

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 – 015-53815	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 004H

II. ¹⁰ Surface Location

UL or lot no. A	Section 36	Township 17S	Range 27E	Lot Idn	Feet from the 1105	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. H	Section 31	Township 17S	Range 28E	Lot Idn	Feet from the 1627	North/South line North	Feet from the 22	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 6/11/2023	²² Ready Date 11/1/2023	²³ TD 4220'V/9824'M	²⁴ PBDT 4219'V/9781'M	²⁵ Perforations 9,719'-4,658'	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
12-1/4"	9-5/8"	1279'	575		
8-3/4"	7"	4481'	1495		
8-3/4"	5-1/2"	9774'	1495		

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 Approved by: PATRICIA MARTINEZ		
Printed name: David Cain			Title: PETROLEUM SPECIALIST		
Title: Regulatory Analyst			Approval Date: 11/14/2023		
E-mail Address: David.cain@longfellowenergy.com			RT EXPIRES 2/1/2024		
Date: 11/09/2023		Phone: (972) 590-9918			



October 24, 2023

NMOCD
1220 South St Francis Drive
Santa Fe, NM 87505

Re: Marley State Com 31 AB 004H Tight Hole Status 30-015-53815

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
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-53815	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 004H
⁷ OGRID No. 372210	⁸ Operator Name LONGFELLOW ENERGY, LP	⁹ Elevation 3625.1

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		1105	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
H	31	17 S	28 E		1627	NORTH	22	EAST	EDDY

¹² Dedicated Acres 327.09	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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 004H ELEV. = 3625.1' LAT. = 32.7947732°N (NAD83) LONG. = 104.2275095°W NMSP EAST (FT) N = 652887.13 E = 573855.52		KICK OFF POINT 1571' FNL, 827' FEL LAT. = 32.7934853°N LONG. = 104.2262563°W		FIRST TAKE POINT 1643' FNL, 100' FWL LAT. = 32.7932684°N LONG. = 104.2232381°W LAST TAKE POINT 1625' FNL, 102' FEL LAT. = 32.7933932°N LONG. = 104.2066841°W		BOTTOM OF HOLE LAT. = 32.7933896°N LONG. = 104.2064239°W NMSP EAST (FT) N = 652390.87 E = 580335.39	
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 = 653999.63 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: Certificate Number: <u>12797</u> PROFESSIONAL SURVEYOR NO. 8809G		

Intent ☐ As Drilled ☒API #
30-015-53815

Operator Name: LONGFELLOW ENERGY, LP	Property Name: MARLEY STATE COM 31 AB	Well Number 004H
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Kick Off Point (KOP)

UL H	Section 36	Township 17S	Range 27E	Lot	Feet 1571	From N/S NORTH	Feet 827	From E/W EAST	County EDDY
Latitude 32.7934853					Longitude 104.2262563			NAD 83	

First Take Point (FTP)

UL H	Section 31	Township 17S	Range 28E	Lot 2	Feet 1643	From N/S NORTH	Feet 100	From E/W WEST	County EDDY
Latitude 32.7932684					Longitude 104.2232381			NAD 83	

Last Take Point (LTP)

UL H	Section 31	Township 17S	Range 28E	Lot	Feet 1625	From N/S NORTH	Feet 102	From E/W EAST	County EDDY
Latitude 32.7933932					Longitude 104.2066841			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
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KZ 06/29/2018



I **Larry Wright**, certify that I am employed by **Wellbenders Directional Services**. That I did on the day(s) of **06/10/23** thru **06/19/23** conduct or supervise the taking of a **MWD Survey** from a depth of **192'** to a depth of **9824'**; 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 4H** API No. **30-015-53815** 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
004H

Wellbore #1

Design: Wellbore #1

Standard Survey Report

20 June, 2023





Survey Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 004H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	RKB = 20.3' @ 3645.40usft (AKITA 519)
Site:	MARLEY STATE COM 31 AB	MD Reference:	RKB = 20.3' @ 3645.40usft (AKITA 519)
Well:	004H	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	004H		
Well Position	+N/-S	0.00 usft	Northing: 652,887.13 usft
	+E/-W	0.00 usft	Easting: 573,855.52 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
Grid Convergence:	0.057 °	Ground Level:	3,625.10 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
			Direction (°)
			89.42

