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Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

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

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.

5. Lease Serial No
SHL:LS#NMNM104676 BHL:NMNM12110

6 If Indian, Allottee or Tribe Name
N/A

SUBMIT IN TRIPLICATE - Other instructions on page 2.

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

1 Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

8 Well Name and No
CARBON VALLEY 31 FED COM #1H

2. Name of Operator

MURCHISON OIL & GAS, INC.

9 API Well No.

30-015-37603

3a Address

1100 MIRA VISTA BLVD
PLANO, TX 75093-4698

3b. Phone No. (include area code)

972-931-0700

10 Field and Pool or Exploratory Area
DOG CANYON; WOLFCAMP

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

SHL 1980° FSL & 200° FEL, UNIT I, SEC 31, T16S, R28E
BHL 1980° FSL & 330° FWL, UNIT L, SEC 31, T16S, R28E

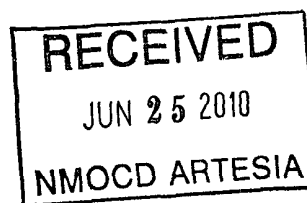
11 Country or Parish, State
EDDY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ 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	

13 Describe Proposed or Completed Operation Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA Required subsequent reports 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.)

Murchison Oil & Gas, Inc. requests permission to make a change to our original drilling plan for geologic reasons. Per the attached new plan, we request a revised Bottom Hole Location of 2250' FSL & 330' FWL. There is no proposed change to the penetration point at the top of the Wolfcamp Formation.



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

A. Arnold Nall

Title Vice President Operations

Signature

A. Arnold Nall

Date 06/09/2010

THIS SPACE FOR FEDERAL OR STATE OFFICIAL USE

Approved by

[Signature]

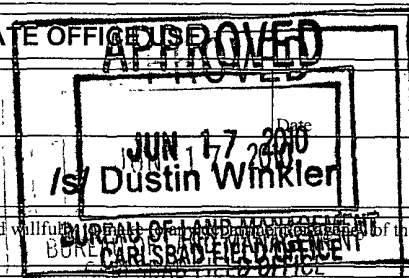
Title

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

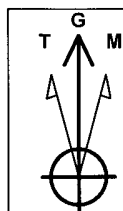
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make or cause to be made any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)



Submit a C-102, revised

Murchison Oil & Gas



Azimuths to Grid North
True North: -0.07°
Magnetic North: 7.97°

Magnetic Field
Strength: 49070.9nT
Dip Angle: 60.72°
Date: 06/03/2010
Model: IGRF200510

