

Company: Piedra Operating, LLCWell: University 8-4 WB 9 WCLocation: Andrews County, TXRig: Ensign T54API No: 42-003-48741Start Date: 03/01/23Start Depth: Job Number: 71867Magnetic Declination: 5.782Grid Correction: -2.099Total Correction: 7.881North reference: GridEnd Date: Calculation Method: Minimum CurvatureProposed Azimuth: 348.67Depth Ref: RKB 3021 ftField: PermianLocation Lat/Long: 32.3907891, -102.3495284Plan # 2End Depth:

Survey Tool Type	Bit Depth (ft)	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Direction	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates +N/-S (ft)	+E/-W (ft)	Closure Distance (ft)	Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')	WS #
TIP	1832.00	1832.00	0.48	104.11	S 75.9 E	0	1831.97	-0.2	-0.33	-0.62	0	0	0	0	0	0
Velocity	1951	1874	0.56	191.89	S 11.9 W	42	1873.97	-0.47	-0.57	-0.49	0.76	220.60	1.72	0.19	209.00	1
Velocity	2040	1963	0.31	5.39	N 5.4 E	89	1962.97	-0.64	-0.76	-0.56	0.94	216.33	0.98	-0.28	-209.55	1
Velocity	2130	2053	1.22	67.44	N 67.4 E	90	2052.96	-0.22	-0.15	0.35	0.38	113.21	1.23	1.01	68.94	1
Velocity	2220	2143	2.06	95.66	S 84.3 E	90	2142.92	-0.50	0.06	2.84	2.84	88.82	1.27	0.93	31.36	1
Velocity	2310	2233	3.43	100.01	S 80.0 E	90	2232.82	-1.95	-0.57	7.10	7.13	94.58	1.54	1.52	4.83	1
Velocity	2400	2323	3.59	93.35	S 86.7 E	90	2322.65	-3.65	-1.20	12.57	12.63	95.46	0.49	0.18	-7.40	1
Velocity	2489	2412	3.79	91.74	S 88.3 E	89	2411.46	-5.02	-1.45	18.29	18.35	94.54	0.25	0.22	-1.81	1
Velocity	2579	2502	4.02	95.00	S 85.0 E	90	2501.26	-6.58	-1.82	24.41	24.47	94.26	0.36	0.26	3.62	1
Velocity	2669	2592	4.07	102.82	S 77.2 E	90	2591.03	-8.77	-2.80	30.66	30.79	95.22	0.61	0.06	8.69	1
Velocity	2759	2682	4.64	109.90	S 70.1 E	90	2680.77	-11.97	-4.75	37.20	37.50	97.28	0.87	0.63	7.87	1
Velocity	2848	2771	4.79	109.93	S 70.1 E	89	2769.47	-15.76	-7.24	44.08	44.67	99.33	0.17	0.17	0.03	1
Velocity	2938	2861	4.98	112.16	S 67.8 E	90	2859.14	-19.87	-10.00	51.23	52.20	101.04	0.30	0.21	2.48	1
Velocity	3028	2951	5.04	110.98	S 69.0 E	90	2948.80	-24.14	-12.89	58.54	59.94	102.41	0.13	0.07	-1.31	1
Velocity	3119	3042	4.67	108.69	S 71.3 E	91	3039.47	-28.13	-15.50	65.78	67.58	103.26	0.46	-0.41	-2.52	1
Velocity	3209	3132	4.59	112.89	S 67.1 E	90	3129.18	-31.98	-18.08	72.57	74.79	103.99	0.39	-0.09	4.67	1
Velocity	3299	3222	4.95	110.71	S 69.3 E	90	3218.87	-36.07	-20.85	79.52	82.21	104.69	0.45	0.40	-2.42	1
Velocity	3388	3311	4.55	115.72	S 64.3 E	89	3307.56	-40.23	-23.74	86.29	89.50	105.38	0.65	-0.45	5.63	1
Velocity	3478	3401	4.73	120.88	S 59.1 E	90	3397.27	-44.88	-27.20	92.69	96.60	106.35	0.50	0.20	5.73	1
Velocity	3567	3490	4.43	120.11	S 59.4 E	89	3485.98	-49.62	-30.80	98.81	103.50	107.31	0.34	-0.34	-0.87	1
Velocity	3656	3579	4.38	114.59	S 65.4 E	89	3574.72	-53.89	-33.94	104.88	110.23	107.93	0.48	-0.06	-6.20	1
Velocity	3745	3668	4.15	118.03	S 62.0 E	89	3663.48	-57.92	-36.87	110.81	116.78	108.40	0.39	-0.26	3.87	1
Velocity	3834	3757	4.23	113.99	S 66.0 E	89	3752.24	-61.86	-39.72	116.65	123.23	108.80	0.34	0.09	-4.54	1
Velocity	3924	3847	4.13	117.52	S 62.5 E	90	3842.00	-65.81	-42.56	122.56	129.74	109.15	0.31	-0.11	3.92	1
Velocity	4015	3938	3.72	111.50	S 68.5 E	91	3932.79	-69.47	-45.16	128.21	135.93	109.40	0.64	-0.45	-6.62	1
Velocity	4106	4029	3.65	117.07	S 62.9 E	91	4023.60	-72.87	-47.56	133.54	141.75	109.60	0.40	-0.08	6.12	1
Velocity	4196	4119	3.67	115.90	S 64.1 E	90	4113.41	-76.39	-50.12	138.68	147.46	109.87	0.09	0.02	-1.30	1
