

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB No 1004-0135
Expires January 31, 2004**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on reverse side**

1 Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Mewbourne Oil Company 14744

3a Address

PO Box 5270 Hobbs, NM 88240

3b Phone No (include area code)

575-393-5905

4 Location of Well (Footage, Sec., T, R., M, or Survey Description)

1500' FNL & 850' FWL, Unit E, Sec 27-T16S-R28E

5 Lease Serial No.

NM-83066

6 If Indian, Allottee or Tribe Name

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

NMOCD ARTESIA

8. Well Name and No.

Crow Flats 28 Federal #2H

9 API Well No.

30-015-36876

10. Field and Pool, or Exploratory Area

Dog Canyon Wolfcamp

11. County or Parish, State

Eddy County, NM

12. CHECK 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 _____
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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

Please see attachments for plan.

**SUBJECT TO LIKE
APPROVAL BY STATE****SEE ATTACHED FOR
CONDITIONS OF APPROVAL**14 I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Jackie Lathan

Title Hobbs Regulatory

Signature

Date Apr. 12, 2010

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by (Signature)

Name
(Printed/Typed)

Office

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.

APPROVED

Title

APR 16 2010

/s/ Dustin Winkler

Date

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 any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

(Continued on next page)

Mewbourne Oil Company
PO Box 5270
Hobbs, NM 88240

Re: Change of plans for the Crow Flats 28 Federal #2H.
Sec 27 T-16S R28E.
Eddy County, New Mexico.

MOC has received an approved APD for the above caption well. After further review, MOC would like to make the following changes.

17 1/2" hole, mud, csg & cement will be as applied.

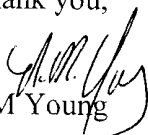
8 3/4" hole will run thru the kick off point (6033' MD) into the landing point of the curve (7000' MD w/ 6605' TVD). Casing program will be 7" (new) 26# P110 Butress from 7000' to 6000'. 7" (new) 26# P110 LTC from 6000' to surface.
Mud program through this interval will be Cut Brine @ 9.0-9.5 MW w/ 32 Vis & 20 WL.
Cement program will be 400 sks Class H lite w/ additives. Yield @ 2.45 cf/sk. Tailed w/ 400 sks Class H w/ additives. Yield @ 1.28 cf/sk. Cement circulated to surface.

6 1/2" hole drilled to 12110' MD (6579' TVD). At this point a Packer/Port system will be run on 4 1/2" casing as follows:
12100' MD (6579' TVD) to 6700' MD (6560' TVD) 4 1/2" (new) 11.6# P110 LT/C w/ 4 1/2" Packers & Ports spaced throughout as needed & a 4 1/2" Packer type liner hanger.
Mud program through this interval will be Cut Brine @ 8.6-9.0 MW w/ 34 Vis & 15 WL.
No cement will be needed for this type of completion.

A new Directional plan is enclosed.

If you have any questions, please call.

Thank you,


NM Young

Mewbourne Oil Company

Location Eddy County, NM
Field (CF) Sec 27, T16S, R28E
Facility Crow Flats 28 Fed No 2H

