

District I
1625 N. French Drive, Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

OIL CONSERVATION DIVISION
1220 South St. Francis Drive
Santa Fe, NM 87505

☒ AMENDED REPORT

"as drilled"

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35895		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 323130	*Property Name LONE MESA UNIT		*Well Number 001H
*OGRID No. 372286	*Operator Name ENDURING RESOURCES, LLC		*Elevation 6756'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	28	22N	8W		1863	SOUTH	1936	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

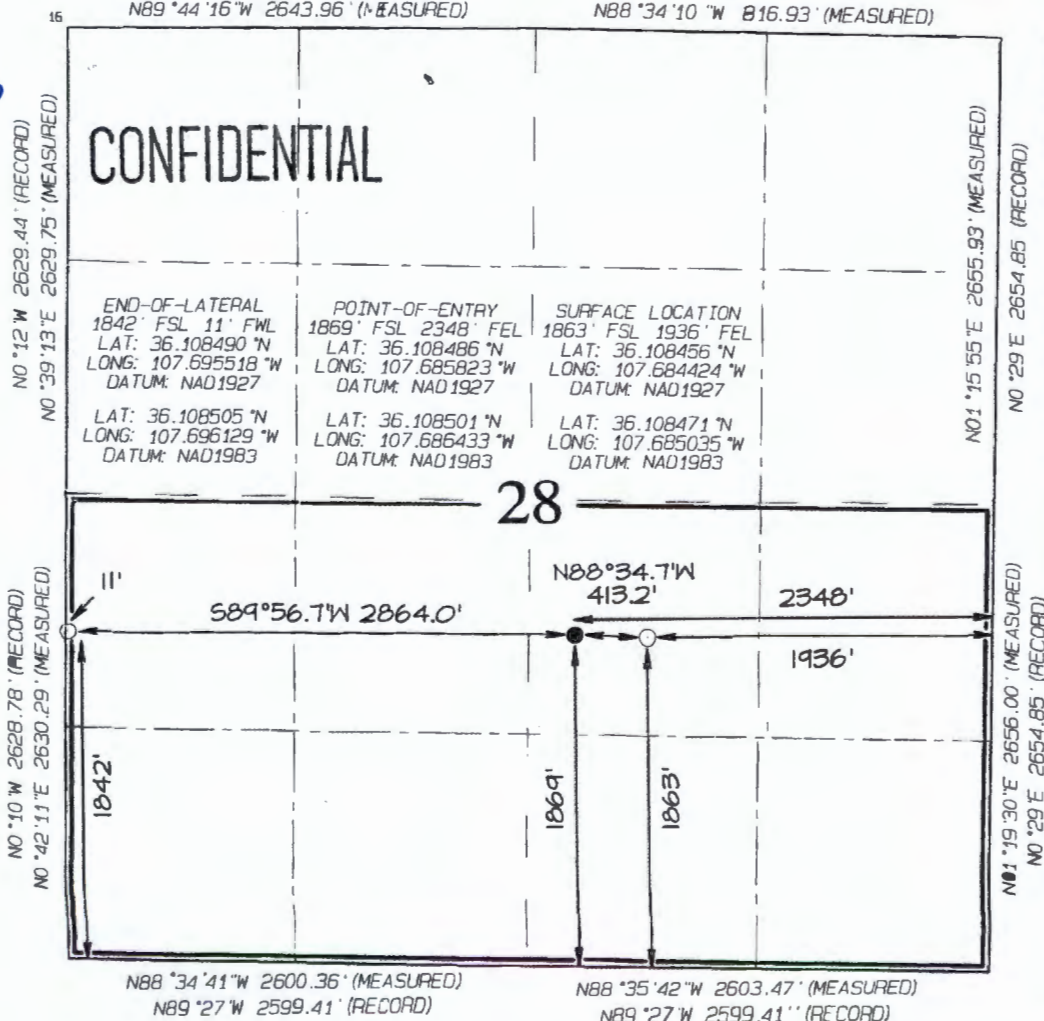
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	28	22N	8W		1842	SOUTH	11	WEST	SAN JUAN

¹² Dedicated Acres 320.00 Acres - (S/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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

S89°23'W 2643.96' (RECORD)
N89°44'16"W 2643.96' (MEASURED)

N89°26'W 2618.88' (RECORD)
N88°34'10"W 816.93' (MEASURED)



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order hereafter entered by the division.

Signature: *Lacey Granillo* Date: 6/12/19

Printed Name: Lacey Granillo

E-mail Address: lgranillo@enduringresources.com

¹⁸ 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.

Date Revised: JUNE 11, 2019
Date of Survey: APRIL 21, 2018

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
REGISTERED PROFESSIONAL SURVEYOR
15269

JASON C. EDWARDS
Certificate Number 15269

CONFIDENTIAL



Well: Lone Mesa Unit Well No. 001H
Site: Section 28-T22N-R08W
Project: San Juan County, New Mexico NAD83 NM W
Design: rev0
Rig:

Section Details									
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Diag	TFace	Vsect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	367.85	0.00	0.00	367.85	0.00	0.00	0.00	0.00	0.00
3	917.15	90.14	270.00	717.00	-0.01	-350.01	16.41	269.998	350.01
4	3854.77	90.14	270.00	709.80	-0.09	-3287.62	0.00	0.000	3287.62