Velocity	4286	4209	3.64	113.55	S 66.5 E	90	4203.23	-79.77	-52.52	143.89	153.18	110.05	0.17	-0.03	-2.61	1
Velocity	4375	4298	3.34	109.64	S 70.4 E	89	4292.07	-82.72	-54.52	148.92	158.59	110.11	0.43	-0.34	-4.39	1
Velocity	4465	4388	3.57	106.60	S 73.4 E	90	4381.90	-85.38	-56.20	154.08	164.01	110.04	0.33	0.26	-3.38	1
Velocity	4554	4477	3.14	105.12	S 74.9 E	89	4470.75	-87.76	-57.63	159.08	169.20	109.91	0.49	-0.48	-1.66	1
Velocity	4644	4567	3.32	108.04	S 72.0 E	90	4560.61	-90.14	-59.08	163.94	174.26	109.82	0.27	0.20	3.24	1
Velocity	4734	4657	3.48	102.97	S 77.0 E	90	4650.45	-92.54	-60.50	169.08	179.58	109.69	0.38	0.18	-5.63	1
Velocity	4824	4747	3.38	102.93	S 77.1 E	90	4740.29	-94.75	-61.71	174.33	184.93	109.49	0.11	-0.11	-0.04	1
Velocity	4914	4837	3.36	101.36	S 78.6 E	90	4830.13	-96.86	-62.82	179.50	190.18	109.29	0.10	-0.02	-1.74	1
Velocity	5004	4927	2.97	104.34	S 75.7 E	90	4919.99	-98.89	-63.92	184.35	195.11	109.12	0.47	-0.43	3.31	1
Velocity	5094	5017	3.08	100.65	S 79.4 E	90	5009.87	-100.80	-64.94	188.98	199.83	108.97	0.25	0.12	-4.10	1
Velocity	5184	5107	3.17	115.78	S 64.2 E	90	5099.74	-103.21	-66.47	193.60	204.69	108.95	0.92	0.10	16.81	1
Velocity	5273	5196	3.83	118.46	S 61.5 E	89	5188.57	-106.60	-68.96	198.43	210.07	109.16	0.76	0.74	3.01	1
Velocity	5363	5286	3.33	116.33	S 63.7 E	90	5278.39	-110.12	-71.55	203.41	215.63	109.38	0.57	-0.56	-2.37	1
Velocity	5453	5376	3.65	114.67	S 65.3 E	90	5368.23	-113.40	-73.91	208.36	221.08	109.53	0.37	0.36	-1.84	1
Velocity	5544	5467	3.22	113.28	S 66.7 E	91	5459.06	-116.55	-76.13	213.34	226.51	109.64	0.48	-0.47	-1.53	1



Company: Piedra Operating, LLC
 Well: University 8-4 WB 9 WC
 Location: Andrews County, TX
 Rig: Ensign T54
 API No: 42-003-48741
 Start Date: 03/01/23 Start Depth:

Job Number: 71867 Calculation Method: Minimum Curvature
 Magnetic Declination: 5.782 Proposed Azimuth: 348.67
 Grid Correction: -2.099 Depth Ref: RKB 3021 ft Plan # 2
 Total Correction: 7.881 Field: Permian
 North reference: Grid Location Lat/Long: 32.3907891, -102.3495284
 End Date: End Depth:

Survey Tool Type	Bit Depth (ft)	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Direction	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates +N/-S (ft)	+E/-W (ft)	Closure Distance (ft)	Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')	WS #
Velocity	5633	5556	3.22	117.12	S 62.9 E	89	5547.92	-119.53	-78.25	217.86	231.49	109.76	0.24	0.00	4.31	1
Velocity	5723	5646	3.05	110.68	S 69.3 E	90	5637.79	-122.37	-80.25	222.35	236.39	109.85	0.43	-0.19	-7.16	1
Velocity	5813	5736	3.08	115.58	S 64.4 E	90	5727.66	-125.09	-82.14	226.77	241.19	109.91	0.29	0.03	5.44	1
Velocity	5903	5826	3.07	109.79	S 70.2 E	90	5817.53	-127.79	-84.00	231.22	246.00	109.97	0.35	-0.01	-6.43	1
Velocity	5992	5915	2.94	108.67	S 71.3 E	89	5906.41	-130.16	-85.54	235.62	250.67	109.95	0.16	-0.15	-1.26	1
Velocity	6081	6004	3.20	110.73	S 69.3 E	89	5995.28	-132.62	-87.15	240.11	255.43	109.95	0.32	0.29	2.31	1
Velocity	6172	6095	2.78	110.73	S 69.3 E	91	6086.16	-135.14	-88.83	244.55	260.18	109.96	0.46	-0.46	0.00	1
Velocity	6261	6184	2.57	106.30	S 73.7 E	89	6175.06	-137.21	-90.15	248.48	264.33	109.94	0.33	-0.24	-4.98	1
Velocity	6351	6274	2.63	105.63	S 74.4 E	90	6264.97	-139.08	-91.27	252.41	268.40	109.88	0.07	0.07	-0.74	1
Velocity	6440	6363	2.51	115.01	S 65.0 E	89	6353.88	-141.16	-92.65	256.14	272.38	109.89	0.49	-0.13	10.54	1
Velocity	6530	6453	2.03	142.55	S 37.5 E	90	6443.81	-143.76	-94.75	258.89	275.69	110.10	1.31	-0.53	30.60	1
Velocity	6620	6543	2.03	136.00	S 44.0 E	90	6533.75	-146.54	-97.16	260.97	278.47	110.42	0.26	0.00	-7.28	1
Velocity	6710	6633	2.06	133.93	S 46.1 E	90	6623.70	-149.21	-99.43	263.24	281.39	110.69	0.09	0.03	-2.30	1
Velocity	6800	6723	1.98	139.86	S 40.1 E	90	6713.64	-151.90	-101.74	265.41	284.24	110.97	0.25	-0.09	6.59	1
Velocity	6889	6812	1.89	136.07	S 43.9 E	89	6802.59	-154.48	-103.97	267.42	286.92	111.25	0.18	-0.10	-4.26	1
Velocity	6978	6901	1.84	131.56	S 48.4 E	89	6891.54	-156.86	-105.98	269.51	289.59	111.47	0.17	-0.06	-5.07	1
Velocity	7068	6991	1.86	132.35	S 47.7 E	90	6981.49	-159.19	-107.92	271.67	292.32	111.67	0.04	0.02	0.88	1
Velocity	7159	7082	1.62	132.58	S 47.4 E	91	7072.45	-161.42	-109.78	273.71	294.90	111.86	0.26	-0.26	0.25	1
Velocity	7249	7172	1.69	128.78	S 51.2 E	90	7162.42	-163.46	-111.48	275.68	297.36	112.02	0.14	0.08	-4.22	1
Velocity	7340	7263	1.62	128.31	S 51.7 E	91	7253.38	-165.47	-113.11	277.73	299.88	112.16	0.08	-0.08	-0.52	1
Velocity	7429	7352	1.34	133.33	S 46.7 E	89	7342.35	-167.28	-114.61	279.48	302.06	112.30	0.35	-0.31	5.64	1
Velocity	7532	7455	1.24	125.41	S 54.6 E	103	7445.32	-169.07	-116.08	281.26	304.27	112.43	0.20	-0.10	-7.69	1
Velocity	7649	7594	1.62	126.56	S 53.4 E	139	7584.28	-171.63	-118.12	284.07	307.65	112.58	0.27	0.27	0.83	2
Velocity	7738	7683	1.19	117.54	S 62.5 E	89	7673.25	-173.14	-119.30	285.90	309.79	112.65	0.54	-0.48	-10.13	2
Velocity	7829	7774	1.29	125.22	S 54.8 E	91	7764.23	-174.48	-120.33	287.57	311.73	112.71	0.21	0.11	8.44	2
Velocity	7919	7864	0.74	170.64	S 9.4 E	90	7854.22	-175.79	-121.48	288.49	313.03	112.84	1.04	-0.61	50.47	2
Velocity	8011	7956	0.80	129.08	S 50.9 E	92	7946.21	-176.88	-122.47	289.09	313.96	112.96	0.60	0.07	-45.17	2
Velocity	8100	8045	0.67	141.73	S 38.3 E	89	8035.20	-177.82	-123.27	289.89	315.01	113.04	0.23	-0.15	14.21	2
Velocity	8190	8135	0.89	134.64	S 45.4 E	90	8125.19	-178.87	-124.18	290.72	316.13	113.13	0.27	0.24	-7.88	2
Velocity	8281	8226	1.02	151.50	S 28.5 E	91	8216.18	-180.23	-125.39	291.61	317.42	113.27	0.34	0.14	18.53	2
Velocity	8369	8314	1.00	216.32	S 36.3 W	88	8304.17	-181.50	-126.69	291.52	317.86	113.49	1.23	-0.02	73.66	2
Velocity	8459	8404	0.85	222.76	S 42.8 W	90	8394.16	-182.42	-127.82	290.61	317.47	113.74	0.20	-0.17	7.16	2
Velocity	8548	8493	0.60	232.15	S 52.2 W	89	8483.15	-183.01	-128.59	289.79	317.04	113.93	0.31	-0.28	10.55	2
Velocity	8637	8582	0.41	243.91	S 63.9 W	89	8572.15	-183.30	-129.01	289.14	316.61	114.05	0.24	-0.21	13.21	2
Velocity	8726	8671	0.23	264.70	S 84.7 W	89	8661.15	-183.37	-129.17	288.67	316.25	114.11	0.24	-0.20	23.36	2
Velocity	8815	8760	0.84	244.25	S 64.3 W	89	8750.14	-183.51	-129.47	287.91	315.68	114.21	0.71	0.69	-22.98	2
Velocity	8907	8852	1.35	253.19	S 73.2 W	92	8842.12	-183.78	-130.08	286.26	314.43	114.44	0.58	0.55	9.72	2
Velocity	8996	8941	1.40	247.08	S 67.1 W	89	8931.10	-184.10	-130.80	284.26	312.91	114.71	0.17	0.06	-6.87	2
Velocity	9088	9033	1.27	242.86	S 62.9 W	92	9023.07	-184.60	-131.71	282.31	311.52	115.01	0.18	-0.14	-4.59	2
Velocity	9178	9123	0.88	250.59	S 70.6 W	90	9113.06	-184.97	-132.39	280.77	310.42	115.24	0.46	-0.43	8.59	2
Velocity	9267	9212	0.97	255.45	S 75.5 W	89	9202.05	-185.11	-132.81	279.40	309.36	115.42	0.13	0.10	5.46	2
Velocity	9357	9302	0.81	242.25	S 62.3 W	90	9292.03	-185.33	-133.30	278.10	308.39	115.61	0.29	-0.18	-14.67	2

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Survey Tool Type	Bit Depth (ft)	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Direction	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates +N/-S (ft)	+E/-W (ft)	Closure Distance (ft)	Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')	WS #
Velocity	9446	9391	0.62	241.21	S 61.2 W	89	9381.03	-185.66	-133.82	277.12	307.74	115.78	0.21	-0.21	-1.17	2
Velocity	9528	9473	0.64	222.75	S 42.8 W	82	9463.02	-186.06	-134.37	276.42	307.35	115.92	0.25	0.02	-22.51	2
Velocity	9530	9479	0.70	215.84	S 35.8 W	6	9469.02	-186.10	-134.42	276.38	307.33	115.94	1.68	1.00	-115.17	3
Velocity	9621	9570	6.06	352.00	N 8.0 W	91	9559.86	-181.68	-130.11	275.38	304.57	115.29	7.23	5.89	149.63	3
Velocity	9711	9660	16.40	351.49	N 8.5 W	90	9648.02	-164.20	-112.80	272.83	295.23	112.46	11.49	11.49	-0.57	3
Velocity	9803	9752	16.18	347.00	N 13.0 W	92	9736.33	-138.41	-87.46	268.03	281.94	108.07	1.39	-0.24	-4.88	3
Velocity	9893	9842	26.28	351.88	N 8.1 W	90	9820.12	-105.90	-55.43	262.38	268.17	101.93	11.38	11.22	5.42	3
Velocity	9984	9933	27.08	352.37	N 7.6 W	91	9901.43	-65.12	-14.96	256.78	257.22	93.33	0.91	0.88	0.54	3
Velocity	10073	10022	34.91	355.38	N 4.6 W	89	9977.67	-19.53	30.58	252.03	253.88	83.08	8.97	8.80	3.38	3
Velocity	10164	10113	45.11	350.04	N 10.0 W	91	10047.30	38.72	88.45	244.34	259.86	70.10	11.82	11.21	-5.87	3
Velocity	10254	10203	56.21	344.65	N 15.4 W	90	10104.29	108.15	156.16	228.87	277.07	55.69	13.17	12.33	-5.99	3
Velocity	10345	10294	67.08	341.11	N 18.9 W	91	10147.45	187.67	232.52	205.21	310.13	41.43	12.42	11.95	-3.89	3
Velocity	10434	10383	76.73	347.27	N 12.7 W	89	10175.09	271.88	313.81	182.33	362.93	30.16	12.68	10.84	6.92	3
Velocity	10485	10434	81.42	352.21	N 7.8 W	51	10184.75	321.91	363.06	173.43	402.35	25.53	13.23	9.20	9.69	3
Velocity	10561	10499	85.88	353.77	N 6.2 W	65	10191.94	386.31	427.16	165.55	458.12	21.18	7.26	6.86	2.40	4
Velocity	10650	10588	86.90	353.36	N 6.6 W	89	10197.55	474.81	515.42	155.60	538.40	16.80	1.23	1.15	-0.46	4
Velocity	10740	10678	87.22	350.79	N 9.2 W	90	10202.16	564.52	604.44	143.21	621.17	13.33	2.87	0.36	-2.86	4
Velocity	10830	10768	89.01	350.89	N 9.1 W	90	10205.12	654.41	693.24	128.89	705.12	10.53	1.99	1.99	0.11	4
Velocity	10920	10858	90.38	349.50	N 10.5 W	90	10205.60	744.37	781.92	113.56	790.12	8.26	2.17	1.52	-1.54	4
Velocity	11010	10948	90.87	348.31	N 11.7 W	90	10204.62	834.36	870.23	96.24	875.53	6.31	1.43	0.54	-1.32	4
Velocity	11102	11040	91.49	348.04	N 12.0 W	92	10202.73	926.34	960.26	77.39	963.37	4.61	0.74	0.67	-0.29	4
Velocity	11191	11129	91.89	347.29	N 12.7 W	89	10200.10	1015.28	1047.16	58.39	1048.79	3.19	0.95	0.45	-0.84	4
Velocity	11280	11218	91.98	346.33	N 13.7 W	89	10197.10	1104.19	1133.76	38.09	1134.40	1.92	1.08	0.10	-1.08	4
Velocity	11370	11308	91.07	346.48	N 13.5 W	90	10194.70	1194.08	1221.21	16.95	1221.33	0.80	1.02	-1.01	0.17	4
Velocity	11459	11397	91.13	346.78	N 13.2 W	89	10192.99	1283.01	1307.78	-3.63	1307.79	359.84	0.34	0.07	0.34	4
Velocity	11550	11488	91.69	346.53	N 13.5 W	91	10190.75	1373.93	1396.30	-24.63	1396.52	358.99	0.67	0.62	-0.27	4
Velocity	11640	11578	90.65	346.69	N 13.3 W	90	10188.92	1463.85	1483.83	-45.47	1484.53	358.24	1.17	-1.16	0.18	4
Velocity	11731	11669	90.08	347.20	N 12.8 W	91	10188.34	1554.80	1572.48	-66.02	1573.86	357.60	0.84	-0.63	0.56	4
Velocity	11822	11760	88.93	348.73	N 11.3 W	91	10189.12	1645.79	1661.47	-84.99	1663.64	357.07	2.10	-1.26	1.68	4
Velocity	11911	11849	88.48	348.86	N 11.1 W	89	10191.13	1734.77	1748.75	-102.28	1751.74	356.65	0.53	-0.51	0.15	4
Velocity	11999	11937	88.34	347.70	N 12.3 W	88	10193.57	1822.73	1834.88	-120.15	1838.81	356.25	1.33	-0.16	-1.32	4
Velocity	12089	12027	87.74	345.65	N 14.4 W	90	10196.65	1912.62	1922.40	-140.88	1927.56	355.81	2.37	-0.67	-2.28	4
Velocity	12179	12117	90.59	347.50	N 12.5 W	90	10197.96	2002.53	2009.92	-161.77	2016.42	355.40	3.78	3.17	2.06	4
Velocity	12269	12207	91.13	347.32	N 12.7 W	90	10196.61	2092.50	2097.75	-181.39	2105.57	355.06	0.63	0.60	-0.20	4
Velocity	12360	12298	91.69	347.78	N 12.2 W	91	10194.37	2183.46	2186.58	-201.00	2195.80	354.75	0.80	0.62	0.51	4
Velocity	12449	12387	90.08	348.34	N 11.7 W	89	10193.00	2272.44	2273.64	-219.41	2284.20	354.49	1.92	-1.81	0.63	4
Velocity	12540	12478	90.01	348.30	N 11.7 W	91	10192.93	2363.43	2362.76	-237.83	2374.70	354.25	0.09	-0.08	-0.04	4
Velocity	12629	12567	89.55	348.04	N 12.0 W	89	10193.27	2452.43	2449.86	-256.08	2463.21	354.03	0.59	-0.52	-0.29	4
Velocity	12718	12656	89.08	347.40	N 12.6 W	89	10194.33	2541.41	2536.82	-275.00	2551.68	353.81	0.89	-0.53	-0.72	4
Velocity	12808	12746	89.62	347.64	N 12.4 W	90	10195.36	2631.39	2624.69	-294.45	2641.15	353.60	0.66	0.60	0.27	4
Velocity	12897	12835	90.45	347.81	N 12.2 W	89	10195.30	2720.37	2711.65	-313.37	2729.70	353.41	0.95	0.93	0.19	4
Velocity	12987	12925	89.04	347.06	N 12.9 W	90	10195.70	2810.35	2799.49	-332.95	2819.22	353.22	1.77	-1.57	-0.83	4

Company: Piedra Operating, LLCWell: University 8-4 WB 9 WCLocation: Andrews County, TXRig: Ensign T54API No: 42-003-48741Start Date: 03/01/23Start Depth: Job Number: 71867Magnetic Declination: 5.782Grid Correction: -2.099Total Correction: 7.881North reference: GridEnd Date: Calculation Method: Minimum CurvatureProposed Azimuth: 348.67Depth Ref: RKB 3021 ftField: PermianLocation Lat/Long: 32.3907891, -102.3495284Plan # 2End Depth:

Survey Tool Type	Bit Depth (ft)	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Direction	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates +N/-S (ft)	+E/-W (ft)	Closure Distance (ft)	Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')	WS #
Velocity	13077	13015	88.68	346.71	N 13.3 W	90	10197.49	2900.29	2887.13	-353.37	2908.67	353.02	0.56	-0.40	-0.39	4
Velocity	13168	13106	88.16	345.69	N 14.3 W	91	10200.00	2991.17	2975.47	-375.07	2999.01	352.82	1.26	-0.57	-1.12	4
Velocity	13259	13197	88.99	347.45	N 12.6 W	91	10202.26	3082.07	3063.95	-396.19	3089.46	352.63	2.14	0.91	1.93	4
Velocity	13350	13288	88.64	346.78	N 13.2 W	91	10204.15	3173.02	3152.64	-416.48	3180.03	352.47	0.83	-0.38	-0.74	4
Velocity	13439	13377	88.84	346.05	N 14.0 W	89	10206.10	3261.93	3239.12	-437.38	3268.52	352.31	0.85	0.22	-0.82	4
Velocity	13531	13469	88.82	345.79	N 14.2 W	92	10207.98	3353.80	3328.34	-459.76	3359.95	352.14	0.28	-0.02	-0.28	4
Velocity	13622	13560	90.21	347.59	N 12.4 W	91	10208.75	3444.74	3416.89	-480.71	3450.54	351.99	2.50	1.53	1.98	4
Velocity	13711	13649	90.69	348.51	N 11.5 W	89	10208.05	3533.73	3503.96	-499.13	3539.33	351.89	1.17	0.54	1.03	4
Velocity	13802	13740	91.02	348.31	N 11.7 W	91	10206.70	3624.72	3593.09	-517.41	3630.15	351.81	0.42	0.36	-0.22	4
Velocity	13893	13831	90.96	347.22	N 12.8 W	91	10205.12	3715.69	3682.01	-536.70	3720.92	351.71	1.20	-0.07	-1.20	4
Velocity	13984	13922	91.22	347.02	N 13.0 W	91	10203.39	3806.64	3770.70	-556.98	3811.62	351.60	0.36	0.29	-0.22	4
Velocity	14073	14011	91.30	346.97	N 13.0 W	89	10201.44	3895.58	3857.40	-577.00	3900.32	351.49	0.11	0.09	-0.06	4
Velocity	14162	14100	91.27	348.32	N 11.7 W	89	10199.44	3984.54	3944.31	-596.04	3989.09	351.41	1.52	-0.03	1.52	4
Velocity	14252	14190	91.13	348.09	N 11.9 W	90	10197.55	4074.52	4032.39	-614.43	4078.94	351.34	0.30	-0.16	-0.26	4
Velocity	14343	14281	89.64	347.65	N 12.4 W	91	10196.94	4165.51	4121.36	-633.55	4169.77	351.26	1.71	-1.64	-0.48	4
Velocity	14433	14371	89.99	346.90	N 13.1 W	90	10197.23	4255.48	4209.15	-653.38	4259.56	351.18	0.92	0.39	-0.83	4
Velocity	14523	14461	88.33	345.16	N 14.8 W	90	10198.55	4345.37	4296.47	-675.10	4349.18	351.07	2.67	-1.84	-1.93	4
Velocity	14614	14552	88.33	344.17	N 15.8 W	91	10201.21	4436.11	4384.19	-699.15	4439.59	350.94	1.09	0.00	-1.09	4
Velocity	14705	14643	89.04	346.45	N 13.6 W	91	10203.29	4526.92	4472.19	-722.22	4530.13	350.83	2.62	0.78	2.51	4
Velocity	14794	14732	89.24	346.51	N 13.5 W	89	10204.63	4615.84	4558.71	-743.03	4618.87	350.74	0.23	0.22	0.07	4
Velocity	14884	14822	88.84	346.17	N 13.8 W	90	10206.14	4705.76	4646.15	-764.28	4708.59	350.66	0.58	-0.44	-0.38	4
Velocity	14974	14912	88.87	347.79	N 12.2 W	90	10207.94	4795.70	4733.82	-784.55	4798.39	350.59	1.80	0.03	1.80	4
Velocity	15064	15002	89.53	348.63	N 11.4 W	90	10209.19	4885.68	4821.91	-802.94	4888.30	350.55	1.19	0.73	0.93	4
Velocity	15153	15091	89.44	348.72	N 11.3 W	89	10209.99	4974.68	4909.17	-820.41	4977.25	350.51	0.14	-0.10	0.10	4
Velocity	15243	15181	89.41	349.31	N 10.7 W	90	10210.90	5064.67	4997.52	-837.56	5067.22	350.49	0.66	-0.03	0.66	4
Velocity	15332	15270	89.24	349.16	N 10.8 W	89	10211.94	5153.66	5084.95	-854.19	5156.19	350.46	0.25	-0.19	-0.17	4
Velocity	15423	15361	89.39	347.83	N 12.2 W	91	10213.03	5244.65	5174.11	-872.33	5247.13	350.43	1.47	0.16	-1.46	4
Velocity	15512	15450	89.70	347.83	N 12.2 W	89	10213.74	5333.64	5261.11	-891.10	5336.04	350.39	0.35	0.35	0.00	4
Velocity	15601	15539	90.02	349.30	N 10.7 W	89	10213.96	5422.64	5348.34	-908.74	5424.99	350.36	1.69	0.36	1.65	4
Velocity	15691	15629	88.68	347.03	N 13.0 W	90	10214.98	5512.62	5436.41	-927.20	5514.91	350.32	2.93	-1.49	-2.52	4
Velocity	15780	15718	88.07	346.29	N 13.7 W	89	10217.50	5601.53	5522.97	-947.72	5603.70	350.26	1.08	-0.69	-0.83	4
Velocity	15870	15808	87.28	346.34	N 13.7 W	90	10221.15	5691.38	5610.35	-969.00	5693.41	350.20	0.88	-0.88	0.06	4
Velocity	15960	15898	87.34	346.16	N 13.8 W	90	10225.38	5781.20	5697.67	-990.36	5783.10	350.14	0.21	0.07	-0.20	4
Velocity	16050	15988	88.19	345.50	N 14.5 W	90	10228.89	5871.02	5784.86	-1012.38	5872.78	350.07	1.20	0.94	-0.73	4
Velocity	16139	16077	89.05	346.32	N 13.7 W	89	10231.03	5959.89	5871.16	-1034.04	5961.52	350.01	1.33	0.97	0.92	4
Velocity	16229	16167	88.93	346.08	N 13.9 W	90	10232.62	6049.79	5958.55	-1055.50	6051.31	349.95	0.30	-0.13	-0.27	4
Velocity	16319	16257	90.28	345.18	N 14.8 W	90	10233.24	6139.66	6045.73	-1077.84	6141.05	349.89	1.80	1.50	-1.00	4
Velocity	16410	16348	91.21	345.24	N 14.8 W	91	10232.05	6230.48	6133.70	-1101.07	6231.75	349.82	1.02	1.02	0.07	4
Velocity	16499	16437	90.72	345.23	N 14.8 W	89	10230.55	6319.31	6219.75	-1123.75	6320.45	349.76	0.55	-0.55	-0.01	4
Velocity	16589	16527	89.92	345.00	N 15.0 W	90	10230.05	6409.14	6306.73	-1146.86	6410.16	349.69	0.92	-0.89	-0.26	4
Velocity	16678	16616	90.93	346.54	N 13.5 W	89	10229.39	6498.02	6392.99	-1168.74	6498.95	349.64	2.07	1.13	1.73	4
Velocity	16768	16706	90.76	346.49	N 13.5 W	90	10228.06	6587.94	6480.50	-1189.73	6588.81	349.60	0.20	-0.19	-0.06	4

Company: Piedra Operating, LLCWell: University 8-4 WB 9 WCLocation: Andrews County, TXRig: Ensign T54API No: 42-003-48741Start Date: 03/01/23Start Depth: Job Number: 71867Magnetic Declination: 5.782Grid Correction: -2.099Total Correction: 7.881North reference: GridEnd Date: Calculation Method: Minimum CurvatureProposed Azimuth: 348.67Depth Ref: RKB 3021 ftField: PermianLocation Lat/Long: 32.3907891, -102.3495284Plan # 2End Depth:

Survey Tool Type	Bit Depth (ft)	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Direction	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')	WS #
Velocity	16858	16796	90.52	346.73	N 13.3 W	90	10227.06	6677.88	6568.05	-1210.57	6678.68	349.56	0.38	-0.27	0.27	4
Velocity	16948	16886	90.38	347.39	N 12.6 W	90	10226.35	6767.84	6655.76	-1230.72	6768.59	349.52	0.75	-0.16	0.73	4
Velocity	17037	16975	89.24	348.01	N 12.0 W	89	10226.65	6856.82	6742.72	-1249.68	6857.54	349.50	1.46	-1.28	0.70	4
Velocity	17126	17064	89.45	347.22	N 12.8 W	89	10227.66	6945.80	6829.64	-1268.77	6946.49	349.48	0.92	0.24	-0.89	4
Velocity	17216	17154	90.13	346.83	N 13.2 W	90	10227.99	7035.76	6917.34	-1288.97	7036.41	349.44	0.87	0.76	-0.43	4
Velocity	17306	17244	90.22	347.70	N 12.3 W	90	10227.72	7125.74	7005.12	-1308.81	7126.34	349.42	0.97	0.10	0.97	4
Velocity	17395	17333	90.13	347.52	N 12.5 W	89	10227.45	7214.72	7092.05	-1327.91	7215.30	349.39	0.23	-0.10	-0.20	4
Velocity	17485	17423	89.73	347.36	N 12.6 W	90	10227.56	7304.70	7179.90	-1347.48	7305.25	349.37	0.48	-0.44	-0.18	4
Velocity	17574	17512	89.02	347.31	N 12.7 W	89	10228.53	7393.67	7266.73	-1366.99	7394.18	349.35	0.80	-0.80	-0.06	4
Velocity	17664	17602	88.79	347.29	N 12.7 W	90	10230.25	7483.63	7354.51	-1386.77	7484.11	349.32	0.26	-0.26	-0.02	4
Velocity	17753	17691	89.73	346.43	N 13.6 W	89	10231.40	7572.57	7441.17	-1407.01	7573.02	349.29	1.43	1.06	-0.97	4
Velocity	17843	17781	90.10	346.79	N 13.2 W	90	10231.53	7662.52	7528.72	-1427.85	7662.92	349.26	0.57	0.41	0.40	4
Velocity	17933	17871	89.56	346.87	N 13.1 W	90	10231.80	7752.47	7616.35	-1448.35	7752.84	349.23	0.61	-0.60	0.09	4
Velocity	18022	17960	89.62	347.47	N 12.5 W	89	10232.44	7841.43	7703.13	-1468.12	7841.78	349.21	0.68	0.07	0.67	4
Velocity	18112	18050	89.15	347.06	N 12.9 W	90	10233.40	7931.40	7790.91	-1487.95	7931.73	349.19	0.69	-0.52	-0.46	4
Velocity	18202	18140	89.84	346.77	N 13.2 W	90	10234.19	8021.36	7878.57	-1508.33	8021.65	349.16	0.83	0.77	-0.32	4
Velocity	18291	18229	91.27	346.62	N 13.4 W	89	10233.33	8110.30	7965.17	-1528.81	8110.56	349.13	1.62	1.61	-0.17	4
Velocity	18380	18318	91.50	347.15	N 12.9 W	89	10231.18	8199.23	8051.83	-1549.00	8199.47	349.11	0.65	0.26	0.60	4
Velocity	18469	18407	91.64	347.20	N 12.8 W	89	10228.74	8288.16	8138.57	-1568.75	8288.39	349.09	0.17	0.16	0.06	4
Velocity	18559	18497	92.46	346.75	N 13.3 W	90	10225.52	8378.07	8226.20	-1589.02	8378.27	349.07	1.04	0.91	-0.50	4
Velocity	18650	18588	92.07	346.45	N 13.6 W	91	10221.93	8468.93	8314.65	-1610.09	8469.11	349.04	0.54	-0.43	-0.33	4
Velocity	18740	18678	90.50	346.76	N 13.2 W	90	10219.91	8558.85	8402.18	-1630.93	8559.01	349.02	1.78	-1.74	0.34	4
Velocity	18830	18768	89.76	346.72	N 13.3 W	90	10219.70	8648.80	8489.78	-1651.58	8648.93	348.99	0.82	-0.82	-0.04	4
Velocity	18920	18858	89.41	347.25	N 12.8 W	90	10220.36	8738.76	8577.47	-1671.84	8738.88	348.97	0.71	-0.39	0.59	4
Velocity	19009	18947	89.22	347.42	N 12.6 W	89	10221.42	8827.73	8664.29	-1691.36	8827.83	348.95	0.29	-0.21	0.19	4
Velocity	19098	19036	88.76	347.26	N 12.7 W	89	10222.99	8916.69	8751.12	-1710.86	8916.79	348.94	0.55	-0.52	-0.18	4
Velocity	19188	19126	90.78	346.62	N 13.4 W	90	10223.35	9006.64	8838.78	-1731.19	9006.73	348.92	2.35	2.24	-0.71	4
Velocity	19278	19216	91.18	346.87	N 13.1 W	90	10221.81	9096.58	8926.37	-1751.83	9096.65	348.90	0.52	0.44	0.28	4
Velocity	19368	19306	90.76	346.66	N 13.3 W	90	10220.29	9186.51	9013.97	-1772.43	9186.57	348.88	0.52	-0.47	-0.23	4
Velocity	19457	19395	91.04	347.10	N 12.9 W	89	10218.89	9275.46	9100.63	-1792.63	9275.51	348.86	0.59	0.31	0.49	4
Velocity	19547	19485	89.88	347.43	N 12.6 W	90	10218.17	9365.43	9188.42	-1812.47	9365.47	348.84	1.34	-1.29	0.37	4
Velocity	19637	19575	89.93	347.14	N 12.9 W	90	10218.32	9455.40	9276.21	-1832.28	9455.44	348.83	0.33	0.06	-0.32	4
Velocity	19727	19665	89.13	347.27	N 12.7 W	90	10219.05	9545.37	9363.97	-1852.21	9545.40	348.81	0.90	-0.89	0.14	4
Velocity	19818	19756	88.48	346.67	N 13.3 W	91	10220.95	9636.31	9452.61	-1872.72	9636.33	348.79	0.97	-0.71	-0.66	4
Velocity	19907	19845	88.82	346.62	N 13.4 W	89	10223.05	9725.23	9539.18	-1893.27	9725.24	348.77	0.39	0.38	-0.06	4
Velocity	19997	19935	89.52	347.05	N 13.0 W	90	10224.35	9815.17	9626.80	-1913.77	9815.18	348.76	0.91	0.78	0.48	4
Velocity	20086	20024	89.30	347.38	N 12.6 W	89	10225.27	9904.14	9713.59	-1933.46	9904.15	348.74	0.45	-0.25	0.37	4
Velocity	20176	20114	89.05	346.90	N 13.1 W	90	10226.57	9994.10	9801.32	-1953.49	9994.10	348.73	0.60	-0.28	-0.53	4
Velocity	20265	20203	89.45	347.20	N 12.8 W	89	10227.73	10083.05	9888.05	-1973.43	10083.05	348.71	0.56	0.45	0.34	4
Velocity	20356	20294	89.16	346.61	N 13.4 W	91	10228.83	10174.00	9976.68	-1994.05	10174.00	348.70	0.72	-0.32	-0.65	4
Velocity	20445	20383	89.12	347.58	N 12.4 W	89	10230.17	10262.96	10063.42	-2013.92	10262.96	348.68	1.09	-0.04	1.09	4
Velocity	20535	20473	87.87	346.72	N 13.3 W	90	10232.53	10352.89	10151.13	-2033.93	10352.89	348.67	1.69	-1.39	-0.96	4



Company: Piedra Operating, LLC
 Well: University 8-4 WB 9 WC
 Location: Andrews County, TX
 Rig: Ensign T54
 API No: 42-003-48741
 Start Date: 03/01/23 Start Depth:

Job Number: 71867 Calculation Method: Minimum Curvature
 Magnetic Declination: 5.782 Proposed Azimuth: 348.67
 Grid Correction: -2.099 Depth Ref: RKB 3021 ft Plan # 2
 Total Correction: 7.881 Field: Permian
 North reference: Grid Location Lat/Long: 32.3907891 , -102.3495284
 End Date: End Depth:

Survey Tool Type	Bit Depth (ft)	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Direction	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')	US #
Velocity	20624	20562	89.10	346.02	N 14.0 W	89	10234.89	10441.79	10237.59	-2054.90	10441.79	348.65	1.59	1.38	-0.79	4
Velocity	20713	20651	90.05	346.33	N 13.7 W	89	10235.55	10530.70	10324.01	-2076.16	10530.70	348.63	1.12	1.07	0.35	4
Velocity	20802	20740	89.35	345.75	N 14.3 W	89	10236.01	10619.60	10410.38	-2097.63	10619.61	348.61	1.02	-0.79	-0.65	4
Velocity	20892	20830	88.98	345.11	N 14.9 W	90	10237.32	10709.45	10497.48	-2120.27	10709.46	348.58	0.82	-0.41	-0.71	4
Velocity	20981	20919	89.07	345.26	N 14.7 W	89	10238.84	10798.27	10583.51	-2143.03	10798.29	348.55	0.20	0.10	0.17	4
Velocity	20997	20935	89.15	345.49	N 14.5 W	16	10239.09	10814.24	10598.98	-2147.07	10814.27	348.55	1.52	0.50	1.44	4