<u>District I</u> 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**

Form C-101 August 1, 2011

Permit 322131

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A Z	ONE
---	-----

	7	2002/10:1, 0:1/122/120:12
Operator Name and Address		2. OGRID Number
LONGFELLOW ENERG	GY, LP	372210
8115 Preston Road		3. API Number
Dallas, TX 75225		30-015-49776
4. Property Code	5. Property Name	6. Well No.
333089	Bonzo State Com 1924 CDX	003H
	7 Surface Location	

20   17S   28E   1834   S   747   W	
L 20 17S 28E 1834 S 747 W	Eddy

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
J	24	17S	27E	J	1400	S	2610	E	Eddy

#### 9. Pool Information

RED LAKE; GLORIETA-YESO, NORTHEAST	96836
, , , , , , , , , , , , , , , , , , ,	

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation		
New Well	OIL		State	3599		
16. Multiple	17. Proposed Depth	18. Formation	19. Contractor	20. Spud Date		
N	N 11935			8/15/2022		
Depth to Ground water		Distance from nearest fresh water v	well	Distance to nearest surface water		

#### ☑ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC			
Surf	12.25	9.625	36	1250	575	0			
Prod	8.75	7	32	3900	993	1050			
Prod	8.75	5.5	20	11935	993	1050			

# Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

Туре	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	TBD
Blind	3000	3000	TBD

knowledge and	belief. I have complied with 19.15.14.9 (A)	true and complete to the best of my  NMAC ⊠ and/or 19.15.14.9 (B) NMAC		OIL CONSERVATION	ON DIVISION	
Signature:						
Printed Name:	Electronically filed by Ryan Culp	epper	Approved By:	Katherine Pickford		
Title:			Title:	Geoscientist		
Email Address:	ryan.culpepper@longfellowener	gy.com	Approved Date:	7/28/2022 Expiration Date: 7/28/2024		
Date:	7/26/2022	Phone: 972-590-9933	Conditions of Approval Attached			

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

Phone: (505) 334-6178 Fax: (505) 334-6170 <u>District IV</u>
1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

486.05

Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION

State of New Mexico

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

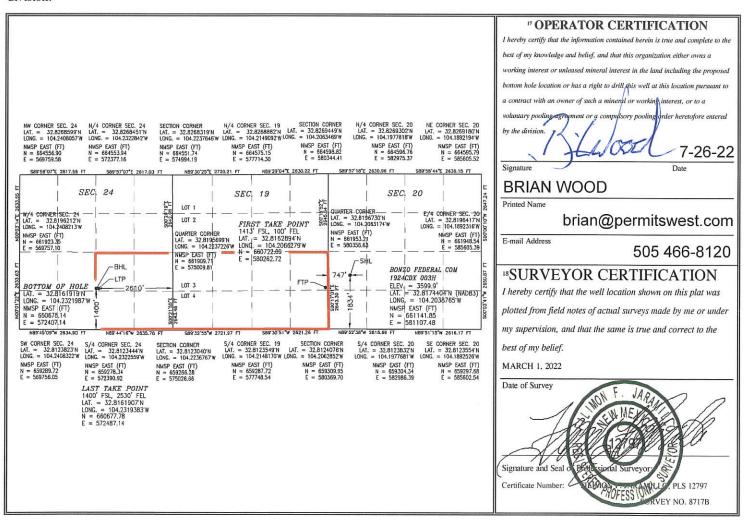
30-015- 49776	<sup>2</sup> Pool Code 96836	RED LAKE; GLORIETA-YESO, NORTHEAS				
<sup>4</sup> Property Code 333089		roperty Name TE COM 1924CDX	<sup>6</sup> Well Number <b>003H</b>			
<sup>7</sup> OGRID No.	8 O <sub>1</sub>	perator Name	<sup>9</sup> Elevation			
372210	LONGFELL	LOW ENERGY, LP	3599.9			

Surface Location

UL or lot no. L	Section 20	Township 17 S	Range 28 E	Lot Idn	Feet from the 1834	North/South line SOUTH	Feet from the 747	East/West line WEST	County EDDY		
<sup>11</sup> 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		
J	24	17 S	27 E		1400	SOUTH	2610	EAST	EDDY		
12 Dedicated Acre	s <sup>13</sup> Joint	or Infill 14 (	Consolidation	1 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.

C



Intent	YE	S As Dril	led											
API#			]											
Ope	rator Nar	ne:				Pro	perty N	ame:						Well Number
LONGFELLOW ENERGY, LP							ВОІ	NZO I	FEDE	RAL CC	)M 1	19240	CDX	003Н
viel C	off Doint /	VOD)												
UL	off Point (	Township	Range	Lot	Feet		From N	I/S	Feet		From	E/W	County	
<b>L</b> Latitu	20	<b>17</b> S	28Ĕ		1834	al a	SOUT		747		WES	SŤ	EDDY	
Latitu		74404			Longitu		4.203	876	5				NAD 83	
First T	ake Poin	t (FTP)												
UL 	Section 19	Township <b>17S</b>	Range 28E	Lot	Feet <b>1413</b>		From N SOUT	/S <b>'H</b>	Feet <b>100</b>		From <b>EAS</b>	E/W <b>T</b>	County <b>EDDY</b>	
Latitu	de <b>32.816</b>	2894	•		Longitu	itude 104.2066279						NAD 83		
ul J	Section 24	Township 17S	Range <b>27E</b>	Lot	Feet <b>1400</b>	From <b>SO</b>	m N/S UTH	Feet <b>253</b>	0	From E/	/W	Count	у <b>Ү</b>	
Latitu		161907			Longitu		4.231	9383				NAD	83	
s this	well the (	defining we	ell for the	Horizo	ntal Spac	cing (	Jnit?		YES	]				
s this	well an ir	nfill well?		NO	]									
	is yes p g Unit.	lease prov	ide API if	availa	ble, Ope	erator	. Name	and	well i	numbe	r for	Defir	ning well	for Horizontal
API#														
Oper	ator Nam	ne:				Prop	erty Na	ame:						Well Number
						-		11						K7 06/20/2019

KZ 06/29/2018

Form APD Conditions

Permit 322131

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

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

#### PERMIT CONDITIONS OF APPROVAL

		API Number:				
	LONGFELLOW ENERGY, LP [372210]	30-015-49776				
	8115 Preston Road	Well:				
	Dallas, TX 75225		Bonzo State Com 1924 CDX #003H			
OCD	Condition					

OCD Reviewer	Condition
kpickford	Notify OCD 24 hours prior to casing & cement
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing
	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system