ANNOTATIONS SURVEYS									
MD	Inc	Azi	TVD	+N-S	+E-W	Vsect	Annotation		
364.00	1.62	274.85	363.95	0.44	-5.13	5.13	MWD surveys		
3806.00	88.45	269.40	701.39	8.05	-3224.12	3224.13	Survey @ 3806.00 MD 701.39 TVD		
3859.00	88.45	269.40	702.82	7.49	-3277.10	3277.11	Survey projected to 3859.00 MD 702.82 TVD		

Name	TVD	+N-S	+E-W	North	East	Latitude	Longitude
Lone Mesa 1H PBHL 1835 FSL 0 FWL	709.80	-0.09	-3287.82	1854812.64	2763608.70	36.10846400	-107.68622000
Lone Mesa 1H POE 1860 FSL 2286 FEL	717.00	-0.17	-350.03	1855812.57	2766546.26	36.10847200	-107.68622000

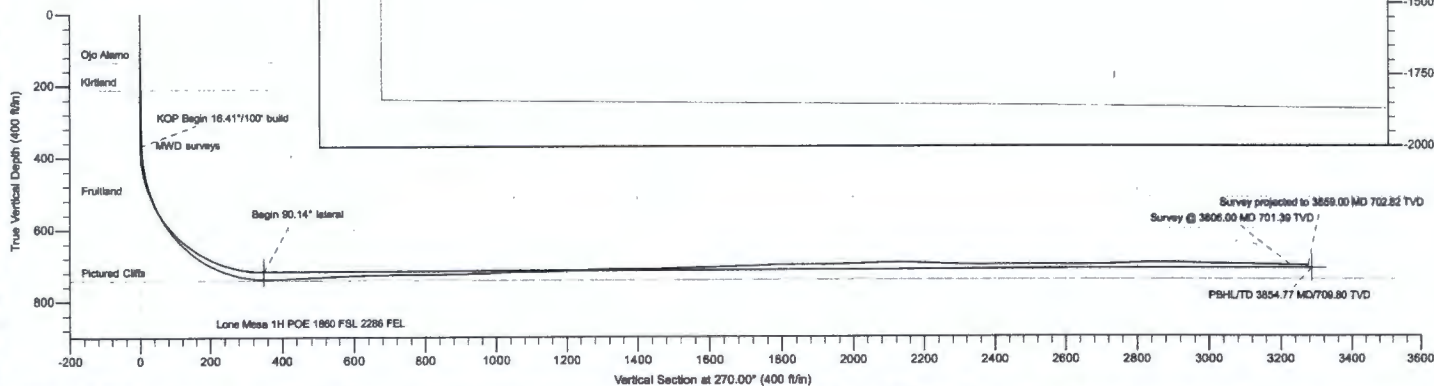
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
133.00	133.00	Ojo Alamo
210.00	210.00	Kirtland
512.00	516.45	Fruitland



Atmuths to Grid North
 True North: -0.09°
 Magnetic North: 8.88°
 Magnetic Field
 Strength: 49487.5nT
 Dip Angle: 62.79°
 Date: 4/23/2019
 Model: IGRF2015

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Western Zone
 System Datum: Mean Sea Level
 Depth Reference: RKB=6756+14 @ 6770.00ft
 Northing: 1858612.74
 Easting: 2766896.31
 Latitude: 36.10847100
 Longitude: -107.68503500
 Total Corr (M→G): To convert a Magnetic Direction to a Grid Direction, Add 8.882°





Survey Report

CONFIDENTIAL



Company: Enduring Resources LLC
Project: San Juan County, New Mexico NAD83 NM W
Site: Section 28-T22N-R08W
Well: Lone Mesa Unit Well No. 001H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well Lone Mesa Unit Well No. 001H
TVD Reference: RKB=6756+14 @ 6770.00ft
MD Reference: RKB=6756+14 @ 6770.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: DB_Jul2216dt_v14

Project San Juan County, New Mexico NAD83 NM W

Map System: US State Plane 1983 **System Datum:** Mean Sea Level
Geo Datum: North American Datum 1983
Map Zone: New Mexico Western Zone

Site Section 28-T22N-R08W

Site Position: **Northing:** 1,858,812.74 usft **Latitude:** 36.10847100
From: Lat/Long **Easting:** 2,766,896.31 usft **Longitude:** -107.68503500
Position Uncertainty: 0.00 ft **Slot Radius:** 13-3/16 " **Grid Convergence:** 0.087 °

Well Lone Mesa Unit Well No. 001H, Surf loc: 1863 FSL 1936 FEL Section 28-T22N-R08W

Well Position **+N/-S** 0.00 ft **Northing:** 1,858,812.74 usft **Latitude:** 36.10847100
+E/-W 0.00 ft **Easting:** 2,766,896.31 usft **Longitude:** -107.68503500
Position Uncertainty 0.00 ft **Wellhead Elevation:** ft **Ground Level:** 6,756.00 ft

Wellbore Original Hole

Magnetics **Model Name** **Sample Date** **Declination** **Dip Angle** **Field Strength**
 (°) (°) (nT)
 IGRF2015 4/23/2019 8.970 62.791 49,487.53624722

Design Surveys Original Hole

Audit Notes:

Version: 1.0 **Phase:** ACTUAL **Tie On Depth:** 0.00

Vertical Section: **Depth From (TVD)** **+N/-S** **+E/-W** **Direction**
 (ft) (ft) (ft) (°)
 0.00 0.00 0.00 270.13

Survey Program **Date** 6/4/2019

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
364.00	3,806.00	MWD (Original Hole)	MWD	OWSG MWD - Standard
3,859.00	3,859.00	Projection (Original Hole)	MWD	OWSG MWD - Standard