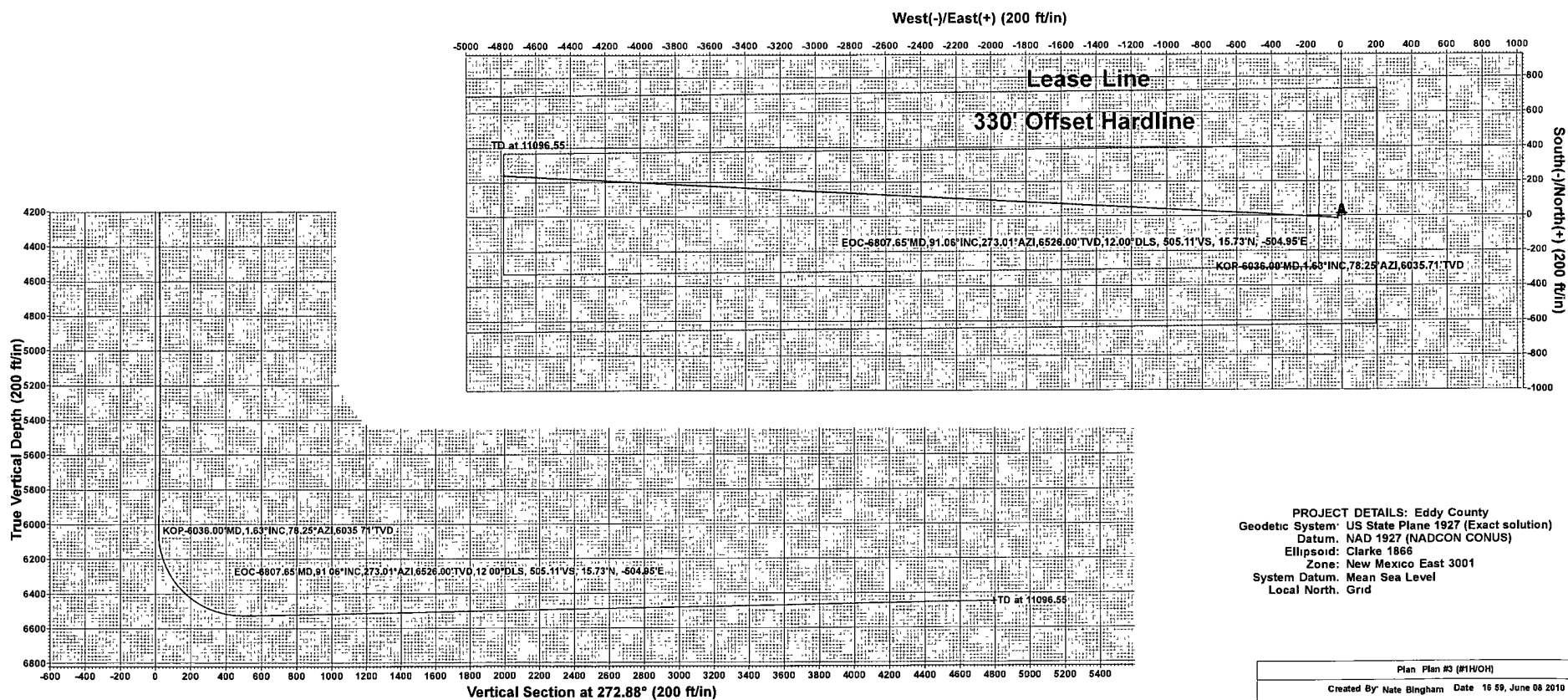
PATHFINDER

WELL DETAILS #1H							
Ground Elevation		3558.00					
RKB Elevation		WELL @ 3576.00ft (Original Well Elev)					
Rig Name		Original Well Elev					
+N-S	+E-W	Northing	Easting	Latitude	Longitude	Slot	
0.00	0.00	682370.400	638836.000	32° 52' 33.075 N	104° 12' 24.512 W		

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	DLeg	TFace	VSec	Target
1	6036.00	1.63	78.25	6035.71	-13.40	-19.88	0.00	0.00	19.18	
2	6807.65	91.06	273.01	6526.00	15.73	-504.95	12.00	-165.22	505.11	
3	11096.55	91.06	273.01	6446.55	240.90	-4787.20	0.00	0.00	4793.25	PBHL(31#1H)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)						
Name	TVD	+N-S	+E-W	Northing	Easting	Shape
PBHL(31#1H)	6447.00	241.00	-4787.20	682611.400	534045.800	Point

Project: Eddy County
Site: Carbon Valley 31 Federal Com
Well: #1H
Wellbore: OH
Plan: Plan #3 (#1H/OH)



Murchison Oil & Gas

Eddy County

Carbon Valley 31 Federal Com

#1H

OH

Plan: Plan #3

Pathfinder X & Y Planning Report

08 June, 2010

The logo for Pathfinder, featuring the word "PATHFINDER" in a bold, sans-serif font. The letters are filled with a dense, stippled or textured pattern. A thick, solid black line curves under the word, starting from the bottom of the 'P' and ending under the 'R'.

Pathfinder
Pathfinder X & Y Planning Report



Company: Murchison Oil & Gas
Project: Eddy County
Site: Carbon Valley 31 Federal Com
Well: #1H
Wellbore: OH
Design: Plan #3

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 3576.00ft (Original Well Elev)
MD Reference: WELL @ 3576.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Project:	Eddy County		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Carbon Valley 31 Federal Com				
Site Position:		Northing:	682,370 400 ft	Latitude:	32° 52' 33.075 N
From:	Map	Easting:	538,836 000 ft	Longitude:	104° 12' 24.612 W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	0.07 °

