

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit one copy to appropriate District Office

Form C-104
Revised August 1, 2011

AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address Longfellow Energy LP 8115 Preston Road, Suite 800 Dallas, TX 75225		² OGRID Number 372210
		³ Reason for Filing Code/ Effective Date RT 10/2023
⁴ API Number 30 – 015-53817	⁵ Pool Name Red Lake; Glorieta – Yeso, Northeast	⁶ Pool Code 96836
⁷ Property Code 334079	⁸ Property Name Marley State Com 31 AB	⁹ Well Number 002H

II. ¹⁰ Surface Location

Ul or lot no. A	Section 36	Township 17S	Range 27E	Lot Idn	Feet from the 1065	North/South Line North	Feet from the 1210	East/West line East	County Eddy
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¹¹ Bottom Hole Location

UL or lot no. A	Section 31	Township 17S	Range 28E	Lot Idn	Feet from the 878	North/South line North	Feet from the 23	East/West line East	County Eddy
¹² Lse Code S	¹³ Producing Method Code P	¹⁴ Gas Connection Date 10/27/2023	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
33479	Holly Frontier Refining and Marketing LLC 10 Desta Drive, Suite 350 W Midland, TX 79705	Oil
36785	DCP Operating Company LP	Gas

IV. Well Completion Data

²¹ Spud Date 6/30/2023	²² Ready Date 11/1/2023	²³ TD 4195'V/9758'M	²⁴ PBDT 4192'V/9675'M	²⁵ Perforations 9,642'-4,595'	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
12-1/4"	9-5/8"	1313'	520		
8-3/4"	7"	4607'	1480		
8-3/4"	5-1/2"	9723'	1480		

V. Well Test Data

³¹ Date New Oil	³² Gas Delivery Date	³³ Test Date	³⁴ Test Length	³⁵ Tbg. Pressure	³⁶ Csg. Pressure
³⁷ Choke Size	³⁸ Oil	³⁹ Water	⁴⁰ Gas		⁴¹ Test Method
⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature: 			OIL CONSERVATION DIVISION		
Printed name: David Cain			Approved by: PATRICIA MARTINEZ		
Title: Regulatory Analyst			Title: PETROLEUM SPECIALIST		
E-mail Address: David.cain@longfellowenergy.com			Approval Date: 11/6/2023		
Date: 10/24/2023		Phone: (972) 590-9918	RT EXPIRES 2/1/2024		



October 24, 2023

NMOCD
1220 South St Francis Drive
Santa Fe, NM 87505

Re: Marley State Com 31 AB 002H Tight Hole Status 30-015-53817

Hello,

Pursuant to NMOCD rule 19.15.7.16(C) request is herein made to keep all data and accompanying attachments contained in form C-105 confidential.

Best Regards,

A handwritten signature in blue ink, appearing to read 'David Cain', is positioned above the printed name.

David Cain
Engineering Technologist & Regulatory Specialist
Longfellow Energy, LP
972-590-9918
david.cain@longfellowenergy.com

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., 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 Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico

Form C-102

Energy, Minerals & Natural Resources Department

Revised August 1, 2011

OIL CONSERVATION DIVISION

Submit one copy to appropriate

District Office

1220 South St. Francis Dr.

Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-53817	² Pool Code 96836	³ Pool Name RED LAKE; GLORIEYA-YESO, NORTHEAST
⁴ Property Code 334079	⁵ Property Name MARLEY STATE COM 31 AB	⁶ Well Number 002H
⁷ OGRID No. 372210	⁸ Operator Name LONGFELLOW ENERGY, LP	⁹ Elevation 3624.1

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
A	36	17 S	27 E		1065	NORTH	1210	EAST	EDDY

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
A	31	17 S	28 E		878	NORTH	23	EAST	EDDY
¹² Dedicated Acres 327.09	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.

MARLEY STATE COM 31 AB 002H ELEV. = 3624.1' LAT. = 32.7948832°N (NAD83) LONG. = 104.2275102°W NMSP EAST (FT) N = 652927.13 E = 573855.26		KICK OFF POINT 869' FNL, 805' FEL LAT. = 32.7954135°N LONG. = 104.2261953°W		FIRST TAKE POINT 823' FNL, 100' FWL LAT. = 32.7955239°N LONG. = 104.2232509°W LAST TAKE POINT 874' FNL, 102' FEL LAT. = 32.7954571°N LONG. = 104.2067186°W		BOTTOM OF HOLE LAT. = 32.7954470°N LONG. = 104.2064620°W NMSP EAST (FT) N = 653139.38 E = 580322.78	
NW CORNER SEC. 36 LAT. = 32.7979021°N LONG. = 104.2408232°W NMSP EAST (FT) N = 654021.62 E = 569763.43	N/4 CORNER SEC. 36 LAT. = 32.7978419°N LONG. = 104.2322059°W NMSP EAST (FT) N = 654002.13 E = 572411.33	SECTION CORNER LAT. = 32.7977832°N LONG. = 104.2235908°W NMSP EAST (FT) N = 653983.43 E = 575058.52	N/4 CORNER SEC. 31 LAT. = 32.7978197°N LONG. = 104.2148231°W NMSP EAST (FT) N = 653998.63 E = 577752.59	NE CORNER SEC. 31 LAT. = 32.7978599°N LONG. = 104.2064288°W NMSP EAST (FT) N = 654017.25 E = 580331.94			