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
364.00	1.62	274.85	363.95	0.44	-5.13	5.13	0.45	0.45	0.00
MWD surveys									
396.00	5.40	281.11	395.89	0.76	-7.06	7.06	11.86	11.81	19.56
427.00	9.44	282.55	426.62	1.60	-10.97	10.97	13.05	13.03	4.65
459.00	13.88	280.16	457.95	2.85	-17.31	17.32	13.95	13.88	-7.47
490.00	18.00	278.14	487.75	4.18	-25.72	25.73	13.41	13.29	-6.52
522.00	22.69	278.23	517.75	5.55	-36.75	36.77	14.80	14.66	-5.97
553.00	27.08	274.86	545.86	6.80	-49.74	49.75	14.28	14.16	-4.42
585.00	31.36	273.68	573.79	7.95	-65.31	65.33	13.49	13.38	-3.69



Survey Report



Company: Enduring Resources LLC
Project: San Juan County, New Mexico NAD83 NM W
Site: Section 28-T22N-R08W
Well: Lone Mesa Unit Well No. 001H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well Lone Mesa Unit Well No. 001H
TVD Reference: RKB=6756+14 @ 6770.00ft
MD Reference: RKB=6756+14 @ 6770.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: DB_hul2216dt_v14

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
616.00	35.78	271.63	599.61	8.73	-82.43	82.45	14.72	14.26	-6.61
648.00	41.16	269.76	624.66	8.95	-102.32	102.34	17.20	16.81	-5.84
679.00	46.51	271.47	647.01	9.19	-123.78	123.80	17.67	17.26	5.52
711.00	52.23	268.41	667.84	9.14	-148.05	148.07	19.29	17.88	-9.56
742.00	57.33	267.83	685.71	8.31	-173.36	173.38	16.52	16.45	-1.87
774.00	62.80	267.80	701.68	7.25	-201.06	201.07	17.09	17.09	-0.09
805.00	67.98	268.83	714.58	6.43	-229.22	229.23	16.98	16.71	3.32
837.00	73.32	270.15	725.18	6.16	-259.40	259.41	17.13	16.69	4.13
868.00	79.38	270.62	732.49	6.37	-289.51	289.52	19.60	19.55	1.52
899.00	84.07	270.94	736.95	6.78	-320.17	320.19	15.16	15.13	1.03
931.00	89.29	271.08	738.81	7.35	-352.10	352.12	16.32	16.31	0.44
947.00	91.48	271.29	738.70	7.68	-368.10	368.12	13.75	13.69	1.31
1,013.00	93.43	275.25	735.87	11.44	-433.92	433.94	6.68	2.95	6.00
1,044.00	92.76	274.02	734.20	13.94	-464.77	464.80	4.51	-2.16	-3.97
1,075.00	92.96	272.59	732.65	15.72	-495.68	495.71	4.65	0.65	-4.61
1,107.00	92.39	272.52	731.16	17.15	-527.61	527.65	1.79	-1.78	-0.22
1,138.00	92.19	272.12	729.92	18.40	-558.56	558.60	1.44	-0.65	-1.29
1,170.00	91.92	272.39	728.77	19.66	-590.51	590.56	1.19	-0.84	0.84
1,201.00	91.82	271.37	727.76	20.68	-621.48	621.53	3.30	-0.32	-3.29
1,232.00	91.78	270.56	726.79	21.20	-652.46	652.51	2.61	-0.13	-2.61
1,263.00	90.81	268.35	726.08	20.90	-683.45	683.50	7.78	-3.13	-7.13
1,295.00	90.47	268.50	725.73	20.02	-715.44	715.48	1.16	-1.06	0.47
1,327.00	90.10	267.92	725.57	19.03	-747.42	747.46	2.15	-1.16	-1.81
1,358.00	89.63	267.74	725.64	17.85	-778.40	778.44	1.62	-1.52	-0.58
1,390.00	90.20	267.48	725.69	16.52	-810.37	810.40	1.96	1.78	-0.81
1,421.00	90.81	268.26	725.42	15.36	-841.35	841.38	3.19	1.97	2.52
1,453.00	92.09	268.54	724.61	14.47	-873.32	873.35	4.09	4.00	0.88
1,484.00	91.61	268.86	723.61	13.77	-904.30	904.33	1.86	-1.55	1.03
1,515.00	90.87	267.98	722.93	12.91	-935.28	935.31	3.71	-2.39	-2.84
1,547.00	92.19	267.72	722.08	11.71	-967.24	967.27	4.20	4.13	-0.81
1,578.00	92.32	268.01	720.86	10.56	-998.20	998.22	1.02	0.42	0.94
1,610.00	91.88	267.48	719.69	9.30	-1,030.15	1,030.17	2.15	-1.38	-1.66
1,641.00	91.38	267.66	718.81	7.99	-1,061.11	1,061.13	1.71	-1.61	0.58
1,672.00	90.57	266.92	718.28	6.52	-1,092.07	1,092.08	3.54	-2.61	-2.39
1,704.00	90.37	267.35	718.02	4.92	-1,124.03	1,124.04	1.48	-0.63	1.34
1,736.00	91.75	267.79	717.42	3.57	-1,156.00	1,156.00	4.53	4.31	1.38
1,767.00	92.69	268.09	716.22	2.45	-1,186.95	1,186.95	3.18	3.03	0.97
1,795.00	92.52	268.23	714.95	1.55	-1,214.91	1,214.91	0.79	-0.61	0.50
1,827.00	92.29	267.58	713.61	0.39	-1,246.86	1,246.86	2.15	-0.72	-2.03
1,858.00	91.82	267.79	712.50	-0.87	-1,277.81	1,277.81	1.66	-1.52	0.68
1,889.00	91.58	267.73	711.58	-2.08	-1,308.78	1,308.77	0.80	-0.77	-0.19
1,921.00	91.01	267.28	710.85	-3.47	-1,340.74	1,340.73	2.27	-1.78	-1.41
1,953.00	90.13	266.46	710.53	-5.22	-1,372.69	1,372.67	3.76	-2.75	-2.56



