District 1

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 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 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 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

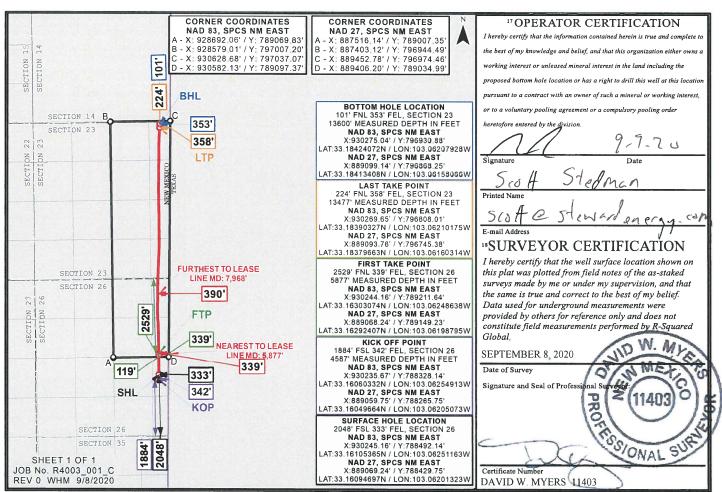
	WELL.	LOCATION	AND ACREA	GE DEDICATION	AS-DRILLED PLA
--	-------	----------	-----------	---------------	----------------

<sup>1</sup> API Number	<sup>2</sup> Pool Code	<sup>2</sup> Pool Code <sup>3</sup> Pool Name					
30-025-46482	7500	7500 BRONCO; SAN ANDRES					
<sup>4</sup> Property Code <b>326146</b>	SLIPPI)	<sup>6</sup> Well Number					
<sup>7</sup> ogrid no. 249099		perator Name ENERGY II, LLC	<sup>9</sup> Elevation 3791'				
	10 C	for I posting					

Surface Location 10

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L 3	26	13S	38E		2048	SOUTH	333	EAST	LEA
11			11 Во	ottom Hol	e Location If I	Different From S	Surface	SL	
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L 1	23	13S	38E		101	NORTH	353	EAST	LEA
12 Dedicated Acres	<sup>13</sup> Joint or	Infill 14 (	Consolidation (	Code 15 Or	der No.				<i>3</i> 0
358.05									

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.



Distances/areas relative to NAD 83 Combined Scale Factor: 1.000081596 Convergence Angle: 00°41'37.78218'

April 6, 2020



END OF WELL REPORT FOR

STEWARD ENERGY Slippin Jimmy Fee 1H Lea County, NM DM-2020-050-SEDT NM



### **PLAN vs ACTUAL**

### **SURVEYS**

### **BOTTOM HOLE ASSEMBLIES**

**SLIDE REPORTS** 

**DAILY REPORTS** 

# **Steward Energy II, LLC**

### DrilTech, LLC

1500 13600'MD: 101' FNL & 353' FEL

13600'MD: Projection to TD 13539'MD: End DrilTech MWD

7500

6000

-4500

Slippin Jimmy 1H MOL

-1500

ewis et al A1 - 96' Radius.

13539'MD: End DrilTech MWD

7500

Slippin Jimmy 1H EOL

Steward Energy II, LLC Slippin Jimmy Fee 1H Wellbore #1 Plan #2 Norton 6



#### SURFACE LOCATION US State Plane 1983

New Mexico Eastern Zone Elevation: GL 3791' + 17' RKB @ 3808.00ft (Norton 6)

Latittude

Slippin Jimmy 1H SOL

1500

Northing 788492.14 Easting 930245.16 Longitude 103.063

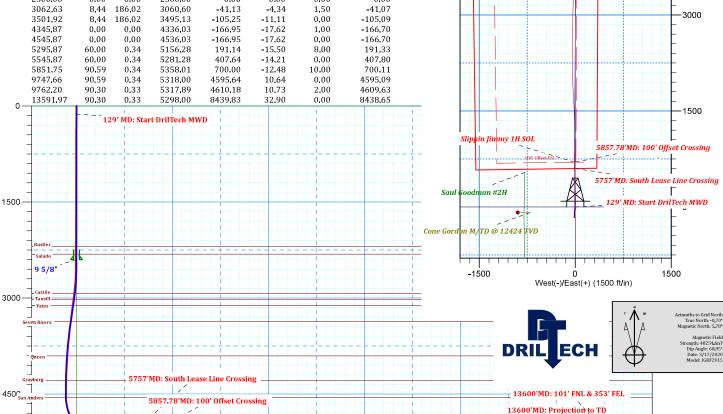
#### WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

33.161

Name	TVD	+N/-S	+E/-W	Northing	Easting
Lewis et al A1 - 96' Radius	0.00	6874.91	979.30	795367.04	929265.87
Slippin Jimmy 1H EOL	5298.00	8439.83	32.90	796931.95	930278.06
Slippin Jimmy 1H MOL	5318.00	4595.64	10.64	793087.77	930255.80
Slippin Jimmy 1H SOL	5358.00	700.15	12.48	789192.29	930232.68

#### SECTION DETAILS

	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00
	3062,63	8.44	186.02	3060,60	-41.13	-4.34	1.50	-41.07
	3501.92	8.44	186.02	3495.13	-105.25	-11.11	0.00	-105.09
	4345.87	0.00	0.00	4336.03	-166.95	-17.62	1.00	-166.70
	4545.87	0.00	0.00	4536.03	-166.95	-17.62	0.00	-166.70
	5295.87	60.00	0.34	5156.28	191.14	-15.50	8.00	191.33
	5545.87	60.00	0.34	5281.28	407.64	-14.21	0.00	407.80
	5851.75	90.59	0.34	5358.01	700.00	-12.48	10.00	700.11
	9747.66	90,59	0.34	5318.00	4595.64	10.64	0.00	4595.09
	9762.20	90.30	0.33	5317.89	4610.18	10.73	2.00	4609,63
0 —	13591.97	90.30	0.33	5298.00	8439,83	32.90	0.00	8438,65



Slippin Jimmy 1H MOL

6000

Vertical Section at 359.24° (1500 ft/in)

3000

## Steward Energy II, LLC

Lea County, NM (NAD 83) NM East Zone Slippin Jimmy Fee 1H Slippin Jimmy Fee 1H

Wellbore #1

Survey: DrilTech MWD

## **Standard Survey Report**

01 April, 2020

MD Reference:

Steward Energy II, LLC Company:

Lea County, NM (NAD 83) NM East Zone Proiect:

Slippin Jimmy Fee 1H Site: Slippin Jimmy Fee 1H Well:

Wellbore: Wellbore #1

Wellbore #1 Design:

Local Co-ordinate Reference:

Well Slippin Jimmy Fee 1H GL 3791' + 17' RKB @ 3808.00ft (Norton 6) TVD Reference: GL 3791' + 17' RKB @ 3808.00ft (Norton 6)

North Reference: Grid

Survey Calculation Method: Minimum Curvature

Database:

EDM

Lea County, NM (NAD 83) NM East Zone Project

Map System: US State Plane 1983 North American Datum 1983 Geo Datum: New Mexico Eastern Zone Map Zone:

System Datum: Mean Sea Level

Slippin Jimmy Fee 1H Site

788,492.14 usft Northing: 33 161 Site Position: Latitude: 930,245.16 usft Мар -103.063 Easting: From: Longitude: 0.00 ft 13.200 in 0.70 ° Slot Radius: Position Uncertainty: **Grid Convergence:** 

Slippin Jimmy Fee 1H Well 788,492.14 usft 33.161 0.00 ft **Well Position** +N/-S Northing: Latitude: 0.00 ft 930.245.16 usft -103.063 +E/-W Easting: Longitude: **Position Uncertainty** 0.00 ft Wellhead Elevation: ft Ground Level: 3,791.00 ft