Well		#1H				
Well Position	+N/-S	0.00 ft	Northing:	682,370 400 ft	Latitude:	32° 52' 33.075 N
	+E/-W	0.00 ft	Easting:	538,836.000 ft	Longitude:	104° 12' 24.612 W
Position Uncertainty	0.00 ft		Wellhead Elevation:	ft	Ground Level:	3,558.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	06/03/2010	8 04	60.72	49.071

Design	Plan #3			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	6,036.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	272.88

Pathfinder

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Survey Tool Program **Date** 06/08/2010

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
100.00	6,036.00	GYRO (OH)	CB-GYRO-MS	Camera based gyro multishot
6,036.00	11,096.54	Plan #3 (OH)	MWD	MWD - Standard

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
0.00	0.00	0.00	0.00	-3,576.00	0.00	0.00	0.00	0.00	682,370.40	538,836.00
100.00	0.15	67.88	100.00	-3,476.00	0.05	0.12	-0.12	0.15	682,370.45	538,836.12
200.00	0.31	111.30	200.00	-3,376.00	0.00	0.49	-0.49	0.23	682,370.40	538,836.49
300.00	0.09	200.22	300.00	-3,276.00	-0.17	0.72	-0.73	0.32	682,370.23	538,836.72
400.00	0.10	47.80	400.00	-3,176.00	-0.19	0.76	-0.77	0.18	682,370.21	538,836.76
500.00	0.10	216.04	500.00	-3,076.00	-0.20	0.77	-0.78	0.20	682,370.20	538,836.77
600.00	0.19	228.13	600.00	-2,976.00	-0.38	0.60	-0.61	0.09	682,370.02	538,836.60
700.00	0.15	261.53	700.00	-2,876.00	-0.51	0.34	-0.37	0.10	682,369.89	538,836.34
800.00	0.17	248.53	800.00	-2,776.00	-0.58	0.07	-0.10	0.04	682,369.82	538,836.07
900.00	0.26	298.91	900.00	-2,676.00	-0.53	-0.26	0.23	0.20	682,369.87	538,835.74
1,000.00	0.18	278.57	1,000.00	-2,576.00	-0.39	-0.62	0.59	0.11	682,370.01	538,835.38
1,100.00	0.38	325.47	1,099.99	-2,476.01	-0.10	-0.96	0.95	0.29	682,370.30	538,835.04
1,200.00	0.33	312.01	1,199.99	-2,376.01	0.37	-1.36	1.38	0.10	682,370.77	538,834.64
1,300.00	0.32	297.86	1,299.99	-2,276.01	0.69	-1.82	1.85	0.08	682,371.09	538,834.18
1,400.00	0.32	281.71	1,399.99	-2,176.01	0.88	-2.34	2.38	0.09	682,371.28	538,833.66
1,500.00	0.43	271.01	1,499.99	-2,076.01	0.94	-2.99	3.03	0.13	682,371.34	538,833.01
1,600.00	0.42	266.30	1,599.98	-1,976.02	0.92	-3.73	3.77	0.04	682,371.32	538,832.27
1,700.00	0.91	261.35	1,699.98	-1,876.02	0.78	-4.88	4.92	0.49	682,371.18	538,831.12
1,800.00	1.31	260.00	1,799.96	-1,776.04	0.46	-6.79	6.81	0.40	682,370.86	538,829.21
1,900.00	1.26	258.06	1,899.93	-1,676.07	0.04	-8.99	8.99	0.07	682,370.44	538,827.01
2,000.00	1.27	254.96	1,999.91	-1,576.09	-0.48	-11.14	11.10	0.07	682,369.92	538,824.86

Pathfinder

Pathfinder X & Y Planning Report



Company: Murchison Oil & Gas
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Site: Carbon Valley 31 Federal Com
Well: #1H
Wellbore: OH
Design: Plan #3

Local Co-ordinate Reference: Well #1H
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Survey Calculation Method: Minimum Curvature
Database: Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
2,100.00	0.94	252.69	2,099.89	-1,476.11	-1.01	-12.99	12.93	0.33	682,369.39	538,823.01
2,200.00	0.75	258.92	2,199.88	-1,376.12	-1.38	-14.42	14.33	0.21	682,369.02	538,821.58
2,300.00	0.84	262.69	2,299.87	-1,276.13	-1.60	-15.79	15.69	0.10	682,368.80	538,820.21
2,400.00	0.76	262.88	2,399.86	-1,176.14	-1.77	-17.17	17.06	0.08	682,368.63	538,818.83
2,500.00	0.76	263.13	2,499.85	-1,076.15	-1.94	-18.49	18.37	0.00	682,368.46	538,817.51
2,600.00	0.73	259.10	2,599.84	-976.16	-2.14	-19.77	19.64	0.06	682,368.26	538,816.23
2,700.00	0.56	236.94	2,699.84	-876.16	-2.52	-20.81	20.66	0.30	682,367.88	538,815.19
2,800.00	0.64	231.20	2,799.83	-776.17	-3.14	-21.65	21.47	0.10	682,367.26	538,814.35
2,900.00	0.59	226.28	2,899.83	-676.17	-3.84	-22.46	22.24	0.07	682,366.56	538,813.54
3,000.00	0.56	226.60	2,999.82	-576.18	-4.54	-23.19	22.93	0.03	682,365.86	538,812.81
3,100.00	0.54	210.49	3,099.82	-476.18	-5.28	-23.78	23.49	0.16	682,365.12	538,812.22
3,200.00	0.52	220.34	3,199.81	-376.19	-6.03	-24.32	23.98	0.09	682,364.37	538,811.68
3,300.00	0.60	205.48	3,299.81	-276.19	-6.85	-24.83	24.46	0.17	682,363.55	538,811.17
3,400.00	0.28	196.63	3,399.80	-176.20	-7.56	-25.13	24.72	0.33	682,362.84	538,810.87
3,500.00	0.57	185.28	3,499.80	-76.20	-8.28	-25.25	24.80	0.30	682,362.12	538,810.75
3,600.00	0.37	185.04	3,599.80	23.80	-9.10	-25.32	24.83	0.20	682,361.30	538,810.68
3,700.00	0.52	202.59	3,699.79	123.79	-9.84	-25.52	25.00	0.20	682,360.56	538,810.48
3,800.00	0.42	210.77	3,799.79	223.79	-10.58	-25.88	25.32	0.12	682,359.82	538,810.12
3,900.00	0.17	222.02	3,899.79	323.79	-11.00	-26.17	25.59	0.26	682,359.40	538,809.83
4,000.00	0.11	193.89	3,999.79	423.79	-11.20	-26.29	25.70	0.09	682,359.20	538,809.71
4,100.00	0.07	39.29	4,099.79	523.79	-11.25	-26.28	25.68	0.18	682,359.15	538,809.72
4,200.00	0.19	50.50	4,199.79	623.79	-11.10	-26.11	25.52	0.12	682,359.30	538,809.89
4,300.00	0.06	314.63	4,299.79	723.79	-10.96	-26.02	25.44	0.21	682,359.44	538,809.98
4,400.00	0.17	238.35	4,399.79	823.79	-11.00	-26.18	25.60	0.17	682,359.40	538,809.82
4,500.00	0.20	243.22	4,499.79	923.79	-11.15	-26.47	25.87	0.03	682,359.25	538,809.53
4,600.00	0.27	232.77	4,599.79	1,023.79	-11.37	-26.81	26.20	0.08	682,359.03	538,809.19
4,700.00	0.26	223.68	4,699.79	1,123.79	-11.68	-27.15	26.53	0.04	682,358.72	538,808.85

Pathfinder

Pathfinder X & Y Planning Report



Company: Murchison Oil & Gas
 Project: Eddy County
 Site: Carbon Valley 31 Federal Com
 Well: #1H
 Wellbore: OH
 Design: Plan #3

Local Co-ordinate Reference: Well #1H
 TVD Reference: WELL @ 3576.00ft (Original Well Elev)
 MD Reference: WELL @ 3576.00ft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
4,800.00	0.07	306.76	4,799.79	1,223.79	-11.81	-27.36	26.73	0.26	682,358.59	538,808.64
4,900.00	0.08	297.18	4,899.79	1,323.79	-11.74	-27.47	26.85	0.02	682,358.66	538,808.53
5,000.00	0.11	291.31	4,999.79	1,423.79	-11.67	-27.62	27.00	0.03	682,358.73	538,808.38
5,100.00	0.17	263.76	5,099.79	1,523.79	-11.65	-27.86	27.24	0.09	682,358.75	538,808.14
5,200.00	0.23	178.55	5,199.79	1,623.79	-11.87	-28.00	27.37	0.27	682,358.53	538,808.00
5,300.00	0.41	141.19	5,299.78	1,723.78	-12.35	-27.77	27.12	0.27	682,358.05	538,808.23
5,400.00	0.32	147.69	5,399.78	1,823.78	-12.87	-27.40	26.72	0.10	682,357.53	538,808.60
5,500.00	0.31	148.01	5,499.78	1,923.78	-13.33	-27.11	26.40	0.01	682,357.07	538,808.89
5,600.00	0.39	149.74	5,599.78	2,023.78	-13.85	-26.79	26.06	0.08	682,356.55	538,809.21
5,700.00	0.53	95.37	5,699.78	2,123.78	-14.19	-26.16	25.41	0.44	682,356.21	538,809.84
5,800.00	0.86	93.28	5,799.77	2,223.77	-14.28	-24.95	24.20	0.33	682,356.12	538,811.05
5,900.00	1.07	77.28	5,899.75	2,323.75	-14.12	-23.29	22.55	0.34	682,356.28	538,812.71
6,000.00	1.72	78.41	5,999.72	2,423.72	-13.61	-20.91	20.20	0.65	682,356.79	538,815.09
6,036.00	1.63	78.25	6,035.71	2,459.71	-13.40	-19.88	19.18	0.26	682,357.00	538,816.12
KOP-6036.00' MD, 1.63° INC, 78.25° AZI, 6035.71' TVD										
6,050.00	0.43	348.42	6,049.71	2,473.71	-13.30	-19.70	19.00	12.00	682,357.10	538,816.30
6,075.00	3.14	280.61	6,074.69	2,498.69	-13.09	-20.39	19.70	12.00	682,357.31	538,815.61
6,100.00	6.12	276.89	6,099.61	2,523.61	-12.80	-22.38	21.71	12.00	682,357.60	538,813.62
6,125.00	9.12	275.60	6,124.39	2,548.39	-12.45	-25.68	25.02	12.00	682,357.95	538,810.32
6,150.00	12.12	274.95	6,148.95	2,572.95	-12.03	-30.27	29.62	12.00	682,358.37	538,805.73
6,175.00	15.12	274.55	6,173.25	2,597.25	-11.54	-36.13	35.51	12.00	682,358.86	538,799.87
6,200.00	18.12	274.29	6,197.20	2,621.20	-10.99	-43.26	42.65	12.00	682,359.41	538,792.74
6,225.00	21.12	274.09	6,220.75	2,644.75	-10.38	-51.63	51.05	12.00	682,360.02	538,784.37
6,250.00	24.12	273.94	6,243.82	2,667.82	-9.71	-61.22	60.66	12.00	682,360.69	538,774.78
6,275.00	27.12	273.83	6,266.36	2,690.36	-8.98	-72.01	71.47	12.00	682,361.42	538,763.99
6,300.00	30.12	273.73	6,288.30	2,712.30	-8.19	-83.96	83.44	12.00	682,362.21	538,752.04
6,325.00	33.12	273.65	6,309.59	2,733.59	-7.34	-97.03	96.54	12.00	682,363.06	538,738.97

Pathfinder

Pathfinder X & Y Planning Report



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Wellbore: OH
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6,350.00	36.12	273.59	6,330.16	2,754.16	-6.45	-111.21	110.74	12.00	682,363.95	538,724.79
6,375.00	39.12	273.53	6,349.96	2,773.96	-5.50	-126.44	126.00	12.00	682,364.90	538,709.56
6,400.00	42.13	273.48	6,368.93	2,792.93	-4.51	-142.69	142.28	12.00	682,365.89	538,693.31
6,425.00	45.13	273.43	6,387.02	2,811.02	-3.47	-159.90	159.52	12.00	682,366.93	538,676.10
6,450.00	48.13	273.39	6,404.19	2,828.19	-2.39	-178.04	177.69	12.00	682,368.01	538,657.96
6,475.00	51.13	273.35	6,420.38	2,844.38	-1.27	-197.05	196.74	12.00	682,369.13	538,638.95
6,500.00	54.13	273.32	6,435.56	2,859.56	-0.11	-216.88	216.60	12.00	682,370.29	538,619.12
6,525.00	57.13	273.29	6,449.67	2,873.67	1.08	-237.48	237.23	12.00	682,371.48	538,598.52
6,550.00	60.13	273.26	6,462.68	2,886.68	2.29	-258.79	258.58	12.00	682,372.69	538,577.21
6,575.00	63.13	273.23	6,474.56	2,898.56	3.54	-280.75	280.57	12.00	682,373.94	538,555.25
6,600.00	66.13	273.20	6,485.27	2,909.27	4.80	-303.30	303.16	12.00	682,375.20	538,532.70
6,625.00	69.13	273.18	6,494.78	2,918.78	6.09	-326.38	326.27	12.00	682,376.49	538,509.62
6,650.00	72.14	273.15	6,503.07	2,927.07	7.39	-349.93	349.86	12.00	682,377.79	538,486.07
6,675.00	75.14	273.13	6,510.11	2,934.11	8.71	-373.88	373.84	12.00	682,379.11	538,462.12
6,700.00	78.14	273.10	6,515.89	2,939.89	10.03	-398.16	398.16	12.00	682,380.43	538,437.84
6,725.00	81.14	273.08	6,520.38	2,944.38	11.35	-422.71	422.75	12.00	682,381.75	538,413.29
6,750.00	84.14	273.06	6,523.59	2,947.59	12.68	-447.47	447.54	12.00	682,383.08	538,388.53
6,775.00	87.14	273.04	6,525.49	2,949.49	14.01	-472.36	472.47	12.00	682,384.41	538,363.64
6,800.00	90.14	273.02	6,526.08	2,950.08	15.33	-497.31	497.46	12.00	682,385.73	538,338.69
6,807.65	91.06	273.01	6,526.00	2,950.00	15.73	-504.96	505.11	12.00	682,386.13	538,331.04
EOC-6807.65°MD,91.06°INC,273.01°AZI,6526.00°TVD,12.00°DLS, 505.11°VS, 15.73°N, -504.95°E										
6,900.00	91.06	273.01	6,524.29	2,948.29	20.58	-597.16	597.44	0.00	682,390.98	538,238.84
7,000.00	91.06	273.01	6,522.44	2,946.44	25.83	-697.01	697.42	0.00	682,396.23	538,138.99
7,100.00	91.06	273.01	6,520.59	2,944.59	31.08	-796.85	797.41	0.00	682,401.48	538,039.15
7,200.00	91.06	273.01	6,518.74	2,942.74	36.33	-896.70	897.39	0.00	682,406.73	537,939.30
7,300.00	91.06	273.01	6,516.89	2,940.89	41.58	-996.54	997.37	0.00	682,411.98	537,839.46
7,400.00	91.06	273.01	6,515.04	2,939.04	46.83	-1,096.39	1,097.35	0.00	682,417.23	537,739.61

Pathfinder

Pathfinder X & Y Planning Report



Company: Murchison Oil & Gas
Project: Eddy County
Site: Carbon Valley 31 Federal Com
Well: #1H
Wellbore: OH
Design: Plan #3

