

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

Form C-104
Revised August 1, 2011
Submit one copy to appropriate District Office

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 – 015-53814	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 005H

II. ¹⁰ Surface Location

UL or lot no. A	Section 36	Township 17S	Range 27E	Lot Idn	Feet from the 1125	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 2078	North/South line North	Feet from the 27	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 6/1/2023	²² Ready Date 11/1/2023	²³ TD 3669'V/9414'M	²⁴ PBTD 3669'V/9365'M	²⁵ Perforations 9,332'-4,244'	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
12-1/4"	9-5/8"	1315'	650		
8-3/4"	7"	4088'	1495		
8-3/4"	5-1/2"	9407'	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 Title: PETROLEUM SPECIALIST Approval Date: 11/1/2023 RT EXPIRES 2/1/2024		
Printed name: David Cain Title: Regulatory Analyst E-mail Address: David.cain@longfellowenergy.com Date: 10/24/2023			Phone: (972) 590-9918		



October 24, 2023

NMOCD
1220 South St Francis Drive
Santa Fe, NM 87505

Re: Marley State Com 31 AB 005H Tight Hole Status 30-015-53814

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 written over a light blue horizontal line.

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 30-015-53814	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 005H ⁹ Elevation 3625.7

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		1125	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		2078	NORTH	27	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 005H ELEV. = 3625.7' LAT. = 32.7947183°N (NAD83) LONG. = 104.2275091°W NMSP EAST (FT) N = 652867.13 E = 573855.64		KICK OFF POINT 1898' FNL, 834' FEL LAT. = 32.7925846°N LONG. = 104.2262730°W		FIRST TAKE POINT 2057' FNL, 100' FWL LAT. = 32.7921330°N LONG. = 104.2232306°W		BOTTOM OF HOLE LAT. = 32.7921492°N LONG. = 104.2064205°W NMSP EAST (FT) N = 651939.58 E = 580337.00	
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		NW CORNER SEC. 31 LAT. = 32.7978197°N LONG. = 104.2148231°W NMSP EAST (FT) N = 653999.63 E = 577752.59		SECTION CORNER LAT. = 32.7977832°N LONG. = 104.2235908°W NMSP EAST (FT) N = 653983.43 E = 575058.52		N/4 CORNER SEC. 36 LAT. = 32.7978419°N LONG. = 104.2322059°W NMSP EAST (FT) N = 654002.13 E = 572411.33	

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 <i>David Cain</i>	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 27, 2023	
Date of Survey	
Signature and Seal of Professional Surveyor <i>William F. Jarman</i>	
Certificate Number: 12797 PROFESSIONAL SURVEYOR NO. 8810H	

Intent ☐ As Drilled ☒API #
30-015-53814

Operator Name: LONGFELLOW ENERGY, LP	Property Name: MARLEY STATE COM 31 AB	Well Number 005H
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Kick Off Point (KOP)

UL H	Section 36	Township 17S	Range 27E	Lot	Feet 1898	From N/S NORTH	Feet 834	From E/W EAST	County EDDY
Latitude 32.7925846					Longitude 104.2262730			NAD 83	

First Take Point (FTP)

UL H	Section 31	Township 17S	Range 28E	Lot 2	Feet 2057	From N/S NORTH	Feet 100	From E/W WEST	County EDDY
Latitude 32.7921330					Longitude 104.2232306			NAD 83	

Last Take Point (LTP)

UL H	Section 31	Township 17S	Range 28E	Lot	Feet 2075	From N/S NORTH	Feet 101	From E/W EAST	County EDDY
Latitude 32.7921569					Longitude 104.2066611			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 **06/01/23** thru **06/09/23** conduct or supervise the taking of a **MWD Survey** from a depth of **162'** to a depth of **9414'**; 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 5H** API No. **30-015-53814** 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
005H

Wellbore #1

Design: Wellbore #1

Standard Survey Report

09 June, 2023





Survey Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 005H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	RKB = 20.3' @ 3646.00usft (AKITA 519)
Site:	MARLEY STATE COM 31 AB	MD Reference:	RKB = 20.3' @ 3646.00usft (AKITA 519)
Well:	005H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	WBDS_SQL_2

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	Latitude:	32.793545
From:	Map	Easting:	580,846.39 usft	Longitude:	-104.204761
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.070 °

