00	4639.03	0.00	2157.48	2157.48	0.00	33	37	28.811	103	24	9.011	
6800.00	90.06	90.00	4638.92	0.00	2257.48	2257.48	0.00	33	37	28.811	103	24	7.828	
6900.00	90.06	90.00	4638.81	0.00	2357.48	2357.48	0.00	33	37	28.811	103	24	6.646	
7000.00	90.06	90.00	4638.69	0.00	2457.48	2457.48	0.00	33	37	28.811	103	24	5.463	
7100.00	90.06	90.00	4638.58	0.00	2557.48	2557.48	0.00	33	37	28.811	103	24	4.281	
7200.00	90.06	90.00	4638.47	0.00	2657.48	2657.48	0.00	33	37	28.811	103	24	3.098	
7300.00	90.06	90.00	4638.36	0.00	2757.48	2757.48	0.00	33	37	28.811	103	24	1.915	
7400.00	90.06	90.00	4638.25	0.00	2857.48	2857.48	0.00	33	37	28.811	103	24	0.733	
7500.00	90.06	90.00	4638.14	0.00	2957.48	2957.48	0.00	33	37	28.811	103	23	59.550	
7600.00	90.06	90.00	4638.02	0.00	3057.48	3057.48	0.00	33	37	28.811	103	23	58.368	
7700.00	90.06	90.00	4637.91	0.00	3157.48	3157.48	0.00	33	37	28.810	103	23	57.185	
7800.00	90.06	90.00	4637.80	0.00	3257.48	3257.48	0.00	33	37	28.810	103	23	56.003	
7900.00	90.06	90.00	4637.69	0.00	3357.48	3357.48	0.00	33	37	28.810	103	23	54.820	
8000.00	90.06	90.00	4637.58	0.00	3457.48	3457.48	0.00	33	37	28.810	103	23	53.638	
8100.00	90.06	90.00	4637.47	0.00	3557.48	3557.48	0.00	33	37	28.810	103	23	52.455	
8200.00	90.06	90.00	4637.35	0.00	3657.48	3657.48	0.00	33	37	28.810	103	23	51.272	
8300.00	90.06	90.00	4637.24	0.00	3757.48	3757.48	0.00	33	37	28.810	103	23	50.090	
8400.00	90.06	90.00	4637.13	0.00	3857.48	3857.48	0.00	33	37	28.810	103	23	48.907	
8500.00	90.06	90.00	4637.02	0.00	3957.48	3957.48	0.00	33	37	28.810	103	23	47.725	
8600.00	90.06	90.00	4636.91	0.00	4057.48	4057.48	0.00	33	37	28.809	103	23	46.542	
8700.00	90.06	90.00	4636.80	0.00	4157.48	4157.48	0.00	33	37	28.809	103	23	45.360	
8800.00	90.06	90.00	4636.68	0.00	4257.48	4257.48	0.00	33	37	28.809	103	23	44.177	
8900.00	90.06	90.00	4636.57	0.00	4357.48	4357.48	0.00	33	37	28.809	103	23	42.995	
9000.00	90.06	90.00	4636.46	0.00	4457.48	4457.48	0.00	33	37	28.809	103	23	41.812	
9100.00	90.06	90.00	4636.35	0.00	4557.48	4557.48	0.00	33	37	28.809	103	23	40.630	
9200.00	90.06	90.00	4636.24	0.00	4657.47	4657.47	0.00	33	37	28.809	103	23	39.447	
9300.00	90.06	90.00	4636.13	0.00	4757.47	4757.47	0.00	33	37	28.808	103	23	38.264	
9400.00	90.06	90.00	4636.01	0.00	4857.47	4857.47	0.00	33	37	28.808	103	23	37.082	

Weatherford International Ltd.

WFT Plan Report Lat, Long



Weatherford

Company: EOR Operating	Date: 9/12/2012	Time: 12:33:54	Page: 3
Field: Roosevelt Co., NM (Nad:83)	Co-ordinate(NE) Reference:	Well: MSU:524	True North
Site: Milhesand Unit 524	Vertical (TVD) Reference:	SITE 4250'0	
Well: MSU:524	Section (VS) Reference:	Well (0.00N;0.00E;90.00Azi)	
Wellpath: .1	Survey Calculation Method:	Minimum Curvature	Db: Sybase

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
9412.53	90.06	90.00	4636.00	0.00	4870.00	4870.00	0.00	33	37	28.808	103	23 36.934 PBHL

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
PBHL			4636.00	0.00	4870.00	956119.72	827399.29	33 37 28.808 N	103 23 36.934 W

Casing Points

MD ft	TVD ft	Diameter	Hole Size	Name

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle	Dip Direction

Annotation

MD ft	TVD ft	
4400.00	4400.00	Top of Whip
4415.00	4415.00	Bottom of Whip
4420.00	4419.99	KOP
4772.26	4641.18	LP
9412.52	4636.00	PBHL