LONGFELLOW ENERGY, LP

PLAT TD/ BHL #3H: 1400' FSL & 2610' FEL

**Easting** 

Start 200.00 hold at 3572.28 MD

Start Build 10.00

LP at 4078.99 MD

PLAT LP/ FTP #3H: 1413' FSL & 100' FEL

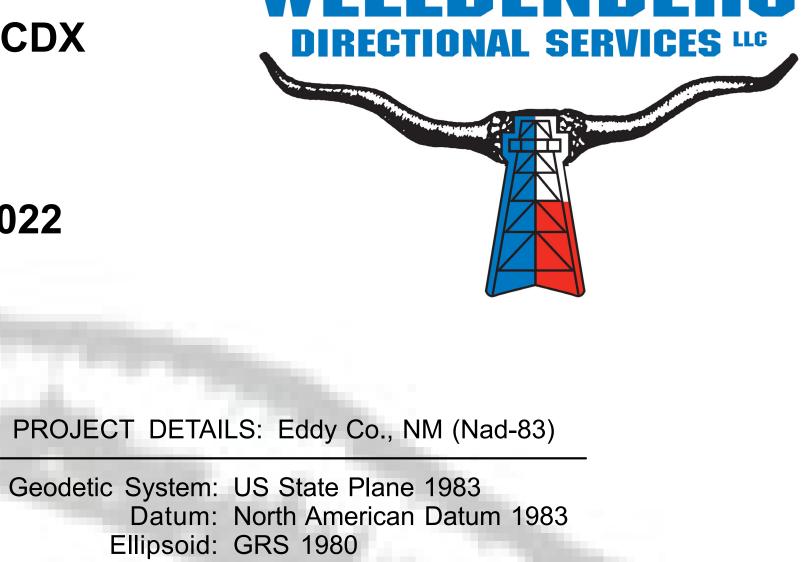
Company: Longfellow Energy Project: Eddy Co., NM (Nad-83)