Survey Program	Date	06/20/23		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	9,824.00	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
192.00	1.00	244.74	191.99	-0.71	-1.52	-1.52	0.52	0.52	0.00
311.00	1.15	201.58	310.97	-2.27	-2.89	-2.92	0.67	0.13	-36.27
402.00	2.40	155.10	401.93	-4.85	-2.43	-2.48	1.99	1.37	-51.08
493.00	4.72	142.00	492.75	-9.53	0.68	0.58	2.69	2.55	-14.40
583.00	6.70	138.70	582.30	-16.39	6.43	6.26	2.23	2.20	-3.67
674.00	8.89	134.49	672.45	-25.31	14.95	14.69	2.49	2.41	-4.63
765.00	9.69	133.21	762.26	-35.48	25.54	25.18	0.91	0.88	-1.41
855.00	10.31	133.12	850.89	-46.17	36.94	36.47	0.69	0.69	-0.10
946.00	11.61	134.16	940.23	-58.11	49.46	48.87	1.44	1.43	1.14
1,037.00	13.25	140.22	1,029.10	-72.51	62.70	61.96	2.30	1.80	6.66
1,127.00	13.79	142.20	1,116.60	-88.91	75.87	74.97	0.79	0.60	2.20
1,214.00	13.25	142.05	1,201.19	-104.97	88.36	87.29	0.62	-0.62	-0.17
1,300.00	12.94	142.90	1,284.96	-120.42	100.23	99.01	0.42	-0.36	0.99
1,394.00	11.80	139.50	1,376.77	-136.12	112.82	111.44	1.44	-1.21	-3.62



Survey Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 004H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	RKB = 20.3' @ 3645.40usft (AKITA 519)
Site:	MARLEY STATE COM 31 AB	MD Reference:	RKB = 20.3' @ 3645.40usft (AKITA 519)
Well:	004H	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)
1,489.00	13.53	140.80	1,469.46	-152.12	126.16	124.61	1.85	1.82	1.37
1,584.00	13.41	138.47	1,561.85	-168.98	140.48	138.76	0.59	-0.13	-2.45
1,679.00	13.04	144.21	1,654.33	-185.92	154.05	152.16	1.44	-0.39	6.04
1,773.00	12.96	144.47	1,745.92	-203.10	166.38	164.32	0.11	-0.09	0.28
1,867.00	14.27	144.12	1,837.28	-221.07	179.30	177.05	1.40	1.39	-0.37
1,951.00	14.52	143.79	1,918.64	-237.95	191.59	189.17	0.31	0.30	-0.39
2,058.00	14.15	142.72	2,022.31	-259.18	207.43	204.80	0.43	-0.35	-1.00
2,153.00	13.74	135.93	2,114.51	-276.53	222.31	219.50	1.77	-0.43	-7.15
2,248.00	13.42	133.65	2,206.86	-292.24	238.14	235.17	0.66	-0.34	-2.40
2,342.00	13.27	141.31	2,298.33	-308.19	252.78	249.64	1.89	-0.16	8.15
2,437.00	13.36	143.77	2,390.78	-325.56	266.08	262.77	0.60	0.09	2.59
2,532.00	13.00	143.12	2,483.27	-342.96	278.98	275.49	0.41	-0.38	-0.68
2,626.00	12.77	142.85	2,574.91	-359.70	291.60	287.94	0.25	-0.24	-0.29
2,719.00	12.47	138.00	2,665.66	-375.35	304.52	300.71	1.18	-0.32	-5.22
2,813.00	12.33	136.26	2,757.47	-390.14	318.25	314.29	0.42	-0.15	-1.85
2,907.00	12.01	134.54	2,849.36	-404.25	332.16	328.05	0.51	-0.34	-1.83
3,000.00	12.72	142.04	2,940.20	-419.12	345.36	341.10	1.89	0.76	8.06
3,095.00	12.89	142.97	3,032.84	-435.82	358.17	353.74	0.28	0.18	0.98
3,189.00	13.20	139.75	3,124.42	-452.38	371.42	366.82	0.84	0.33	-3.43
3,283.00	13.06	136.63	3,215.96	-468.29	385.65	380.89	0.77	-0.15	-3.32
3,378.00	17.59	114.66	3,307.64	-482.11	406.09	401.19	7.67	4.77	-23.13
3,474.00	22.06	107.15	3,397.94	-493.48	436.52	431.51	5.35	4.66	-7.82
3,569.00	27.31	106.40	3,484.23	-504.90	474.50	469.37	5.54	5.53	-0.79
3,664.00	33.31	105.31	3,566.20	-517.96	520.61	515.34	6.34	6.32	-1.15
3,759.00	36.49	99.77	3,644.13	-529.64	573.64	568.25	4.72	3.35	-5.83
3,853.00	39.47	96.01	3,718.22	-537.52	630.91	625.44	4.01	3.17	-4.00
3,948.00	46.03	93.90	3,787.95	-543.01	695.12	689.59	7.07	6.91	-2.22
4,042.00	52.37	92.45	3,849.34	-546.91	766.13	760.56	6.84	6.74	-1.54
4,136.00	58.31	90.59	3,902.78	-548.91	843.39	837.79	6.52	6.32	-1.98
4,180.00	60.00	89.95	3,925.34	-549.09	881.16	875.56	4.04	3.84	-1.45
4,230.00	59.90	89.75	3,950.38	-548.97	924.44	918.84	0.40	-0.20	-0.40
4,325.00	60.03	89.47	3,997.93	-548.41	1,006.68	1,001.08	0.29	0.14	-0.29
4,380.00	60.23	88.70	4,025.32	-547.65	1,054.37	1,048.77	1.27	0.36	-1.40
4,419.00	63.36	88.03	4,043.75	-546.67	1,088.72	1,083.13	8.17	8.03	-1.72
4,512.00	72.32	89.04	4,078.79	-544.49	1,174.73	1,169.16	9.69	9.63	1.09
4,606.00	84.65	91.61	4,097.52	-545.06	1,266.65	1,261.07	13.39	13.12	2.73
4,700.00	84.71	91.38	4,106.24	-547.50	1,360.22	1,354.61	0.25	0.06	-0.24
4,795.00	87.69	90.62	4,112.53	-549.15	1,454.98	1,449.35	3.24	3.14	-0.80
4,890.00	88.31	90.18	4,115.85	-549.82	1,549.92	1,544.28	0.80	0.65	-0.46
4,918.00	88.48	90.22	4,116.63	-549.91	1,577.91	1,572.26	0.62	0.61	0.14
5,012.00	90.42	87.53	4,117.54	-548.07	1,671.87	1,666.24	3.53	2.06	-2.86
5,107.00	91.15	87.24	4,116.24	-543.74	1,766.77	1,761.17	0.83	0.77	-0.31
5,201.00	88.54	88.42	4,116.49	-540.18	1,860.69	1,855.13	3.05	-2.78	1.26
5,295.00	88.43	88.64	4,118.97	-537.77	1,954.62	1,949.08	0.26	-0.12	0.23