Slot No. 2H SHL
Well No 2H
Wellbore No 2H PWB

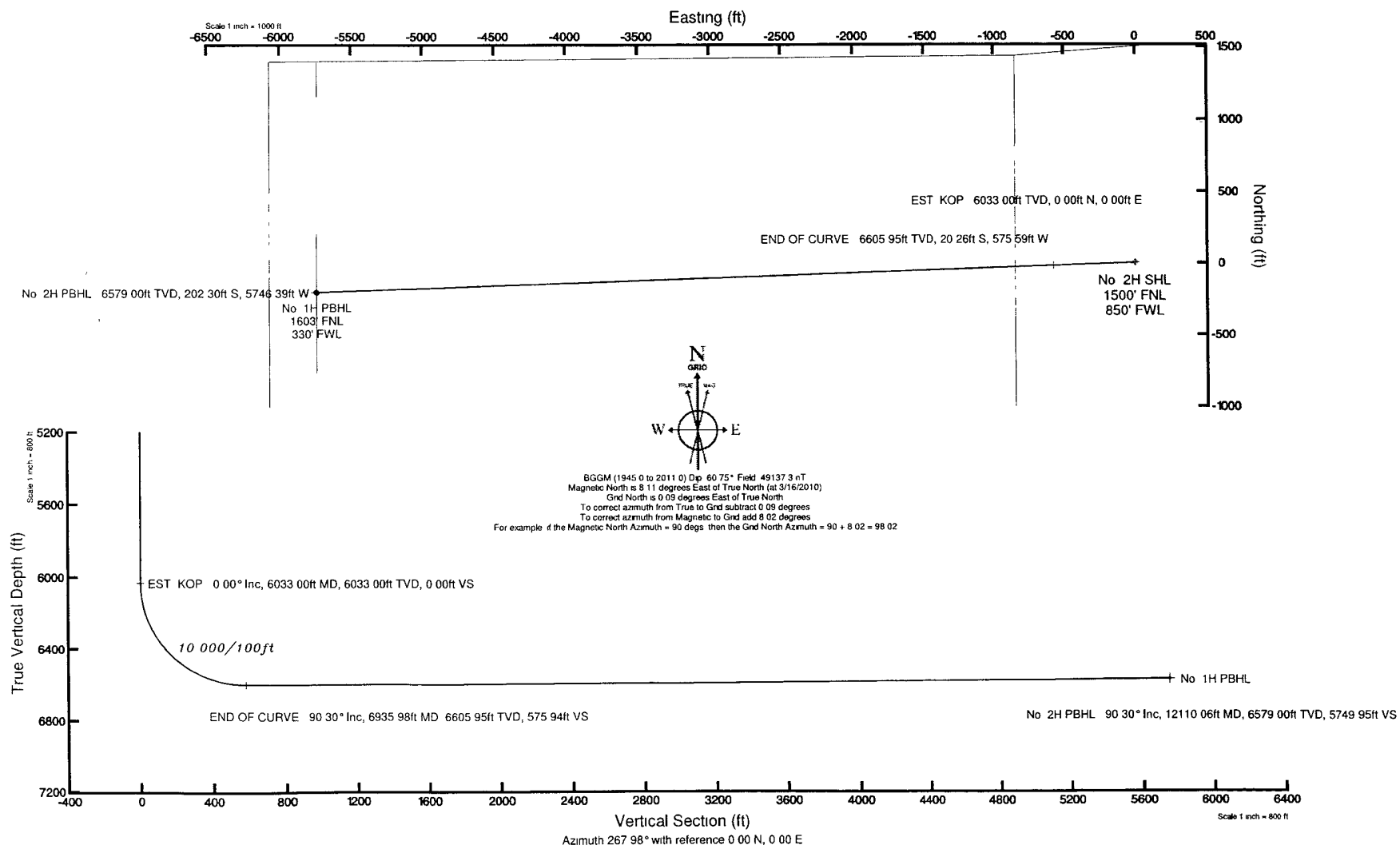
Plot reference wellpath is Plan #1	
True vertical depths are referenced to Rig on No 2H SHL (RT)	Grid System: NAD27 / TM New Mexico State Planes Eastern Zone (3001) US feet
Measured depths are referenced to Rig on No 2H SHL (RT)	North Reference: Grid north
Rig on No 2H SHL (RT) to Mean Sea Level 3617 feet	Scale: True distance
Mean Sea Level to Mud line (Facility Crow Flats 28 Fed No 2H) 3599 feet	Depths are in feet
Coordinates are in feet referenced to Slot	
Created by: Victor Hernandez on 3/17/2010	