Site: BONZO FEDERAL COM 1924CDX

Well: 003H Wellbore: Wellbore #1

Rig: AKITA 527 Design: PLAN #2 16:05, July 07 2022





-104.232199

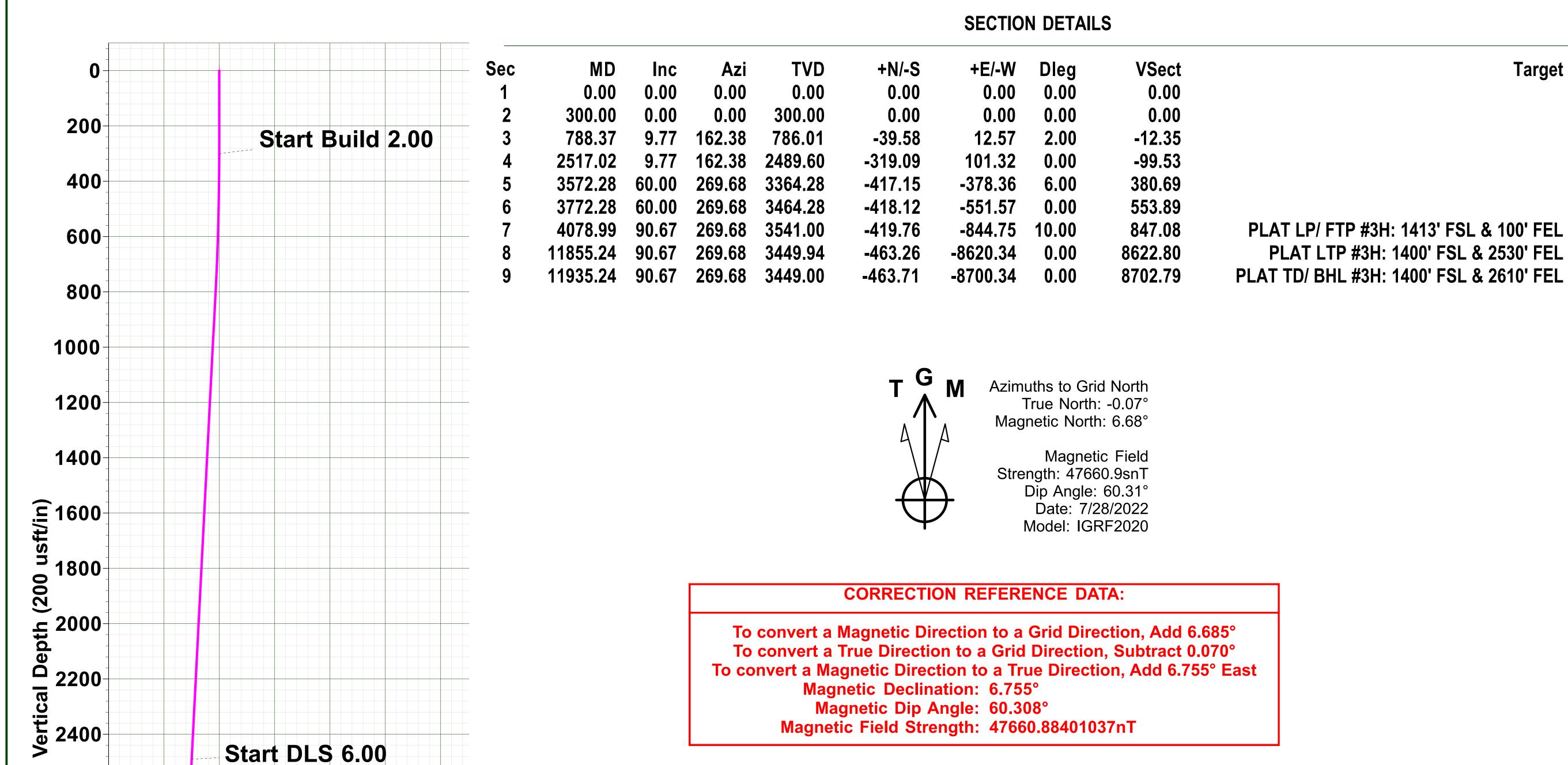
Zone: New Mexico Eastern Zone

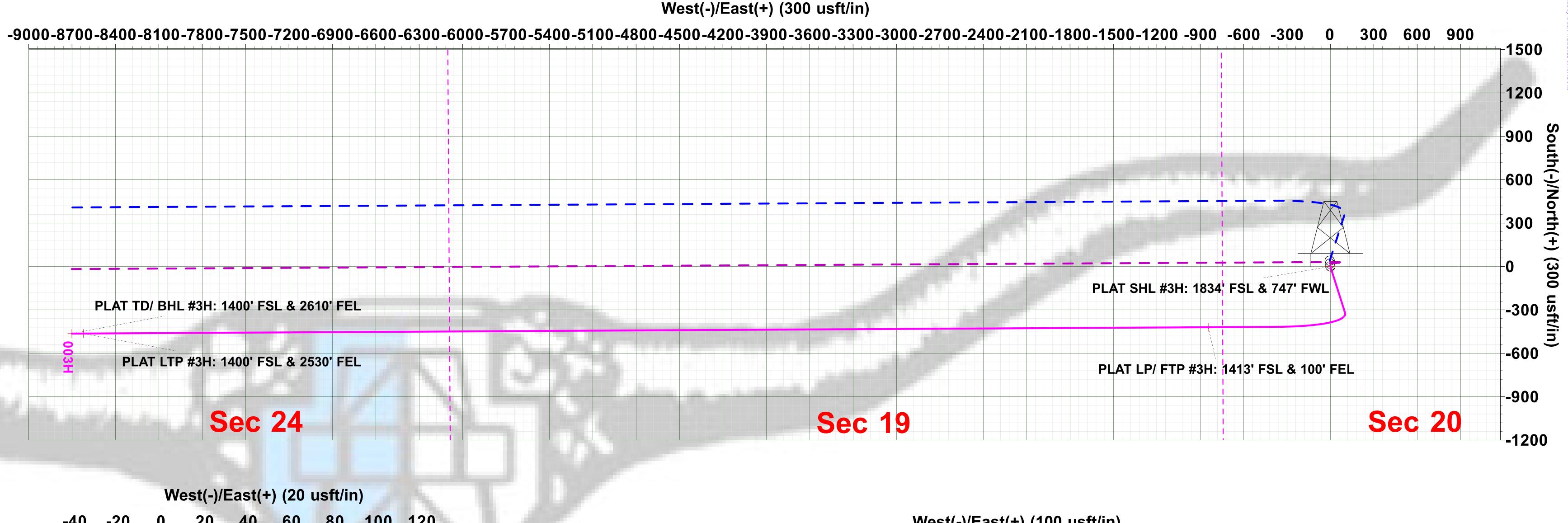
32.816192

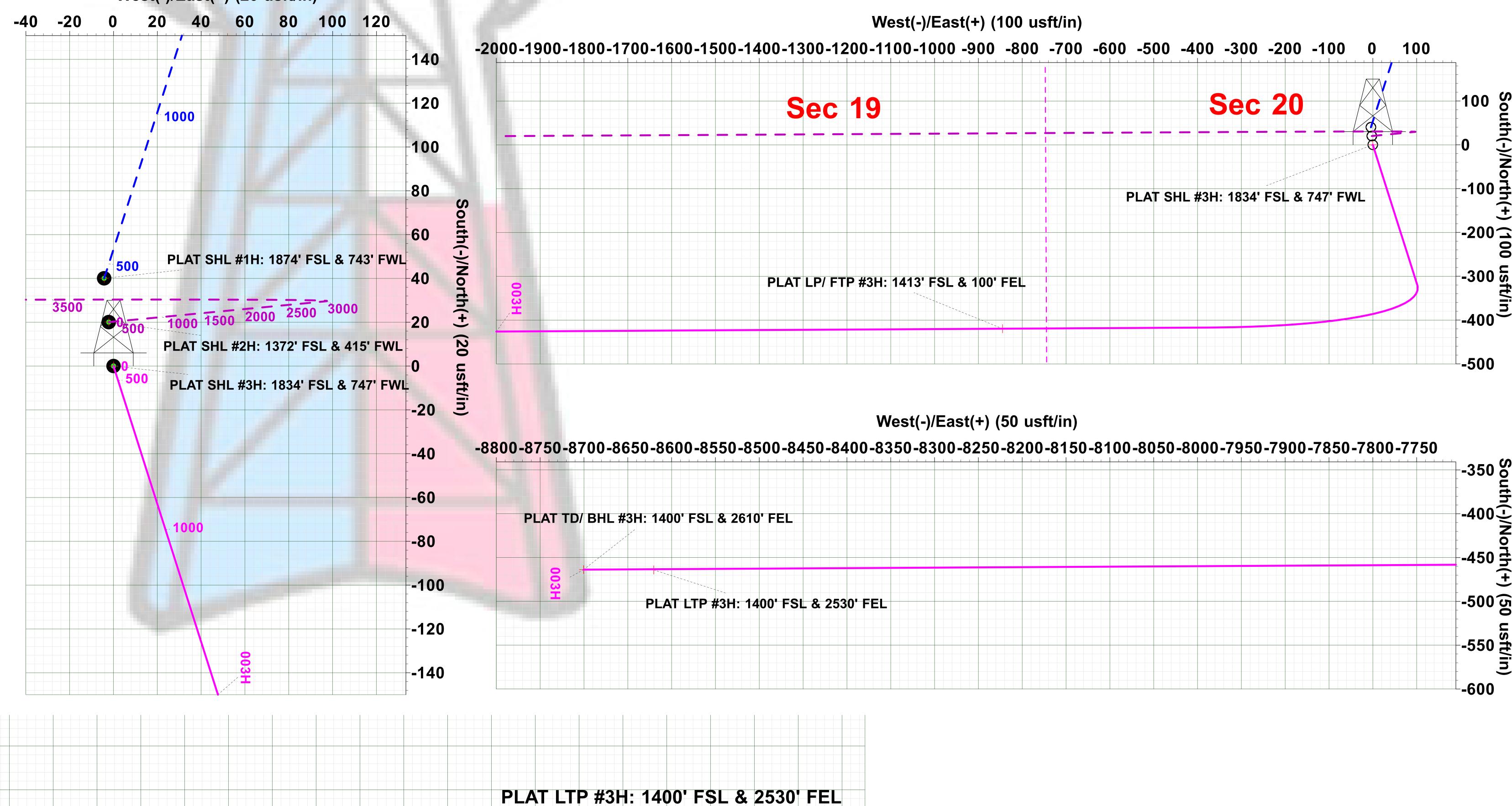
# WELL DETAILS: 003H RKB = 17' @ 3616.90usft (AKITA 527)

Longitude

0.00	0.00	661141.85	581107.48	32.81744	0 -10	4.203876	Zone: New Mexico Eastern Z System Datum: Mean Sea Level			
				D	ESIGN TARG	ET DETAILS				THE REAL PROPERTY.
Name				TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PLAT LP/	/ FTP #3H: <i>1</i>	1413' FSL & 100' I	FEL	3541.00	-419.76	-844.75	660722.09	580262.73	32.816289	-104.206628
PLAT LT	P #3H: 1400	)' FSL & 2530' FEI	_	3449.94	-464.07	-8620.34	660677.78	572487.14	32.816191	-104.231938
PLAT SH	L #3H: 1834	4' FSL & 747' FWL	-	0.00	0.00	0.00	661141.85	581107.48	32.817440	-104.203876