Wellbore #1 Wellbore Declination Magnetics **Model Name** Sample Date Dip Angle Field Strength (°) (nT) IGRF2015 3/17/2020 6.48 60.95 48,254.55810579

Wellbore #1 Design Audit Notes: 1.0 ACTUAL 0.00 Version: Phase: Tie On Depth: Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) 0.00 0.00 0.00 359.24

Date 4/1/2020 **Survey Program** From То (ft) (ft) Survey (Wellbore) Tool Name Description MWD MWD - Standard 129.00 13,600.00 DrilTech MWD (Wellbore #1)

Survey Vertical Vertical Build Measured Dogleg Turn Depth Inclination **Azimuth** Depth +N/-S +E/-W Section Rate Rate Rate (ft) (ft) (ft) (ft) (ft) (°/100ft) (°/100ft) (°/100ft) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 129.00 0.70 135.68 129.00 -0.56 0.55 -0.57 0.54 0.54 0.00 129' MD: Start DrilTech MWD 223.00 1.14 129.44 222.98 -1.57 1.67 -1.59 0.48 0.47 -6.64 315.00 106.24 0.79 314.97 -2.33 2.99 -2.37 0.56 -0.38 -25.22 407.00 99.12 406.96 0.70 -2.59 4.15 -2.65 0.14 -0.10 -7.74 498.00 0.62 107.73 497.96 -2.83 5.17 -2.90 0.14 -0.09 9.46 590.00 105.18 589.95 0.62 6.13 -3.19 0.03 0.00 -2.77 -3.11 685.00 0.53 102.81 684.95 -3.35 -3.44 0.10 -0.09 -2.49 7.05 109.75 778.94 -3.59 -3.69 0.07 779 00 0.53 7 88 0.00 7.38

Company: Steward Energy II, LLC

Project: Lea County, NM (NAD 83) NM East Zone

Site: Slippin Jimmy Fee 1H
Well: Slippin Jimmy Fee 1H

Wellbore: Wellbore #1

Design: Wellbore #1

Local Co-ordinate Reference:

TVD Reference: GL 3791' + 17' RKE

North Reference:

**Survey Calculation Method:** 

Database:

MD Reference:

Well Slippin Jimmy Fee 1H

GL 3791' + 17' RKB @ 3808.00ft (Norton 6) GL 3791' + 17' RKB @ 3808.00ft (Norton 6)

Grid

Minimum Curvature

Survey										
	Measured			Vertical			Vertical	Dogleg	Build	Turn
	Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
	(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
	872.00	0.62	92.18	871.94	-3.75	8.79	-3.87	0.21	0.10	-18.89
	072.00	0.02	32.10	071.54	-5.75	0.73	-0.07	0.21	0.10	-10.09
	964.00	0.53	90.86	963.93	-3.78	9.71	-3.91	0.10	-0.10	-1.43
	1,059.00	0.62	106.59	1,058.93	-3.93	10.65	-4.07	0.19	0.09	16.56
	1,153.00	0.62	103.34	1,152.92	-4.19	11.63	-4.35	0.04	0.00	-3.46
	1,248.00	0.35	85.85	1,247.92	-4.29	12.42	-4.46	0.32	-0.28	-18.41
	1,342.00	0.18	109.67	1,341.92	-4.32	12.84	-4.49	0.21	-0.18	25.34
	1,435.00	0.26	130.32	1,434.92	-4.51	13.14	-4.68	0.12	0.09	22.20
	1,521.00	0.62	141.13	1,520.92	-5.00	13.58	-5.18	0.43	0.42	12.57
	1,621.00	0.44	121.18	1,620.91	-5.62	14.25	-5.80	0.26	-0.18	-19.95
	1,716.00	0.35	114.59	1,715.91	-5.93	14.83	-6.12	0.11	-0.09	-6.94
	1,810.00	0.26	131.38	1,809.91	-6.19	15.25	-6.39	0.13	-0.10	17.86
	1,904.00	0.18	136.03	1,903.91	-6.43	15.51	-6.64	0.09	-0.09	4.95
	1,904.00	0.16	128.39	1,903.91	-6.43 -6.67	15.51	-6.88	0.09	0.09	-8.13
	2.089.00	0.20	186.57	2,088.91	-6.87	15.76	-7.08	0.25	-0.19	63.93
	2,183.00	0.09	232.45	2,182.91	-6.99	15.87	-7.20	0.07	0.00	48.81
	2,277.00	0.44	265.58	2,276.91	-7.06	15.45	-7.27	0.39	0.37	35.24
	2,277.00	0.44	200.00	2,270.01	7.00	10.40	1.27	0.00	0.07	00.24
	2,372.00	0.79	265.15	2,371.90	-7.15	14.43	-7.34	0.37	0.37	-0.45
	2,484.00	0.88	240.01	2,483.89	-7.64	12.92	-7.81	0.33	0.08	-22.45
	2,578.00	1.58	216.54	2,577.87	-9.04	11.52	-9.19	0.90	0.74	-24.97
	2,673.00	2.46	206.17	2,672.81	-11.92	9.84	-12.05	1.00	0.93	-10.92
	2,766.00	4.40	195.71	2,765.64	-17.15	8.00	-17.26	2.18	2.09	-11.25
	2,861.00	6.24	190.53	2,860.22	-25.74	6.06	-25.81	2.00	1.94	-5.45
	2,956.00	7.65	190.26	2,954.52	-37.03	3.99	-37.08	1.48	1.48	-0.28
	3,049.00	7.74	192.20	3,046.69	-49.25	1.57	-49.26	0.30	0.10	2.09
	3,141.00	7.03	190.26	3,137.92	-60.84	-0.74	-60.83	0.82	-0.77	-2.11
	3,236.00	6.86	189.21	3,232.23	-72.16	-2.69	<del>-</del> 72.12	0.22	-0.18	-1.11
	3.331.00	7.47	190.97	3,326.48	-83.83	-4.77	-83.76	0.68	0.64	1.85
	3,424.00	7.65	188.94	3,418.68	-95.88	-6.88	-95.78	0.35	0.19	-2.18
	3,519.00	6.68	184.73	3,512.93	-107.63	-8.32	-107.51	1.16	-1.02	-4.43
	3,614.00	6.51	185.34	3,607.31	-118.50	-9.28	-118.36	0.19	-0.18	0.64
	3,709.00	5.54	185.60	3,701.78	-128.42	-10.23	-128.28	1.02	-1.02	0.27
	-,,	-,- '	,	.,		, - 2			.,	
	3,803.00	4.75	182.53	3,795.40	-136.83	-10.84	-136.67	0.89	-0.84	-3.27
	3,898.00	3.61	180.24	3,890.15	-143.75	-11.03	-143.59	1.21	-1.20	-2.41
	3,991.00	3.34	178.05	3,982.97	-149.38	-10.95	-149.23	0.32	-0.29	-2.35
	4,086.00	2.29	183.14	4,077.86	-154.04	-10.96	-153.89	1.14	-1.11	5.36
	4,180.00	2.20	178.22	4,171.79	-157.72	-11.00	-157.56	0.23	-0.10	-5.23
			4							e
	4,275.00	2.20	180.51	4,266.72	-161.37	-10.96	-161.21	0.09	0.00	2.41
	4,369.00	1.49	168.64	4,360.67	-164.37	-10.74	-164.21	0.85	-0.76	-12.63
	4,462.00	0.53	139.81	4,453.65	-165.89	-10.22	-165.74	1.14	-1.03	-31.00
	4,556.00	1.32	15.36	4,547.65	-165.17	-9.66	-165.03	1.78	0.84	-132.39

Company: Steward Energy II, LLC

Project: Lea County, NM (NAD 83) NM East Zone

Site: Slippin Jimmy Fee 1H
Well: Slippin Jimmy Fee 1H

Wellbore: Wellbore #1

Design: Wellbore #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Database:

Well Slippin Jimmy Fee 1H

GL 3791' + 17' RKB @ 3808.00ft (Norton 6) GL 3791' + 17' RKB @ 3808.00ft (Norton 6)

Grid

Minimum Curvature

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,587.00	3.08	5.08	4,578.62	-164.00	-9.49	-163.86	5.80	5.68	-33.16
4,619.00	5.19	3.58	4,610.54	-161.70	-9.32	-161.56	6.60	6.59	-4.69
4,651.00	7.47	3.93	4,642.34	-158.18	-9.09	-158.04	7.13	7.13	1.09
4,682.00	10.11	5.87	4,672.97	-153.46	-8.67	-153.33	8.57	8.52	6.26
4,714.00	12.93	5.87	4,704.32	-147.10	-8.02	-146.98	8.81	8.81	0.00
4,746.00	15.39	5.34	4,735.35	-139.31	-7.26	-139.21	7.70	7.69	-1.66
4,778.00	17.50	5.96	4,766.04	-130.30	-6.36	-130.20	6.62	6.59	1.94
4,809.00	20.05	6.83	4,795.39	-120.39	-5.25	-120.31	8.28	8.23	2.81
4,841.00	22.60	6.75	4,825.19	-108.83	-3.87	-108.77	7.97	7.97	-0.25
4,873.00	25.24	7.54	4,854.44	-95.96	-2.25	-95.92	8.31	8.25	2.47
4,905.00	27.96	7.80	4,883.05	-81.76	-0.34	-81.75	8.51	8.50	0.81
4,937.00	30.07	6.83	4,911.04	-66.37	1.63	-66.38	6.76	6.59	-3.03
4,968.00	32.71	5.08	4,937.50	-50.31	3.30	-50.35	9.01	8.52	-5.65
5,000.00	35.44	3.76	4,964.00	-32.44	4.67	-32.49	8.84	8.53	<b>-</b> 4.13
5,032.00	37.81	1.82	4,989.68	-13.37	5.59	-13.44	8.24	7.41	-6.06
5,064.00	40.19	0.86	5,014.55	6.76	6.06	6.68	7.67	7.44	-3.00
5,096.00	42.82	359.80	5,038.51	27.96	6.18	27.88	8.51	8.22	-3.31
5,128.00	45.73	358.75	5,061.42	50.30	5.89	50.21	9.38	9.09	-3.28
5,159.00	48.28	358.57	5,082.56	72.96	5.36	72.89	8.24	8.23	-0.58
5,191.00	51.00	358.31	5,103.28	97.34	4.69	97.26	8.52	8.50	-0.81
5,223.00	53.55	358.31	5,122.86	122.63	3.95	122.57	7.97	7.97	0.00
5,255.00	56.37	358.66	5,141.23	148.82	3.26	148.76	8.86	8.81	1.09
5,286.00	59.27	359.28	5,157.74	175.05	2.79	175.00	9.51	9.35	2.00
5,318.00	60.76	359.36	5,173.73	202.77	2.46	202.72	4.66	4.66	0.25
5,350.00	61.20	359.45	5,189.25	230.75	2.17	230.70	1.40	1.38	0.28
5,382.00	61.38	359.72	5,204.63	258.81	1.96	258.76	0.93	0.56	0.84
5,413.00	61.47	0.15	5,219.45	286.04	1.93	285.98	1.25	0.29	1.39
5,445.00	61.64	0.07	5,234.70	314.17	1.99	314.12	0.57	0.53	-0.25
5,477.00	62.08	359.63	5,249.79	342.39	1.91	342.33	1.83	1.38	-1.38
5,509.00	62.08	359.72	5,264.77	370.66	1.75	370.61	0.25	0.00	0.28
5,539.00	62.43	359.72	5,278.74	397.22	1.62	397.16	1,17	1,17	0.00
5,571.00	62.87	0.07	5,293.44	425.64	1.57	425.58	1.68	1.38	1.09
5,602.00	65.33	359.80	5,306.98	453.52	1.54	453.46	7.97	7.94	-0.87
5,634.00	68.59	359.80	5,319.50	482.97	1.44	482.90	10.19	10.19	0.00
5,666.00	71.05	359.72	5,330.54	513.00	1.31	512.94	7.69	7.69	-0.25
5,697.00	73.25	359.45	5,340.04	542.50	1.10	542.44	7.15	7.10	-0.87
5,729.00	75.97	359.36	5,348.53	573.35	0.78	573.29	8.50	8.50	-0.28
5,757.00	78.27	359.29	5,354.77	600.64	0.45	600.58	8.23	8.23	-0.26
5757'MD: So	uth Lease Line	Crossing							

Company: Steward Energy II, LLC

Project: Lea County, NM (NAD 83) NM East Zone

Site: Slippin Jimmy Fee 1H
Well: Slippin Jimmy Fee 1H

Wellbore: Wellbore #1

Design: Wellbore #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:

North Reference:

**Survey Calculation Method:** 

Database:

Well Slippin Jimmy Fee 1H

GL 3791' + 17' RKB @ 3808.00ft (Norton 6) GL 3791' + 17' RKB @ 3808.00ft (Norton 6)