Survey Report



Company: Enduring Resources LLC
Project: San Juan County, New Mexico NAD83 NM W
Site: Section 28-T22N-R08W
Well: Lone Mesa Unit Well No. 001H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well Lone Mesa Unit Well No. 001H
TVD Reference: RKB=6756+14 @ 6770.00ft
MD Reference: RKB=6756+14 @ 6770.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: DB_Jul2216dt_v14

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,984.00	90.13	266.73	710.46	-7.06	-1,403.63	1,403.61	0.87	0.00	0.87
2,016.00	91.38	267.89	710.04	-8.56	-1,435.59	1,435.57	5.33	3.91	3.63
2,047.00	91.24	267.97	709.33	-9.68	-1,466.57	1,466.54	0.52	-0.45	0.26
2,078.00	91.04	267.66	708.72	-10.86	-1,497.54	1,497.51	1.19	-0.65	-1.00
2,110.00	92.39	268.74	707.76	-11.86	-1,529.51	1,529.47	5.40	4.22	3.38
2,141.00	92.36	268.56	706.47	-12.59	-1,560.47	1,560.44	0.59	-0.10	-0.58
2,173.00	92.96	269.12	704.99	-13.24	-1,592.43	1,592.39	2.56	1.88	1.75
2,205.00	91.18	268.72	703.83	-13.84	-1,624.40	1,624.36	5.70	-5.56	-1.25
2,236.00	90.88	268.22	703.28	-14.67	-1,655.38	1,655.35	1.88	-0.97	-1.61
2,268.00	91.82	268.87	702.52	-15.48	-1,687.36	1,687.32	3.57	2.94	2.03
2,299.00	91.21	268.94	701.70	-16.08	-1,718.35	1,718.31	1.98	-1.97	0.23
2,331.00	92.39	268.77	700.70	-16.72	-1,750.33	1,750.28	3.73	3.69	-0.53
2,362.00	92.12	267.79	699.48	-17.65	-1,781.29	1,781.24	3.28	-0.87	-3.16
2,394.00	91.14	268.84	698.57	-19.14	-1,813.24	1,813.19	4.26	-3.06	-2.97
2,425.00	90.47	267.93	698.13	-20.56	-1,844.20	1,844.15	4.13	-2.16	3.52
2,457.00	89.50	270.15	698.14	-21.09	-1,876.20	1,876.14	7.57	-3.03	6.94
2,489.00	88.86	270.20	698.60	-21.00	-1,908.19	1,908.14	2.01	-2.00	0.16
2,520.00	91.24	271.85	698.57	-20.44	-1,939.18	1,939.13	9.34	7.68	5.32
2,552.00	93.20	272.72	697.33	-19.17	-1,971.13	1,971.08	6.70	6.13	2.72
2,584.00	92.49	271.54	695.74	-17.98	-2,003.07	2,003.02	4.30	-2.22	-3.69
2,616.00	91.55	271.28	694.62	-17.19	-2,035.04	2,035.00	3.05	-2.94	-0.81
2,648.00	90.87	270.92	693.94	-16.58	-2,067.03	2,066.98	2.40	-2.13	-1.13
2,679.00	90.84	270.31	693.48	-16.25	-2,098.02	2,097.98	1.97	-0.10	-1.97
2,711.00	90.44	270.15	693.12	-16.12	-2,130.02	2,129.98	1.35	-1.25	-0.50
2,743.00	88.59	270.66	693.39	-15.89	-2,162.02	2,161.97	6.00	-5.78	1.59
2,774.00	88.45	270.82	694.19	-15.49	-2,193.00	2,192.96	0.69	-0.45	0.52
2,806.00	88.22	271.25	695.12	-14.91	-2,224.98	2,224.94	1.52	-0.72	1.34
2,838.00	87.51	270.71	696.31	-14.37	-2,256.96	2,256.92	2.79	-2.22	-1.69
2,870.00	86.97	270.14	697.85	-14.13	-2,288.92	2,288.88	2.45	-1.69	-1.78
2,901.00	88.82	271.03	698.99	-13.81	-2,319.89	2,319.86	6.62	5.97	2.87
2,933.00	90.54	271.95	699.17	-12.98	-2,351.88	2,351.85	6.10	5.38	2.88
2,965.00	90.61	272.72	698.85	-11.68	-2,383.85	2,383.82	2.42	0.22	2.41
2,997.00	90.00	272.45	698.68	-10.23	-2,415.82	2,415.79	2.08	-1.91	-0.84
3,028.00	89.90	272.93	698.71	-8.78	-2,446.79	2,446.76	1.58	-0.32	1.55
3,060.00	90.10	273.18	698.71	-7.07	-2,478.74	2,478.72	1.00	0.63	0.78
3,091.00	89.93	273.54	698.70	-5.26	-2,509.69	2,509.67	1.28	-0.55	1.16
3,124.00	89.43	273.11	698.88	-3.34	-2,542.63	2,542.62	2.00	-1.52	-1.30
3,155.00	89.60	273.79	699.15	-1.48	-2,573.57	2,573.56	2.26	0.55	2.19
3,187.00	89.16	273.95	699.49	0.68	-2,605.50	2,605.49	1.46	-1.38	0.50
3,219.00	90.00	272.82	699.73	2.57	-2,637.44	2,637.44	4.40	2.63	-3.53
3,250.00	90.34	272.90	699.63	4.12	-2,668.40	2,668.40	1.13	1.10	0.26
3,282.00	92.08	272.34	698.96	5.58	-2,700.36	2,700.37	5.71	5.44	-1.75
3,314.00	92.12	272.15	697.79	6.83	-2,732.31	2,732.32	0.61	0.13	-0.59