TD at 11935.24

PLAT TD/ BHL #3H: 1400' FSL & 2610' FEL



lines and offset well

location/ survey data is

provided by customer and

subject to customer

800 1000 1200 1400 1600 1800 2000 2200 2400 2600 3800 3000 3200 3400 3600 5800 6000 6200 6400 6600 6800 7000 7200 7400 7600 7800 8000 8200 8400 8600 8800





Database: Company: Project:

WBDS SQL 2 Longfellow Energy Eddy Co., NM (Nad-83)

**BONZO FEDERAL COM 1924CDX** 

Well: 003H Wellbore: Wellbore #1 Design: PLAN #2

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well 003H

RKB = 17' @ 3616.90usft (AKITA 527)

RKB = 17' @ 3616.90usft (AKITA 527)

Minimum Curvature

**Project** 

Site:

Eddy Co., NM (Nad-83)

Map System: Geo Datum:

US State Plane 1983 North American Datum 1983 System Datum:

Mean Sea Level

Map Zone:

New Mexico Eastern Zone

Site

**BONZO FEDERAL COM 1924CDX** 

Site Position: From:

**Position Uncertainty:** 

Northing: Мар Easting: 0.00 usft Slot Radius: 660,705.77 usft 580,777.68 usft

13.200 in

Latitude: Longitude: **Grid Convergence:** 

32.816243 -104.204952

0.070°

Well

003H

**Well Position** +N/-S 436.08 usft +E/-W

Northing: 329.80 usft Easting:

661.141.85 usft 581,107.48 usft

Latitude: Longitude:

32.817440 -104.203877

**Position Uncertainty** 

0.00 usft

Wellhead Elevation:

**Ground Level:** 

3,599.90 usft

Wellbore

Wellbore #1

Declination **Magnetics Model Name** Sample Date **Dip Angle** Field Strength (°) (°) (nT) 60.308 47.660.88401037 IGRF2020 7/28/2022 6.755

Design

PLAN #2

**Audit Notes:** 

Version:

Depth From (TVD)

**PLAN** 

Tie On Depth:

0.00

Vertical Section:

(usft)

0.00

Phase:

+N/-S (usft) 0.00

+E/-W (usft) 0.00

Direction (°) 269.68

**Plan Survey Tool Program** 

Date 7/7/2022

**Depth From** (usft)

**Depth To** (usft)

Survey (Wellbore)

**Tool Name** 

Remarks

0.00

11,935.24 PLAN #2 (Wellbore #1)

MWD+IGRF

OWSG MWD + IGRF or WN

Plan Section	ıs									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.000	
788.37	9.77	162.38	786.01	-39.58	12.57	2.00	2.00	0.00	162.384	
2,517.02	9.77	162.38	2,489.60	-319.09	101.32	0.00	0.00	0.00	0.000	
3,572.28	60.00	269.68	3,364.28	-417.15	-378.36	6.00	4.76	10.17	112.266	
3,772.28	60.00	269.68	3,464.28	-418.12	-551.57	0.00	0.00	0.00	0.000	
4,078.99	90.67	269.68	3,541.00	-419.76	-844.75	10.00	10.00	0.00	0.000 F	PLAT LP/ FTP #3H:
11,855.24	90.67	269.68	3,449.94	-463.26	-8,620.34	0.00	0.00	0.00	0.000 F	PLAT LTP #3H: 140
11,935.24	90.67	269.68	3,449.00	-463.71	-8,700.34	0.00	0.00	0.00	0.000 F	PLAT TD/ BHL #3H





Database: Company: Project:

Site:

Well:

Wellbore:

Design:

WBDS\_SQL\_2 Longfellow Energy Eddy Co., NM (Nad-83) BONZO FEDERAL COM 1924CDX

003H Wellbore #1

PLAN #2

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well 003H

RKB = 17' @ 3616.90usft (AKITA 527)

RKB = 17' @ 3616.90usft (AKITA 527)