Grid

Minimum Curvature

vey										
	Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
	(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
	5,791.00	80.72	359.54	5,360.96	634.07	0.10	634.01	7.14	7.10	0.84
	5,823.00	82.75	359.54	5,365.56	665.74	-0.15	665.68	6.34	6.34	0.00
	5,854.00	85.12	359.10	5,368.84	696.56	-0.52	696.50	7.77	7.65	-1.42
	5,857.78	85.39	359.03	5,369.15	700.32	-0.52	700.27	7.40	7.16	-1.91
		100' Offset Cros		0,000.10	700.02	0.00	100.21	1.40	7.10	1.01
	5,886.00	87.41	358.49	5,370.92	728.48	-1.19	728.43	7.40	7.16	-1.91
	5,918.00	89.60	358.75	5,371.76	760.46	-1.96	760.42	6.89	6.84	0.81
	5,949.00	90.04	358.31	5,371.85	791.45	-2.75	791.41	2.01	1.42	-1.42
	5,981.00	90.57	358.22	5,371.68	823.43	-3.72	823.41	1.68	1.66	-0.28
	6,074.00	89.34	359.19		916.41	-5.72 -5.83	916.40		-1.32	1.04
	,	89.96		5,371.76 5,372.34	1,011.39	-5.63 -7.17		1.68 0.65	-1.32 0.65	0.00
	6,169.00		359.19 359.80	5,372.34 5,371.40	1,011.39		1,011.40			
	6,262.00	91.19	359.80	5,371.40		-7.99 8.68	1,104.39	1.48	1.32	0.66
	6,357.00	89.87	359.36	5,370.52	1,199.37	-8.68	1,199.38	1.46	-1.39	-0.46
	6,451.00	90.22	358.92	5,370.45	1,293.36	-10.10	1,293.38	0.60	0.37	-0.47
	6,547.00	91.63	358.05	5,368.90	1,389.31	<b>-</b> 12.63	1,389.36	1.73	1.47	-0.91
	6,640.00	89.25	357.78	5,368.19	1,482.24	-16.02	1,482.33	2.58	-2.56	-0.29
	6,733.00	89.25	357.52	5,369.40	1,575.16	-19.83	1,575.28	0.28	0.00	-0.28
	6,828.00	90.22	357.43	5,369.84	1,670.06	-24.01	1,670.23	1.03	1.02	-0.09
	6,921.00	90.75	356.11	5,369.06	1,762.91	-29.25	1,763.14	1.53	0.57	-1.42
	7,016.00	92.95	356.46	5,365.99	1,857.65	-35.41	1,857.96	2.34	2.32	0.37
	7,112.00	92.77	358.75	5,361.20	1,953.44	-39.41	1,953.80	2.39	-0.19	2.39
	7,207.00	91.01	359.45	5,358.07	2,048.38	-40.90	2,048.74	1.99	-1.85	0.74
	7,302.00	91.98	359.89	5,355.59	2,143.34	-41.45	2,143.70	1.12	1.02	0.46
	7,398.00	91.36	359.54	5,352.79	2,239.30	41.03	2 230 66	0.74	-0.65	-0.36
	7,493.00	89.78	0.24	5,352.79	2,239.30	-41.93 -42.11	2,239.66 2,334.64	1.82	-0.65 -1.66	0.74
	7,493.00	90.75	0.24	5,351.64	2,430.28	-42.11 -41.34	2,430.62	1.11	1.01	0.74
	7,589.00	89.69	0.66	5,351.40	2,430.28	-41.34 -40.65	2,430.62	1.11	-1.12	-0.56
	7,779.00	91.89	359.80	5,349.73	2,620.26	-40.65 -40.69	2,620.57	2.34	2.32	-0.37
	7,770.00	01.00	200.00	0,040.70	2,020.20	70.00	2,020.07	2.07	2.02	0.07
	7,875.00	90.48	0.77	5,347.74	2,716.24	-40.21	2,716.53	1.78	-1.47	1.01
	7,968.00	90.31	359.98	5,347.10	2,809.23	-39.61	2,809.51	0.87	-0.18	-0.85
	8,063.00	92.33	1.03	5,344.91	2,904.20	-38.77	2,904.46	2.40	2.13	1.11
	8,158.00	91.89	1.56	5,341.41	2,999.11	-36.62	2,999.33	0.72	-0.46	0.56
	8,254.00	89.69	1.30	5,340.09	3,095.07	-34.23	3,095.25	2.31	-2.29	-0.27
	8,368.00	92.59	1.30	5,337.82	3,209.00	-31.64	3,209.14	2.54	2.54	0.00
	8,463.00	91.89	0.86	5,334.11	3,303.91	-29.85	3,304.02	0.87	-0.74	-0.46
	8,558.00	90.92	2.18	5,331.78	3,398.85	-27.33	3,398.91	1.72	-1.02	1.39
	8,652.00	90.22	2.09	5,330.84	3,492.78	-23.83	3,492.78	0.75	-0.74	-0.10
	8,747.00	90.57	2.18	5,330.19	3,587.71	-20.29	3,587.66	0.38	0.37	0.09
	0.040.00	00.40	0.50	E 800 04	0.000.00	10.05	0.000.51	0.00	0.00	2.22
	8,843.00	90.48	2.53	5,329.31	3,683.62	-16.35	3,683.51	0.38	-0.09	0.36
	8,938.00	91.01	2.70	5,328.07	3,778.51	-12.02	3,778.34	0.59	0.56	0.18

Company: Steward Energy II, LLC

Project: Lea County, NM (NAD 83) NM East Zone

Site: Slippin Jimmy Fee 1H
Well: Slippin Jimmy Fee 1H

Wellbore: Wellbore #1

Design: Wellbore #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

**Survey Calculation Method:** 

Database:

Well Slippin Jimmy Fee 1H

GL 3791' + 17' RKB @ 3808.00ft (Norton 6) GL 3791' + 17' RKB @ 3808.00ft (Norton 6)

Grid

Minimum Curvature

Design.					Database.					
Survey										
	Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
	9,033.00	90.48	2,53	5,326.84	3,873.41	-7.68	3,873.17	0.59	-0.56	-0.18
	9,125.00	90.57	2.09	5,326.00	3,965.33	-3.97	3,965.03	0.49	0.10	-0.48
	9,216.00	90.48	2.53	5,325.16	4,056.25	-0.31	4,055.90	0.49	-0.10	0.48
	9,308.00	90.66	3.06	5,324.25	4,148.14	4.18	4,147.72	0.61	0.20	0.58
	9,399.00	90.66	2.44	5,323.20	4,239.02	8.55	4,238.54	0.68	0.00	-0.68
	9,491.00	91.10	0.59	5,321.79	4,330.98	10.98	4,330.45	2.07	0.48	-2.01
	9,585.00	90.66	0.68	5,320.34	4,424.96	12.02	4,424.41	0.48	-0.47	0.10
	9,677.00	90.75	1.03	5,319.21	4,516.94	13.39	4,516.37	0.39	0.10	0.38
	9,769.00	89.96	358.92	5,318.64	4,608.94	13.35	4,608.35	2.45	-0.86	-2.29
	9,861.00	89.96	358.49	5,318.70	4,700.91	11.27	4,700.35	0.47	0.00	-0.47
	9,953.00	90.13	359.01	5,318.63	4,792.89	9.27	4,792.34	0.59	0.18	0.57
	10,048.00	90.48	359.28	5,318.13	4,887.88	7.85	4,887.34	0.47	0.37	0.28
	10,143.00	90.92	0.42	5,316.97	4,982.87	7.60	4,982.33	1.29	0.46	1.20
	10,238.00	89.96	359.45	5,316.24	5,077.86	7.49	5,077.32	1.44	-1.01	-1.02
	10,331.00	90.31	359.54	5,316.02	5,170.86	6.67	5,170.32	0.39	0.38	0.10
	10,426.00	90.40	359.10	5,315.43	5,265.85	5.54	5,265.31	0.47	0.09	-0.46
	10,521.00	90.84	359.45	5,314.40	5,360.84	4.34	5,360.31	0.59	0.46	0.37
	10,614.00	89.87	358.31	5,313.82	5,453.81	2.52	5,453.30	1.61	-1.04	-1.23
	10,709.00	90.13	359.19	5,313.82	5,548.79	0.45	5,548.30	0.97	0.27	0.93
	10,804.00	90.48	358.57	5,313.32	5,643.77	-1.40	5,643.29	0.75	0.37	-0.65
	10,899.00	90.57	358.84	5,312.45	5,738.74	-3.55	5,738.28	0.30	0.09	0.28
	10,993.00	90.40	359.89	5,311.65	5,832.73	<b>-</b> 4.59	5,832.28	1.13	-0.18	1.12
	11,088.00	89.60	359.54	5,311.65	5,927.73	-5.07	5,927.28	0.92	-0.84	-0.37
	11,184.00	89.60	359.28	5,312.32	6,023.72	-6.05	6,023.27	0.27	0.00	-0.27
	11,279.00	89.78	358.75	5,312.84	6,118.71	-7.69	6,118.27	0.59	0.19	-0.56
	11,375.00	90.22	359.01	5,312.84	6,214.69	-9.56	6,214.27	0.53	0.46	0.27
	11,470.00	90.40	359.80	5,312.32	6,309.68	-10.55	6,309.27	0.85	0.19	0.83
	11,566.00	90.75	0.77	5,311.36	6,405.67	-10.07	6,405.24	1.07	0.36	1.01
	11,660.00	90.84	1.91	5,310.05	6,499.64	-7.87	6,499.17	1.22	0.10	1.21
	11,755.00	90.48	1.21	5,308.96	6,594.59	-5.29	6,594.08	0.83	-0.38	-0.74
	11,849.00	90.66	0.95	5,308.02	6,688.57	-3.52	6,688.03	0.34	0.19	-0.28
	11,945.00	90.04	0.24	5,307.44	6,784.56	-2.52	6,784.00	0.98	-0.65	-0.74
	12,039.00	88.99	359.72	5,308.23	6,878.56	-2.55	6,877.99	1.25	-1.12	-0.55
	12,134.00	89.60	0.33	5,309.40	6,973.55	-2.51	6,972.97	0.91	0.64	0.64
	12,228.00	90.22	359.89	5,309.55	7,067.55	-2.33	7,066.96	0.81	0.66	-0.47
	12,323.00	91.01	0.95	5,308.53	7,162.54	-1.63	7,161.93	1.39	0.83	1.12
	12,418.00	90.31	0.42	5,307.44	7,257.53	-0.50	7,256.89	0.92	-0.74	-0.56
	12,512.00	90.40	0.07	5,306.85	7,351.52	-0.10	7,350.88	0.38	0.10	-0.37
	12,605.00	90.57	359.45	5,306.07	7,444.52	-0.49	7,443.87	0.69	0.18	-0.67
	12,700.00	90.75	359.98	5,304.97	7,539.51	-0.96	7,538.86	0.59	0.19	0.56