Survey Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 004H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	RKB = 20.3' @ 3645.40usft (AKITA 519)
Site:	MARLEY STATE COM 31 AB	MD Reference:	RKB = 20.3' @ 3645.40usft (AKITA 519)
Well:	004H	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)
5,390.00	89.41	88.71	4,120.77	-535.57	2,049.58	2,044.05	1.03	1.03	0.07
5,484.00	87.11	89.60	4,123.62	-534.18	2,143.52	2,138.00	2.62	-2.45	0.95
5,578.00	87.31	89.92	4,128.19	-533.79	2,237.41	2,231.89	0.40	0.21	0.34
5,672.00	88.43	90.23	4,131.69	-533.91	2,331.34	2,325.82	1.24	1.19	0.33
5,763.00	89.04	90.12	4,133.70	-534.19	2,422.32	2,416.79	0.68	0.67	-0.12
5,852.00	89.94	90.08	4,134.49	-534.35	2,511.31	2,505.78	1.01	1.01	-0.04
5,941.00	88.57	89.91	4,135.65	-534.34	2,600.30	2,594.76	1.55	-1.54	-0.19
6,032.00	88.60	89.67	4,137.89	-534.01	2,691.28	2,685.73	0.27	0.03	-0.26
6,123.00	89.72	89.32	4,139.23	-533.20	2,782.26	2,776.72	1.29	1.23	-0.38
6,213.00	88.18	89.63	4,140.88	-532.38	2,872.24	2,866.70	1.75	-1.71	0.34
6,304.00	88.62	89.44	4,143.42	-531.64	2,963.20	2,957.67	0.53	0.48	-0.21
6,395.00	88.40	88.52	4,145.78	-530.02	3,054.15	3,048.63	1.04	-0.24	-1.01
6,485.00	88.23	88.08	4,148.43	-527.35	3,144.08	3,138.58	0.52	-0.19	-0.49
6,576.00	87.90	88.82	4,151.50	-524.89	3,234.99	3,229.51	0.89	-0.36	0.81
6,667.00	87.39	88.63	4,155.24	-522.87	3,325.89	3,320.43	0.60	-0.56	-0.21
6,757.00	87.61	90.23	4,159.17	-521.97	3,415.80	3,410.34	1.79	0.24	1.78
6,848.00	88.43	90.84	4,162.31	-522.82	3,506.74	3,501.27	1.12	0.90	0.67
6,942.00	89.02	90.99	4,164.40	-524.32	3,600.70	3,595.21	0.65	0.63	0.16
7,037.00	89.86	90.95	4,165.33	-525.93	3,695.68	3,690.17	0.89	0.88	-0.04
7,132.00	88.93	89.70	4,166.34	-526.47	3,790.67	3,785.15	1.64	-0.98	-1.32
7,225.00	89.46	89.59	4,167.64	-525.90	3,883.66	3,878.14	0.58	0.57	-0.12
7,320.00	90.11	89.90	4,168.00	-525.47	3,978.66	3,973.14	0.76	0.68	0.33
7,415.00	87.78	88.88	4,169.75	-524.46	4,073.63	4,068.11	2.68	-2.45	-1.07
7,510.00	87.92	88.87	4,173.31	-522.60	4,168.54	4,163.04	0.15	0.15	-0.01
7,605.00	89.13	88.74	4,175.76	-520.62	4,263.49	4,258.00	1.28	1.27	-0.14
7,698.00	88.88	88.76	4,177.37	-518.59	4,356.45	4,350.98	0.27	-0.27	0.02
7,793.00	89.63	88.99	4,178.61	-516.72	4,451.43	4,445.97	0.83	0.79	0.24
7,887.00	88.29	89.23	4,180.31	-515.26	4,545.40	4,539.95	1.45	-1.43	0.26
7,983.00	88.37	89.22	4,183.11	-513.97	4,641.35	4,635.91	0.08	0.08	-0.01
8,078.00	89.02	89.42	4,185.28	-512.84	4,736.32	4,730.88	0.72	0.68	0.21
8,173.00	87.42	89.20	4,188.23	-511.70	4,831.26	4,825.83	1.70	-1.68	-0.23
8,267.00	88.31	89.44	4,191.73	-510.58	4,925.19	4,919.77	0.98	0.95	0.26
8,361.00	89.88	89.66	4,193.21	-509.84	5,019.17	5,013.75	1.69	1.67	0.23
8,456.00	88.43	90.41	4,194.61	-509.90	5,114.16	5,108.73	1.72	-1.53	0.79
8,550.00	88.48	90.84	4,197.15	-510.93	5,208.12	5,202.68	0.46	0.05	0.46
8,644.00	88.90	90.06	4,199.30	-511.66	5,302.09	5,296.64	0.94	0.45	-0.83
8,738.00	89.69	89.85	4,200.45	-511.59	5,396.08	5,390.63	0.87	0.84	-0.22
8,833.00	87.81	88.72	4,202.53	-510.41	5,491.04	5,485.60	2.31	-1.98	-1.19
8,927.00	87.53	88.53	4,206.35	-508.15	5,584.94	5,579.51	0.36	-0.30	-0.20
9,021.00	87.84	88.46	4,210.14	-505.68	5,678.83	5,673.42	0.34	0.33	-0.07
9,115.00	88.29	88.63	4,213.32	-503.30	5,772.75	5,767.36	0.51	0.48	0.18
9,210.00	88.59	88.99	4,215.90	-501.33	5,867.69	5,862.32	0.49	0.32	0.38
9,305.00	89.32	88.76	4,217.64	-499.46	5,962.66	5,957.29	0.81	0.77	-0.24