Design:	PLAN #2								
Planned 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
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	2.00	162.38	399.98	-1.66	0.53	-0.52	2.00	2.00	0.00
500.00	4.00	162.38	499.84	-6.65	2.11	-2.07	2.00	2.00	0.00
600.00	6.00	162.38	599.45	-14.96	4.75	-4.67	2.00	2.00	0.00
700.00	8.00	162.38	698.70	-26.57	8.44	-8.29	2.00	2.00	0.00
788.37	9.77	162.38	786.01	-39.58	12.57	-12.35	2.00	2.00	0.00
800.00	9.77	162.38	797.47	-41.46	13.16	-12.93	0.00	0.00	0.00
900.00	9.77	162.38	896.02	-57.63	18.30	-17.98	0.00	0.00	0.00
1,000.00	9.77	162.38	994.57	-73.80	23.43	-23.02	0.00	0.00	0.00
1,100.00	9.77	162.38	1,093.12	-89.97	28.57	-28.06	0.00	0.00	0.00
1,200.00	9.77	162.38	1,191.67	-106.14	33.70	-33.11	0.00	0.00	0.00
1,300.00	9.77	162.38	1,290.22	-122.31	38.83	-38.15	0.00	0.00	0.00
1,400.00	9.77	162.38	1,388.77	-138.48	43.97	-43.20	0.00	0.00	0.00
1,500.00	9.77	162.38	1,487.32	-154.65	49.10	-48.24	0.00	0.00	0.00
1,600.00	9.77	162.38	1,585.87	-170.81	54.24	-53.28	0.00	0.00	0.00
1,700.00	9.77	162.38	1,684.42	-186.98	59.37	-58.33	0.00	0.00	0.00
1,800.00	9.77	162.38	1,782.97	-203.15	64.51	-63.37	0.00	0.00	0.00
1,900.00	9.77	162.38	1,881.52	-219.32	69.64	-68.41	0.00	0.00	0.00
2,000.00	9.77	162.38	1,980.07	-235.49	74.77	-73.46	0.00	0.00	0.00
2,100.00	9.77	162.38	2,078.63	-251.66	79.91	-78.50	0.00	0.00	0.00
2,200.00	9.77	162.38	2,177.18	-267.83	85.04	-83.54	0.00	0.00	0.00
2,300.00	9.77	162.38	2,275.73	-284.00	90.18	-88.59	0.00	0.00	0.00
2,400.00	9.77	162.38	2,374.28	-300.17	95.31	-93.63	0.00	0.00	0.00
2,500.00	9.77	162.38	2,472.83	-316.34	100.44	-98.68	0.00	0.00	0.00
2,517.02	9.77	162.38	2,489.60	-319.09	101.32	-99.53	0.00	0.00	0.00
2,550.00	9.20	173.91	2,522.13	-324.38	102.44	-100.63	6.00	-1.72	34.96
2,600.00	9.12	192.84	2,571.51	-332.22	101.99	-100.13	6.00	-0.16	37.85
2,650.00	9.97	210.26	2,620.82	-339.82	98.93	-97.03	6.00	1.71	34.84
2,700.00	11.56	223.95	2,669.95	-347.17	93.27	-91.32	6.00	3.18	27.39
2,750.00	13.63	233.97	2,718.75	-354.24	85.02	-83.04	6.00	4.13	20.04
2,800.00	15.99	241.25	2,767.09	-361.02	74.22	-72.20	6.00	4.72	14.55
2,850.00	18.53	246.63	2,814.84	-367.49	60.89	-58.83	6.00	5.08	10.77
2,900.00	21.19	250.73	2,861.86	-373.62	45.06	-42.97	6.00	5.32	8.20
2,950.00	23.92	253.95	2,908.04	-379.41	26.78	-24.66	6.00	5.47	6.43
3,000.00	26.71	256.53	2,953.23	-384.83	6.11	-3.96	6.00	5.58	5.17
3,050.00	29.54	258.66	2,997.32	-389.87	-16.91	19.09	6.00	5.66	4.25
3,100.00	32.40	260.44	3,040.19	-394.53	-42.21	44.42	6.00	5.71	3.56
3,150.00 3,200.00 3,250.00 3,300.00 3,350.00	35.28 38.17 41.08 44.00 46.92	261.96 263.28 264.44 265.47 266.40	3,081.72 3,121.79 3,160.30 3,197.14 3,232.20	-398.77 -402.60 -406.00 -408.97 -411.49	-69.73 -99.37 -131.07 -164.74 -200.29	71.95 101.62 133.34 167.02 202.58	6.00 6.00 6.00 6.00	5.76 5.79 5.82 5.84 5.85	3.04 2.64 2.32 2.06 1.86
3,400.00 3,450.00 3,500.00 3,550.00 3,572.28	49.86 52.79 55.74 58.69 60.00	267.24 268.01 268.73 269.40 269.68	3,265.40 3,296.64 3,325.84 3,352.92 3,364.28	-413.55 -415.16 -416.31 -417.00 -417.15	-237.61 -276.61 -317.17 -359.20 -378.36	239.92 278.92 319.49 361.52 380.69	6.00 6.00 6.00 6.00	5.87 5.88 5.89 5.89 5.90	1.69 1.55 1.43 1.33 1.27
3,600.00	60.00	269.68	3,378.14	-417.28	-402.37	404.69	0.00	0.00	0.00
3,700.00	60.00	269.68	3,428.14	-417.77	-488.97	491.29	0.00	0.00	0.00
3,772.28	60.00	269.68	3,464.28	-418.12	-551.57	553.89	0.00	0.00	0.00
3,800.00	62.77	269.68	3,477.55	-418.26	-575.89	578.22	10.00	10.00	0.00





Database: WBDS\_SQL\_2 Company: Project: Site:

Longfellow Energy Eddy Co., NM (Nad-83)

BONZO FEDERAL COM 1924CDX

Well: 003H Wellbore: Wellbore #1 PLAN #2 Design:

**Local Co-ordinate Reference:** 

**TVD Reference:** MD Reference: North Reference:

**Survey Calculation Method:** 

Well 003H

RKB = 17' @ 3616.90usft (AKITA 527)

RKB = 17' @ 3616.90usft (AKITA 527)