Company: Steward Energy II, LLC

Project: Lea County, NM (NAD 83) NM East Zone

Site: Slippin Jimmy Fee 1H
Well: Slippin Jimmy Fee 1H

Wellbore: Wellbore #1

Design: Wellbore #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Database:

Well Slippin Jimmy Fee 1H

GL 3791' + 17' RKB @ 3808.00ft (Norton 6) GL 3791' + 17' RKB @ 3808.00ft (Norton 6)

Grid

Minimum Curvature

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
12,794.00	90.92	359.36	5,303.60	7,633.50	-1.50	7,632.85	0.68	0.18	-0.66
12,887.00	90.84	1.12	5,302.17	7,726.48	-1.11	7,725.82	1.89	-0.09	1.89
12,980.00	91.10	2.35	5,300.60	7,819.43	1.70	7,818.72	1.35	0.28	1.32
13,074.00	89.96	1.91	5,299.73	7,913.36	5.20	7,912.59	1.30	-1.21	-0.47
13,168.00	90.22	2.62	5,299.58	8,007.28	8.91	8,006.46	0.80	0.28	0.76
13,263.00	90.66	3.23	5,298.85	8,102.15	13.76	8,101.26	0.79	0.46	0.64
13,358.00	90.57	2.09	5,297.83	8,197.04	18.17	8,196.08	1.20	-0.09	-1.20
13,453.00	90.13	4.02	5,297.25	8,291.90	23.23	8,290.87	2.08	-0.46	2.03
13,539.00	89.60	2.00	5,297.46	8,377.78	27.75	8,376.67	2.43	-0.62	-2.35
13539'MD: E	nd DrilTech MW	D							
13,600.00	89.60	2.00	5,297.88	8,438.74	29.88	8,437.60	0.00	0.00	0.00

Survey Annotations					
Measured	Vertical	Local Coor	dinates		
Depth	Depth	+N/-S	+E/-W		
(ft)	(ft)	(ft)	(ft)	Comment	
129.00	129.00	-0.56	0.55	129' MD: Start DrilTech MWD	
5,757.00	5,354.77	600.64	0.45	5757'MD: South Lease Line Crossing	
5,857.78	5,369.15	700.32	-0.58	5857.78'MD: 100' Offset Crossing	
13,539.00	5,297.46	8,377.78	27.75	13539'MD: End DrilTech MWD	
13,600.00	5,297.88	8,438.74	29.88	13600'MD: Projection to TD	
13,600.00	5,297.88	8,438.74	29.88	13600'MD: 101' FNL & 353' FEL	

Checked By:	Approved By:	Date:	
,	:: ,		

## Steward Energy II, LLC

Lea County, NM (NAD 83) NM East Zone Slippin Jimmy Fee 1H Slippin Jimmy Fee 1H

Wellbore #1

Survey: DrilTech MWD

## **Survey Report - Geographic**

01 April, 2020

Steward Energy II, LLC Company:

Proiect: Lea County, NM (NAD 83) NM East Zone

Slippin Jimmy Fee 1H Site: Slippin Jimmy Fee 1H Well:

Wellbore: Wellbore #1 Wellbore #1 Design:

Local Co-ordinate Reference:

Well Slippin Jimmy Fee 1H GL 3791' + 17' RKB @ 3808.00ft (Norton 6) TVD Reference: GL 3791' + 17' RKB @ 3808.00ft (Norton 6) MD Reference:

**EDM** 

Grid North Reference:

Survey Calculation Method: Minimum Curvature

Database:

Lea County, NM (NAD 83) NM East Zone Project

US State Plane 1983 Map System: North American Datum 1983 Geo Datum:

Mean Sea Level System Datum:

New Mexico Eastern Zone Map Zone:

Slippin Jimmy Fee 1H Site

788,492.14 usft Northing: 33 161 Site Position: Latitude: 930,245.16 usft -103.063 Мар Easting: Longitude: From: 0.00 ft 13.200 in 0.70 ° Position Uncertainty: Slot Radius: **Grid Convergence:** 

Slippin Jimmy Fee 1H Well 0.00 ft 788,492.14 usft 33.161 +N/-S **Well Position** Northing: Latitude: 0.00 ft 930.245.16 usft -103.063 +E/-W Easting: Longitude: 0.00 ft **Position Uncertainty** Wellhead Elevation: ft Ground Level: 3,791.00 ft

Wellbore #1 Wellbore **Model Name** Sample Date Declination Dip Angle Field Strength Magnetics (nT) IGRF2015 3/17/2020 6.48 60.95 48,254.55810579

Wellbore #1 Design Audit Notes: 1.0 ACTUAL 0.00 Version: Phase: Tie On Depth: +N/-S Vertical Section: Depth From (TVD) +E/-W Direction (ft) (ft) (°) 0.00 0.00 0.00 359.24

Date 4/1/2020 **Survey Program** То From (ft) (ft) Survey (Wellbore) **Tool Name** Description 129.00 13,600.00 DrilTech MWD (Wellbore #1) MWD MWD - Standard

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	788,492.14	930,245.16	33.161	-103.063
129.00	0.70	135.68	129.00	-0.56	0.55	788,491.57	930,245.71	33.161	-103.063
129' MD:	Start DrilTec	h MWD							
223.00	1.14	129.44	222.98	-1.57	1.67	788,490.57	930,246.83	33.161	-103.063
315.00	0.79	106.24	314.97	-2.33	2.99	788,489.81	930,248.15	33.161	-103.062
407.00	0.70	99.12	406.96	-2.59	4.15	788,489.54	930,249.31	33.161	-103.062
498.00	0.62	107.73	497.96	-2.83	5.17	788,489.31	930,250.33	33.161	-103.062
590.00	0.62	105.18	589.95	-3.11	6.13	788,489.02	930,251.29	33.161	-103.062
685.00	0.53	102.81	684.95	-3.35	7.05	788,488.79	930,252.21	33.161	-103.062
779.00	0.53	109.75	778.94	-3.59	7.88	788,488.55	930,253.04	33.161	-103.062
872.00	0.62	92.18	871.94	-3.75	8.79	788,488.38	930,253.95	33.161	-103.062
964.00	0.53	90.86	963.93	-3.78	9.71	788,488.36	930,254.87	33.161	-103.062

Company: Steward Energy II, LLC

Project: Lea County, NM (NAD 83) NM East Zone

Site: Slippin Jimmy Fee 1H
Well: Slippin Jimmy Fee 1H

Wellbore: Wellbore #1

Design: Wellbore #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well Slippin Jimmy Fee 1H

GL 3791' + 17' RKB @ 3808.00ft (Norton 6) GL 3791' + 17' RKB @ 3808.00ft (Norton 6)