Well	005H					
Well Position	+N-S	0.00 usft	Northing:	652,867.13 usft	Latitude:	32.794718
	+E-W	0.00 usft	Easting:	573,855.64 usft	Longitude:	-104.227509
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,625.70 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)	Direction (°)	
	0.00	0.00	0.00	89.42	

Survey Program	Date	06/09/23			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
162.00	9,414.00	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	
162.00	0.49	354.16	162.00	0.69	-0.07	-0.06	0.30	0.30	0.00	
221.00	0.64	347.56	221.00	1.26	-0.17	-0.15	0.28	0.25	-11.19	
311.00	0.80	153.67	310.99	1.19	0.00	0.02	1.59	0.18	184.57	
493.00	5.55	154.28	492.66	-7.88	4.39	4.31	2.61	2.61	0.34	
583.00	7.01	153.82	582.12	-16.73	8.70	8.53	1.62	1.62	-0.51	
674.00	6.62	150.96	672.48	-26.30	13.70	13.43	0.57	-0.43	-3.14	
765.00	7.95	148.71	762.74	-36.27	19.51	19.14	1.49	1.46	-2.47	
856.00	9.12	153.21	852.73	-48.08	26.03	25.54	1.48	1.29	4.95	
946.00	10.93	158.52	941.36	-62.39	32.37	31.74	2.26	2.01	5.90	
1,037.00	15.17	156.62	1,029.99	-81.36	40.26	39.43	4.68	4.66	-2.09	
1,127.00	17.56	154.96	1,116.33	-104.47	50.68	49.62	2.71	2.66	-1.84	
1,249.00	18.21	153.96	1,232.44	-138.27	66.84	65.43	0.59	0.53	-0.82	
1,396.00	18.75	154.51	1,371.86	-180.24	87.09	85.26	0.39	0.37	0.37	
1,491.00	22.84	151.55	1,460.65	-210.24	102.45	100.32	4.44	4.31	-3.12	



Survey Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 005H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	RKB = 20.3' @ 3646.00usft (AKITA 519)
Site:	MARLEY STATE COM 31 AB	MD Reference:	RKB = 20.3' @ 3646.00usft (AKITA 519)
Well:	005H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	WBDS_SQL_2