Survey Report



Company: Enduring Resources LLC
Project: San Juan County, New Mexico NAD83 NM W
Site: Section 28-T22N-R08W
Well: Lone Mesa Unit Well No. 001H
Wellbore: Original Hole
Design: Surveys Original Hole

Local Co-ordinate Reference: Well Lone Mesa Unit Well No. 001H
TVD Reference: RKB=6756+14 @ 6770.00ft
MD Reference: RKB=6756+14 @ 6770.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: DB_Jul2216dt_v14

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,346.00	91.51	272.12	696.77	8.02	-2,764.28	2,764.29	1.91	-1.91	-0.09
3,377.00	92.25	271.93	695.76	9.12	-2,795.24	2,795.25	2.46	2.39	-0.61
3,409.00	91.41	270.82	694.73	9.89	-2,827.21	2,827.23	4.35	-2.63	-3.47
3,441.00	90.00	269.86	694.34	10.08	-2,859.21	2,859.22	5.33	-4.41	-3.00
3,472.00	89.53	269.83	694.47	9.99	-2,890.21	2,890.22	1.52	-1.52	-0.10
3,504.00	88.49	268.96	695.02	9.66	-2,922.20	2,922.22	4.24	-3.25	-2.72
3,535.00	88.25	269.47	695.90	9.23	-2,953.19	2,953.20	1.82	-0.77	1.65
3,567.00	88.75	269.59	696.74	8.97	-2,985.17	2,985.19	1.61	1.56	0.38
3,598.00	88.18	269.35	697.57	8.68	-3,016.16	3,016.17	1.99	-1.84	-0.77
3,630.00	88.72	269.47	698.44	8.35	-3,048.15	3,048.16	1.73	1.69	0.38
3,661.00	89.19	270.26	699.00	8.28	-3,079.14	3,079.15	2.96	1.52	2.55
3,693.00	89.33	270.19	699.41	8.41	-3,111.14	3,111.15	0.49	0.44	-0.22
3,724.00	89.09	269.92	699.84	8.43	-3,142.14	3,142.15	1.17	-0.77	-0.87
3,756.00	89.02	269.60	700.37	8.30	-3,174.13	3,174.14	1.02	-0.22	-1.00
3,787.00	88.86	269.89	700.94	8.16	-3,205.12	3,205.14	1.07	-0.52	0.94
3,806.00	88.45	269.40	701.39	8.05	-3,224.12	3,224.13	3.36	-2.16	-2.58
Survey @ 3806.00 MD 701.39 TVD									
3,859.00	88.45	269.40	702.82	7.49	-3,277.10	3,277.11	0.00	0.00	0.00
Survey projected to 3859.00 MD 702.82 TVD									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
364.00	363.95	0.44	-5.13	MWD surveys
3,806.00	701.39	8.05	-3,224.12	Survey @ 3806.00 MD 701.39 TVD



Survey Report - Geographic



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Lone Mesa Unit Well No. 001H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6756+14 @ 6770.00ft
Site:	Section 28-T22N-R08W	MD Reference:	RKB=6756+14 @ 6770.00ft
Well:	Lone Mesa Unit Well No. 001H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Jul2216dt_v14

Project	San Juan County, New Mexico NAD83 NM W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site		Section 28-T22N-R08W			
Site Position:		Northing:	1,858,812.74 usft	Latitude:	36.10847100
From:	Lat/Long	Easting:	2,766,896.31 usft	Longitude:	-107.68503500
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.087 °

Well	Lone Mesa Unit Well No. 001H, Surf loc: 1863 FSL 1936 FEL Section 28-T22N-R08W					
Well Position	+N/-S	0.00 ft	Northing:	1,858,812.74 usft	Latitude:	36.10847100
	+E/-W	0.00 ft	Easting:	2,766,896.31 usft	Longitude:	-107.68503500
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,756.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	4/23/2019	8.970	62.791	49,487.53624722

Design	Surveys Original Hole				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	270.13	

Survey Program	Date 6/4/2019			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
364.00	3,806.00	MWD (Original Hole)	MWD	OWSG MWD - Standard
3,859.00	3,859.00	Projection (Original Hole)	MWD	OWSG MWD - Standard

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	1,858,812.74	2,766,896.31	36.10847100	-107.68503500	
364.00	1.62	274.85	363.95	0.44	-5.13	1,858,813.17	2,766,891.18	36.10847222	-107.68505236	
MWD surveys										
396.00	5.40	281.11	395.89	0.76	-7.06	1,858,813.50	2,766,889.25	36.10847313	-107.68505889	
427.00	9.44	282.55	426.62	1.60	-10.97	1,858,814.34	2,766,885.34	36.10847543	-107.68507214	
459.00	13.88	280.16	457.95	2.85	-17.31	1,858,815.58	2,766,879.00	36.10847889	-107.68509360	
490.00	18.00	278.14	487.75	4.18	-25.72	1,858,816.92	2,766,870.59	36.10848259	-107.68512205	
522.00	22.69	276.23	517.75	5.55	-36.75	1,858,818.29	2,766,859.56	36.10848640	-107.68515941	
553.00	27.08	274.86	545.86	6.80	-49.74	1,858,819.54	2,766,846.58	36.10848988	-107.68520335	
585.00	31.36	273.68	573.79	7.95	-65.31	1,858,820.69	2,766,831.00	36.10849311	-107.68525607	
616.00	35.78	271.63	599.61	8.73	-82.43	1,858,821.47	2,766,813.88	36.10849532	-107.68531401	