Planned 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)
3,850.00	67.77	269.68	3,498.46	-418.51	-621.29	623.62	10.00	10.00	0.00
3,900.00	72.77	269.68	3,515.33	-418.77	-668.34	670.67	10.00	10.00	0.00
3,950.00	77.77	269.68	3,528.04	-419.04	-716.69	719.01	10.00	10.00	0.00
4,000.00	82.77	269.68	3,536.49	-419.32	-765.95	768.28	10.00	10.00	0.00
4,050.00	87.77	269.68	3,540.61	-419.60	-815.76	818.09	10.00	10.00	0.00
4,078.99	90.67	269.68	3,541.00	-419.76	-844.75	847.08	10.00	10.00	0.00
4,100.00	90.67	269.68	3,540.75	-419.88	-865.76	868.09	0.00	0.00	0.00
4,200.00	90.67	269.68	3,539.58	-420.44	-965.75	968.08	0.00	0.00	0.00
4,300.00	90.67	269.68	3,538.41	-421.00	-1,065.74	1,068.07	0.00	0.00	0.00
4,400.00	90.67	269.68	3,537.24	-421.56	-1,165.73	1,168.07	0.00	0.00	0.00
4,500.00	90.67	269.68	3,536.07	-422.12	-1,265.72	1,268.06	0.00	0.00	0.00
4,600.00	90.67	269.68	3,534.90	-422.67	-1,365.71	1,368.05	0.00	0.00	0.00
4,700.00	90.67	269.68	3,533.73	-423.23	-1,465.70	1,468.05	0.00	0.00	0.00
4,800.00	90.67	269.68	3,532.56	-423.79	-1,565.70	1,568.04	0.00	0.00	0.00
4,900.00	90.67	269.68	3,531.39	-424.35	-1,665.69	1,668.03	0.00	0.00	0.00
5,000.00	90.67	269.68	3,530.21	-424.91	-1,765.68	1,768.03	0.00	0.00	0.00
5,100.00	90.67	269.68	3,529.04	-425.47	-1,865.67	1,868.02	0.00	0.00	0.00
5,200.00	90.67	269.68	3,527.87	-426.03	-1,965.66	1,968.01	0.00	0.00	0.00
5,300.00	90.67	269.68	3,526.70	-426.59	-2,065.65	2,068.00	0.00	0.00	0.00
5,400.00	90.67	269.68	3,525.53	-427.15	-2,165.65	2,168.00	0.00	0.00	0.00
5,500.00	90.67	269.68	3,524.36	-427.71	-2,265.64	2,267.99	0.00	0.00	0.00
5,600.00	90.67	269.68	3,523.19	-428.27	-2,365.63	2,367.98	0.00	0.00	0.00
5,700.00	90.67	269.68	3,522.02	-428.83	-2,465.62	2,467.98	0.00	0.00	0.00
5,800.00	90.67	269.68	3,520.85	-429.39	-2,565.61	2,567.97	0.00	0.00	0.00
5,900.00	90.67	269.68	3,519.68	-429.95	-2,665.60	2,667.96	0.00	0.00	0.00
6,000.00	90.67	269.68	3,518.50	-430.51	-2,765.60	2,767.96	0.00	0.00	0.00
6,100.00	90.67	269.68	3,517.33	-431.07	-2,865.59	2,867.95	0.00	0.00	0.00
6,200.00	90.67	269.68	3,516.16	-431.63	-2,965.58	2,967.94	0.00	0.00	0.00
6,300.00	90.67	269.68	3,514.99	-432.18	-3,065.57	3,067.94	0.00	0.00	0.00
6,400.00	90.67	269.68	3,513.82	-432.74	-3,165.56	3,167.93	0.00	0.00	0.00
6,500.00	90.67	269.68	3,512.65	-433.30	-3,265.55	3,267.92	0.00	0.00	0.00
6,600.00	90.67	269.68	3,511.48	-433.86	-3,365.54	3,367.92	0.00	0.00	0.00
6,700.00	90.67	269.68	3,510.31	-434.42	-3,465.54	3,467.91	0.00	0.00	0.00
6,800.00	90.67	269.68	3,509.14	-434.98	-3,565.53	3,567.90	0.00	0.00	0.00
6,900.00	90.67	269.68	3,507.96	-435.54	-3,665.52	3,667.89	0.00	0.00	0.00
7,000.00	90.67	269.68	3,506.79	-436.10	-3,765.51	3,767.89	0.00	0.00	0.00
7,100.00	90.67	269.68	3,505.62	-436.66	-3,865.50	3,867.88	0.00	0.00	0.00
7,200.00	90.67	269.68	3,504.45	-437.22	-3,965.49	3,967.87	0.00	0.00	0.00
7,300.00	90.67	269.68	3,503.28	-437.78	-4,065.49	4,067.87	0.00	0.00	0.00
7,400.00	90.67	269.68	3,502.11	-438.34	-4,165.48	4,167.86	0.00	0.00	0.00
7,500.00	90.67	269.68	3,500.94	-438.90	-4,265.47	4,267.85	0.00	0.00	0.00
7,600.00	90.67	269.68	3,499.77	-439.46	-4,365.46	4,367.85	0.00	0.00	0.00
7,700.00	90.67	269.68	3,498.60	-440.02	-4,465.45	4,467.84	0.00	0.00	0.00
7,800.00	90.67	269.68	3,497.43	-440.58	-4,565.44	4,567.83	0.00	0.00	0.00
7,900.00	90.67	269.68	3,496.25	-441.14	-4,665.44	4,667.83	0.00	0.00	0.00
8,000.00	90.67	269.68	3,495.08	-441.70	-4,765.43	4,767.82	0.00	0.00	0.00
8,100.00	90.67	269.68	3,493.91	-442.25	-4,865.42	4,867.81	0.00	0.00	0.00
8,200.00	90.67	269.68	3,492.74	-442.81	-4,965.41	4,967.81	0.00	0.00	0.00
8,300.00	90.67	269.68	3,491.57	-443.37	-5,065.40	5,067.80	0.00	0.00	0.00
8,400.00	90.67	269.68	3,490.40	-443.93	-5,165.39	5,167.79	0.00	0.00	0.00
8,500.00	90.67	269.68	3,489.23	-444.49	-5,265.38	5,267.79	0.00	0.00	0.00
8,600.00	90.67	269.68	3,488.06	-445.05	-5,365.38	5,367.78	0.00	0.00	0.00
8,700.00	90.67	269.68	3,486.89	-445.61	-5,465.37	5,467.77	0.00	0.00	0.00
8,800.00	90.67	269.68	3,485.72	-446.17	-5,565.36	5,567.76	0.00	0.00	0.00





Database: Company: Project:

Site:

WBDS\_SQL\_2 Longfellow Energy Eddy Co., NM (Nad-83)

BONZO FEDERAL COM 1924CDX

 Well:
 003H

 Wellbore:
 Wellbore #1

 Design:
 PLAN #2

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well 003H

RKB = 17' @ 3616.90usft (AKITA 527)

RKB = 17' @ 3616.90usft (AKITA 527)

Design:	PLAN #2								
Planned 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)
8,900.00	90.67	269.68	3,484.54	-446.73	-5,665.35	5,667.76	0.00	0.00	0.00
9,000.00	90.67	269.68	3,483.37	-447.29	-5,765.34	5,767.75	0.00	0.00	0.00
9,100.00	90.67	269.68	3,482.20	-447.85	-5,865.33	5,867.74	0.00	0.00	0.00
9,200.00	90.67	269.68	3,481.03	-448.41	-5,965.33	5,967.74	0.00	0.00	0.00
9,300.00	90.67	269.68	3,479.86	-448.97	-6,065.32	6,067.73	0.00	0.00	0.00
9,400.00	90.67	269.68	3,478.69	-449.53	-6,165.31	6,167.72	0.00	0.00	0.00
9,500.00	90.67	269.68	3,477.52	-450.09	-6,265.30	6,267.72	0.00	0.00	0.00
9,600.00	90.67	269.68	3,476.35	-450.65	-6,365.29	6,367.71	0.00	0.00	0.00
9,700.00	90.67	269.68	3,475.18	-451.21	-6,465.28	6,467.70	0.00	0.00	0.00
9,800.00	90.67	269.68	3,474.00	-451.76	-6,565.28	6,567.70	0.00	0.00	0.00
9,900.00	90.67	269.68	3,472.83	-452.32	-6,665.27	6,667.69	0.00	0.00	0.00
10,000.00	90.67	269.68	3,471.66	-452.88	-6,765.26	6,767.68	0.00	0.00	0.00
10,100.00	90.67	269.68	3,470.49	-453.44	-6,865.25	6,867.68	0.00	0.00	0.00
10,200.00	90.67	269.68	3,469.32	-454.00	-6,965.24	6,967.67	0.00	0.00	0.00
10,300.00	90.67	269.68	3,468.15	-454.56	-7,065.23	7,067.66	0.00	0.00	0.00
10,400.00	90.67	269.68	3,466.98	-455.12	-7,165.22	7,167.65	0.00	0.00	0.00
10,500.00	90.67	269.68	3,465.81	-455.68	-7,265.22	7,267.65	0.00	0.00	0.00
10,600.00	90.67	269.68	3,464.64	-456.24	-7,365.21	7,367.64	0.00	0.00	0.00
10,700.00	90.67	269.68	3,463.47	-456.80	-7,465.20	7,467.63	0.00	0.00	0.00
10,800.00	90.67	269.68	3,462.29	-457.36	-7,565.19	7,567.63	0.00	0.00	0.00
10,900.00	90.67	269.68	3,461.12	-457.92	-7,665.18	7,667.62	0.00	0.00	0.00
11,000.00	90.67	269.68	3,459.95	-458.48	-7,765.17	7,767.61	0.00	0.00	0.00
11,100.00	90.67	269.68	3,458.78	-459.04	-7,865.17	7,867.61	0.00	0.00	0.00
11,200.00	90.67	269.68	3,457.61	-459.60	-7,965.16	7,967.60	0.00	0.00	0.00
11,300.00	90.67	269.68	3,456.44	-460.16	-8,065.15	8,067.59	0.00	0.00	0.00
11,400.00	90.67	269.68	3,455.27	-460.72	-8,165.14	8,167.59	0.00	0.00	0.00
11,500.00	90.67	269.68	3,454.10	-461.28	-8,265.13	8,267.58	0.00	0.00	0.00
11,600.00	90.67	269.68	3,452.93	-461.83	-8,365.12	8,367.57	0.00	0.00	0.00
11,700.00	90.67	269.68	3,451.75	-462.39	-8,465.12	8,467.57	0.00	0.00	0.00
11,800.00	90.67	269.68	3,450.58	-462.95	-8,565.11	8,567.56	0.00	0.00	0.00
11,855.24	90.67	269.68	3,449.94	-463.26	-8,620.34	8,622.80	0.00	0.00	0.00
11,900.00	90.67	269.68	3,449.41	-463.51	-8,665.10	8,667.55	0.00	0.00	0.00
11,935.24	90.67	269.68	3,449.00	-463.71	-8,700.34	8,702.79	0.00	0.00	

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PLAT SHL #3H: 1834' - plan hits target c - Point	0.00 enter	0.00	0.00	0.00	0.00	661,141.85	581,107.48	32.817440	-104.203877
PLAT TD/ BHL #3H: 1 - plan hits target c - Point	0.00 enter	0.00	3,449.00	-463.71	-8,700.34	660,678.14	572,407.14	32.816192	-104.232199
PLAT LTP #3H: 1400' - plan misses targ - Point	0.00 et center by		3,449.94 11855.24u	-464.07 sft MD (3449	-8,620.34 0.94 TVD, -46	660,677.78 63.26 N, -8620.34	572,487.14 4 E)	32.816191	-104.231939
PLAT LP/ FTP #3H: 1- - plan hits target c - Point		0.00	3,541.00	-419.76	-844.75	660,722.09	580,262.73	32.816289	-104.206628





Database: WBDS\_SQL\_2 Longfellow Energy Company: Eddy Co., NM (Nad-83) Project: Site:

BONZO FEDERAL COM 1924CDX

Well: 003H Wellbore: Wellbore #1 PLAN #2 Design:

**Local Co-ordinate Reference: TVD Reference:** 

MD Reference: North Reference:

**Survey Calculation Method:** 

Well 003H

RKB = 17' @ 3616.90usft (AKITA 527) RKB = 17' @ 3616.90usft (AKITA 527)

Onewater Langfallow Enguery LLC

# State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

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

# NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

# Section 1 – Plan Description Effective May 25, 2021

I. Operator: Longfellow Energy, LLC	<b>OGRID:</b> <u>372210</u>	Date: <u>07-26-22</u>	
II. Type: ⊠ Original □ Amendment due t	o □ 19.15.27.9.D(6)(a)	NMAC □ 19.15.27.9.D(6)(b) NMAC □ Other.	
If Other, please describe:			

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Bonzo State Com 1924CDX 001H	30-015-	L-20-17S-28E	1874 FSL & 743 FWL	500	500	5000
Bonzo State Com 1924CDX 002H	30-015-	L-20-17S-28E	1854 FSL & 745 FWL	500	500	5000
Bonzo State Com 1924CDX 003H	30-015-	L-20-17S-28E	1834 FSL & 747 FWL	500	500	5000

- IV. Central Delivery Point Name: DCP Midstream, LP (248749) @ Elvis tie in P-19-17s-28e) [See 19.15.27.9(D)(1) NMAC]
- V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Bonzo State Com 1924CDX 001H	30-015-	8-15-22	8-25-22	10-1-22	11-1-22	11-15-22
Bonzo State Com 1924CDX 002H	30-015-	9-1-22	9-10-22	10-25-22	11-25-22	12-10-22
Bonzo State Com 1924CDX 003H	30-015-	9-15-22	9-25-22	11-5-22	12-5-22	12-20-22

- VI. Separation Equipment: 

  Attach a complete description of how Operator will size separation equipment to optimize gas capture.
- VII. Operational Practices: Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.
- VIII. Best Management Practices: Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 -	Enhanced	Plan
<b>EFFECTIV</b>	/E APRIL 1, 20	)22

ø			VE APRIL 1, 2022		
reporting area must Operator certif	st complete this section	on. iired to complete this se			pture requirement for the applicable
IX. Anticipated N	Natural Gas Produc	tion:			
Well		API	Anticipated Average Natural Gas Rate MCF/D		Anticipated Volume of Natural Gas for the First Year MCF
X. Natural Gas G	athering System (N	GGS):			
Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in	
production operation of the segment or part of the segment or part of the segment or part of the segment or production volumes the natural gas gas well(s).  Attach Operator XIV. Confidentia Section 2 as proventions.	ons to the existing of portion of the natural sty. The natural gas get from the well prior of the compart of th	r planned interconnect of gas gathering system(s) athering system  will to the date of first products does not anticipate scribed above will continuously to duction in response to serts confidentiality pur	of the natural gas gathering is to which the well(s) will be will not have capacity to ction.  that its existing well(s) continue to meet anticipated incomplete the increased line pressure.  Suant to Section 71-2-8 NM F 19.15.27.9 NMAC, and a	gather nected creases	ated pipeline route(s) connecting the (s), and the maximum daily capacity eted.  100% of the anticipated natural gas to the same segment, or portion, of in line pressure caused by the new 278 for the information provided in a full description of the specific

# Section 3 - Certifications Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

- ☑ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or
- □ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. *If Operator checks this box, Operator will select one of the following:*

Well Shut-In. □ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. 
☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

# **Section 4 - Notices**

- 1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:
- (a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or
- (b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.
- 2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:
Printed Name: Brian Wood
Title: Consultant
E-mail Address: brian@permitswest.com
Date: 7-26-22
Phone: 505 466-8120
OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:



#### **Attachment VI. Separation Equipment:**

Longfellow Energy (LFE) production facilities include separation equipment designed to efficiently separate gas from liquid phases to optimize gas capture based on projected and estimated volumes from the completion project. LFE will utilize flowback separation equipment and production separation equipment designed and built to industry specifications after the completion to optimize gas capture and send gas to sales or flare based on analytical composition. LFE operates facilities that are typically multiwell facilities. Production separation equipment is upgraded or installed before new wells are completed. This equipment is on-site and tied into sales gas lines prior to flowback.