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)
1,586.00	24.26	150.43	1,547.74	-243.43	120.87	118.40	1.57	1.49	-1.18
1,681.00	26.98	153.58	1,633.39	-279.71	140.09	137.25	3.20	2.86	3.32
1,775.00	28.24	153.59	1,716.69	-318.73	159.47	156.24	1.34	1.34	0.01
1,869.00	28.23	153.14	1,799.50	-358.48	179.41	175.77	0.23	-0.01	-0.48
1,965.00	28.14	153.05	1,884.12	-398.91	199.92	195.88	0.10	-0.09	-0.09
2,060.00	27.54	155.33	1,968.13	-438.84	219.24	214.79	1.29	-0.63	2.40
2,155.00	27.29	155.72	2,052.46	-478.65	237.37	232.51	0.32	-0.26	0.41
2,250.00	26.95	155.42	2,137.01	-518.08	255.28	250.02	0.39	-0.36	-0.32
2,344.00	26.52	155.09	2,220.96	-556.49	272.98	267.33	0.48	-0.46	-0.35
2,439.00	26.16	154.73	2,306.10	-594.66	290.85	284.82	0.41	-0.38	-0.38
2,534.00	25.77	153.95	2,391.51	-632.15	308.86	302.44	0.55	-0.41	-0.82
2,628.00	25.40	153.62	2,476.29	-668.57	326.79	320.01	0.42	-0.39	-0.35
2,721.00	25.15	153.63	2,560.39	-704.14	344.43	337.28	0.27	-0.27	0.01
2,815.00	25.02	153.73	2,645.52	-739.86	362.10	354.59	0.15	-0.14	0.11
2,909.00	26.35	151.85	2,730.24	-776.09	380.74	372.86	1.66	1.41	-2.00
3,002.00	28.06	139.24	2,813.01	-810.88	404.78	396.55	6.45	1.84	-13.56
3,097.00	29.65	130.28	2,896.26	-843.02	437.31	428.76	4.84	1.67	-9.43
3,191.00	31.99	120.27	2,977.03	-870.62	476.59	467.75	5.99	2.49	-10.65
3,285.00	35.86	109.64	3,055.08	-892.46	524.08	515.02	7.52	4.12	-11.31
3,380.00	39.62	102.99	3,130.23	-908.63	579.85	570.62	5.83	3.96	-7.00
3,476.00	45.88	99.50	3,200.70	-921.21	643.73	634.37	6.97	6.52	-3.64
3,571.00	52.00	96.26	3,263.08	-930.93	714.65	705.19	6.93	6.44	-3.41
3,666.00	56.97	94.63	3,318.25	-938.23	791.60	782.06	5.41	5.23	-1.72
3,761.00	59.58	90.62	3,368.21	-941.89	872.29	862.71	4.52	2.75	-4.22
3,855.00	59.74	90.51	3,415.70	-942.69	953.41	943.82	0.20	0.17	-0.12
3,918.00	59.81	90.24	3,447.41	-943.05	1,007.85	998.25	0.39	0.11	-0.43
3,950.00	60.94	89.93	3,463.23	-943.09	1,035.67	1,026.07	3.63	3.53	-0.97
4,044.00	69.60	89.47	3,502.52	-942.63	1,120.96	1,111.36	9.22	9.21	-0.49
4,138.00	77.72	88.86	3,528.94	-941.31	1,211.08	1,201.49	8.66	8.64	-0.65
4,232.00	86.50	89.04	3,541.83	-939.60	1,304.08	1,294.50	9.34	9.34	0.19
4,327.00	88.67	89.45	3,545.83	-938.35	1,398.98	1,389.41	2.32	2.28	0.43
4,421.00	89.42	89.76	3,547.40	-937.71	1,492.97	1,483.40	0.86	0.80	0.33
4,514.00	87.49	90.25	3,549.91	-937.71	1,585.93	1,576.36	2.14	-2.08	0.53
4,608.00	87.71	90.22	3,553.84	-938.10	1,679.85	1,670.26	0.24	0.23	-0.03
4,702.00	88.08	90.03	3,557.30	-938.30	1,773.78	1,764.19	0.44	0.39	-0.20
4,797.00	88.36	89.36	3,560.25	-937.80	1,868.73	1,859.15	0.76	0.29	-0.71
4,892.00	88.69	88.32	3,562.69	-935.88	1,963.68	1,954.11	1.15	0.35	-1.09
4,986.00	89.00	87.07	3,564.59	-932.10	2,057.58	2,048.04	1.37	0.33	-1.33
5,081.00	88.58	89.40	3,566.59	-929.17	2,152.51	2,143.00	2.49	-0.44	2.45
5,175.00	89.34	90.32	3,568.30	-928.94	2,246.49	2,236.98	1.27	0.81	0.98
5,269.00	87.51	90.09	3,570.88	-929.28	2,340.45	2,330.93	1.96	-1.95	-0.24
5,363.00	87.80	90.18	3,574.73	-929.50	2,434.38	2,424.84	0.32	0.31	0.10
5,457.00	88.13	90.22	3,578.07	-929.83	2,528.32	2,518.77	0.35	0.35	0.04
5,551.00	88.66	90.24	3,580.70	-930.20	2,622.28	2,612.73	0.56	0.56	0.02



Survey Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 005H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	RKB = 20.3' @ 3646.00usft (AKITA 519)
Site:	MARLEY STATE COM 31 AB	MD Reference:	RKB = 20.3' @ 3646.00usft (AKITA 519)
Well:	005H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	WBDS_SQL_2