Grid

Minimum Curvature

Survey									
Measured			Vertical			Мар	Мар		
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting		
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)	Latitude	Longitude
1,059.00	0.62	106.59	1,058.93	-3.93	10.65	788,488.21	930,255.81	33.161	-103.062
1,153.00	0.62	103.34	1,152.92	-4.19	11.63	788,487.94	930,256.79	33.161	-103.062
1,248.00	0.35	85.85	1,247.92	-4.29	12.42	788,487.85	930,257.58	33.161	-103.062
1,342.00	0.18	109.67	1,341.92	-4.32	12.84	788,487.82	930,258.00	33.161	-103.062
1,435.00	0.26	130.32	1,434.92	-4.51	13.14	788,487.63	930,258.30	33.161	-103.062
1,521.00	0.62	141.13	1,520.92	-5.00	13.58	788,487.14	930,258.74	33.161	-103.062
1,621.00	0.44	121.18	1,620.91	-5.62	14.25	788,486.52	930,259.41	33.161	-103.062
1,716.00	0.35	114.59	1,715.91	-5.93	14.83	788,486.21	930,259.99	33.161	-103.062
1,810.00	0.26	131.38	1,809.91	-6.19	15.25	788,485.95	930,260.41	33.161	-103.062
1,904.00	0.18	136.03	1,903.91	-6.43	15.51	788,485.70	930,260.67	33.161	-103.062
1,998.00	0.26	128.39	1,997.91	-6.67	15.78	788,485.47	930,260.94	33.161	-103.062
2,089.00	0.09	186.57	2,088.91	-6.87	15.93	788,485.27	930,261.09	33.161	-103.062
2,183.00	0.09	232.45	2,182.91	-6.99	15.87	788,485.15	930,261.03	33.161	-103.062
2,277.00	0.44	265.58	2,276.91	-7.06	15.45	788,485.08	930,260.61	33.161	-103.062
2,372.00	0.79	265.15	2,371.90	-7.15 7.04	14.43	788,484.99	930,259.59	33.161	-103.062
2,484.00	0.88	240.01	2,483.89	-7.64	12.92	788,484.50 788,483.09	930,258.08 930,256.68	33.161	-103.062
2,578.00 2,673.00	1.58 2.46	216.54 206.17	2,577.87 2,672.81	-9.04 -11.92	11.52 9.84	788,480.21	930,255.00	33.161 33.161	-103.062 -103.062
2,766.00	4.40	195.71	2,765.64	-11.92 -17.15	8.00	788,474.99	930,253.16	33.161	-103.062
2,861.00	6.24	190.53	2,765.04	-17.13	6.06	788,466.40	930,251.23	33.161	-103.062
2,956.00	7.65	190.33	2,954.52	-37.03	3.99	788,455.10	930,249.16	33.161	-103.062
3,049.00	7.74	192.20	3,046.69	-49.25	1.57	788,442.89	930,246.73	33.161	-103.063
3,141.00	7.03	190.26	3,137.92	-60.84	-0.74	788,431,30	930,244.42	33.161	-103.063
3,236.00	6.86	189.21	3,232.23	-72.16	-2.69	788,419.97	930,242.47	33.161	-103.063
3,331.00	7.47	190.97	3,326.48	-83.83	-4.77	788,408.31	930,240.39	33.161	-103.063
3,424.00	7.65	188.94	3,418.68	-95.88	-6.88	788,396.26	930,238.28	33.161	-103.063
3,519.00	6.68	184.73	3,512.93	-107.63	-8.32	788,384.51	930,236.84	33.161	-103.063
3,614.00	6.51	185.34	3,607.31	-118.50	-9.28	788,373.64	930,235.88	33.161	-103.063
3,709.00	5.54	185.60	3,701.78	-128.42	-10.23	788,363.71	930,234.93	33.161	-103.063
3,803.00	4.75	182.53	3,795.40	-136.83	-10.84	788,355.31	930,234.32	33,161	-103.063
3,898.00	3.61	180.24	3,890.15	-143.75	-11.03	788,348.39	930,234.13	33.161	-103.063
3,991.00	3.34	178.05	3,982.97	-149.38	-10.95	788,342.75	930,234.21	33.161	-103.063
4,086.00	2.29	183.14	4,077.86	-154.04	-10.96	788,338.09	930,234.20	33.161	-103.063
4,180.00	2.20	178.22	4,171.79	-157.72	-11.00	788,334.41	930,234.16	33.161	-103.063
4,275.00	2.20	180.51	4,266.72	-161.37	-10.96	788,330.77	930,234.20	33.161	-103.063
4,369.00	1.49	168.64	4,360.67	-164.37	-10.74	788,327.77	930,234.42	33.161	-103.063
4,462.00	0.53	139.81	4,453.65	-165.89	-10.22	788,326.25	930,234.94	33.161	-103.063
4,556.00	1.32	15.36	4,547.65	-165.17	-9.66	788,326.96	930,235.51	33.161	-103.063
4,587.00	3.08	5.08	4,578.62	-164.00	-9.49	788,328.14	930,235.67	33.161	-103.063
4,619.00	5.19	3.58	4,610.54	-161.70	-9.32	788,330.44	930,235.84	33.161	-103.063
4,651.00		3.93	4,642.34	-158.18	-9.09 8.67	788,333.96	930,236.07	33.161	-103.063
4,682.00 4,714.00	10.11 12.93	5.87 5.87	4,672.97 4,704.32	-153.46 -147.10	-8.67 -8.02	788,338.68 788,345.03	930,236.49 930,237.14	33.161 33.161	-103.063 -103.063
									-103.063
4,746.00 4,778.00	15.39 17.50	5.34 5.96	4,735.35 4,766.04	-139.31 -130.30	-7.26 -6.36	788,352.82 788,361.84	930,237.90 930,238.80	33.161 33.161	-103.063
4,809.00	20.05	6.83	4,795.39	-120.39	-5.25	788,371.75	930,239.92	33.161	-103.063
4,841.00	22.60	6.75	4,795.39	-120.33	-3.23	788,383.31	930,241.29	33.161	-103.063
4,873.00	25.24	7.54	4,854.44	-95.96	-2.25	788,396.18	930,242.91	33.161	-103.063
4,905.00		7.80	4,883.05	-81.76	-0.34	788,410.38	930,244.82	33.161	-103.063
4,937.00	30.07	6.83	4,911.04	-66.37	1.63	788,425.77	930,246.79	33.161	-103.063
4,968.00	32.71	5.08	4,937.50	-50.31	3.30	788,441.83	930,248.46	33.161	-103.062
5,000.00	35.44	3.76	4,964.00	-32.44	4.67	788,459.70	930,249.83	33.161	-103.062
5,032.00		1.82	4,989.68	-13.37	5.59	788,478.77	930,250.75	33.161	-103.062
5,064.00	40.19	0.86	5,014.55	6.76	6.06	788,498.90	930,251.22	33.161	-103.062
5,096.00	42.82	359.80	5,038.51	27.96	6.18	788,520.10	930,251.34	33.161	-103.062

Steward Energy II, LLC Company:

Lea County, NM (NAD 83) NM East Zone Project:

Slippin Jimmy Fee 1H Site: Slippin Jimmy Fee 1H Well:

Wellbore #1 Wellbore:

Wellbore #1 Design:

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Database:

Well Slippin Jimmy Fee 1H

GL 3791' + 17' RKB @ 3808.00ft (Norton 6) GL 3791' + 17' RKB @ 3808.00ft (Norton 6)