Survey Report - Geographic



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Lone Mesa Unit Well No. 001H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6756+14 @ 6770.00ft
Site:	Section 28-T22N-R08W	MD Reference:	RKB=6756+14 @ 6770.00ft
Well:	Lone Mesa Unit Well No. 001H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Jul2216dt_v14

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
648.00	41.16	269.76	624.66	8.95	-102.32	1,858,821.69	2,766,793.99	36.10849601	-107.68538137
679.00	46.51	271.47	647.01	9.19	-123.78	1,858,821.93	2,766,772.53	36.10849677	-107.68545402
711.00	52.23	268.41	667.84	9.14	-148.05	1,858,821.88	2,766,748.26	36.10849673	-107.68553618
742.00	57.33	267.83	685.71	8.31	-173.36	1,858,821.05	2,766,722.95	36.10849454	-107.68562185
774.00	62.80	267.80	701.68	7.25	-201.06	1,858,819.99	2,766,695.25	36.10849175	-107.68571563
805.00	67.98	268.83	714.58	6.43	-229.22	1,858,819.17	2,766,667.09	36.10848961	-107.68581098
837.00	73.32	270.15	725.18	6.16	-259.40	1,858,818.90	2,766,636.91	36.10848901	-107.68591315
868.00	79.38	270.62	732.49	6.37	-289.51	1,858,819.11	2,766,606.80	36.10848970	-107.68601508
899.00	84.07	270.94	736.95	6.78	-320.17	1,858,819.52	2,766,576.14	36.10849098	-107.68611890
931.00	89.29	271.08	738.81	7.35	-352.10	1,858,820.09	2,766,544.21	36.10849265	-107.68622699
947.00	91.48	271.29	738.70	7.68	-368.10	1,858,820.42	2,766,528.21	36.10849363	-107.68628114
1,013.00	93.43	275.25	735.87	11.44	-433.92	1,858,824.18	2,766,462.40	36.10850423	-107.68650394
1,044.00	92.76	274.02	734.20	13.94	-464.77	1,858,826.68	2,766,431.54	36.10851123	-107.68660837
1,075.00	92.96	272.59	732.65	15.72	-495.68	1,858,828.46	2,766,400.63	36.10851626	-107.68671301
1,107.00	92.39	272.52	731.16	17.15	-527.61	1,858,829.89	2,766,368.70	36.10852031	-107.68682111
1,138.00	92.19	272.12	729.92	18.40	-558.56	1,858,831.14	2,766,337.75	36.10852388	-107.68692588
1,170.00	91.92	272.39	728.77	19.66	-590.51	1,858,832.40	2,766,305.80	36.10852747	-107.68703405
1,201.00	91.82	271.37	727.76	20.68	-621.48	1,858,833.42	2,766,274.83	36.10853039	-107.68713888
1,232.00	91.78	270.56	726.79	21.20	-652.46	1,858,833.94	2,766,243.85	36.10853195	-107.68724376
1,263.00	90.81	268.35	726.08	20.90	-683.45	1,858,833.64	2,766,212.86	36.10853127	-107.68734867
1,295.00	90.47	268.50	725.73	20.02	-715.44	1,858,832.76	2,766,180.88	36.10852898	-107.68745696
1,327.00	90.10	267.92	725.57	19.03	-747.42	1,858,831.76	2,766,148.89	36.10852637	-107.68756524
1,358.00	89.63	267.74	725.64	17.85	-778.40	1,858,830.59	2,766,117.92	36.10852327	-107.68767012
1,390.00	90.20	267.48	725.69	16.52	-810.37	1,858,829.26	2,766,085.94	36.10851974	-107.68777837
1,421.00	90.81	268.26	725.42	15.36	-841.35	1,858,828.10	2,766,054.97	36.10851670	-107.68788325
1,453.00	92.09	268.54	724.61	14.47	-873.32	1,858,827.21	2,766,022.99	36.10851438	-107.68799150
1,484.00	91.61	268.86	723.61	13.77	-904.30	1,858,826.51	2,765,992.01	36.10851257	-107.68809637
1,515.00	90.87	267.98	722.93	12.91	-935.28	1,858,825.65	2,765,961.03	36.10851035	-107.68820126
1,547.00	92.19	267.72	722.08	11.71	-967.24	1,858,824.45	2,765,929.07	36.10850719	-107.68830948
1,578.00	92.32	268.01	720.86	10.56	-998.20	1,858,823.30	2,765,898.11	36.10850414	-107.68841428
1,610.00	91.88	267.48	719.69	9.30	-1,030.15	1,858,822.04	2,765,866.16	36.10850082	-107.68852247
1,641.00	91.38	267.66	718.81	7.99	-1,061.11	1,858,820.73	2,765,835.20	36.10849734	-107.68862728
1,672.00	90.57	266.92	718.28	6.52	-1,092.07	1,858,819.26	2,765,804.24	36.10849344	-107.68873211
1,704.00	90.37	267.35	718.02	4.92	-1,124.03	1,858,817.66	2,765,772.28	36.10848917	-107.68884031
1,736.00	91.75	267.79	717.42	3.57	-1,156.00	1,858,816.31	2,765,740.32	36.10848558	-107.68894853
1,767.00	92.69	268.09	716.22	2.45	-1,186.95	1,858,815.19	2,765,709.36	36.10848264	-107.68905334
1,795.00	92.52	268.23	714.95	1.55	-1,214.91	1,858,814.29	2,765,681.40	36.10848029	-107.68914799
1,827.00	92.29	267.58	713.61	0.39	-1,246.86	1,858,813.13	2,765,649.45	36.10847721	-107.68925616
1,858.00	91.82	267.79	712.50	-0.87	-1,277.81	1,858,811.87	2,765,618.50	36.10847390	-107.68936096
1,889.00	91.58	267.73	711.58	-2.08	-1,308.78	1,858,810.66	2,765,587.54	36.10847070	-107.68946579
1,921.00	91.01	267.28	710.85	-3.47	-1,340.74	1,858,809.27	2,765,555.58	36.10846700	-107.68957400
1,953.00	90.13	266.46	710.53	-5.22	-1,372.69	1,858,807.52	2,765,523.63	36.10846233	-107.68968217
1,984.00	90.13	266.73	710.46	-7.06	-1,403.63	1,858,805.68	2,765,492.68	36.10845740	-107.68978694
2,016.00	91.38	267.89	710.04	-8.56	-1,435.59	1,858,804.18	2,765,460.72	36.10845340	-107.68989515
2,047.00	91.24	267.97	709.33	-9.68	-1,466.57	1,858,803.06	2,765,429.75	36.10845045	-107.69000001
2,078.00	91.04	267.66	708.72	-10.86	-1,497.54	1,858,801.88	2,765,398.78	36.10844733	-107.69010487
2,110.00	92.39	268.74	707.76	-11.86	-1,529.51	1,858,800.87	2,765,366.81	36.10844470	-107.69021310
2,141.00	92.36	268.56	706.47	-12.59	-1,560.47	1,858,800.14	2,765,335.84	36.10844282	-107.69031793
2,173.00	92.96	269.12	704.99	-13.24	-1,592.43	1,858,799.50	2,765,303.89	36.10844117	-107.69042613
2,205.00	91.18	268.72	703.83	-13.84	-1,624.40	1,858,798.89	2,765,271.91	36.10843965	-107.69053437
2,236.00	90.88	268.22	703.28	-14.67	-1,655.38	1,858,798.07	2,765,240.93	36.10843750	-107.69063927
2,268.00	91.82	268.87	702.52	-15.48	-1,687.36	1,858,797.25	2,765,208.95	36.10843540	-107.69074754
2,299.00	91.21	268.94	701.70	-16.08	-1,718.35	1,858,796.66	2,765,177.97	36.10843389	-107.69085243
2,331.00	92.39	268.77	700.70	-16.72	-1,750.33	1,858,796.02	2,765,145.99	36.10843227	-107.69096069
2,362.00	92.12	267.79	699.48	-17.65	-1,781.29	1,858,795.09	2,765,115.03	36.10842984	-107.69106552