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)
5,646.00	89.31	90.24	3,582.38	-930.60	2,717.26	2,707.70	0.68	0.68	0.00
5,741.00	89.81	90.26	3,583.11	-931.02	2,812.26	2,802.69	0.53	0.53	0.02
5,836.00	88.19	89.94	3,584.77	-931.18	2,907.24	2,897.66	1.74	-1.71	-0.34
5,930.00	88.30	89.62	3,587.65	-930.82	3,001.19	2,991.62	0.36	0.12	-0.34
6,024.00	86.56	88.32	3,591.86	-929.13	3,095.08	3,085.51	2.31	-1.85	-1.38
6,119.00	86.50	87.62	3,597.61	-925.78	3,189.84	3,180.31	0.74	-0.06	-0.74
6,214.00	88.81	87.00	3,601.50	-921.32	3,284.65	3,275.16	2.52	2.43	-0.65
6,308.00	88.89	88.31	3,603.39	-917.47	3,378.55	3,369.09	1.40	0.09	1.39
6,403.00	89.59	89.90	3,604.65	-915.99	3,473.53	3,464.08	1.83	0.74	1.67
6,497.00	89.95	90.00	3,605.03	-915.91	3,567.53	3,558.07	0.40	0.38	0.11
6,591.00	90.35	89.78	3,604.78	-915.73	3,661.53	3,652.07	0.49	0.43	-0.23
6,679.00	89.23	89.93	3,605.10	-915.51	3,749.53	3,740.07	1.28	-1.27	0.17
6,769.00	89.34	90.17	3,606.22	-915.58	3,839.52	3,830.05	0.29	0.12	0.27
6,860.00	87.97	89.93	3,608.36	-915.66	3,930.49	3,921.02	1.53	-1.51	-0.26
6,954.00	88.14	89.51	3,611.55	-915.20	4,024.44	4,014.97	0.48	0.18	-0.45
7,049.00	88.08	89.72	3,614.68	-914.57	4,119.38	4,109.91	0.23	-0.06	0.22
7,144.00	88.05	88.94	3,617.89	-913.46	4,214.32	4,204.86	0.82	-0.03	-0.82
7,237.00	88.98	88.66	3,620.30	-911.51	4,307.27	4,297.82	1.04	1.00	-0.30
7,332.00	87.52	88.90	3,623.20	-909.49	4,402.20	4,392.77	1.56	-1.54	0.25
7,427.00	88.42	89.30	3,626.57	-908.00	4,497.13	4,487.71	1.04	0.95	0.42
7,522.00	89.51	89.16	3,628.28	-906.72	4,592.10	4,582.69	1.16	1.15	-0.15
7,617.00	88.67	89.68	3,629.79	-905.76	4,687.08	4,677.67	1.04	-0.88	0.55
7,710.00	89.04	89.68	3,631.65	-905.24	4,780.06	4,770.66	0.40	0.40	0.00
7,804.00	87.49	89.77	3,634.50	-904.79	4,874.02	4,864.61	1.65	-1.65	0.10
7,899.00	87.91	89.65	3,638.31	-904.31	4,968.94	4,959.53	0.46	0.44	-0.13
7,995.00	88.78	88.83	3,641.08	-903.03	5,064.89	5,055.49	1.25	0.91	-0.85
8,090.00	87.75	89.67	3,643.96	-901.79	5,159.83	5,150.44	1.40	-1.08	0.88
8,184.00	88.11	90.03	3,647.35	-901.55	5,253.77	5,244.38	0.54	0.38	0.38
8,279.00	88.98	89.94	3,649.77	-901.52	5,348.74	5,339.34	0.92	0.92	-0.09
8,373.00	88.33	91.24	3,651.97	-902.49	5,442.71	5,433.29	1.55	-0.69	1.38
8,468.00	88.11	93.35	3,654.92	-906.29	5,537.58	5,528.12	2.23	-0.23	2.22
8,562.00	89.79	92.73	3,656.65	-911.27	5,631.43	5,621.92	1.91	1.79	-0.66
8,656.00	89.06	91.50	3,657.59	-914.74	5,725.36	5,715.80	1.52	-0.78	-1.31
8,750.00	88.53	90.13	3,659.57	-916.08	5,819.32	5,809.75	1.56	-0.56	-1.46
8,845.00	89.01	89.39	3,661.61	-915.68	5,914.30	5,904.73	0.93	0.51	-0.78
8,939.00	88.50	90.17	3,663.65	-915.32	6,008.28	5,998.70	0.99	-0.54	0.83
9,033.00	89.01	90.99	3,665.69	-916.27	6,102.25	6,092.66	1.03	0.54	0.87
9,127.00	90.13	91.05	3,666.40	-917.95	6,196.23	6,186.62	1.19	1.19	0.06
9,222.00	88.81	92.12	3,667.28	-920.57	6,291.19	6,281.54	1.79	-1.39	1.13
9,316.00	89.32	92.23	3,668.81	-924.14	6,385.11	6,375.42	0.56	0.54	0.12
9,344.00	89.79	92.12	3,669.03	-925.20	6,413.08	6,403.39	1.72	1.68	-0.39
9,414.00	89.79	92.12	3,669.28	-927.79	6,483.04	6,473.31	0.00	0.00	0.00