# **Attachment VII. Operational Practices:**

#### 19.15.27.8 Subsection A: Venting and Flaring of Natural Gas

Longfellow Energy (LFE) understands the requirements of NMAC 19.15.27.8 which states that the venting and flaring of natural gas during drilling, completion, or production operations that constitutes waste as defined in 19.15.2 are prohibited.

# 19.15.27.8 Subsection B: Venting and flaring during drilling operations

- 1. LFE shall capture or combust natural gas if technically feasible using best industry practices
- 2. A properly-sized flare stack shall be located at a minimum of 100 feet from the nearest surface hole location unless otherwise approved by the division.
- 3. In an emergency or malfunction, LFE may vent natural gas to avoid a risk of an immediate and substantial adverse impact on safety, public health, or the environment. LFE will report natural gas vented or flared during an emergency or malfunction to the NMOCD.

# 19.15.27.8 Subsection C: Venting and flaring during completion or recompletion operations

- 1. During initial flowback, LFE shall route flowback fluids into a completion or storage tank and, if technically feasible under the applicable well conditions, flare rather than vent and commence operation of a separator as soon as it is technically feasible for a separator to function
- 2. During separation flowback, LFE shall capture and route natural gas from the separation equipment:
  - a. to a gas flowline or collection system, reinject into the well, or use on-site as a fuel source or other purpose that a purchased fuel or raw material would serve; or
  - b. to a flare if routing the natural gas to a gas flowline or collection system, reinjecting it into the well, or using it on-site as a fuel source or other purpose that a purchased fuel or raw material would serve would pose a risk to safe operation or personnel safety.
- 3. If natural gas does not meet gathering pipeline quality specifications, LFE may flare the natural gas for 60 days or until the natural gas meets the pipeline quality specifications, whichever is sooner, provided that:

# 19.15.27.8 Subsection D: Venting and flaring during production operations

LFE shall not vent or flare natural gas except:

- 1. during an emergency or malfunction;
- 2. to unload or clean-up liquid holdup in a well to atmospheric pressure, provided
  - a. LFE does not vent after the well achieves a stabilized rate and pressure;
  - b. for liquids unloading by manual purging, LFE remains present on-site until the end of unloading or posts at the well site the contact information of the personnel conducting the liquids unloading operation and ensures that personnel remains within 30 minutes' drive time of the well being unloaded until the end of unloading, takes all reasonable actions to achieve a stabilized rate and pressure at the earliest practical time and takes reasonable actions to minimize venting to the maximum extent practicable;
  - c. during downhole well maintenance, only when LFE uses a workover rig, swabbing rig, coiled tubing unit or similar specialty equipment and minimizes the venting of natural gas to the extent that it does not pose a risk to safe operations and personnel safety
- 3. during the following activities unless prohibited by applicable state or federal law, rule, or regulation for the emission of hydrocarbons and volatile organic compounds:
  - a. gauging or sampling a storage tank or other low-pressure production vessel;
  - b. loading out liquids from a storage tank or other low-pressure production vessel to a transport vehicle:
  - c. repair and maintenance, including blowing down and depressurizing production equipment to perform repair and maintenance;
  - d. normal operation of a gas-activated pneumatic controller or pump;
  - e. normal operation of a storage tank or other low-pressure production vessel, but not including venting from a thief hatch that is not properly closed or maintained
  - f. normal operations of valves, flanges and connectors that is not the result of inadequate equipment design or maintenance;
  - g. a packer leakage test;
  - h. a production test lasting less than 24 hours unless the division requires or approves a longer test period;
  - i. when natural gas does not meet the gathering pipeline specifications, provided LFE analyzes natural gas samples twice per week to determine whether the specifications have been achieved, routes the natural gas into a gathering pipeline as soon as the pipeline specifications are met and provides the pipeline specifications and natural gas analyses to the division upon request; or
  - j. Commissioning of pipelines, equipment, or facilities only for as long as necessary to purge introduced impurities from the pipeline or equipment.

# 19.15.27.8 Subsection E: Performance Standards

- 1. LFE designed completion and production separation equipment and storage tanks for maximum anticipated throughput and pressure to minimize waste.
- 2. LFE permanent storage tanks associated with production operations that is routed to a flare or control device are equipped with automatic gauging system that reduces the venting of natural gas.
- 3. LFE shall combust natural gas in a flare stack that is properly sized and designed to ensure proper combustion efficiency.
  - a. The flare stack shall be equipped with an automatic ignitor or continuous pilot.
- 4. The flare stack shall be securely anchored and located at least 100 feet from the well and storage tanks unless otherwise approved by the division.
- 5. LFE shall conduct an AVO inspection weekly to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.

- a. During an AVO inspection the LFE shall inspect all components, including flare stacks, thief hatches, closed vent systems, pumps, compressors, pressure relief devices, valves, lines, flanges, connectors, and associated piping to identify defects, leaks, and releases by:
  - i. a comprehensive external visual inspection;
  - ii. listening for pressure and liquid leaks; and
  - iii. smelling for unusual and strong odors.
- b. LFE shall make and keep a record of an AVO inspection for not less than five years and make such record available for inspection by the division upon request.
- 6. facilities shall be designed to minimize waste;
- 7. LFE has an obligation to minimize waste and shall resolve emergencies as quickly and safely as is feasible.

# 19.15.27.8 Subsection F: Measurement or estimation of vented and flared natural gas

- 1. LFE shall measure or estimate the volume of natural gas that it vents, flares, or beneficially uses during drilling, completion, and production operations regardless of the reason or authorization for such venting or flaring.
- 2. LFE shall install equipment to measure the volume of natural gas flared from existing process piping or a flowline piped from equipment such as high pressure separators, heater treaters, or vapor recovery units associated with a well or facility associated with a well authorized by the APD

# **Attachment VIII. Best Management Practices:**

Longfellow Energy (LFE) utilizes the following best management practices to minimize venting during active and planned maintenance

- 1. LFE has a closed vent capture system to route emissions from the heater treater, tanks and vapor to the VRU with a flare for backup. The system is designed such that if the VRU is taken out of service for any reason, the vapors will be routed to the flare for combustion.
- 2. LFE will isolate and attempt to route all vapors to the VRU or flare prior to opening any lines for maintenance to minimize venting from the equipment when technically feasible
- 3. LFE will shut in wells in the event of a takeaway disruption, emergency situations, or other operations where venting or flaring may occur due to equipment failures.
- 4. Lease operators will be visiting the location daily to check and maintain all equipment ensuring all scrubbers, flame arrestors, and the flare ignitor is functioning properly.