 Mewbourne Oil Company

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	267.984	0.00	0.00	0.00	0.00	0.00
EST KOP	6033.00	0.000	267.984	6033.00	0.00	0.00	0.00	0.00
END OF CURVE	6935.98	90.298	267.984	6605.95	-20.26	-575.59	10.00	575.94
No 2H PBHL	12110.06	90.298	267.984	6579.00	-202.30	-5746.39	0.00	5749.95





Planned Wellpath Report

Plan #1
Page 1 of 4

REFERENCE WELLPATH IDENTIFICATION

Operator	Mewbourne Oil Company	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(CF) Sec 27, T16S, R28E	Wellbore	No. 2H PWB
Facility	Crow Flats 28 Fed No. 2H		

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Victor Hernandez
Scale	0.999912	Report Generated	3/17/2010 at 11:12:35 AM
Convergence at slot	0.09° East	Database/Source file	WA_Midland/No. 2H_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	550387.47	689868.96	32°53'47.118"N	104°10'09.024"W
Facility Reference Pt			550387.47	689868.96	32°53'47.118"N	104°10'09.024"W
Field Reference Pt			550387.25	689669.00	32°53'45.139"N	104°10'09.030"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 2H SHL (RT) to GL	18.00ft
Horizontal Reference Pt	Slot	Rig on No. 2H SHL (RT) to Mean Sea Level	3617.00ft
Vertical Reference Pt	Rig on No. 2H SHL (RT)	GL to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 2H SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	267.98°

Planned Wellpath Report

Plan #1
Page 2 of 4



INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Mewbourne Oil Company	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(CF) Sec 27, T16S, R28E	Wellbore	No. 2H PWB
Facility	Crow Flats 28 Fed No. 2H		