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

GeoDec v5.03

Report Date: September 18, 2012
Job Number: _____
Customer: EOR Operating
Well Name: Milnesand Unit MSU 524
API Number: _____
Rig Name: _____
Location: Roosevelt Co, NM
Block: _____
Engineer: Patrick Rudolph

Geodetic Latitude / Longitude	Geodetic Latitude / Longitude
System: Latitude / Longitude	System: Latitude / Longitude
Projection: Geodetic Latitude and Longitude	Projection: Geodetic Latitude and Longitude
Datum: North American Datum 1983	Datum: North American Datum 1983
Ellipsoid: GRS 1980	Ellipsoid: GRS 1980
Latitude 33.6246700 DEG	Latitude 33.6246700 DEG
Longitude -103.4095900 DEG	Longitude -103.4095900 DEG

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	33.62467° N	33° 37 min 28.812 sec
Longitude =	103.40959° W	103° 24 min 34.524 sec

Magnetic Declination =	7.41°	[True North Offset]
Local Gravity =	.9989 g	Checksum = 6580
Local Field Strength =	49331 nT	Magnetic Vector X = 23376 nT
Magnetic Dip =	61.45°	Magnetic Vector Y = 3041 nT
Magnetic Model =	IGRF-2010g11	Magnetic Vector Z = 43334 nT
Spud Date =	Feb 01, 2013	Magnetic Vector H = 23573 nT

Signed: _____

Date: _____

**PECOS DISTRICT - RFO
CONDITIONS OF APPROVAL**

OPERATORS NAME: EOR Operating Co.
LEASE NO.: LC-062178
WELL NAME & NO: Milnesand Unit Well No. 524
SURFACE HOLE FOOTAGE: 1360' FNL & 90' FEL Section 13,
T. 8 S., R. 34 E., NMPM
BOTTOM HOLE FOOTAGE: 1360' FNL & 500' FEL Section 18,
T. 8 S., R. 35 E., NMPM
COUNTY: Roosevelt County, New Mexico

PRAIRIE CHICKENS

No surface use is allowed during the following time periods; unless otherwise specified. This stipulation does not apply to the operation and maintenance of production facilities.

On the land described below:

For the purpose of: Protecting Lesser Prairie-Chickens

Drilling for oil and gas, and 3-D geophysical-exploration operations will not be allowed in Lesser Prairie Chicken Habitat during the period of March 1 through June 15, each year. During that period, between 3:00 a.m. and 9:00 a.m., other activities that produce noise and involve human activity, such as geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will not be allowed. Noise producing activities which do not require a human presence, such as venting, flaring, or pumping, are exempt from the 3:00 a.m. and 9:00 a.m. restriction. Regardless of the time of the year, exhaust noise from pump jack engine must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

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. Entering The Wellbore With The Drill Bit.
 - b. Setting And/Or Cementing Any Casing String That May Be Run
 - c. 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.

OPERATORS NAME: EOR Operating Co.
LEASE NO.: LC-062178
WELL NAME & NO: Milnesand Unit Well No. 524
SURFACE HOLE FOOTAGE: 1360' FNL & 90' FEL Section 13,
T. 8 S., R. 34 E., NMPM
BOTTOM HOLE FOOTAGE: 1360' FNL & 500' FEL Section 18,
T. 8 S., R. 35 E., NMPM
COUNTY: Roosevelt County, New Mexico

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.

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- 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.

Full implementation and enforcement of these procedures begins November 15, 2010.

1. For On-Lease Proposals: Submit Form 3160-5 describing any surface disturbance associated with the project. The length and width of the pond floor, expected depth, and the exterior dimensions of the finished pond (with completed berms) must be stated. If a new road is required to access the pond, this will be described in total length and desired width.

For Off-Lease or Third Party Proposals (ROW): Submit SF-299 "Application for Transportation and Utility Systems." All other procedures described herein will be applicable to freshwater ponds applied for under rights-of-way.

2. List all wells to be serviced by the pond. Tell us the route of your pipeline from the pond to the target well(s).
3. Tell us how the freshwater is to be transported to the pond (trucked, pipeline). A route description is sufficient for lines following existing roads.
4. Attach a survey plat of the proposed pond location. The plat shall depict the exterior dimensions of the pond, the center of the topsoil stockpile as well as the legal land description. When the pond is co-located with an existing or approved well location, show the location of that well as a point of reference on the survey plat.
5. Location stakes at each corner will indicate the inside perimeter of the pond (4-stakes), the maximum width of disturbance including berm walls (4-stakes), and 1 stake to show the center of the topsoil stockpile.
6. Attach a diagram of the project (sample attached as enclosure 2). The diagram will depict the pond dimensions with berms, the location of the stockpiled topsoil, and a North arrow. If a road is requested, depict how the road enters the project area.

An on-site inspection of your proposed project is required. One of our Natural Resource Specialists will contact you to schedule a site visit.