Survey Report



Company:	Longfellow Energy	Local Co-ordinate Reference:	Well 005H
Project:	Eddy Co., NM (Nad-83)	TVD Reference:	RKB = 20.3' @ 3646.00usft (AKITA 519)
Site:	MARLEY STATE COM 31 AB	MD Reference:	RKB = 20.3' @ 3646.00usft (AKITA 519)
Well:	005H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	WBDS_SQL_2

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
9,414.00	3,669.28	-927.79	6,483.04	Projection to Bit: 9414.00' MD/ 3669.28' TVD	
9,414.00	3,669.28	-927.79	6,483.04	Final Station Closure Distance= 6549.09 /Direction= 98.14	
9,414.00	3,669.28	-927.79	6,483.04	TD: Latitude= 32.792148 / Longitude= -104.206415	
9,414.00	3,669.28	-927.79	6,483.04	TD: Y= 651939.34 / X= 580338.68	

Checked By: _____	Approved By: _____	Date: _____
-------------------	--------------------	-------------

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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 30-015-53814	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 005H ⁹ Elevation 3625.7

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		1125	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		2078	NORTH	27	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 005H ELEV. = 3625.7' LAT. = 32.7947183°N (NAD83) LONG. = 104.2275091°W NMSP EAST (FT) N = 652867.13 E = 573855.64		KICK OFF POINT 1898' FNL, 834' FEL LAT. = 32.7925846°N LONG. = 104.2262730°W		FIRST TAKE POINT 2057' FNL, 100' FWL LAT. = 32.7921330°N LONG. = 104.2232306°W		BOTTOM OF HOLE LAT. = 32.7921492°N LONG. = 104.2064205°W NMSP EAST (FT) N = 651939.58 E = 580337.00	
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		SURFACE LOCATION 1210'		BOTTOM OF HOLE 2078'		KOP FTP	

AS-DRILLED

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 27, 2023

Date of Survey

Signature and Seal of Professional Surveyor: *William F. Jarman*

Certificate Number: 12797

PROFESSIONAL SURVEYOR NO. 8810H

Intent ☐ As Drilled ☒API #
30-015-53814

Operator Name: LONGFELLOW ENERGY, LP	Property Name: MARLEY STATE COM 31 AB	Well Number 005H
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Kick Off Point (KOP)

UL H	Section 36	Township 17S	Range 27E	Lot	Feet 1898	From N/S NORTH	Feet 834	From E/W EAST	County EDDY
Latitude 32.7925846					Longitude 104.2262730			NAD 83	

First Take Point (FTP)

UL H	Section 31	Township 17S	Range 28E	Lot 2	Feet 2057	From N/S NORTH	Feet 100	From E/W WEST	County EDDY
Latitude 32.7921330					Longitude 104.2232306			NAD 83	

Last Take Point (LTP)

UL H	Section 31	Township 17S	Range 28E	Lot	Feet 2075	From N/S NORTH	Feet 101	From E/W EAST	County EDDY
Latitude 32.7921569					Longitude 104.2066611			NAD 83	