Grid

Minimum Curvature

Surve	еу									
N	leasured			Vertical			Мар	Мар		
	Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting		
	(ft)	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)	Latitude	Longitude
	5,128.00	45.73	358.75	5,061.42	50.30	5.89	788,542.43	930,251.05	33.161	-103.062
	5,159.00	48.28	358.57	5,082.56	72.96	5.36	788,565.10	930,250.52	33.161	-103.062
	5,191.00	51.00	358.31	5,103.28	97.34	4.69	788,589.47	930,249.85	33.161	-103.062
	5,223.00	53.55	358.31	5,122.86	122.63	3.95	788,614.77	930,249.11	33.161	-103.062
	5,255.00	56.37	358.66	5,141.23	148.82	3.26	788,640.96	930,248.42	33.161	-103.062
	5,286.00	59.27	359.28	5,157.74	175.05	2.79	788,667.19	930,247.95	33.162	-103.062
	5,318.00	60.76	359.36	5,173.73	202.77	2.46	788,694.90	930,247.62	33.162	-103.062
	5,350.00	61.20	359.45	5,189.25	230.75	2.17	788,722.88	930,247.33	33.162	-103.062
	5,382.00	61.38 61.47	359.72 0.15	5,204.63	258.81 286.04	1.96 1.93	788,750.95 788,778.17	930,247.12	33.162 33.162	-103.062 -103.062
	5,413.00 5,445.00	61.64	0.13	5,219.45 5,234.70	314.17	1.93	788,806.31	930,247.09 930,247.15	33.162	-103.062
	5,477.00	62.08	359.63	5,234.70	342.39	1.99	788,834.53	930,247.13	33.162	-103.062
	5,509.00	62.08	359.72	5,264.77	370.66	1.75	788,862.80	930,246.91	33.162	-103.062
	5,539.00	62.43	359.72	5,278.74	397.22	1.62	788,889.35	930,246.78	33.162	-103.062
	5,571.00	62.87	0.07	5.293.44	425.64	1.57	788,917.77	930,246.73	33.162	-103.062
	5,602.00	65.33	359.80	5,306.98	453.52	1.54	788,945.66	930,246.70	33.162	-103.062
	5,634.00	68.59	359.80	5,319.50	482.97	1.44	788,975.10	930,246.60	33.162	-103.062
	5,666.00	71.05	359.72	5,330.54	513.00	1.31	789,005.13	930,246.47	33.162	-103.062
	5,697.00	73.25	359.45	5,340.04	542.50	1.10	789,034.64	930,246.26	33.163	-103.062
	5,729.00	75.97	359.36	5,348.53	573.35	0.78	789,065.49	930,245.94	33.163	-103.062
	5,757.00	78.27	359.29	5,354.77	600.64	0.45	789,092.78	930,245.61	33.163	-103.062
	5757'MD	: South Lease	e Line Crossi	na						
	5,760.00	78.52	359.28	5,355.38	603.58	0.42	789,095.72	930,245.58	33.163	-103.062
	5,791.00	80.72	359.54	5,360.96	634.07	0.10	789,126.21	930,245.26	33.163	-103.062
	5,823.00	82.75	359.54	5,365.56	665.74	-0.15	789,157.87	930,245.01	33.163	-103.062
	5,854.00	85.12	359.10	5,368.84	696.56	-0.52	789,188.69	930,244.64	33.163	-103.062
	5,857.78	85.39	359.03	5,369.15	700.32	-0.58	789,192.46	930,244.58	33.163	-103.062
	5857.78'	VID: 100' Offs	et Crossing							
	5,886.00	87.41	358.49	5,370.92	728.48	-1.19	789,220.62	930,243.97	33.163	-103.062
	5,918.00	89.60	358.75	5,371.76	760.46	-1.96	789,252.59	930,243.20	33.163	-103.062
	5,949.00	90.04	358.31	5,371.85	791.45	-2.75	789,283.58	930,242.41	33.163	-103.062
	5,981.00	90.57	358.22	5,371.68	823.43	-3.72	789,315.57	930,241.44	33.163	-103.062
	6,074.00	89.34	359.19	5,371.76	916.41	-5.83	789,408.54	930,239.34	33.164	-103.062
	6,169.00	89.96	359.19	5,372.34	1,011.39	-7.17	789,503.53	930,237.99	33.164	-103.062
	6,262.00	91.19	359.80	5,371.40	1,104.38	-7.99	789,596.52	930,237.17	33.164	-103.062
	6,357.00	89.87	359.36	5,370.52	1,199.37	-8.68	789,691.51	930,236.48	33.164	-103.062
	6,451.00	90.22	358.92	5,370.45	1,293.36	-10.10	789,785.50	930,235.07	33.165	-103.062
	6,547.00	91.63	358.05	5,368.90	1,389.31	-12.63	789,881.45	930,232.53	33.165	-103.062
	6,640.00	89.25	357.78	5,368.19	1,482.24	<b>-</b> 16.02	789,974.38	930,229.14	33.165	-103.063
	6,733.00	89.25	357.52	5,369.40	1,575.16	-19.83	790,067.29	930,225.33	33.165	-103.063
	6,828.00 6,921.00	90.22 90.75	357.43 356.11	5,369.84 5,369.06	1,670.06 1,762.91	-24.01 -29.25	790,162.20 790,255.04	930,221.15 930,215.91	33.166 33.166	-103.063 -103.063
	7,016.00	90.75	356.46	5,365.99	1,762.91	-29.25 -35.41	790,349.79	930,213.91	33.166	-103.063
	7,018.00	92.93	358.75	5,361.20	1,953.44	-39.41	790,349.79	930,205.75	33.166	-103.063
	7,112.00	91.01	359.45	5,358.07	2,048.38	-39.41 -40.90	790,540.51	930,204.26	33.167	-103.063
	7,302.00	91.98	359.89	5,355.59	2,143.34	-41.45	790,635.47	930,203.71	33.167	-103.063
	7,302.00	91.36	359.54	5,352.79	2,143.34	-41.43 -41.93	790,731.43	930,203.71	33.167	-103.063
	7,493.00	89.78	0.24	5,351.84	2,334.29	-42.11	790,826.42	930,203.05	33.167	-103.063
	7,589.00	90.75	0.68	5,351.40	2,430.28	-41.34	790,922.42	930,203.82	33.168	-103.063
	7,684.00	89.69	0.15	5,351.03	2,525.28	-40.65	791,017.41	930,204.51	33.168	-103.063
	7,779.00	91.89	359.80	5,349.73	2,620.26	-40.69	791,112.40	930,204.47	33.168	-103.063
	7,875.00	90.48	0.77	5,347.74	2,716.24	-40.21	791,208.37	930,204.95	33.169	-103.063
	7,968.00	90.31	359.98	5,347.10	2,809.23	-39.61	791,301.37	930,205.55	33.169	-103.063
	8,063.00	92.33	1.03	5,344.91	2,904.20	-38.77	791,396.33	930,206.39	33.169	-103.063

Company: Steward Energy II, LLC

Project: Lea County, NM (NAD 83) NM East Zone

Site: Slippin Jimmy Fee 1H
Well: Slippin Jimmy Fee 1H

Wellbore: Wellbore #1

Design: Wellbore #1

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method:

Database:

Well Slippin Jimmy Fee 1H

GL 3791' + 17' RKB @ 3808.00ft (Norton 6) GL 3791' + 17' RKB @ 3808.00ft (Norton 6)