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 3576.00ft (Original Well Elev)
MD Reference: WELL @ 3576.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
7,500.00	91.06	273.01	6,513.19	2,937.19	52.08	-1,196.23	1,197.34	0.00	682,422.48	537,639.77
7,600.00	91.06	273.01	6,511.34	2,935.34	57.33	-1,296.08	1,297.32	0.00	682,427.73	537,539.92
7,700.00	91.06	273.01	6,509.49	2,933.49	62.58	-1,395.92	1,397.30	0.00	682,432.98	537,440.08
7,800.00	91.06	273.01	6,507.64	2,931.64	67.83	-1,495.77	1,497.28	0.00	682,438.23	537,340.23
7,900.00	91.06	273.01	6,505.79	2,929.79	73.08	-1,595.61	1,597.27	0.00	682,443.48	537,240.39
8,000.00	91.06	273.01	6,503.94	2,927.94	78.33	-1,695.46	1,697.25	0.00	682,448.73	537,140.54
8,100.00	91.06	273.01	6,502.09	2,926.09	83.58	-1,795.30	1,797.23	0.00	682,453.98	537,040.70
8,200.00	91.06	273.01	6,500.24	2,924.24	88.83	-1,895.15	1,897.21	0.00	682,459.23	536,940.85
8,300.00	91.06	273.01	6,498.39	2,922.39	94.08	-1,994.99	1,997.20	0.00	682,464.48	536,841.01
8,400.00	91.06	273.01	6,496.54	2,920.54	99.33	-2,094.83	2,097.18	0.00	682,469.73	536,741.17
8,500.00	91.06	273.01	6,494.69	2,918.69	104.58	-2,194.68	2,197.16	0.00	682,474.98	536,641.32
8,600.00	91.06	273.01	6,492.84	2,916.84	109.83	-2,294.52	2,297.15	0.00	682,480.23	536,541.48
8,700.00	91.06	273.01	6,490.99	2,914.99	115.08	-2,394.37	2,397.13	0.00	682,485.48	536,441.63
8,800.00	91.06	273.01	6,489.14	2,913.14	120.33	-2,494.21	2,497.11	0.00	682,490.73	536,341.79
8,900.00	91.06	273.01	6,487.29	2,911.29	125.58	-2,594.06	2,597.09	0.00	682,495.98	536,241.94
9,000.00	91.06	273.01	6,485.44	2,909.44	130.83	-2,693.90	2,697.08	0.00	682,501.23	536,142.10
9,100.00	91.06	273.01	6,483.59	2,907.59	136.08	-2,793.75	2,797.06	0.00	682,506.48	536,042.25
9,200.00	91.06	273.01	6,481.74	2,905.74	141.33	-2,893.59	2,897.04	0.00	682,511.73	535,942.41
9,300.00	91.06	273.01	6,479.89	2,903.89	146.58	-2,993.44	2,997.02	0.00	682,516.98	535,842.56
9,400.00	91.06	273.01	6,478.04	2,902.04	151.83	-3,093.28	3,097.01	0.00	682,522.23	535,742.72
9,500.00	91.06	273.01	6,476.19	2,900.19	157.08	-3,193.13	3,196.99	0.00	682,527.48	535,642.87
9,600.00	91.06	273.01	6,474.34	2,898.34	162.33	-3,292.97	3,296.97	0.00	682,532.73	535,543.03
9,700.00	91.06	273.01	6,472.49	2,896.49	167.58	-3,392.82	3,396.95	0.00	682,537.98	535,443.18
9,800.00	91.06	273.01	6,470.64	2,894.64	172.83	-3,492.66	3,496.94	0.00	682,543.23	535,343.34
9,900.00	91.06	273.01	6,468.79	2,892.79	178.08	-3,592.51	3,596.92	0.00	682,548.48	535,243.49
10,000.00	91.06	273.01	6,466.94	2,890.94	183.33	-3,692.35	3,696.90	0.00	682,553.73	535,143.65
10,100.00	91.06	273.01	6,465.09	2,889.09	188.58	-3,792.20	3,796.88	0.00	682,558.98	535,043.80

Pathfinder

Pathfinder X & Y Planning Report



Company: Murchison Oil & Gas
Project: Eddy County
Site: Carbon Valley 31 Federal Com
Well: #1H
Wellbore: OH
Design: Plan #3

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 3576.00ft (Original Well Elev)
MD Reference: WELL @ 3576.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
10,200.00	91.06	273.01	6,463.24	2,887.24	193.83	-3,892.04	3,896.87	0.00	682,564.23	534,943.96
10,300.00	91.06	273.01	6,461.39	2,885.39	199.08	-3,991.89	3,996.85	0.00	682,569.48	534,844.11
10,400.00	91.06	273.01	6,459.54	2,883.54	204.33	-4,091.73	4,096.83	0.00	682,574.73	534,744.27
10,500.00	91.06	273.01	6,457.69	2,881.69	209.58	-4,191.58	4,196.82	0.00	682,579.98	534,644.42
10,600.00	91.06	273.01	6,455.84	2,879.84	214.83	-4,291.42	4,296.80	0.00	682,585.23	534,544.58
10,700.00	91.06	273.01	6,453.99	2,877.99	220.08	-4,391.27	4,396.78	0.00	682,590.48	534,444.73
10,800.00	91.06	273.01	6,452.14	2,876.14	225.33	-4,491.11	4,496.76	0.00	682,595.73	534,344.89
10,900.00	91.06	273.01	6,450.29	2,874.29	230.58	-4,590.96	4,596.75	0.00	682,600.98	534,245.04
11,000.00	91.06	273.01	6,448.44	2,872.44	235.83	-4,690.80	4,696.73	0.00	682,606.23	534,145.20
11,096.54	91.06	273.01	6,446.66	2,870.66	240.90	-4,787.20	4,793.26	0.00	682,611.30	534,048.80
PBHL(31#1H)										
11,096.55	91.06	273.01	6,446.66	2,870.66	240.90	-4,787.20	4,793.26	0.01	682,611.30	534,048.80
TD at 11096.55										

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL(31#1H) - plan hits target center - Point	0.00	359.93	6,447.00	241.00	-4,787.20	682,611.400	534,048.800	32° 52' 35.513 N	104° 13' 20.743 W

Pathfinder
Pathfinder X & Y Planning Report



Company: Murchison Oil & Gas
Project: Eddy County
Site: Carbon Valley 31 Federal Com
Well: #1H
Wellbore: OH
Design: Plan #3

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 3576.00ft (Original Well Elev)
MD Reference: WELL @ 3576.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
6,036.00	6,035.71	-13.40	-19.88	KOP-6036.00'MD,1.63°INC,78.25°AZI,6035.71'TVD
6,807.65	6,526.00	15.73	-504.96	EOC-6807.65'MD,91.06°INC,273.01°AZI,6526.00'TVD,12.00°DLS, 505
11,096.55	6,446.66	240.90	-4,787.20	TD at 11096.55

Checked By: _____	Approved By: _____	Date: _____
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DISTRICT I
1620 N FRENCH DR., HOHRS, NM 80240

State of New Mexico
Energy Minerals and Natural Resources Department

DISTRICT II
1301 W GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III
1000 Rio Brazos Rd Aztec, NM 87410

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

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☒ AMENDED REPORT

API Number 30-015-37603	Pool Code 17970	Pool Name Dog Canyon; Wolfcamp
Property Code 38044	Property Name CARBON VALLEY 31 FEDERAL COM	Well Number 1H
GRID No 015363	Operator Name MURCHISON OIL & GAS, INC.	Elevation 3558'

Surface Location

UL or lot No	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	31	16-S	28-E		1980	SOUTH	200	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	31	16-S	28-E		2250	SOUTH	330	WEST	EDDY

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

GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=682370.4 N X=538836.0 E LAT=32.875854° N LONG=104.206837° W BOTTOM HOLE LOCATION Y=682611.3 N X=534050.6 E LAT=32.876531° N LONG=104.222423° W PROJECT AREA HORIZ. DIST = 4482.2' GRID AZ = 273°06'20" PRODUCING AREA PENETRATION POINT Y=682368.5 N X=538525.0 E LAT=32.875850° N LONG=104.207850° W	DETAIL 3549.7' 3561.7' 500' 600' 3560.3' 3568.7' SEE DETAIL 200' S.L. 311.0' 511' 1980' 1980'	OPERATOR CERTIFICATION 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 <i>A. Arnold Nall</i> 06/17/2010 Signature Date A. Arnold Nall Printed Name SURVEYOR CERTIFICATION 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 DECEMBER 14, 2009 Date Surveyed Signature & Seal of Professional Surveyor <i>Ronald J. Eidson</i> 05/17/2010 Certificate No. GARY EIDSON 12641 RONALD J EIDSON 3239
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