WELLPATH DATA (64 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0 00	0 000	267 984	0 00	0 00	0 00	0 00	550387 47	689868 96	32°53'47 118"N	104°10'09.024"W	0.00	Tie On
6033 00	0 000	267 984	6033 00	0 00	0 00	0 00	550387 47	689868 96	32°53'47 118"N	104°10'09 024"W	0.00	EST KOP
6133 00†	10 000	267 984	6132 49	8 70	-0 31	-8 70	550378 77	689868 65	32°53'47.115"N	104°10'09 126"W	10.00	
6233 00†	20 000	267 984	6228 96	34.55	-1 22	-34 53	550352.94	689867 74	32°53'47.106"N	104°10'09.429"W	10.00	
6333 00†	30 000	267 984	6319 48	76.76	-2 70	-76.71	550310.76	689866.26	32°53'47.092"N	104°10'09.924"W	10.00	
6433 00†	40 000	267 984	6401 29	134 05	-4 72	-133 96	550253 52	689864 24	32°53'47.073"N	104°10'10.595"W	10.00	
6533 00†	50 000	267 984	6471 91	204 67	-7 20	-204 54	550182 95	689861 76	32°53'47.050"N	104°10'11.423"W	10.00	
6633 00†	60 000	267 984	6529 20	286 48	-10 08	-286 30	550101 19	689858.88	32°53'47.022"N	104°10'12.382"W	10.00	
6733 00†	70 000	267 984	6571 40	376 99	-13 26	-376.76	550010 74	689855.69	32°53'46.992"N	104°10'13 443"W	10.00	
6833 00†	80 000	267 984	6597.25	473.46	-16.66	-473.17	549914.34	689852.30	32°53'46.960"N	104°10'14.573"W	10.00	
6933 00†	90 000	267 984	6605 96	572 96	-20 16	-572 60	549814 92	689848 80	32°53'46 927"N	104°10'15.739"W	10.00	
6935 98	90 298	267 984	6605 95	575 94	-20 26	-575 59	549811 94	689848 69	32°53'46.926"N	104°10'15.774"W	10.00	END OF CURVE
7033 00†	90 298	267 984	6605 44	672 96	-23 68	-672 54	549714 99	689845 28	32°53'46.894"N	104°10'16 912"W	0.00	
7133 00†	90 298	267 984	6604 92	772 96	-27 20	-772 48	549615.06	689841.76	32°53'46 860"N	104°10'18.084"W	0.00	
7233 00†	90 298	267 984	6604 40	872 95	-30.71	-872.41	549515.13	689838.25	32°53'46.827"N	104°10'19.256"W	0.00	
7333 00†	90 298	267 984	6603 88	972.95	-34 23	-972 35	549415 21	689834.73	32°53'46.794"N	104°10'20.428"W	0.00	
7433 00†	90 298	267 984	6603 36	1072 95	-37 75	-1072 29	549315 28	689831.21	32°53'46.761"N	104°10'21.600"W	0.00	
7533 00†	90 298	267 984	6602 84	1172 95	-41 27	-1172 22	549215 35	689827.69	32°53'46 727"N	104°10'22.772"W	0.00	
7633 00†	90 298	267 984	6602 32	1272 95	-44 79	-1272 16	549115 42	689824 17	32°53'46 694"N	104°10'23.944"W	0.00	
7733 00†	90 298	267 984	6601 80	1372 95	-48 31	-1372.10	549015.50	689820.66	32°53'46.661"N	104°10'25.116"W	0.00	
7833 00†	90 298	267 984	6601 28	1472 95	-51 82	-1472 03	548915 57	689817 14	32°53'46.627"N	104°10'26.288"W	0.00	
7933 00†	90 298	267 984	6600 76	1572 94	-55 34	-1571 97	548815.64	689813 62	32°53'46.594"N	104°10'27.460"W	0.00	
8033 00†	90 298	267 984	6600 24	1672 94	-58 86	-1671 91	548715 71	689810.10	32°53'46.561"N	104°10'28 632"W	0.00	
8133 00†	90 298	267 984	6599 72	1772 94	-62 38	-1771.84	548615 78	689806 58	32°53'46 527"N	104°10'29.804"W	0.00	
8233 00†	90 298	267 984	6599 19	1872 94	-65.90	-1871.78	548515.86	689803.07	32°53'46.494"N	104°10'30.976"W	0.00	
8333 00†	90 298	267 984	6598 67	1972 94	-69 42	-1971 72	548415.93	689799 55	32°53'46.461"N	104°10'32.148"W	0.00	
8433 00†	90 298	267 984	6598 15	2072 94	-72 93	-2071 65	548316 00	689796 03	32°53'46.427"N	104°10'33.321"W	0.00	
8533 00†	90 298	267 984	6597 63	2172 94	-76 45	-2171 59	548216 07	689792.51	32°53'46 394"N	104°10'34 493"W	0.00	
8633 00†	90 298	267 984	6597 11	2272 93	-79 97	-2271 53	548116 15	689788 99	32°53'46 361"N	104°10'35.665"W	0.00	
8733 00†	90 298	267 984	6596 59	2372 93	-83 49	-2371 46	548016 22	689785 48	32°53'46 327"N	104°10'36 837"W	0.00	

Planned Wellpath Report

Plan #1
Page 3 of 4

REFERENCE WELLPATH IDENTIFICATION

Operator	Mewbourne Oil Company	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(CF) Sec 27, T16S, R28E	Wellbore	No. 2H PWB
Facility	Crow Flats 28 Fed No. 2H		

WELLPATH DATA (64 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8833 00†	90 298	267 984	6596 07	2472 93	-87 01	-2471 40	547916 29	689781 96	32°53'46 294"N	104°10'38 009"W	0.00	
8933 00†	90 298	267 984	6595 55	2572 93	-90.53	-2571 34	547816.36	689778.44	32°53'46 261"N	104°10'39 181"W	0 00	
9033 00†	90 298	267 984	6595 03	2672 93	-94 04	-2671 27	547716 43	689774.92	32°53'46.227"N	104°10'40 353"W	0 00	
9133 00†	90 298	267 984	6594 51	2772 93	-97.56	-2771 21	547616 51	689771 40	32°53'46 194"N	104°10'41.525"W	0 00	
9233 00†	90 298	267 984	6593.99	2872.93	-101.08	-2871 15	547516.58	689767.88	32°53'46.161"N	104°10'42.697"W	0.00	
9333 00†	90 298	267 984	6593 46	2972 93	-104 60	-2971 08	547416 65	689764 37	32°53'46.127"N	104°10'43 869"W	0.00	
9433 00†	90 298	267 984	6592 94	3072 92	-108 12	-3071 02	547316.72	689760 85	32°53'46 094"N	104°10'45 041"W	0 00	
9533 00†	90 298	267 984	6592 42	3172.92	-111 64	-3170.96	547216 80	689757.33	32°53'46.060"N	104°10'46.213"W	0.00	
9633 00†	90 298	267 984	6591 90	3272.92	-115 15	-3270 89	547116.87	689753 81	32°53'46.027"N	104°10'47.385"W	0.00	
9733 00†	90 298	267 984	6591.38	3372.92	-118.67	-3370.83	547016.94	689750.29	32°53'45.994"N	104°10'48.557"W	0.00	
9833 00†	90 298	267 984	6590 86	3472 92	-122 19	-3470 77	546917 01	689746.78	32°53'45.960"N	104°10'49.730"W	0.00	
9933 00†	90 298	267 984	6590 34	3572 92	-125 71	-3570.71	546817 09	689743 26	32°53'45 927"N	104°10'50.902"W	0 00	
10033 00†	90 298	267 984	6589 82	3672 92	-129 23	-3670 64	546717 16	689739.74	32°53'45.894"N	104°10'52.074"W	0.00	
10133 00†	90 298	267 984	6589 30	3772 91	-132.74	-3770 58	546617 23	689736 22	32°53'45 860"N	104°10'53.246"W	0.00	
10233 00†	90 298	267 984	6588.78	3872.91	-136.26	-3870.52	546517.30	689732.70	32°53'45.827"N	104°10'54.418"W	0.00	
10333 00†	90 298	267 984	6588 26	3972 91	-139 78	-3970 45	546417.37	689729 19	32°53'45 793"N	104°10'55.590"W	0 00	
10433 00†	90 298	267 984	6587 74	4072 91	-143 30	-4070 39	546317 45	689725 67	32°53'45.760"N	104°10'56 762"W	0 00	
10533 00†	90 298	267 984	6587 21	4172 91	-146 82	-4170 33	546217.52	689722 15	32°53'45 727"N	104°10'57.934"W	0.00	
10633 00†	90 298	267 984	6586 69	4272 91	-150.34	-4270.26	546117 59	689718.63	32°53'45.693"N	104°10'59.106"W	0 00	
10733 00†	90 298	267 984	6586.17	4372.91	-153.85	-4370.20	546017.66	689715.11	32°53'45.660"N	104°11'00.278"W	0.00	
10833 00†	90 298	267 984	6585 65	4472 90	-157 37	-4470.14	545917 74	689711 60	32°53'45 626"N	104°11'01.450"W	0 00	
10933 00†	90 298	267 984	6585 13	4572 90	-160 89	-4570 07	545817.81	689708 08	32°53'45 593"N	104°11'02.622"W	0.00	
11033 00†	90 298	267 984	6584.61	4672 90	-164.41	-4670 01	545717 88	689704.56	32°53'45 560"N	104°11'03.794"W	0.00	
11133 00†	90 298	267 984	6584.09	4772 90	-167 93	-4769 95	545617.95	689701 04	32°53'45 526"N	104°11'04.966"W	0.00	
11233 00†	90 298	267 984	6583.57	4872.90	-171.45	-4869.88	545518.02	689697.52	32°53'45.493"N	104°11'06.138"W	0.00	
11333 00†	90 298	267 984	6583.05	4972 90	-174 96	-4969 82	545418.10	689694 01	32°53'45 459"N	104°11'07.311"W	0.00	
11433 00†	90 298	267 984	6582 53	5072 90	-178 48	-5069 76	545318.17	689690 49	32°53'45 426"N	104°11'08.483"W	0 00	
11533 00†	90 298	267 984	6582.01	5172.90	-182 00	-5169 69	545218 24	689686 97	32°53'45 392"N	104°11'09 655"W	0.00	
11633 00†	90 298	267 984	6581 48	5272 89	-185 52	-5269 63	545118.31	689683 45	32°53'45 359"N	104°11'10 827"W	0 00	
11733 00†	90 298	267 984	6580.96	5372.89	-189.04	-5369.57	545018.39	689679.93	32°53'45.326"N	104°11'11.999"W	0.00	

Planned Wellpath Report

Plan #1
Page 4 of 4



INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Mewbourne Oil Company	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(CF) Sec 27, T16S, R28E	Wellbore	No. 2H PWB
Facility	Crow Flats 28 Fed No. 2H		

WELLPATH DATA (64 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11833.00†	90.298	267.984	6580.44	5472.89	-192.56	-5469.50	544918.46	689676.42	32°53'45.292"N	104°11'13.171"W	0.00	
11933.00†	90.298	267.984	6579.92	5572.89	-196.07	-5569.44	544818.53	689672.90	32°53'45.259"N	104°11'14.343"W	0.00	
12033.00†	90.298	267.984	6579.40	5672.89	-199.59	-5669.38	544718.60	689669.38	32°53'45.225"N	104°11'15.515"W	0.00	
12110.06	90.298	267.984	6579.00 ¹	5749.95	-202.30	-5746.39	544641.60	689666.67	32°53'45.200"N	104°11'16.418"W	0.00	No. 2H PBHL

TARGETS											
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape		
1) No. 1H PBHL	12110.06	6579.00	-202.30	-5746.39	544641.60	689666.67	32°53'45.200"N	104°11'16.418"W	point		

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	12110.06	NaviTrak (Standard)		No. 2H PWB	

Mewbourne Oil Company
NM-83066: Crow Flats 28 Federal #2H
API: 30-015-36876
Eddy County, New Mexico

RE: Casing change – Conditions of Approval

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

HIGH CAVE/KARST –IF LOST CIRCULATION OCCURS WHILE DRILLING THE 8-3/4" HOLE, THE CEMENT PROGRAM FOR THE 7" CASING WILL NEED TO BE MODIFIED AND THE BLM IS TO BE CONTACTED PRIOR TO RUNNING THE CASING. A MINIMUM OF TWO CASING STRINGS CEMENTED TO SURFACE IS REQUIRED IN HIGH CAVE/KARST AREAS. THE CEMENT MUST BE IN A SOLID SHEATH THEREFORE, ONE INCH OPERATIONS WILL NOT BE PERMITTED. A DV TOOL WILL BE REQUIRED.

Possible loss of circulation in the Grayburg and San Andres formations.
Possible high pressure gas in the Wolfcamp formation.

1. The 13-3/8 inch surface casing shall be set at **approximately 350 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface.
 - a. For the surface casing: If cement does not circulate to the surface, the appropriate BLM office shall be notified and a tag with 1" will be performed at four positions 90 degrees apart to verify cement depth. BLM Petroleum Engineer Technician to witness tags. If depth is greater than 100' or water is standing in the annulus, remedial cementing will be done. If no water and TOC tag is less than 100', when 100% excess cement of the annulus volume was run on the primary job, ready-mix can be used to bring cement to surface.
 - b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
 - 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 compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Mud to be monitored while drilling the 8-3/4 inch hole as the formation below the surface casing shoe may not be capable of withstanding the potential pressure if a gas kick is taken.

2. The minimum required fill of cement behind the 7 inch intermediate casing is:

- ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst. Additional cement may be required. Excess calculates to only 22%.**

Formation below the 7" shoe to be tested according to Onshore Order 2.III.B.1.i.

Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

3. The minimum required fill of cement behind the 4-1/2 inch production casing is:

- ☒ Cement not required. Packer system to be used.

4. 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.

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