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

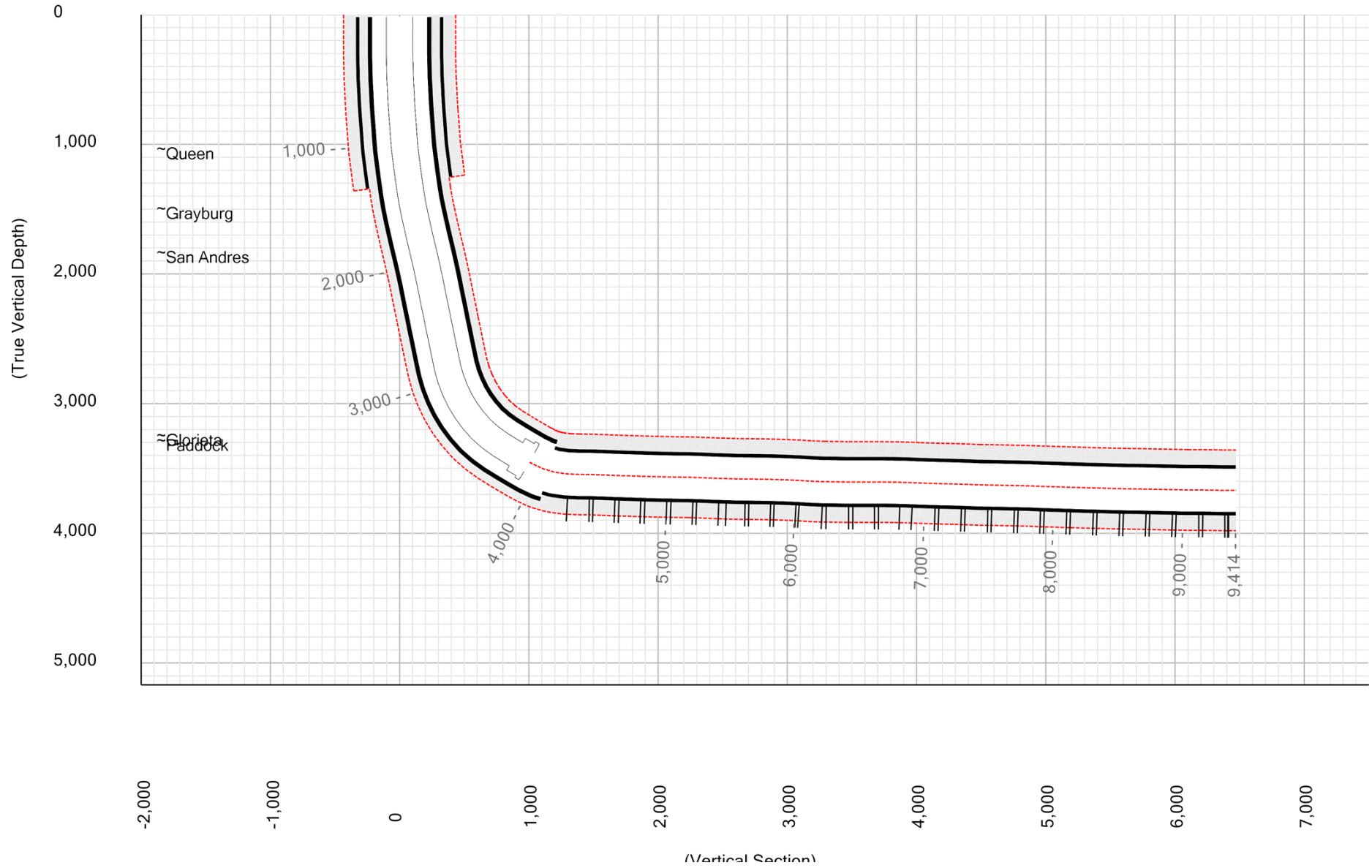
If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

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

KZ 06/29/2018

Marley State Com 31 AB # 5H, 10/23/2023



Marley State Com 31 AB # 5H API # 30-015-53814			
1125 FNL & 1210 FEL	GL Elev:	3,625.00	KOP: 2,890
Section 36, Township 17S, Range 27E			EOC: 4,224
County, State: Eddy, NM			Fill Depth:
Aux ID:			PBTD: 9,365.00
'KB' correction: 20; All Depths Corr To: KB			TD: 9,407.00
			BOP: 7 1/16 10M

Hole Size

Diameter	Top At	Btm At	Date Drilled
12.2500	0.00	1,320.00	6/2/2023
8.7500	1,320.00	9,414.00	6/9/2023

Surface Casing

Date Ran: 6/2/2023

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Casing	33	9.6250	36.00	J55	1,295.00	20.00	1,315.00

Production Casing

Date Ran: 6/9/2023

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Casing	72	7.0000	32.00	L80	2,847.51	20.00	2,867.51
Last 35 Jts, solid body every 3rd jt							
Marker Jt	1	7.0000	32.00	L80	19.60	2,867.51	2,887.11
Casing	30	7.0000	32.00	L80	1,201.21	2,887.11	4,088.32
Solid body every 3rd jt							
Crossover	1	5.5000	20.00	L80	2.75	4,088.32	4,091.07
Casing	9	5.5000	20.00	L80	356.27	4,091.07	4,447.34
Solid body every 2nd jt							
Float Insert	1	5.5000	20.00	L80	2.70	4,447.34	4,450.04
Casing	60	5.5000	20.00	L80	2,373.39	4,450.04	6,823.43
Solid body every 2nd jt							
Marker Jt	1	5.5000	20.00	L80	19.63	6,823.43	6,843.06
Casing	59	5.5000	20.00	L80	2,343.22	6,843.06	9,186.28
Solid body every 2nd jt							
Marker Jt	1	5.5000	20.00	L80	19.68	9,186.28	9,205.96
Casing	4	5.5000	20.00	L80	159.57	9,205.96	9,365.53
Solid body every jt							
Float Collar	1	5.5000	20.00	L80	1.25	9,365.53	9,366.78
Casing	1	5.5000	20.00	L80	40.18	9,366.78	9,406.96
Float Shoe	1	5.5000	20.00	L80	2.04	9,406.96	9,409.00

Cement

Top At	Btm At	I D	O D	TOC Per	# - Type	# Sx	Class	Wt.
0.00	1,320.00	9.625	12.250	Circ	1 - Lead	520	C	13.50
					2 - Tail	130	C	14.80
Circ 221 sxs								
4,088.00	9,414.00	5.500	8.750	Circ				
0.00	4,088.00	7.000	8.750	Circ	1 - Lead	375	C 35/65	12.20
					2 - Tail	1120	C	14.50
Circ 175 sx to surf								

Formation Tops / Bottoms

Top At	Bottom At	Formation
1,008		Queen
1,464		Grayburg
1,809		San Andres
3,214		Glorieta
3,254		Paddock

Zone and Perfs

Comments / Completion Summary

Stg	Top	Btm	AIR	AIP	MIR	ISIP
1	9157	9332	130	6573	135	1629
2	8953	9128	130	6511	135	2115
3	8749	8924	130	6750	135	2320
4	8545	8720	129	6458	137	1810
5	8341	8516	135	6177	136	1618
6	8137	8312	136	6460	128	1683
7	7933	8108	133	6376	136	1834
8	7729	7904	136	6646	137	1901
9	7525	7700	119	5765	119	2088
10	7321	7496	135	6640	135	2301
11	7117	7292	134	6972	137	2262
12	6913	7088	135	6766	137	1993
13	6644	6813	136	6726	138	2539
14	6446	6613	135	6979	139	2733
15	6242	6413	134	7075	137	3041
16	6042	6213	134	6766	138	2747
17	5842	6013	136	6662	138	2355
18	5642	5813	135	6246	137	2317
19	5471	5613	118	5357	123	2361
20	5242	5413	135	6049	138	2021
21	5042	5213	136	5681	138	2090
22	4842	5009	136	5606	137	2122
23	4642	4810	135	5178	138	1873
24	4442	4610	136	4737	138	1660
25	4244	4408	135	4458	137	1613

Perforations

Top	Bottom	Formation	Status	Opened	Closed	# / Ft	Ttl #
4,244.00	4,408.00	Paddock	A	9/27/2023		4	28
Stage 25 - (4,4,4,4,4,4,4) SWM Charges							
4,442.00	4,610.00	Paddock	A	9/26/2023		4	28
Stage 24 - (4,4,4,4,4,4,4) SWM Charges							
4,642.00	4,810.00	Paddock	A	9/26/2023		4	28
Stage 23 - (4,4,4,4,4,4,4) SWM Charges							
4,842.00	5,009.00	Paddock	A	9/25/2023		4	28
Stage 22 - (4,4,4,4,4,4,4) SWM Charges							
5,042.00	5,213.00	Paddock	A	9/25/2023		4	28
Stage 21 - (4,4,4,4,4,4,4) SWM Charges							