Survey Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 004H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	RKB = 20.3' @ 3645.40usft (AKITA 519)
Site:	MARLEY STATE COM 31 AB	MD Reference:	RKB = 20.3' @ 3645.40usft (AKITA 519)
Well:	004H	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)	
9,406.00	91.06	88.88	4,217.30	-497.38	6,063.63	6,058.28	1.73	1.72	0.12	
9,501.00	89.79	89.11	4,216.60	-495.72	6,158.61	6,153.28	1.36	-1.34	0.24	
9,596.00	90.33	89.51	4,216.50	-494.57	6,253.60	6,248.28	0.71	0.57	0.42	
9,690.00	88.84	90.44	4,217.18	-494.53	6,347.60	6,342.27	1.87	-1.59	0.99	
9,756.00	88.98	90.91	4,218.43	-495.31	6,413.58	6,408.24	0.74	0.21	0.71	
9,824.00	88.98	90.91	4,219.65	-496.39	6,481.56	6,476.20	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
4H SHL (PLAT)	0.00	0.00	0.00	0.00	0.00	652,887.13	573,855.52	32.794773	-104.227510	
- hit/miss target										
- Shape										
- actual wellpath hits target center										
- Point										
4H FTP (PLAT)	0.00	0.00	4,107.00	-549.63	1,313.01	652,337.51	575,168.53	32.793259	-104.223239	
- actual wellpath misses target center by 6.09usft at 4653.14usft MD (4101.91 TVD, -546.33 N, 1313.57 E)										
- Point										
4H LTP (PLAT)	0.00	0.00	4,224.16	-498.02	6,401.77	652,389.11	580,257.29	32.793385	-104.206678	
- actual wellpath misses target center by 6.60usft at 9744.33usft MD (4218.22 TVD, -495.13 N, 6401.91 E)										
- Point										
4H BHL (PLAT)	0.00	0.00	4,226.00	-497.46	6,481.76	652,389.67	580,337.28	32.793386	-104.206418	
- actual wellpath misses target center by 6.45usft at 9824.00usft MD (4219.65 TVD, -496.39 N, 6481.56 E)										
- Point										