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 heretofore entered by the division.
 Signature: David Cain Date: 10/20/2023
 Printed Name: David Cain
 E-mail Address: david.cain@longfellowenergy.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.
 JULY 26, 2023
 Date of Survey: JULY 26, 2023
 Signature and Seal of Professional Surveyor: [Signature]
 Certificate Number: 12797

Intent ☐ As Drilled ☒

API # 30-015-53817		
Operator Name: LONGFELLOW ENERGY, LP	Property Name: MARLEY STATE COM 31 AB	Well Number 002H

Kick Off Point (KOP)

UL A	Section 36	Township 17S	Range 27E	Lot	Feet 869	From N/S NORTH	Feet 805	From E/W EAST	County EDDY
Latitude 32.7954135					Longitude 104.2261953			NAD 83	

First Take Point (FTP)

UL D	Section 31	Township 17S	Range 28E	Lot 1	Feet 823	From N/S NORTH	Feet 100	From E/W WEST	County EDDY
Latitude 32.7955239					Longitude 104.2232509			NAD 83	

Last Take Point (LTP)

UL A	Section 31	Township 17S	Range 28E	Lot	Feet 874	From N/S NORTH	Feet 102	From E/W EAST	County EDDY
Latitude 32.7954571					Longitude 104.2067186			NAD 83	

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018



I **Larry Wright**, certify that I am employed by **Wellbenders Directional Services**. That I did on the day(s) of **07/01/23** thru **07/08/23** conduct or supervise the taking of a **MWD Survey** from a depth of **193'** to a depth of **9758'**; that the data is true, correct, complete and within the limitations of the tool as set forth by **Wellbenders Directional Services**; that I am authorized and qualified to make this report; that this survey was conducted at the request of **Longfellow Energy** for the **Marley State Com 31 AB 2H** API No. **30-015-53817** in **Eddy County, New Mexico**; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by **Wellbenders Directional Services**.

Larry Wright

1125 Beach Airport Rd, Conroe, Texas
77301



Longfellow Energy

Eddy Co., NM (Nad-83)
MARLEY STATE COM 31 AB
002H

Wellbore #1

Design: Wellbore #1

Standard Survey Report

09 July, 2023





Survey Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 002H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	RKB = 20.3' @ 3644.40usft (AKITA 519)
Site:	MARLEY STATE COM 31 AB	MD Reference:	RKB = 20.3' @ 3644.40usft (AKITA 519)
Well:	002H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	WBDS_SQL_3

Project	Eddy Co., NM (Nad-83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	MARLEY STATE COM 31 AB		
Site Position:		Northing:	652,447.99 usft
From:	Map	Easting:	580,846.39 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in
		Latitude:	32.793545
		Longitude:	-104.204761

Well	002H		
Well Position	+N/-S	0.00 usft	Northing: 652,927.13 usft
	+E/-W	0.00 usft	Easting: 573,855.26 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
Grid Convergence:	0.057 °	Ground Level:	3,624.10 usft

Design	Wellbore #1		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			89.42

Survey Program	Date 07/09/23		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
193.00	9,758.00	Survey #1 (Wellbore #1)	MWD+IFR1+SAG+FDIR
			OWSG MWD + IFR1 + Sag + FDIR Correction

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	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
193.00	1.21	240.90	192.99	-0.99	-1.78	-1.79	0.63	0.63	0.00
311.00	0.17	143.14	310.98	-1.74	-2.76	-2.78	1.05	-0.88	-82.85
402.00	1.70	60.97	401.96	-1.19	-1.50	-1.51	1.85	1.68	-90.30
493.00	4.32	61.91	492.83	1.08	2.70	2.71	2.88	2.88	1.03
583.00	6.96	61.44	582.39	5.28	10.48	10.54	2.93	2.93	-0.52
674.00	9.00	63.40	672.50	11.11	21.69	21.80	2.26	2.24	2.15
765.00	9.27	61.95	762.35	17.74	34.52	34.70	0.39	0.30	-1.59
856.00	9.30	60.14	852.15	24.85	47.37	47.62	0.32	0.03	-1.99
946.00	9.48	58.11	940.95	32.38	59.97	60.29	0.42	0.20	-2.26
1,037.00	9.63	62.72	1,030.69	39.83	73.10	73.50	0.86	0.16	5.07
1,127.00	9.36	65.94	1,119.45	46.27	86.47	86.93	0.66	-0.30	3.58
1,218.00	9.21	65.28	1,209.26	52.33	99.84	100.37	0.20	-0.16	-0.73
1,245.00	9.16	64.34	1,235.92	54.16	103.74	104.29	0.59	-0.19	-3.48
1,397.00	8.43	62.87	1,386.13	64.48	124.56	125.21	0.50	-0.48	-0.97



Survey Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 002H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	RKB = 20.3' @ 3644.40usft (AKITA 519)
Site:	MARLEY STATE COM 31 AB	MD Reference:	RKB = 20.3' @ 3644.40usft (AKITA 519)
Well:	002H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	WBDS_SQL_3

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,492.00	9.51	62.24	1,479.97	71.31	137.71	138.42	1.14	1.14	-0.66
1,587.00	10.05	61.61	1,573.58	78.91	151.94	152.73	0.58	0.57	-0.66
1,681.00	9.58	60.45	1,666.21	86.67	165.96	166.83	0.54	-0.50	-1.23
1,776.00	9.38	60.74	1,759.91	94.35	179.59	180.54	0.22	-0.21	0.31
1,870.00	10.16	69.11	1,852.55	101.05	194.02	195.04	1.72	0.83	8.90
1,965.00	9.80	67.70	1,946.11	107.11	209.33	210.41	0.46	-0.38	-1.48
2,060.00	9.59	66.21	2,039.76	113.37	224.05	225.19	0.34	-0.22	-1.57
2,155.00	9.40	65.07	2,133.46	119.83	238.33	239.53	0.28	-0.20	-1.20
2,250.00	9.18	62.94	2,227.21	126.55	252.11	253.38	0.43	-0.23	-2.24
2,345.00	8.92	62.20	2,321.03	133.43	265.38	266.71	0.30	-0.27	-0.78
2,440.00	8.84	64.64	2,414.89	139.99	278.49	279.89	0.41	-0.08	2.57
2,534.00	8.92	68.35	2,507.76	145.77	291.79	293.25	0.62	0.09	3.95
2,629.00	8.72	67.43	2,601.64	151.25	305.28	306.80	0.26	-0.21	-0.97
2,722.00	8.46	66.59	2,693.60	156.68	318.07	319.64	0.31	-0.28	-0.90
2,815.00	8.26	65.95	2,785.61	162.12	330.45	332.07	0.24	-0.22	-0.69
2,909.00	9.31	66.59	2,878.50	167.89	343.59	345.28	1.12	1.12	0.68
3,003.00	9.82	66.09	2,971.20	174.16	357.90	359.64	0.55	0.54	-0.53
3,097.00	9.59	65.44	3,063.85	180.66	372.35	374.16	0.27	-0.24	-0.69
3,192.00	9.50	64.79	3,157.54	187.29	386.64	388.52	0.15	-0.09	-0.68
3,286.00	13.12	74.70	3,249.70	193.41	403.96	405.89	4.36	3.85	10.54
3,381.00	18.12	79.34	3,341.17	199.00	428.89	430.88	5.42	5.26	4.88
3,477.00	23.50	78.61	3,430.87	205.54	462.35	464.41	5.61	5.60	-0.76
3,572.00	28.51	79.69	3,516.23	213.35	503.25	505.38	5.30	5.27	1.14
3,666.00	34.40	85.15	3,596.40	219.61	551.83	554.03	6.95	6.27	5.81
3,761.00	39.23	85.85	3,672.43	224.06	608.57	610.80	5.10	5.08	0.74
3,856.00	43.92	86.50	3,743.48	228.25	671.45	673.73	4.96	4.94	0.68
3,951.00	49.54	87.42	3,808.57	231.89	740.50	742.81	5.96	5.92	0.97
4,045.00	53.55	89.05	3,867.02	234.12	814.06	816.39	4.48	4.27	1.73
4,105.00	56.72	89.70	3,901.31	234.66	863.28	865.61	5.36	5.28	1.08
4,139.00	56.93	89.82	3,919.92	234.77	891.74	894.07	0.68	0.62	0.35
4,233.00	57.29	89.68	3,970.96	235.12	970.67	973.00	0.40	0.38	-0.15
4,265.00	57.51	89.65	3,988.20	235.28	997.63	999.96	0.69	0.69	-0.09
4,327.00	63.69	89.65	4,018.63	235.61	1,051.61	1,053.94	9.97	9.97	0.00
4,421.00	72.28	90.23	4,053.83	235.68	1,138.68	1,141.01	9.16	9.14	0.62
4,515.00	82.07	90.28	4,074.67	235.28	1,230.22	1,232.54	10.42	10.41	0.05
4,609.00	88.49	90.84	4,082.40	234.36	1,323.85	1,326.15	6.86	6.83	0.60
4,703.00	88.89	90.73	4,084.55	233.07	1,417.81	1,420.10	0.44	0.43	-0.12
4,797.00	89.17	90.38	4,086.14	232.16	1,511.80	1,514.07	0.48	0.30	-0.37
4,892.00	89.53	89.05	4,087.22	232.63	1,606.79	1,609.06	1.45	0.38	-1.40
4,986.00	90.18	88.49	4,087.46	234.65	1,700.76	1,703.05	0.91	0.69	-0.60
5,081.00	90.68	88.00	4,086.74	237.56	1,795.72	1,798.03	0.74	0.53	-0.52
5,176.00	89.98	89.05	4,086.20	240.01	1,890.68	1,893.01	1.33	-0.74	1.11
5,269.00	90.37	89.71	4,085.91	241.01	1,983.67	1,986.01	0.82	0.42	0.71
5,364.00	90.09	89.41	4,085.53	241.74	2,078.67	2,081.01	0.43	-0.29	-0.32



Survey Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 002H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	RKB = 20.3' @ 3644.40usft (AKITA 519)
Site:	MARLEY STATE COM 31 AB	MD Reference:	RKB = 20.3' @ 3644.40usft (AKITA 519)
Well:	002H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	WBDS_SQL_3

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,458.00	89.42	88.92	4,085.93	243.11	2,172.66	2,175.01	0.88	-0.71	-0.52
5,552.00	84.84	88.09	4,090.64	245.56	2,266.48	2,268.85	4.95	-4.87	-0.88
5,647.00	86.13	88.08	4,098.12	248.72	2,361.13	2,363.53	1.36	1.36	-0.01
5,741.00	87.85	87.75	4,103.05	252.14	2,454.94	2,457.36	1.86	1.83	-0.35
5,836.00	89.22	88.76	4,105.48	255.03	2,549.86	2,552.31	1.79	1.44	1.06
5,931.00	89.62	89.32	4,106.44	256.62	2,644.84	2,647.30	0.72	0.42	0.59
6,024.00	89.76	90.60	4,106.94	256.69	2,737.84	2,740.30	1.38	0.15	1.38
6,119.00	90.29	90.77	4,106.90	255.55	2,832.83	2,835.27	0.59	0.56	0.18
6,214.00	90.79	90.36	4,106.01	254.61	2,927.82	2,930.25	0.68	0.53	-0.43
6,314.00	89.02	89.45	4,106.17	254.78	3,027.82	3,030.24	1.99	-1.77	-0.91
6,405.00	87.87	89.41	4,108.64	255.69	3,118.78	3,121.20	1.26	-1.26	-0.04
6,496.00	87.53	89.42	4,112.30	256.61	3,209.70	3,212.13	0.37	-0.37	0.01
6,586.00	88.40	89.06	4,115.49	257.81	3,299.63	3,302.07	1.05	0.97	-0.40
6,677.00	89.94	89.22	4,116.81	259.17	3,390.61	3,393.06	1.70	1.69	0.18
6,767.00	88.65	89.46	4,117.92	260.21	3,480.59	3,483.05	1.46	-1.43	0.27
6,858.00	89.72	89.41	4,119.21	261.11	3,571.58	3,574.04	1.18	1.18	-0.05
6,953.00	86.86	89.86	4,122.05	261.71	3,666.53	3,668.99	3.05	-3.01	0.47
7,048.00	88.34	90.02	4,126.02	261.81	3,761.44	3,763.90	1.57	1.56	0.17
7,142.00	88.15	89.85	4,128.90	261.92	3,855.40	3,857.85	0.27	-0.20	-0.18
7,236.00	88.51	89.59	4,131.64	262.38	3,949.35	3,951.81	0.47	0.38	-0.28
7,331.00	88.51	89.51	4,134.11	263.12	4,044.32	4,046.78	0.08	0.00	-0.08
7,426.00	87.81	89.27	4,137.16	264.13	4,139.26	4,141.73	0.78	-0.74	-0.25
7,520.00	88.93	89.60	4,139.84	265.06	4,233.22	4,235.69	1.24	1.19	0.35
7,615.00	89.94	89.41	4,140.77	265.88	4,328.21	4,330.68	1.08	1.06	-0.20
7,709.00	90.19	90.16	4,140.67	266.23	4,422.21	4,424.68	0.84	0.27	0.80
7,803.00	88.46	91.18	4,141.77	265.13	4,516.19	4,518.64	2.14	-1.84	1.09
7,897.00	87.81	91.16	4,144.83	263.22	4,610.12	4,612.55	0.69	-0.69	-0.02
7,993.00	88.26	91.98	4,148.12	260.59	4,706.03	4,708.42	0.97	0.47	0.85
8,088.00	88.26	91.44	4,151.01	257.75	4,800.94	4,803.30	0.57	0.00	-0.57
8,183.00	87.61	91.21	4,154.43	255.56	4,895.85	4,898.19	0.73	-0.68	-0.24
8,277.00	89.05	91.40	4,157.17	253.42	4,989.79	4,992.10	1.55	1.53	0.20
8,372.00	90.73	91.33	4,157.35	251.16	5,084.76	5,087.04	1.77	1.77	-0.07
8,466.00	87.84	91.30	4,158.53	249.00	5,178.71	5,180.97	3.07	-3.07	-0.03
8,560.00	89.07	91.48	4,161.06	246.72	5,272.65	5,274.88	1.32	1.31	0.19
8,654.00	87.48	91.46	4,163.89	244.31	5,366.57	5,368.77	1.69	-1.69	-0.02
8,749.00	86.27	91.10	4,169.07	242.19	5,461.41	5,463.58	1.33	-1.27	-0.38
8,843.00	90.31	91.90	4,171.87	239.73	5,555.31	5,557.45	4.38	4.30	0.85
8,937.00	90.90	91.59	4,170.88	236.87	5,649.26	5,651.37	0.71	0.63	-0.33
9,032.00	91.15	91.15	4,169.18	234.60	5,744.22	5,746.30	0.53	0.26	-0.46
9,126.00	89.69	90.49	4,168.49	233.25	5,838.21	5,840.27	1.70	-1.55	-0.70
9,221.00	87.95	90.74	4,170.45	232.23	5,933.18	5,935.22	1.85	-1.83	0.26
9,315.00	86.52	91.84	4,174.98	230.12	6,027.04	6,029.06	1.92	-1.52	1.17
9,409.00	88.12	91.79	4,179.38	227.15	6,120.89	6,122.87	1.70	1.70	-0.05



Survey Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 002H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	RKB = 20.3' @ 3644.40usft (AKITA 519)
Site:	MARLEY STATE COM 31 AB	MD Reference:	RKB = 20.3' @ 3644.40usft (AKITA 519)
Well:	002H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	WBDS_SQL_3

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
9,503.00	86.83	92.37	4,183.52	223.74	6,214.73	6,216.68	1.50	-1.37	0.62	
9,598.00	87.05	92.67	4,188.59	219.57	6,309.50	6,311.40	0.39	0.23	0.32	
9,682.00	87.87	92.58	4,192.31	215.72	6,393.33	6,395.19	0.98	0.98	-0.11	
9,758.00	87.87	92.58	4,195.14	212.30	6,469.20	6,471.02	0.00	0.00	0.00	

Design Targets										
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
2H SHL (PLAT)	- actual wellpath hits target center	0.00	0.00	0.00	0.00	0.00	652,927.13	573,855.26	32.794883	-104.227510
- Point										
2H FTP (PLAT)	- actual wellpath misses target center by 7.86usft at 4592.73usft MD (4081.81 TVD, 234.58 N, 1307.59 E)	0.00	0.01	4,074.00	235.13	1,308.23	653,162.27	575,163.50	32.795526	-104.223252
- Point										
2H LTP (PLAN)	- actual wellpath misses target center by 6.00usft at 9678.69usft MD (4192.19 TVD, 215.87 N, 6390.03 E)	0.00	0.00	4,186.20	216.04	6,390.30	653,143.18	580,245.56	32.795458	-104.206714
- Point										
2H LTP (PLAT)	- actual wellpath misses target center by 70.95usft at 9674.37usft MD (4192.03 TVD, 216.07 N, 6385.71 E)	0.00	0.00	4,186.20	286.69	6,389.21	653,213.83	580,244.47	32.795652	-104.206717
- Point										
2H BHL (PLAT)	- actual wellpath misses target center by 75.21usft at 9754.34usft MD (4195.00 TVD, 212.47 N, 6465.55 E)	0.00	0.01	4,188.00	287.26	6,469.18	653,214.39	580,324.44	32.795653	-104.206457
- Point										
2H BHL (PLAN)	- actual wellpath misses target center by 7.37usft at 9758.00usft MD (4195.14 TVD, 212.30 N, 6469.20 E)	0.00	0.00	4,188.00	213.78	6,470.32	653,140.91	580,325.58	32.795451	-104.206453
- Point										

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
9,758.00	4,195.14	212.30	6,469.20	Projection to Bit: 9758.00' MD/ 4195.14' TVD	
9,758.00	4,195.14	212.30	6,469.20	Final Station Closure Distance= 6472.68 /Direction= 88.12	
9,758.00	4,195.14	212.30	6,469.20	TD: Latitude= 32.795447 / Longitude= -104.206457	
9,758.00	4,195.14	212.30	6,469.20	TD: Y= 653139.43 / X= 580324.46	

Checked By: _____ Approved By: _____ Date: _____

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., 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 Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico

Form C-102

Energy, Minerals & Natural Resources Department

Revised August 1, 2011

OIL CONSERVATION DIVISION

Submit one copy to appropriate

District Office

1220 South St. Francis Dr.

Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-53817	² Pool Code 96836	³ Pool Name RED LAKE; GLORIEYA-YESO, NORTHEAST
⁴ Property Code 334079	⁵ Property Name MARLEY STATE COM 31 AB	⁶ Well Number 002H
⁷ OGRID No. 372210	⁸ Operator Name LONGFELLOW ENERGY, LP	⁹ Elevation 3624.1

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
A	36	17 S	27 E		1065	NORTH	1210	EAST	EDDY

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
A	31	17 S	28 E		878	NORTH	23	EAST	EDDY
¹² Dedicated Acres 327.09	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.

MARLEY STATE COM 31 AB 002H ELEV. = 3624.1' LAT. = 32.7948832°N (NAD83) LONG. = 104.2275102°W NMSP EAST (FT) N = 652927.13 E = 573855.26		KICK OFF POINT 869' FNL, 805' FEL LAT. = 32.7954135°N LONG. = 104.2261953°W		FIRST TAKE POINT 823' FNL, 100' FWL LAT. = 32.7955239°N LONG. = 104.2232509°W LAST TAKE POINT 874' FNL, 102' FEL LAT. = 32.7954571°N LONG. = 104.2067186°W		BOTTOM OF HOLE LAT. = 32.7954470°N LONG. = 104.2064620°W NMSP EAST (FT) N = 653139.38 E = 580322.78	
NW CORNER SEC. 36 LAT. = 32.7979021°N LONG. = 104.2408232°W NMSP EAST (FT) N = 654021.62 E = 569763.43	N/4 CORNER SEC. 36 LAT. = 32.7978419°N LONG. = 104.2322059°W NMSP EAST (FT) N = 654002.13 E = 572411.33	SECTION CORNER LAT. = 32.7977832°N LONG. = 104.2235908°W NMSP EAST (FT) N = 653983.43 E = 575058.52	N/4 CORNER SEC. 31 LAT. = 32.7978197°N LONG. = 104.2148231°W NMSP EAST (FT) N = 653998.63 E = 577752.59	NE CORNER SEC. 31 LAT. = 32.7978599°N LONG. = 104.2064288°W NMSP EAST (FT) N = 654017.25 E = 580331.94	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 heretofore entered by the division. Signature: <u>David Cain</u> Date: <u>10/20/2023</u> Printed Name: <u>David Cain</u> E-mail Address: <u>david.cain@longfellowenergy.com</u>		
						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. JULY 26, 2023 Date of Survey Signature and Seal of Professional Surveyor: <u>[Signature]</u> Certificate Number: <u>12797</u>	

Intent ☐ As Drilled ☒

API # 30-015-53817		
Operator Name: LONGFELLOW ENERGY, LP	Property Name: MARLEY STATE COM 31 AB	Well Number 002H

Kick Off Point (KOP)

UL A	Section 36	Township 17S	Range 27E	Lot	Feet 869	From N/S NORTH	Feet 805	From E/W EAST	County EDDY
Latitude 32.7954135					Longitude 104.2261953			NAD 83	

First Take Point (FTP)

UL D	Section 31	Township 17S	Range 28E	Lot 1	Feet 823	From N/S NORTH	Feet 100	From E/W WEST	County EDDY
Latitude 32.7955239					Longitude 104.2232509			NAD 83	

Last Take Point (LTP)

UL A	Section 31	Township 17S	Range 28E	Lot	Feet 874	From N/S NORTH	Feet 102	From E/W EAST	County EDDY
Latitude 32.7954571					Longitude 104.2067186			NAD 83	

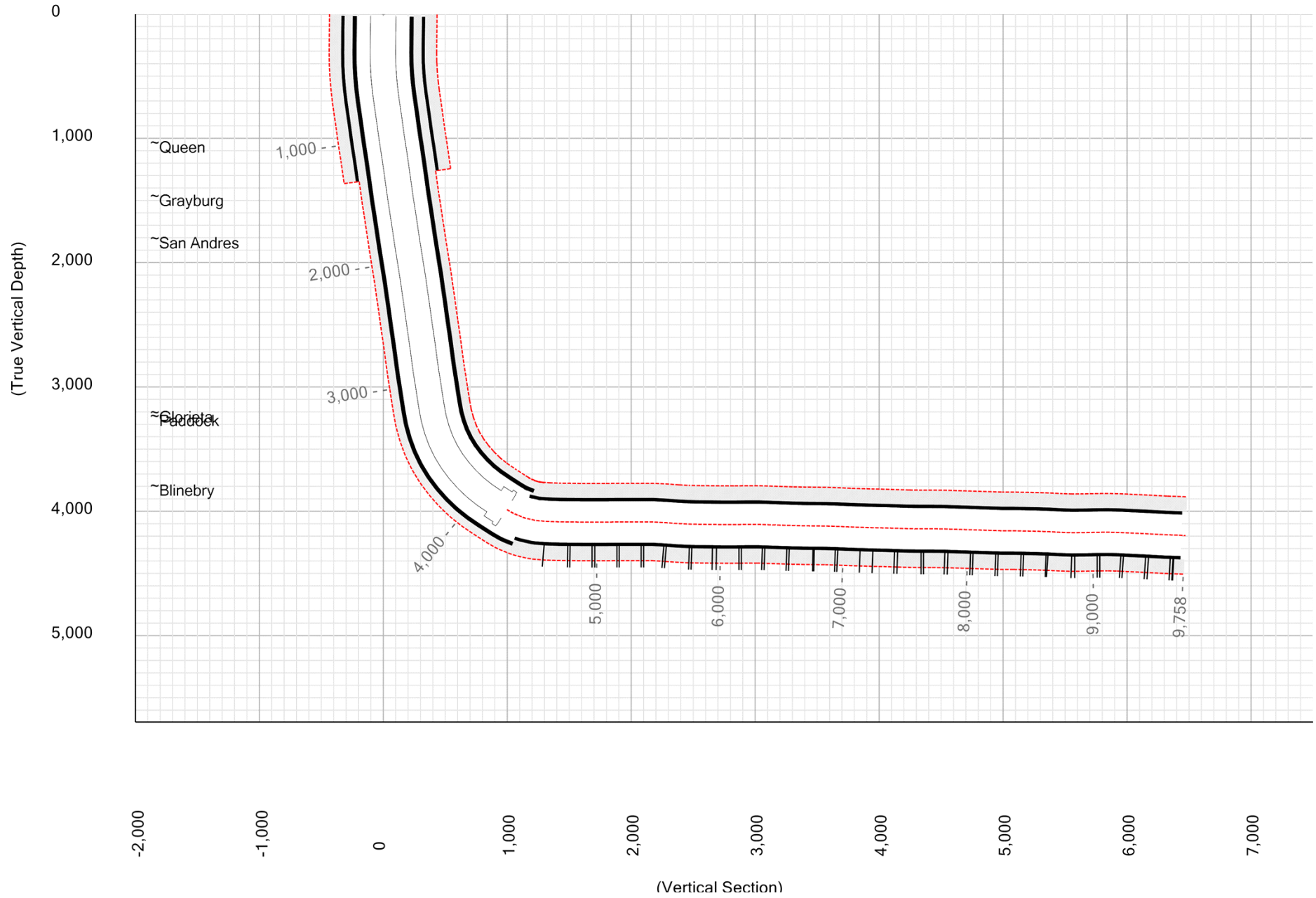
Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

Marley State Com 31 AB # 2H, 10/23/2023



Marley State Com 31 AB # 2H API # 30-015-53817			
1065 FNL & 1210 FEL	GL Elev:	3,624.00	KOP: 2,736
Section 36, Township 17S, Range 27E			EOC: 4,585
County, State: Eddy, NM			Fill Depth:
Aux ID:			PBTD: 9,675.00
'KB' correction: 20; All Depths Corr To: KB			TD: 9,723.00
			BOP: 7 1/16 10M

Hole Size

Diameter	Top At	Btm At	Date Drilled
12.2500	0.00	1,315.00	6/23/2023
8.7500	1,315.00	9,758.00	6/29/2023

Surface Casing

Date Ran: 6/23/2023

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Casing	33	9.6250	36.00	J55	1,293.00	20.00	1,313.00

Production Casing

Date Ran: 6/29/2023

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Casing	81	7.0000	32.00	L80	3,205.31	20.00	3,225.31
Last 41 Jts, solid body every 3rd jt							
Marker Jt	1	7.0000	32.00	L80	18.99	3,225.31	3,244.30
Casing	29	7.0000	32.00	L80	1,162.34	3,244.30	4,406.64
Solid body every 3rd jt							
Crossover	1	5.5000	20.00	L80	2.73	4,406.64	4,409.37
Casing	9	5.5000	20.00	L80	354.69	4,409.37	4,764.06
Solid body every 2nd jt							
Float Insert	1	5.5000	20.00	L80	2.70	4,764.06	4,766.76
Casing	56	5.5000	20.00	L80	2,240.38	4,766.76	7,007.14
Solid body every 2nd jt							
Marker Jt	1	5.5000	20.00	L80	19.69	7,007.14	7,026.83
Casing	61	5.5000	20.00	L80	2,419.39	7,026.83	9,446.22
Solid body every 2nd jt							
Marker Jt	1	5.5000	20.00	L80	21.89	9,446.22	9,468.11
Casing	5	5.5000	20.00	L80	206.83	9,468.11	9,674.94
Solid body every jt							
Float Collar	1	5.5000	20.00	L80	1.25	9,674.94	9,676.19
Casing	1	5.5000	20.00	L80	44.77	9,676.19	9,720.96
Float Shoe	1	5.5000	20.00	L80	2.04	9,720.96	9,723.00

Cement

Top At	Btm At	I D	O D	TOC Per	# - Type	# Sx	Class	Wt.
0.00	1,315.00	9.625	12.250	Circ	1 - Lead	390	C	13.50
					2 - Tail	130	C	14.80
Circ 157 sx								
4,406.00	9,758.00	5.500	8.750	Circ				
0.00	4,406.00	7.000	8.750	Circ	1 - Lead	420	C 25/75	12.20
					2 - Tail	1060	C	14.50
Circ 121 sx								

Formation Tops / Bottoms

Top At	Bottom At	Formation
1,006		Queen
1,437		Grayburg
1,775		San Andres
3,172		Glorieta
3,207		Paddock
3,762		Blinebry

Zone and Perfs**Comments / Completion Summary**

Dropped 3/8" x 1.75" coupling during ESP install.

Stg	Top	Btm	AIR	AIP	MIR	ISIP
1	9469	9642	111	6398	120	1565
2	9266	9449	133	6681	135	1893
3	9063	9246	130	6823	135	1773
4	8862	9043	121	5530	135	1869
5	8657	8840	134	6823	136	1744
6	8454	8637	134	6850	137	2175
7	8251	8434	135	6657	137	2111
8	8048	8231	134	6967	136	2166
9	7845	8028	128	7054	136	2144
10	7642	7820	129	7023	137	2031
11	7439	7622	134	6809	136	1967
12	7236	7419	134	6654	137	1633
13	6959	7136	133	6858	137	1593
14	6762	6936	134	6729	137	1638
15	6565	6742	136	6301	138	1568
16	6368	6545	135	6449	137	1520
17	6171	6348	135	6786	138	1602
18	5974	6151	132	6988	135	2054
19	5777	5951	134	6893	138	2283
20	5580	5757	133	7038	137	2979
21	5383	5560	135	6125	137	2472
22	5186	5363	135	6527	138	2204
23	4989	5166	137	5922	139	1403
24	4792	4976	136	4976	137	2011
25	4595	4773	136	5657	138	1860

Perforations

Top	Bottom	Formation	Status	Opened	Closed	# / Ft	Ttl #
4,595.00	4,773.00	Upper Blinebry	A	9/26/2023		3	30
Stage 25 - (3,3,3,3,3,3,3,3,3) SWM Charges							
4,792.00	4,967.00	Upper Blinebry	A	9/26/2023		3	30
Stage 24 - (3,3,3,3,3,3,3,3,3) SWM Charges							
4,989.00	5,166.00	Upper Blinebry	A	9/25/2023		3	30
Stage 23 - (3,3,3,3,3,3,3,3,3) SWM Charges							
5,186.00	5,363.00	Upper Blinebry	A	9/25/2023		3	30
Stage 22 - (3,3,3,3,3,3,3,3,3) SWM Charges							

Perforations

Top	Bottom	Formation	Status	Opened	Closed	# / Ft	Ttl #
5,383.00	5,560.00	Upper Blinebry	A	9/24/2023		3	30
Stage 21 - (3,3,3,3,3,3,3,3,3) SWM Charges							
5,580.00	5,757.00	Upper Blinebry	A	9/24/2023		3	30
Stage 20 - (3,3,3,3,3,3,3,3,3) SWM Charges							
5,777.00	5,941.00	Upper Blinebry	A	9/23/2023		3	30
Stage 19 - (3,3,3,3,3,3,3,3,3) SWM Charges							
5,974.00	6,151.00	Upper Blinebry	A	9/22/2023		3	30
Stage 18 - (3,3,3,3,3,3,3,3,3) SWM Charges							
6,171.00	6,348.00	Upper Blinebry	A	9/22/2023		3	30
Stage 17 - (3,3,3,3,3,3,3,3,3) SWM Charges							
6,368.00	6,545.00	Upper Blinebry	A	9/21/2023		3	30
Stage 16 - (3,3,3,3,3,3,3,3,3) SWM Charges							
6,565.00	6,752.00	Upper Blinebry	A	9/21/2023		3	30
Stage 15 - (3,3,3,3,3,3,3,3,3) SWM Charges							
6,762.00	6,936.00	Upper Blinebry	A	9/20/2023		3	30
Stage 14 - (3,3,3,3,3,3,3,3,3) SWM Charges							
6,959.00	7,136.00	Upper Blinebry	A	9/20/2023		3	30
Stage 13 - (3,3,3,3,3,3,3,3,3) SWM Charges							
7,237.00	7,414.00	Upper Blinebry	A	9/19/2023		3	30
Stage 12 - (3,3,3,3,3,3,3,3,3) SWM Charges							
7,439.00	7,622.00	Upper Blinebry	A	9/19/2023		3	30
Stage 11 - (3,3,3,3,3,3,3,3,3) SWM Charges							
7,642.00	7,820.00	Upper Blinebry	A	9/18/2023		3	30
Stage 10 - (3,3,3,3,3,3,3,3,3) SWM Charges							
7,845.00	8,028.00	Upper Blinebry	A	9/17/2023		3	30
Stage 9 - (3,3,3,3,3,3,3,3,3) SWM Charges							
8,048.00	8,231.00	Upper Blinebry	A	9/17/2023		3	30
Stage 8 - (3,3,3,3,3,3,3,3,3) SWM Charges							
8,251.00	8,434.00	Upper Blinebry	A	9/16/2023		3	30
Stage 7 - (3,3,3,3,3,3,3,3,3) SWM Charges USED GREEN ACID ON SPOT AND DISPLACED.							
8,454.00	8,637.00	Upper Blinebry	A	9/15/2023		3	30
Stage 6 - (3,3,3,3,3,3,3,3,3) SWM Charges							
8,657.00	8,840.00	Upper Blinebry	A	9/14/2023		3	30
Stage 5 - (3,3,3,3,3,3,3,3,3) SWM Charges							
8,862.00	9,043.00	Upper Blinebry	A	9/13/2023		3	30
Stage 4 - (3,3,3,3,3,3,3,3,3) SWM Charges							
9,064.00	9,246.00	Upper Blinebry	A	9/12/2023		3	30
Stage 3 - (3,3,3,3,3,3,3,3,3) SWM Charges							
9,267.00	9,446.00	Upper Blinebry	A	9/9/2023		3	30
Stage 2 - (3,3,3,3,3,3,3,3,3) SWM Charges							
9,469.00	9,642.00	Upper Blinebry	A	9/7/2023		3	30
Stage 1 - (3,3,3,3,3,3,3,3,3) Geo Charges							
9,664.00	9,670.00	Upper Blinebry	TA	8/11/2023		6	36
8-11-23 TOE PREP PERFS 6' GUN / 6 SPF / 36 HOLES.							

Wellbore Plugs and Junk

Top	Bottom	Type	Diameter	Solid	Date
-----	--------	------	----------	-------	------

Wellbore Plugs and Junk

Top	Bottom	Type	Diameter	Solid	Date
		Junk	0.375	Yes	10/17/2023
3/8" x 1.75" Coupling for cap string dropped into well					

Tubing

Date Ran: 10/17/2023

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Tubing	131	2.8750	6.50	L80	4,113.85	20.00	4,133.85
Band 3 per jt. First JNT above pump every 3'. Jts ,3/8" poly CT string ran in well.							
Seat Nipple	1	2.8750			0.60	4,133.85	4,134.45
Tubing Sub	1	2.8750			3.60	4,134.45	4,138.05
ESP Sensor	1	4.0000			0.60	4,138.05	4,138.65
Discharge pressure sensor, 1/4" SS CT connected to the Zennith Sensor							
ESP Pump	1	4.0000			0.53	4,138.65	4,139.18
Discharge Pump							
ESP Pump	1	4.0000			23.50	4,139.18	4,162.68
E3000, 96 Stages							
ESP Pump	1	4.0000			23.50	4,162.68	4,186.18
E3000, 96 Stages							
ESP Pump	1	4.0000			13.00	4,186.18	4,199.18
G42, 41 Stages							
ESP Intake	1	4.0000			8.70	4,199.18	4,207.88
Double gas sep/intakes: MODEL 400							
ESP Seal	2	4.0000			12.20	4,207.88	4,220.08
Double seals							
ESP Motor	1	4.5000			34.90	4,220.08	4,254.98
NEW, 286 HP . 450 MODEL							
ESP Sensor	1	4.0000			2.70	4,254.98	4,257.68
NEW, Zenith E7							
Tubing Sub	1	2.3750			2.00	4,257.68	4,259.68
Band 3/8" CT to sub							

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

ACKNOWLEDGMENTS

Action 279030

ACKNOWLEDGMENTS

Operator: LONGFELLOW ENERGY, LP 8115 Preston Road Dallas, TX 75225	OGRID: 372210
	Action Number: 279030
	Action Type: [C-104] Tight Hole Completion Packet (C-104CT)

ACKNOWLEDGMENTS

☒	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
☒	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.

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CONDITIONS

Action 279030

CONDITIONS

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	Action Number: 279030
	Action Type: [C-104] Tight Hole Completion Packet (C-104CT)

CONDITIONS

Created By	Condition	Condition Date
plmartinez	CONFIDENTIAL UNTIL 2/1/2024.	11/15/2023