Perforations

Top	Bottom	Formation	Status	Opened	Closed	# / Ft	Ttl #
5,242.00	5,413.00	Paddock	A	9/24/2023		4	28
Stage 20 - (4,4,4,4,4,4,4) SWM Charges							
5,471.00	5,613.00	Paddock	A	9/23/2023		4	24
Stage 19 - (4,4,4,4,4,4,4) SWM Charges							
5,642.00	5,813.00	Paddock	A	9/23/2023		4	28
Stage 18 - (4,4,4,4,4,4,4) SWM Charges							
5,842.00	6,013.00	Paddock	A	9/22/2023		4	28
Stage 17 - (4,4,4,4,4,4,4) SWM Charges							
6,042.00	6,213.00	Paddock	A	9/22/2023		4	28
Stage 16 - (4,4,4,4,4,4,4) SWM Charges							
6,242.00	6,413.00	Paddock	A	9/21/2023		4	28
Stage 15 - (4,4,4,4,4,4,4) SWM Charges							
6,446.00	6,613.00	Paddock	A	9/21/2023		4	28
Stage 14 - (4,4,4,4,4,4,4) SWM Charges							
6,644.00	6,813.00	Paddock	A	9/20/2023		4	28
Stage 13 - (4,4,4,4,4,4,4) SWM Charges							
6,913.00	7,088.00	Paddock	A	9/19/2023		4	28
Stage 12 - (4,4,4,4,4,4,4) SWM Charges							
7,117.00	7,292.00	Paddock	A	9/19/2023		4	28
Stage 11 - (4,4,4,4,4,4,4) SWM Charges							
7,321.00	7,492.00	Paddock	A	9/18/2023		4	28
Stage 10 - (4,4,4,4,4,4,4) SWM Charges							
7,525.00	7,700.00	Paddock	A	9/18/2023		4	28
Stage 9 - (4,4,4,4,4,4,4) SWM Charges							
7,729.00	7,904.00	Paddock	A	9/17/2023		4	28
Stage 8 - (4,4,4,4,4,4,4) SWM Charges							
7,933.00	8,108.00	Paddock	A	9/17/2023		4	28
Stage 7 - (4,4,4,4,4,4,4) SWM Charges							
8,137.00	8,312.00	Paddock	A	9/16/2023		4	28
Stage 6 - (4,4,4,4,4,4,4) SWM Charges							
8,341.00	8,516.00	Paddock	A	9/15/2023		4	28
Stage 5 - (4,4,4,4,4,4,4) SWM Charges							
8,545.00	8,720.00	Paddock	A	9/13/2023		4	28
Stage 4 - (4,4,4,4,4,4,4) SWM Charges							
8,749.00	8,924.00	Paddock	A	9/13/2023		4	28
Stage 3 - (4,4,4,4,4,4,4) SWM Charges							
8,953.00	9,125.00	Paddock	A	9/12/2023		4	28
Stage 2 - (4,4,4,4,4,4,4) SWM Charges							
9,157.00	9,326.00	Paddock	A	9/9/2023		4	28
Stage 1 - (4,4,4,4,4,4,4) SWM Charges							
9,349.00	9,355.00	Paddock	A	8/24/2023	9/9/2023	6	36
8-24-23 TCP TOE PERFS. TTS TCP							

Tubing

Date Ran: 10/19/2023

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Tubing	120	2.8750	6.50	L80	3,781.05	20.00	3,801.05
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	3,801.05	3,801.65

Tubing Sub	1	2.8750			3.60	3,801.65	3,805.25
ESP Pump	1	4.0000			0.53	3,805.25	3,805.78
Discharge Pump							
ESP Pump	1	4.0000			23.50	3,805.78	3,829.28
E3000, 96 Stages							
ESP Pump	1	4.0000			23.50	3,829.28	3,852.78
E3000, 96 Stages							
ESP Pump	1	4.0000			13.00	3,852.78	3,865.78
G42, 41 Stages							
ESP Intake	1	4.0000			8.60	3,865.78	3,874.38
Double gas sep/intakes: MODEL 400							
ESP Seal	2	4.0000			12.20	3,874.38	3,886.58
Double seals							
ESP Motor	1	4.5000			34.90	3,886.58	3,921.48
NEW, 286 HP . 450 MODEL							
ESP Sensor	1	4.0000			2.70	3,921.48	3,924.18
NEW, Zenith E7							
Tubing Sub	1	2.3750			2.00	3,924.18	3,926.18
Band 3/8" CT to sub							

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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 279044

ACKNOWLEDGMENTS

Operator: LONGFELLOW ENERGY, LP 8115 Preston Road Dallas, TX 75225	OGRID: 372210
	Action Number: 279044
	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 279044

CONDITIONS

Operator: LONGFELLOW ENERGY, LP 8115 Preston Road Dallas, TX 75225	OGRID: 372210
	Action Number: 279044
	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