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
9,824.00	4,219.65	-496.39	6,481.56	Projection to Bit: 9824.00' MD/ 4219.65' TVD	
9,824.00	4,219.65	-496.39	6,481.56	Final Station Closure Distance= 6500.54 /Direction= 94.38	
9,824.00	4,219.65	-496.39	6,481.56	TD: Latitude= 32.793389 / Longitude= -104.206418	
9,824.00	4,219.65	-496.39	6,481.56	TD: Y= 652390.74 / X= 580337.08	

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
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-53815	² Pool Code 96836	³ Pool Name RED LAKE; GLORIEYA-YESO, NORTHEAST
⁴ Property Code 334079	⁵ Property Name MARLEY STATE COM 31 AB	
⁷ OGRID No. 372210	⁸ Operator Name LONGFELLOW ENERGY, LP	⁶ Well Number 004H ⁹ Elevation 3625.1

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		1105	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
H	31	17 S	28 E		1627	NORTH	22	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 004H ELEV. = 3625.1' LAT. = 32.7947732°N (NAD83) LONG. = 104.2275095°W NMSP EAST (FT) N = 652887.13 E = 573855.52		KICK OFF POINT 1571' FNL, 827' FEL LAT. = 32.7934853°N LONG. = 104.2262563°W		FIRST TAKE POINT 1643' FNL, 100' FWL LAT. = 32.7932684°N LONG. = 104.2232381°W LAST TAKE POINT 1625' FNL, 102' FEL LAT. = 32.7933932°N LONG. = 104.2066841°W		BOTTOM OF HOLE LAT. = 32.7933896°N LONG. = 104.2064239°W NMSP EAST (FT) N = 652390.87 E = 580335.39			
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 = 653999.63 E = 577752.59		NE CORNER SEC. 31 LAT. = 32.7978599°N LONG. = 104.2064288°W NMSP EAST (FT) N = 654017.25 E = 580331.94	

The map shows a grid of sections. Section 36 is on the left, and Section 31 is on the right. A well location is marked with a dot and labeled 'SURFACE LOCATION'. A bottom hole location is marked with a dot and labeled 'BOTTOM OF HOLE'. Various corner points are labeled with coordinates and section numbers. A red line indicates the 'AS-DRILLED' path. The map includes a north arrow and a scale bar.

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	Date
David Cain	10/20/2023
Printed Name	
david.cain@longfellowenergy.com	
E-mail Address	
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: Certificate Number: 12797 PROFESSIONAL SURVEYOR NO. 8809G	

Intent ☐ As Drilled ☒API #
30-015-53815

Operator Name: LONGFELLOW ENERGY, LP	Property Name: MARLEY STATE COM 31 AB	Well Number 004H
---	--	---------------------

Kick Off Point (KOP)

UL H	Section 36	Township 17S	Range 27E	Lot	Feet 1571	From N/S NORTH	Feet 827	From E/W EAST	County EDDY
Latitude 32.7934853					Longitude 104.2262563			NAD 83	

First Take Point (FTP)

UL H	Section 31	Township 17S	Range 28E	Lot 2	Feet 1643	From N/S NORTH	Feet 100	From E/W WEST	County EDDY
Latitude 32.7932684					Longitude 104.2232381			NAD 83	

Last Take Point (LTP)

UL H	Section 31	Township 17S	Range 28E	Lot	Feet 1625	From N/S NORTH	Feet 102	From E/W EAST	County EDDY
Latitude 32.7933932					Longitude 104.2066841			NAD 83	

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

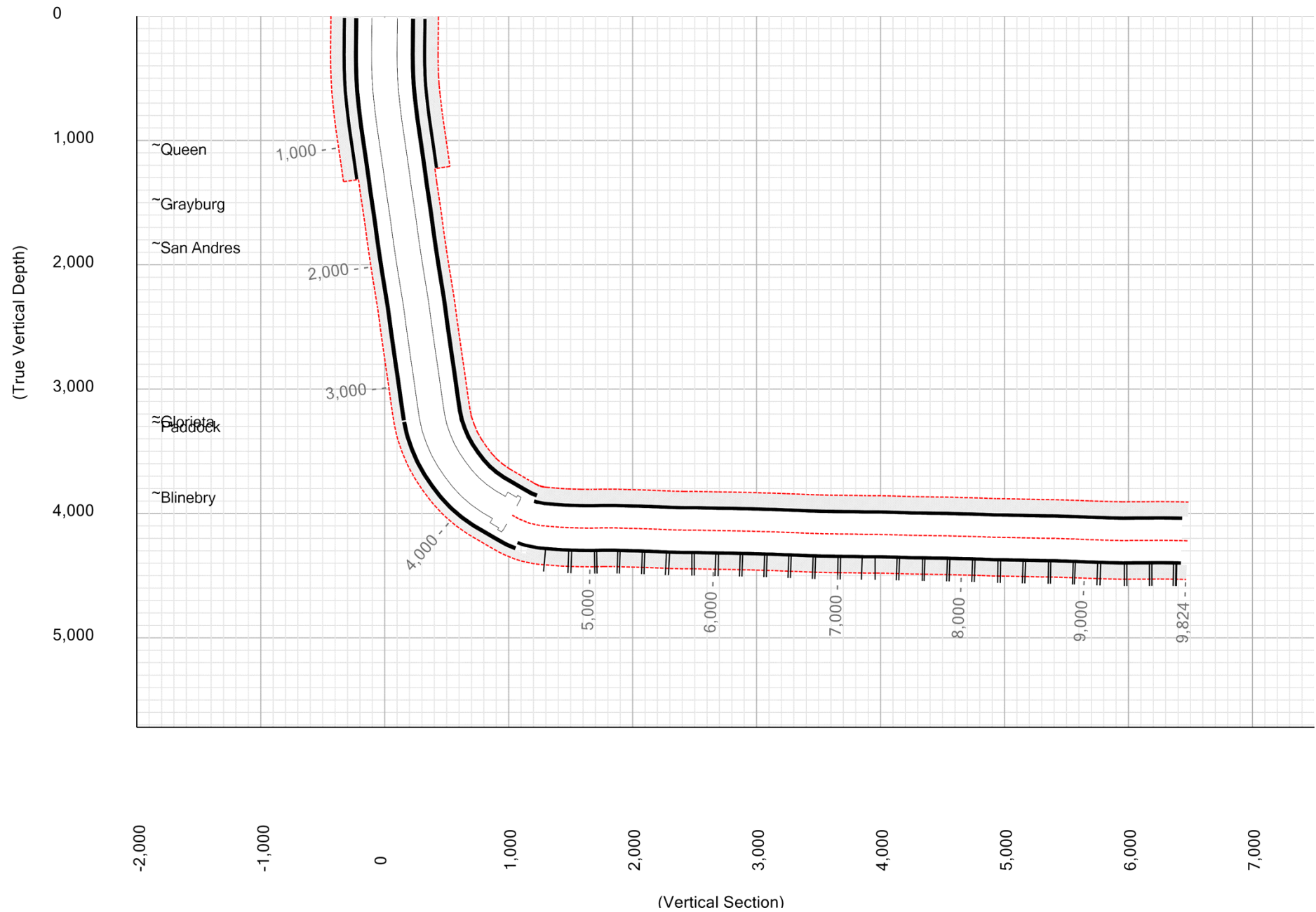
If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:	Property Name:	Well Number
----------------	----------------	-------------

KZ 06/29/2018

Marley State Com 31 AB # 4H, 10/23/2023



Marley State Com 31 AB # 4H API # 30-015-53815			
1105 FNL & 1210 FEL	GL Elev:	3,625.00	KOP: 3,308
Section 36, Township 17S, Range 27E		EOC:	4,678
County, State: Eddy, NM		Fill Depth:	
Aux ID:		PBTD:	9,781.00
'KB' correction: 20; All Depths Corr To: KB		TD:	9,824.00
		BOP:	7 1/16 10M

Hole Size

Diameter	Top At	Btm At	Date Drilled
12.2500	0.00	1,286.00	6/12/2023
8.7500	1,286.00	9,824.00	6/17/2023

Surface Casing

Date Ran: 6/12/2023

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Casing	32	9.6250	36.00	J55	1,259.00	20.00	1,279.00

Production Casing

Date Ran: 6/17/2023

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Casing	82	7.0000	32.00	L80	3,242.85	20.00	3,262.85
Last 37 jts, solid body every 3rd jt							
Marker Jt	1	7.0000	32.00	L80	19.65	3,262.85	3,282.50
Casing	30	7.0000	32.00	L80	1,198.87	3,282.50	4,481.37
Solid body every 3rd jt							
Crossover	1	5.5000	20.00	L80	2.75	4,481.37	4,484.12
Casing	8	5.5000	20.00	L80	317.08	4,484.12	4,801.20
Solid body every 2nd jt							
Float Insert	1	5.5000	20.00	L80	2.70	4,801.20	4,803.90
Casing	60	5.5000	20.00	L80	2,371.40	4,803.90	7,175.30
Solid body every 2nd jt							
Marker Jt	1	5.5000	20.00	L80	19.68	7,175.30	7,194.98
Casing	57	5.5000	20.00	L80	2,317.15	7,194.98	9,512.13
Solid body every 2nd jt							
Marker Jt	1	5.5000	20.00	L80	19.72	9,512.13	9,531.85
Casing	5	5.5000	20.00	L80	199.07	9,531.85	9,730.92
Solid body every jt							
Float Collar	1	5.5000	20.00	L80	1.25	9,730.92	9,732.17
Casing	1	5.5000	20.00	L80	39.79	9,732.17	9,771.96
Float Shoe	1	5.5000	20.00	L80	2.04	9,771.96	9,774.00

Cement

Top At	Btm At	I D	O D	TOC Per	# - Type	# Sx	Class	Wt.
0.00	1,286.00	9.625	12.250	Circ	1 - Lead	445	C	13.50
					2 - Tail	130	C	14.80
Circ 150 sx to surf								
4,531.00	9,824.00	5.500	8.750	Circ				
0.00	4,531.00	7.000	8.750	Circ	1 - Lead	375	C 25/75	12.20
					2 - Tail	1120	C	14.50

Cement

Top At	Btm At	I D	O D	TOC Per	# - Type	# Sx	Class	Wt.
--------	--------	-----	-----	---------	----------	------	-------	-----

Formation Tops / Bottoms

Top At	Bottom At	Formation
1,008		Queen
1,445		Grayburg
1,797		San Andres
3,195		Glorieta
3,235		Paddock
3,809		Blaine

Zone and Perfs**Comments / Completion Summary**

Stg	Top	Btm	AIR	AIP	MIR	ISIP
1	9536	9719	105	6350	127	1688
2	9333	9516	124	6526	127	1986
3	9130	9313	131	7189	137	1806
4	8927	9110	134	6918	138	1918
5	8722	8907	135	6435	137	1737
6	8521	8704	136	6501	137	1697
7	8318	8501	133	6838	136	1723
8	8115	8296	135	6926	138	1901
9	7912	8095	91	5116	91	2067
10	7709	7892	134	7042	137	2093
11	7506	7689	136	6656	137	1813
12	7303	7486	134	6760	136	2044
13	7026	7203	135	6785	136	2146
14	6829	7006	135	6967	138	2585
15	6632	6809	124	7086	138	3127
16	6435	6612	134	6981	137	2754
17	6238	6415	133	7139	136	2842
18	6041	6218	136	6761	137	2765
19	5844	6021	136	6305	138	2351
20	5652	5824	134	5905	137	2052
21	5450	5627	136	6207	139	2072
22	5251	5430	135	6096	137	2036
23	5052	5232	135	5867	137	1058
24	4860	5034	136	5236	138	2329
25	4658	4836	135	4623	138	1636

Perforations

Top	Bottom	Formation	Status	Opened	Closed	# / Ft	Ttl #
4,658.00	4,836.00	Upper Blaine	A	9/27/2023		3	30
Stage 25 - (3,3,3,3,3,3,3,3,3) SWM Charges							
4,860.00	5,034.00	Upper Blaine	A	9/26/2023		3	30
Stage 24 - (3,3,3,3,3,3,3,3,3) SWM Charges							
5,052.00	5,232.00	Upper Blaine	A	9/26/2023		3	30
Stage 23 - (3,3,3,3,3,3,3,3,3) SWM Charges							

Perforations

Top	Bottom	Formation	Status	Opened	Closed	# / Ft	Ttl #
5,251.00	5,430.00	Upper Blinebry	A	9/25/2023		3	30
Stage 22 - (3,3,3,3,3,3,3,3,3) SWM Charges							
5,450.00	5,627.00	Upper Blinebry	A	9/25/2023		3	30
Stage 21 - (3,3,3,3,3,3,3,3,3) SWM Charges							
5,652.00	5,824.00	Upper Blinebry	A	9/24/2023		3	30
Stage 20 - (3,3,3,3,3,3,3,3,3) SWM Charges							
5,844.00	6,021.00	Upper Blinebry	A	9/23/2023		3	30
Stage 19 - (3,3,3,3,3,3,3,3,3) SWM Charges							
6,041.00	6,218.00	Upper Blinebry	A	9/23/2023		3	30
Stage 18 - (3,3,3,3,3,3,3,3,3) SWM Charges							
6,238.00	6,415.00	Upper Blinebry	A	9/22/2023		3	30
Stage 17 - (3,3,3,3,3,3,3,3,3) SWM Charges							
6,435.00	6,612.00	Upper Blinebry	A	9/22/2023		3	39
Stage 16 - (3,3,3,3,3,3,3,3,3) SWM Charges							
6,632.00	6,809.00	Upper Blinebry	A	9/21/2023		3	30
Stage 15 - (3,3,3,3,3,3,3,3,3) SWM Charges							
6,829.00	7,006.00	Upper Blinebry	A	9/21/2023		3	30
Stage 14 - (3,3,3,3,3,3,3,3,3) SWM Charges							
7,026.00	7,203.00	Upper Blinebry	A	9/20/2023		3	30
Stage 13 - (3,3,3,3,3,3,3,3,3) SWM Charges (SKIP 100' LATERAL FOR PRESSURE BLOCK)							
7,303.00	7,486.00	Upper Blinebry	A	9/19/2023		3	30
Stage 12 - (3,3,3,3,3,3,3,3,3) SWM Charges							
7,506.00	7,689.00	Upper Blinebry	A	9/19/2023		3	30
Stage 11 - (3,3,3,3,3,3,3,3,3) SWM Charges							
7,709.00	7,892.00	Upper Blinebry	A	9/18/2023		3	30
Stage 10 - (3,3,3,3,3,3,3,3,3) SWM Charges							
7,912.00	8,095.00	Upper Blinebry	A	9/18/2023		3	30
Stage 9 - (3,3,3,3,3,3,3,3,3) SWM Charges							
8,115.00	8,296.00	Upper Blinebry	A	9/17/2023		3	30
Stage 8 - (3,3,3,3,3,3,3,3,3) SWM Charges							
8,318.00	8,501.00	Upper Blinebry	A	9/16/2023		3	30
Stage 7 - (3,3,3,3,3,3,3,3,3) SWM Charges							
8,521.00	8,704.00	Upper Blinebry	A	9/16/2023		3	30
Stage 6 - (3,3,3,3,3,3,3,3,3) SWM Charges							
8,722.00	8,907.00	Upper Blinebry	A	9/15/2023		3	30
Stage 5 - (3,3,3,3,3,3,3,3,3) SWM Charges							
8,927.00	9,105.00	Upper Blinebry	A	9/13/2023		3	30
Stage 4 - (3,3,3,3,3,3,3,3,3) SWM Charges							
9,130.00	9,313.00	Upper Blinebry	A	9/12/2023		3	30
Stage 3 - (3,3,3,3,3,3,3,3,3) SWM Charges							
9,333.00	9,515.00	Upper Blinebry	A	9/11/2023		3	30
Stage 2 - (3,3,3,3,3,3,3,3,3) SWM Charges							
9,535.00	9,714.00	Upper Blinebry	A	9/9/2023		3	30
Stage 1 - (3,3,3,3,3,3,3,3,3) SWM Charges							
9,734.00	9,740.00	Upper Blinebry	A	8/22/2023	9/8/2023	6	36
8-22-23 TOE PREP PERFS. TTS TCP							

Tubing

Date Ran: 10/22/2023

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Tubing	130	2.8750	6.50	L80	4,208.59	20.00	4,228.59
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	4,228.59	4,229.19
Tubing Sub	1	2.8750			3.60	4,229.19	4,232.79
ESP Pump	1	4.0000			0.53	4,232.79	4,233.32
Discharge Pump							
ESP Pump	1	4.0000			23.50	4,233.32	4,256.82
E3000, 96 Stages							
ESP Pump	1	4.0000			23.50	4,256.82	4,280.32
E3000, 96 Stages							
ESP Pump	1	4.0000			13.00	4,280.32	4,293.32
G42, 41 Stages							
ESP Intake	1	4.0000			8.60	4,293.32	4,301.92
Double gas sep/intakes: MODEL 400							
ESP Seal	2	4.0000			12.20	4,301.92	4,314.12
Double seals							
ESP Motor	1	4.5000			34.90	4,314.12	4,349.02
NEW, 286 HP . 450 MODEL							
ESP Sensor	1	4.0000			2.70	4,349.02	4,351.72
NEW, Zenith E7							
Tubing Sub	1	2.3750			2.00	4,351.72	4,353.72
Band 3/8" CT to sub							

District I
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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 284385

ACKNOWLEDGMENTS

Operator: LONGFELLOW ENERGY, LP 8115 Preston Road Dallas, TX 75225	OGRID: 372210
	Action Number: 284385
	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 284385

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	Action Number: 284385
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CONDITIONS

Created By	Condition	Condition Date
plmartinez	CONFIDENTIAL UNTIL 2/1/2024.	11/14/2023