Survey Report - Geographic



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Lone Mesa Unit Well No. 001H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6756+14 @ 6770.00ft
Site:	Section 28-T22N-R08W	MD Reference:	RKB=6756+14 @ 6770.00ft
Well:	Lone Mesa Unit Well No. 001H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Jul2216dt_v14

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
2,394.00	91.14	266.84	698.57	-19.14	-1,813.24	1,858,793.60	2,765,083.08	36.10842585	-107.69117369
2,425.00	90.47	267.93	698.13	-20.56	-1,844.20	1,858,792.18	2,765,052.11	36.10842209	-107.69127853
2,457.00	89.50	270.15	698.14	-21.09	-1,876.20	1,858,791.64	2,765,020.12	36.10842074	-107.69138684
2,489.00	88.86	270.20	698.60	-21.00	-1,908.19	1,858,791.74	2,764,988.12	36.10842114	-107.69149516
2,520.00	91.24	271.85	698.57	-20.44	-1,939.18	1,858,792.30	2,764,957.13	36.10842279	-107.69160008
2,552.00	93.20	272.72	697.33	-19.17	-1,971.13	1,858,793.57	2,764,925.18	36.10842642	-107.69170823
2,584.00	92.49	271.54	695.74	-17.98	-2,003.07	1,858,794.76	2,764,893.24	36.10842981	-107.69181635
2,616.00	91.55	271.28	694.62	-17.19	-2,035.04	1,858,795.55	2,764,861.27	36.10843210	-107.69192458
2,648.00	90.87	270.92	693.94	-16.58	-2,067.03	1,858,796.16	2,764,829.29	36.10843391	-107.69203286
2,679.00	90.84	270.31	693.48	-16.25	-2,098.02	1,858,796.49	2,764,798.29	36.10843495	-107.69213779
2,711.00	90.44	270.15	693.12	-16.12	-2,130.02	1,858,796.62	2,764,766.30	36.10843543	-107.69224612
2,743.00	88.59	270.66	693.39	-15.89	-2,162.02	1,858,796.85	2,764,734.30	36.10843618	-107.69235444
2,774.00	88.45	270.82	694.19	-15.49	-2,193.00	1,858,797.25	2,764,703.31	36.10843740	-107.69245934
2,806.00	88.22	271.25	695.12	-14.91	-2,224.98	1,858,797.83	2,764,671.33	36.10843912	-107.69256761
2,838.00	87.51	270.71	696.31	-14.37	-2,256.96	1,858,798.37	2,764,639.36	36.10844075	-107.69267585
2,870.00	86.97	270.14	697.85	-14.13	-2,288.92	1,858,798.61	2,764,607.40	36.10844152	-107.69278405
2,901.00	88.82	271.03	698.99	-13.81	-2,319.89	1,858,798.93	2,764,576.42	36.10844252	-107.69288891
2,933.00	90.54	271.95	699.17	-12.98	-2,351.88	1,858,799.76	2,764,544.43	36.10844493	-107.69299720
2,965.00	90.61	272.72	698.85	-11.68	-2,383.85	1,858,801.06	2,764,512.46	36.10844864	-107.69310543
2,997.00	90.00	272.45	698.68	-10.23	-2,415.82	1,858,802.51	2,764,480.50	36.10845273	-107.69321365
3,028.00	89.90	272.93	698.71	-8.78	-2,446.79	1,858,803.96	2,764,449.53	36.10845685	-107.69331847
3,060.00	90.10	273.18	698.71	-7.07	-2,478.74	1,858,805.67	2,764,417.58	36.10846166	-107.69342664
3,091.00	89.93	273.54	698.70	-5.26	-2,509.69	1,858,807.48	2,764,386.63	36.10846677	-107.69353140
3,124.00	89.43	273.11	698.88	-3.34	-2,542.63	1,858,809.40	2,764,353.69	36.10847216	-107.69364292
3,155.00	89.60	273.79	699.15	-1.48	-2,573.57	1,858,811.26	2,764,322.74	36.10847741	-107.69374767
3,187.00	89.16	273.95	699.49	0.68	-2,605.50	1,858,813.42	2,764,290.82	36.10848347	-107.69385574
3,219.00	90.00	272.82	699.73	2.57	-2,637.44	1,858,815.31	2,764,258.88	36.10848878	-107.69396387
3,250.00	90.34	272.90	699.63	4.12	-2,668.40	1,858,816.86	2,764,227.91	36.10849315	-107.69406868
3,282.00	92.08	272.34	698.96	5.58	-2,700.36	1,858,818.32	2,764,195.96	36.10849730	-107.69417686
3,314.00	92.12	272.15	697.79	6.83	-2,732.31	1,858,819.57	2,764,164.00	36.10850086	-107.69428503
3,346.00	91.51	272.12	696.77	8.02	-2,764.28	1,858,820.76	2,764,132.04	36.10850426	-107.69439323
3,377.00	92.25	271.93	695.76	9.12	-2,795.24	1,858,821.86	2,764,101.08	36.10850739	-107.69449805
3,409.00	91.41	270.82	694.73	9.89	-2,827.21	1,858,822.63	2,764,069.10	36.10850963	-107.69460629
3,441.00	90.00	269.86	694.34	10.08	-2,859.21	1,858,822.82	2,764,037.11	36.10851027	-107.69471461
3,472.00	89.53	269.83	694.47	9.99	-2,890.21	1,858,822.73	2,764,006.11	36.10851016	-107.69481956
3,504.00	88.49	268.96	695.02	9.66	-2,922.20	1,858,822.39	2,763,974.12	36.10850936	-107.69492787
3,535.00	88.25	269.47	695.90	9.23	-2,953.19	1,858,821.97	2,763,943.13	36.10850832	-107.69503277
3,567.00	88.75	269.59	696.74	8.97	-2,985.17	1,858,821.71	2,763,911.14	36.10850772	-107.69514106
3,598.00	88.18	269.35	697.57	8.68	-3,016.16	1,858,821.42	2,763,880.16	36.10850705	-107.69524597
3,630.00	88.72	269.47	698.44	8.35	-3,048.15	1,858,821.09	2,763,848.17	36.10850627	-107.69535426
3,661.00	89.19	270.26	699.00	8.28	-3,079.14	1,858,821.02	2,763,817.18	36.10850619	-107.69545919
3,693.00	89.33	270.19	699.41	8.41	-3,111.14	1,858,821.14	2,763,785.18	36.10850666	-107.69556751
3,724.00	89.09	269.92	699.84	8.43	-3,142.14	1,858,821.17	2,763,754.18	36.10850687	-107.69567245
3,756.00	89.02	269.60	700.37	8.30	-3,174.13	1,858,821.04	2,763,722.19	36.10850662	-107.69578077
3,787.00	88.86	269.89	700.94	8.16	-3,205.12	1,858,820.90	2,763,691.19	36.10850636	-107.69588570
3,806.00	88.45	269.40	701.39	8.05	-3,224.12	1,858,820.78	2,763,672.20	36.10850611	-107.69595000
Survey @ 3806.00 MD 701.39 TVD									
3,859.00	88.45	269.40	702.82	7.49	-3,277.10	1,858,820.23	2,763,619.22	36.10850479	-107.69612936
Survey projected to 3859.00 MD 702.82 TVD									



Survey Report - Geographic



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Lone Mesa Unit Well No. 001H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6756+14 @ 6770.00ft
Site:	Section 28-T22N-R08W	MD Reference:	RKB=6756+14 @ 6770.00ft
Well:	Lone Mesa Unit Well No. 001H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Jul2216dt_v14

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
364.00	363.95	0.44	-5.13	MWD surveys
3,806.00	701.39	8.05	-3,224.12	Survey @ 3806.00 MD 701.39 TVD
3,859.00	702.82	7.49	-3,277.10	Survey projected to 3859.00 MD 702.82 TVD