Grid

Minimum Curvature

Survey									
Measured			Vertical			Мар	Мар		
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting		
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)	Latitude	Longitude
8,158.00	91.89	1.56	5,341.41	2,999.11	-36.62	791,491.24	930,208.54	33.169	-103.063
8,254.00	89.69	1.30	5,340.09	3,095.07	-34.23	791,587.20	930,210.93	33.170	-103.062
8,368.00	92.59	1.30	5,337.82	3,209.00	-31.64	791,701.13	930,213.52	33.170	-103.062
8,463.00	91.89	0.86	5,334.11	3,303.91	-29.85	791,796.04	930,215.31	33.170	-103.062
8,558.00	90.92	2.18	5,331.78	3,398.85	-27.33	791,890.98	930,217.83	33.170	-103.062
8,652.00	90.22	2.09	5,330.84	3,492.78	-23.83	791,984.91	930,221.33	33.171	-103.062
8,747.00	90.57	2.18	5,330.19	3,587.71	-20.29	792,079.84	930,224.87	33.171	-103.062
8,843.00	90.48	2.53	5,329.31	3,683.62	-16.35	792,175.75	930,228.81	33.171	-103.062
8,938.00	91.01	2.70	5,328.07	3,778.51	-12.02	792,270.64	930,233.15	33.171	-103.062
9,033.00	90.48	2.53	5,326.84	3,873.41	-7.68	792,365.54	930,237.48	33.172	-103.062
9,125.00	90.57	2.09	5,326.00	3,965.33	-3.97	792,457.46	930,241.19	33.172	-103.062
9,216.00	90.48	2.53	5,325.16	4,056.25	-0.31	792,548.38	930,244.85	33.172	-103.062
9,308.00	90.66	3.06	5,324.25	4,148.14	4.18	792,640.27	930,249.34	33.172	-103.062
9,399.00	90.66	2.44	5,323.20	4,239.02	8.55	792,731.15	930,253.71	33.173	-103.062
9,491.00	91.10	0.59	5,321.79	4,330.98	10.98	792,823.11	930,256.14	33.173	-103.062
9,585.00	90.66	0.68	5,320.34	4,424.96	12.02	792,917.09	930,257.18	33.173	-103.062
9,677.00	90.75	1.03	5,319.21	4,516.94	13.39	793,009.07	930,258.55	33.173	-103.062
9,769.00	89.96	358.92	5,318.64	4,608.94	13.35	793,101.06	930,258.51	33.174	-103.062
9,861.00	89.96	358.49	5,318.70	4,700.91	11.27	793,193.04	930,256.43	33.174	-103.062
9,953.00	90.13	359.01	5,318.63	4,792.89	9.27	793,285.02	930,254.43	33.174	-103.062
10,048.00	90.48 90.92	359.28 0.42	5,318.13	4,887.88	7.85 7.60	793,380.00 793,475.00	930,253.01	33.174 33.175	-103.062
10,143.00	90.92 89.96	359.45	5,316.97 5.316.24	4,982.87		793,475.00	930,252.76	33.175 33.175	-103.062
10,238.00 10,331.00	90.31	359.45	5,316.24	5,077.86 5,170.86	7.49 6.67	793,662.99	930,252.65 930,251.83	33.175	-103.062 -103.062
10,426.00	90.40	359.10	5,315.43	5,170.85	5.54	793,757.98	930,250.71	33.176	-103.062
10,521.00	90.84	359.45	5,314.40	5,360.84	4.34	793,852.96	930,249.50	33.176	-103.062
10,614.00	89.87	358.31	5,313.82	5,453.81	2.52	793,945.94	930,247.69	33.176	-103.062
10,709.00	90.13	359.19	5,313.82	5,548.79	0.45	794,040.92	930,245.61	33.176	-103.062
10,804.00	90.48	358.57	5,313.32	5,643.77	-1.40	794,135.90	930,243.76	33.177	-103.062
10,899.00	90.57	358.84	5,312.45	5,738.74	-3.55	794,230.87	930,241.61	33.177	-103.062
10,993.00	90.40	359.89	5,311.65	5,832.73	-4.59	794,324.86	930,240.57	33.177	-103.062
11,088.00	89.60	359.54	5,311.65	5,927.73	-5.07	794,419.86	930,240.10	33.177	-103.062
11,184.00	89.60	359.28	5,312.32	6,023.72	-6.05	794,515.85	930,239.11	33.178	-103.062
11,279.00	89.78	358.75	5,312.84	6,118.71	-7.69	794,610.83	930,237.47	33.178	-103.062
11,375.00	90.22	359.01	5,312.84	6,214.69	-9.56	794,706.81	930,235.60	33.178	-103.062
11,470.00	90.40	359.80	5,312.32	6,309.68	-10.55	794,801.81	930,234.61	33.178	-103.062
11,566.00	90.75	0.77	5,311.36	6,405.67	-10.07	794,897.80	930,235.09	33.179	-103.062
11,660.00	90.84	1.91	5,310.05	6,499.64	-7.87	794,991.76	930,237.29	33.179	-103.062
11,755.00	90.48	1.21	5,308.96	6,594.59	-5.29	795,086.72	930,239.87	33.179	-103.062
11,849.00	90.66	0.95	5,308.02	6,688.57	-3.52	795,180.70	930,241.64	33.179	-103.062
11,945.00	90.04	0.24	5,307.44	6,784.56	-2.52	795,276.69	930,242.64	33.180	-103.062
12,039.00	88.99	359.72	5,308.23	6,878.56	-2.55	795,370.68	930,242.61	33.180	-103.062
12,134.00	89.60	0.33	5,309.40	6,973.55	-2.51	795,465.68	930,242.65	33.180	-103.062
12,228.00	90.22	359.89	5,309.55	7,067.55	-2.33	795,559.67	930,242.83	33.180	-103.062
12,323.00	91.01	0.95	5,308.53	7,162.54	-1.63	795,654.66	930,243.53	33.181	-103.062
12,418.00	90.31	0.42	5,307.44	7,257.53	-0.50	795,749.65	930,244.66	33.181	-103.062
12,512.00	90.40	0.07	5,306.85	7,351.52	-0.10	795,843.65	930,245.06	33.181	-103.062
12,605.00	90.57	359.45	5,306.07	7,444.52	-0.49	795,936.64	930,244.67	33.182	-103.062
12,700.00	90.75	359.98	5,304.97	7,539.51	-0.96	796,031.63	930,244.20	33.182	-103.062
12,794.00	90.92	359.36	5,303.60	7,633.50	-1.50	796,125.62	930,243.66	33.182	-103.062
12,887.00	90.84	1.12	5,302.17	7,726.48	-1.11	796,218.61	930,244.05	33.182	-103.062
12,980.00	91.10	2.35	5,300.60	7,819.43	1.70	796,311.55	930,246.87	33.183	-103.062
13,074.00	89.96	1.91	5,299.73	7,913.36	5.20	796,405.48	930,250.36	33.183	-103.062
13,168.00	90.22	2.62	5,299.58	8,007.28	8.91	796,499.40	930,254.07	33.183	-103.062
13,263.00	90.66	3.23	5,298.85	8,102.15	13.76	796,594.28	930,258.92	33.183	-103.062

Company:

Steward Energy II, LLC

Project:

Lea County, NM (NAD 83) NM East Zone

Site: Well: Slippin Jimmy Fee 1H Slippin Jimmy Fee 1H

Wellbore: Design: Wellbore #1
Wellbore #1

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference: Survey Calculation Method:

Database:

Well Slippin Jimmy Fee 1H

GL 3791' + 17' RKB @ 3808.00ft (Norton 6) GL 3791' + 17' RKB @ 3808.00ft (Norton 6)

Grid

Minimum Curvature

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
13,358.00	90.57	2.09	5,297.83	8,197.04	18.17	796,689.17	930,263.33	33.184	-103.062
13,453.00	90.13	4.02	5,297.25	8,291.90	23.23	796,784.02	930,268.39	33.184	-103.062
13,539.00	89.60	2.00	5,297.46	8,377.78	27.75	796,869.90	930,272.91	33.184	-103.062
13539'MI	13539'MD: End DrilTech MWD								
13,600.00	89.60	2.00	5,297.88	8,438.74	29.88	796,930.86	930,275.04	33.184	-103.062
13600'MI	13600'MD: Projection to TD - 13600'MD: 101' FNL & 353' FEL								

Survey Annotations								
Measured	Vertical	Local Coor	dinates					
Depth	Depth	+N/-S	+E/-W					
(ft)	(ft)	(ft)	(ft)	Comment				
129.00	129.00	-0.56	0.55	129' MD: Start DrilTech MWD				
5,757.00	5,354.77	600.64	0.45	5757'MD: South Lease Line Crossing				
5,857.78	5,369.15	700.32	-0.58	5857.78'MD: 100' Offset Crossing				
13,539.00	5,297.46	8,377.78	27.75	13539'MD: End DrilTech MWD				
13,600.00	5,297.88	8,438.74	29.88	13600'MD: Projection to TD				
13,600.00	5,297.88	8,438.74	29.88	13600'MD: 101' FNL & 353' FEL				

Checked By:	Approved By:	Date: