

# Occidental Petroleum

Project: Weld County, CO (UTM-NAD83)  
 Site: 4N-68W-13 SBJ 22-13HZ PAD  
 Well: SBJ 13-12HZ  
 Wellbore: Wellbore #1  
 Design: Surveys

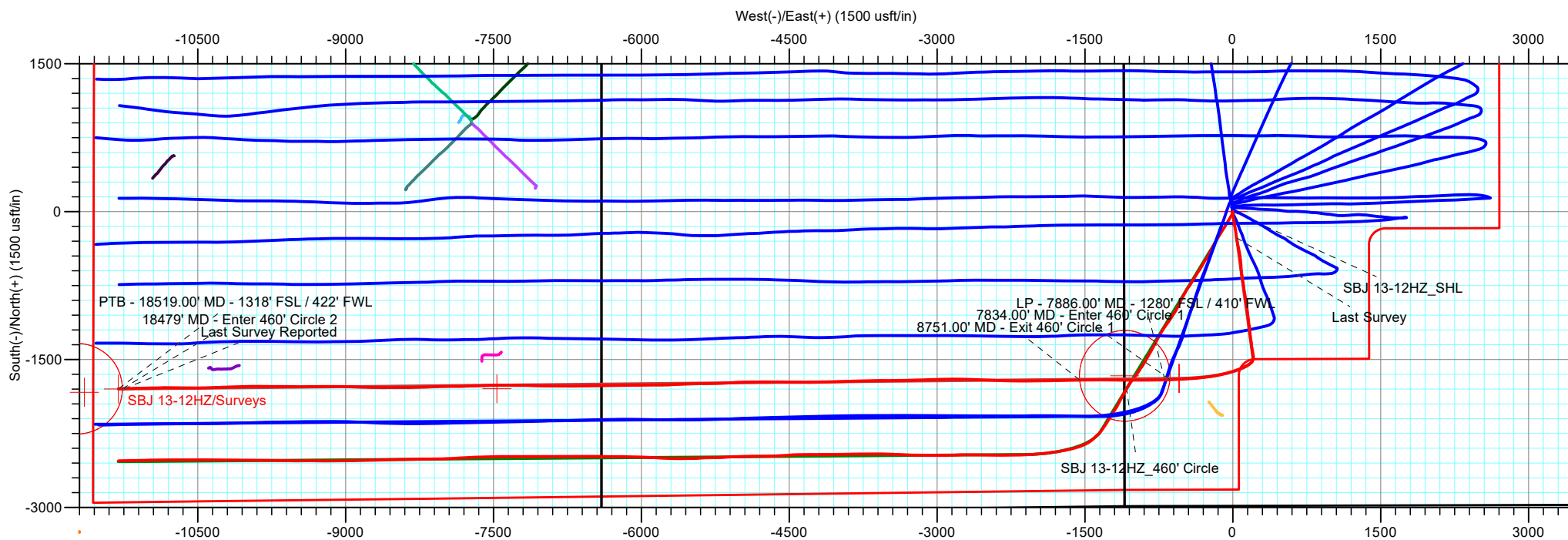
PROJECT DETAILS: Weld County, CO (UTM-NAD83)  
 Geodetic System: Universal Transverse Mercator (US Survey Feet)  
 Datum: North American Datum 1983  
 Ellipsoid: GRS 1980  
 Zone: Zone 13N (108 W to 102 W)



**ACTUAL LINE CALLS**  
**SHL: 2306' FNL, 1096' FWL**  
**LP: 1280' FSL, 410' FWL**  
**TOE: 1318' FSL, 422' FWL**

**SHL: Sec 13-T4N-R68W**  
**Heel: Sec 13-T4N-R68W**  
**BHL: Sec 15-T4N-R68W**

ANNOTATIONS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation	
1842.00	16.09	173.06	1812.73	-263.12	38.50	-35.88	270.39	Last Survey	
7834.00	91.10	268.34	7085.13	-1702.07	-637.80	654.70	2412.30	7834.00' MD - Enter 460' Circle 1	
7886.00	91.23	267.18	7084.08	-1704.10	-689.75	706.67	2464.29	LP - 7886.00' MD - 1280' FSL / 410' FWL	
8751.00	92.95	268.90	7041.10	-1706.88	-1553.40	1570.30	3328.02	8751.00' MD - Exit 460' Circle 1	
18463.00	93.09	268.85	6558.04	-1794.34	-11248.00	11265.30	13025.32	Last Survey Reported	
18479.00	93.09	268.85	6557.18	-1794.66	-11263.98	11281.27	13041.29	18479' MD - Enter 460' Circle 2	
18519.00	93.09	268.85	6555.02	-1795.46	-11303.91	11321.21	13081.24	PTB - 18519.00' MD - 1318' FSL / 422' FWL	



**TOTAL DIRECTIONAL SERVICES LLC**

Design: Surveys (SBJ 13-12HZ/Wellbore #1)  
 4N-68W-13 SBJ 22-13HZ PAD  
 Created By: Bethany Ball Date: 11:35, February 17 2022  
 Date: \_\_\_\_\_  
 Approved: \_\_\_\_\_ Date: \_\_\_\_\_

# Occidental Petroleum

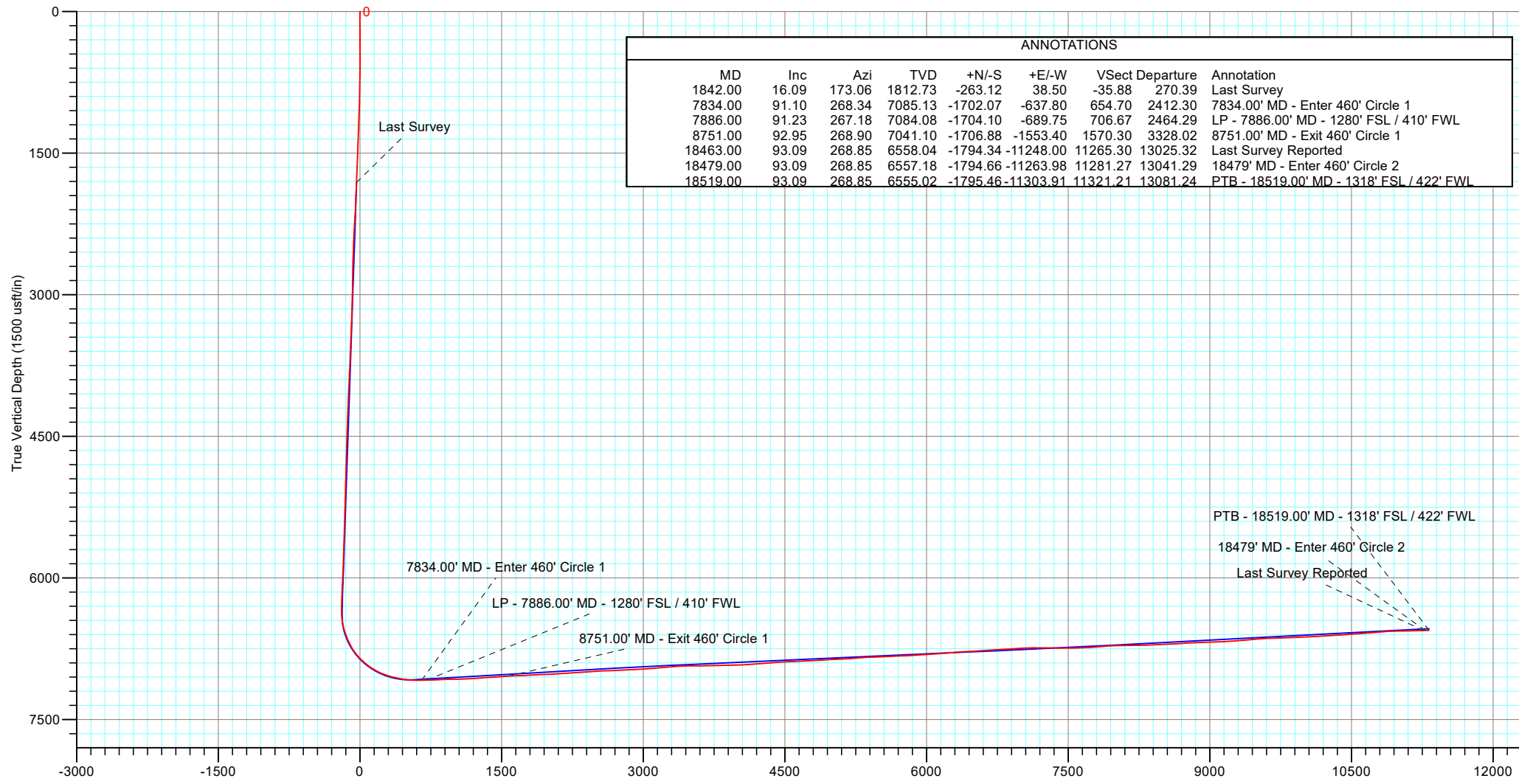
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18479.00	93.09	268.85	6557.18	-1794.66	-11263.98	11281.27	13041.29	18479' MD - Enter 460' Circle 2
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# **Occidental Petroleum**

**Weld County, CO (UTM-NAD83)**

**4N-68W-13 SBJ 22-13HZ PAD**

**SBJ 13-12HZ**

**Wellbore #1**

**Design: Surveys**

## **Standard Survey Report**

**17 January, 2022**

## Survey Report

<b>Company:</b> Occidental Petroleum	<b>Local Co-ordinate Reference:</b> Well SBJ 13-12HZ
<b>Project:</b> Weld County, CO (UTM-NAD83)	<b>TVD Reference:</b> RKB = 20' @ 4879.00usft (PD 461)
<b>Site:</b> 4N-68W-13 SBJ 22-13HZ PAD	<b>MD Reference:</b> RKB = 20' @ 4879.00usft (PD 461)
<b>Well:</b> SBJ 13-12HZ	<b>North Reference:</b> True
<b>Wellbore:</b> Wellbore #1	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Surveys	<b>Database:</b> EDM 5000.1 Single User Db

<b>Project</b> Weld County, CO (UTM-NAD83)	
<b>Map System:</b> Universal Transverse Mercator (US Survey Fee	<b>System Datum:</b> Mean Sea Level
<b>Geo Datum:</b> North American Datum 1983	
<b>Map Zone:</b> Zone 13N (108 W to 102 W)	

<b>Site</b> 4N-68W-13 SBJ 22-13HZ PAD		
<b>Site Position:</b>	<b>Northing:</b> 14,641,145.55 usft	<b>Latitude:</b> 40.314181
<b>From:</b> Lat/Long	<b>Easting:</b> 1,652,517.50 usft	<b>Longitude:</b> -104.956591
<b>Position Uncertainty:</b> 0.00 usft	<b>Slot Radius:</b> 13.200 in	

<b>Well</b> SBJ 13-12HZ			
<b>Well Position</b>	<b>+N/-S</b> 0.00 usft	<b>Northing:</b> 14,641,342.90 usft	<b>Latitude:</b> 40.314723
	<b>+E/-W</b> 0.00 usft	<b>Easting:</b> 1,652,462.48 usft	<b>Longitude:</b> -104.956788
<b>Position Uncertainty</b>	3.28 usft	<b>Wellhead Elevation:</b> usft	<b>Ground Level:</b> 4,859.00 usft
<b>Grid Convergence:</b>	0.03 °		

<b>Wellbore</b> Wellbore #1					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IFR	10/6/2021	7.86	66.48	51,858.00000000

<b>Design</b> Surveys					
<b>Audit Notes:</b>					
<b>Version:</b> 1.0	<b>Phase:</b> ACTUAL	<b>Tie On Depth:</b> 0.00			
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	269.43	

<b>Survey Program</b>		<b>Date</b> 1/17/2022		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
99.00	1,842.00	Survey #1 (Wellbore #1)	APC_ISCWSA REV 2 MM Fixed:v2:crustal field declination	
1,927.00	18,519.00	Survey #2 (Wellbore #1)	APC_ISCWSA REV 2 MM Fixed:v2:Rockies, crustal dec + 3-axis correction	

<b>Survey</b>										
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	0.00
4.12	0.02	0.14	4.12	0.00	0.00	0.00	0.61	0.61	0.00	
<b>SBJ 13-12HZ_Hardline Box</b>										
5.11	0.03	0.14	5.11	0.00	0.00	0.00	0.61	0.61	0.00	
<b>SBJ 13-12HZ_460' Circle</b>										
6.00	0.04	0.14	6.00	0.00	0.00	0.00	0.61	0.61	0.00	
<b>SBJ 13-12HZ_SHL</b>										
99.00	0.60	0.14	99.00	0.52	0.00	-0.01	0.61	0.61	0.00	
185.00	0.24	314.21	185.00	1.09	-0.13	0.12	0.54	-0.42	-53.41	

## Survey Report

<b>Company:</b>	Occidental Petroleum	<b>Local Co-ordinate Reference:</b>	Well SBJ 13-12HZ
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<b>Site:</b>	4N-68W-13 SBJ 22-13HZ PAD	<b>MD Reference:</b>	RKB = 20' @ 4879.00usft (PD 461)
<b>Well:</b>	SBJ 13-12HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	EDM 5000.1 Single User Db

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)	
274.00	0.35	302.46	273.99	1.37	-0.49	0.48	0.14	0.12	-13.20	
366.00	1.32	210.31	365.99	0.61	-1.26	1.26	1.50	1.05	-100.16	
456.00	2.49	197.06	455.94	-2.16	-2.36	2.38	1.38	1.30	-14.72	
546.00	3.71	168.51	545.81	-6.88	-2.35	2.42	2.15	1.36	-31.72	
636.00	5.01	171.23	635.54	-13.62	-1.17	1.31	1.46	1.44	3.02	
726.00	6.60	171.30	725.08	-22.62	0.21	0.02	1.77	1.77	0.08	
815.00	7.68	167.58	813.39	-33.48	2.26	-1.93	1.32	1.21	-4.18	
905.00	8.27	170.00	902.52	-45.73	4.68	-4.22	0.75	0.66	2.69	
995.00	10.01	171.54	991.37	-59.84	6.95	-6.36	1.95	1.93	1.71	
1,085.00	11.97	171.53	1,079.72	-76.81	9.48	-8.72	2.18	2.18	-0.01	
1,175.00	13.15	170.92	1,167.56	-96.15	12.47	-11.51	1.32	1.31	-0.68	
1,265.00	14.05	174.36	1,255.04	-117.13	15.16	-13.99	1.34	1.00	3.82	
1,355.00	15.48	169.77	1,342.07	-139.83	18.37	-16.97	2.05	1.59	-5.10	
1,445.00	14.80	169.80	1,428.94	-162.96	22.54	-20.91	0.76	-0.76	0.03	
1,535.00	15.41	168.77	1,515.83	-186.00	26.90	-25.05	0.74	0.68	-1.14	
1,624.00	14.08	170.23	1,601.90	-208.27	31.04	-28.97	1.55	-1.49	1.64	
1,714.00	13.88	172.48	1,689.24	-229.76	34.31	-32.02	0.64	-0.22	2.50	
1,804.00	15.92	172.99	1,776.21	-252.72	37.23	-34.71	2.27	2.27	0.57	
1,842.00	16.09	173.06	1,812.73	-263.12	38.50	-35.88	0.45	0.45	0.18	
<b>Last Survey</b>										
1,927.00	14.05	170.39	1,894.81	-284.98	41.65	-38.81	2.53	-2.40	-3.14	
2,020.00	15.36	171.05	1,984.76	-308.28	45.45	-42.38	1.42	1.41	0.71	
2,112.00	14.57	167.15	2,073.64	-331.60	49.92	-46.62	1.39	-0.86	-4.24	
2,205.00	16.31	167.37	2,163.28	-355.75	55.38	-51.83	1.87	1.87	0.24	
2,298.00	15.78	165.83	2,252.66	-380.75	61.33	-57.54	0.73	-0.57	-1.66	
2,390.00	17.24	172.30	2,340.87	-406.40	66.22	-62.17	2.55	1.59	7.03	
2,482.00	17.26	172.15	2,428.73	-433.43	69.91	-65.59	0.05	0.02	-0.16	
2,574.00	15.43	171.63	2,517.01	-459.06	73.55	-68.98	2.00	-1.99	-0.57	
2,666.00	13.95	170.93	2,606.00	-482.12	77.08	-72.28	1.62	-1.61	-0.76	
2,759.00	13.80	174.35	2,696.29	-504.23	79.94	-74.92	0.90	-0.16	3.68	
2,851.00	14.06	173.70	2,785.58	-526.26	82.25	-77.01	0.33	0.28	-0.71	
2,944.00	14.49	178.23	2,875.71	-549.11	83.85	-78.38	1.29	0.46	4.87	
3,036.00	15.10	176.38	2,964.66	-572.58	84.96	-79.26	0.84	0.66	-2.01	
3,128.00	13.83	175.95	3,053.74	-595.51	86.49	-80.56	1.39	-1.38	-0.47	
3,220.00	14.27	172.58	3,142.99	-617.72	88.73	-82.58	1.01	0.48	-3.66	
3,313.00	15.10	171.28	3,232.95	-641.06	92.05	-85.67	0.96	0.89	-1.40	
3,405.00	14.58	171.10	3,321.89	-664.34	95.66	-89.05	0.57	-0.57	-0.20	
3,498.00	15.73	168.95	3,411.65	-688.28	99.89	-93.03	1.38	1.24	-2.31	
3,589.00	18.76	172.86	3,498.55	-714.92	104.07	-96.95	3.56	3.33	4.30	
3,682.00	17.33	173.07	3,586.98	-743.51	107.60	-100.20	1.54	-1.54	0.23	
3,775.00	17.07	172.47	3,675.82	-770.79	111.06	-103.39	0.34	-0.28	-0.65	
3,867.00	15.15	170.46	3,764.20	-796.03	114.82	-106.90	2.17	-2.09	-2.18	
3,959.00	14.53	168.24	3,853.13	-819.19	119.17	-111.01	0.91	-0.67	-2.41	
4,053.00	15.15	170.89	3,944.00	-842.86	123.52	-115.12	0.98	0.66	2.82	

## Survey Report

<b>Company:</b>	Occidental Petroleum	<b>Local Co-ordinate Reference:</b>	Well SBJ 13-12HZ
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<b>Well:</b>	SBJ 13-12HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	EDM 5000.1 Single User Db

### 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)
4,146.00	14.87	168.40	4,033.83	-866.55	127.84	-119.21	0.76	-0.30	-2.68
4,239.00	16.16	174.68	4,123.44	-891.13	131.44	-122.57	2.28	1.39	6.75
4,332.00	16.43	172.20	4,212.71	-917.04	134.42	-125.29	0.80	0.29	-2.67
4,426.00	14.93	173.34	4,303.21	-942.24	137.63	-128.25	1.63	-1.60	1.21
4,518.00	15.70	170.89	4,391.94	-966.31	140.98	-131.36	1.09	0.84	-2.66
4,611.00	16.31	171.42	4,481.33	-991.64	144.92	-135.05	0.67	0.66	0.57
4,704.00	14.72	171.37	4,570.94	-1,016.24	148.64	-138.52	1.71	-1.71	-0.05
4,797.00	14.28	170.69	4,660.98	-1,039.24	152.27	-141.92	0.51	-0.47	-0.73
4,914.00	13.17	171.08	4,774.64	-1,066.65	156.67	-146.05	0.95	-0.95	0.33
5,006.00	14.42	175.65	4,863.98	-1,088.43	159.16	-148.33	1.80	1.36	4.97
5,098.00	15.26	176.38	4,952.91	-1,111.93	160.80	-149.73	0.94	0.91	0.79
5,191.00	13.44	171.27	5,043.01	-1,134.83	163.21	-151.91	2.38	-1.96	-5.49
5,284.00	12.59	169.57	5,133.62	-1,155.48	166.69	-155.18	1.00	-0.91	-1.83
5,377.00	13.82	172.21	5,224.16	-1,176.46	170.03	-158.32	1.47	1.32	2.84
5,469.00	13.78	176.57	5,313.51	-1,198.28	172.17	-160.24	1.13	-0.04	4.74
5,563.00	15.59	176.70	5,404.44	-1,222.07	173.57	-161.40	1.93	1.93	0.14
5,655.00	15.48	173.91	5,493.08	-1,246.62	175.58	-163.17	0.82	-0.12	-3.03
5,749.00	16.12	171.65	5,583.53	-1,272.00	178.81	-166.15	0.94	0.68	-2.40
5,843.00	14.23	170.85	5,674.24	-1,296.32	182.54	-169.64	2.02	-2.01	-0.85
5,936.00	15.45	171.38	5,764.14	-1,319.86	186.22	-173.08	1.32	1.31	0.57
6,029.00	16.63	173.08	5,853.52	-1,345.32	189.68	-176.28	1.37	1.27	1.83
6,122.00	16.14	170.63	5,942.74	-1,371.28	193.38	-179.73	0.91	-0.53	-2.63
6,215.00	16.56	170.94	6,031.98	-1,397.12	197.58	-183.67	0.46	0.45	0.33
6,309.00	15.12	170.46	6,122.41	-1,422.44	201.72	-187.56	1.54	-1.53	-0.51
6,403.00	14.55	171.68	6,213.28	-1,446.22	205.46	-191.06	0.69	-0.61	1.30
6,497.00	15.10	172.95	6,304.15	-1,470.05	208.67	-194.03	0.68	0.59	1.35
6,590.00	15.27	189.98	6,393.94	-1,494.15	208.03	-193.16	4.78	0.18	18.31
6,682.00	18.13	212.97	6,482.15	-1,518.12	198.13	-183.02	7.76	3.11	24.99
6,776.00	20.94	234.29	6,570.84	-1,540.23	176.50	-161.17	8.10	2.99	22.68
6,868.00	26.24	244.30	6,655.16	-1,558.66	144.79	-129.28	7.20	5.76	10.88
6,960.00	32.07	242.13	6,735.47	-1,578.92	104.84	-89.13	6.44	6.34	-2.36
7,052.00	41.15	250.17	6,809.29	-1,600.66	54.64	-38.71	11.14	9.87	8.74
7,145.00	47.75	252.74	6,875.64	-1,621.28	-7.09	23.22	7.35	7.10	2.76
7,237.00	54.24	254.95	6,933.52	-1,641.10	-75.73	92.05	7.30	7.05	2.40
7,330.00	61.62	258.11	6,982.87	-1,659.35	-152.32	168.82	8.44	7.94	3.40
7,422.00	69.24	262.85	7,021.12	-1,673.07	-234.77	251.40	9.51	8.28	5.15
7,514.00	75.64	264.41	7,048.86	-1,682.78	-321.89	338.62	7.14	6.96	1.70
7,606.00	79.21	264.21	7,068.89	-1,691.68	-411.23	428.04	3.89	3.88	-0.22
7,700.00	84.49	267.38	7,082.21	-1,698.48	-503.98	520.86	6.53	5.62	3.37
7,740.93	87.35	268.21	7,085.13	-1,700.05	-544.78	561.67	7.27	6.99	2.02
<b>SBJ 13-12HZ LP P2</b>									
7,793.00	90.99	269.25	7,085.88	-1,701.21	-596.82	613.71	7.27	6.99	2.01
7,886.00	91.23	267.18	7,084.08	-1,704.11	-689.75	706.67	2.24	0.26	-2.23

## Survey Report

<b>Company:</b>	Occidental Petroleum	<b>Local Co-ordinate Reference:</b>	Well SBJ 13-12HZ
<b>Project:</b>	Weld County, CO (UTM-NAD83)	<b>TVD Reference:</b>	RKB = 20' @ 4879.00usft (PD 461)
<b>Site:</b>	4N-68W-13 SBJ 22-13HZ PAD	<b>MD Reference:</b>	RKB = 20' @ 4879.00usft (PD 461)
<b>Well:</b>	SBJ 13-12HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	EDM 5000.1 Single User Db

### 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)
7,980.00	93.39	269.78	7,080.29	-1,706.60	-783.63	800.57	3.59	2.30	2.77
8,072.00	91.98	269.22	7,075.98	-1,707.40	-875.52	892.46	1.65	-1.53	-0.61
8,165.00	91.61	270.36	7,073.07	-1,707.74	-968.47	985.41	1.29	-0.40	1.23
8,258.00	90.36	269.54	7,071.47	-1,707.82	-1,061.46	1,078.39	1.61	-1.34	-0.88
8,352.00	92.73	270.35	7,068.93	-1,707.91	-1,155.41	1,172.35	2.66	2.52	0.86
8,444.00	94.82	270.86	7,062.88	-1,706.94	-1,247.20	1,264.12	2.34	2.27	0.55
8,537.00	94.35	269.93	7,055.44	-1,706.30	-1,339.90	1,356.81	1.12	-0.51	-1.00
8,629.00	94.25	270.63	7,048.54	-1,705.86	-1,431.64	1,448.54	0.77	-0.11	0.76
8,721.00	93.06	268.83	7,042.68	-1,706.29	-1,523.45	1,540.35	2.34	-1.29	-1.96
8,815.00	92.73	269.06	7,037.93	-1,708.02	-1,617.31	1,634.22	0.43	-0.35	0.24
8,908.00	92.18	267.98	7,033.95	-1,710.42	-1,710.19	1,727.13	1.30	-0.59	-1.16
9,000.00	92.77	269.39	7,029.97	-1,712.53	-1,802.08	1,819.03	1.66	0.64	1.53
9,093.00	92.26	269.14	7,025.89	-1,713.72	-1,894.98	1,911.94	0.61	-0.55	-0.27
9,186.00	92.15	268.33	7,022.31	-1,715.77	-1,987.89	2,004.86	0.88	-0.12	-0.87
9,278.00	93.81	270.35	7,017.53	-1,716.83	-2,079.75	2,096.73	2.84	1.80	2.20
9,368.00	94.56	270.27	7,010.96	-1,716.35	-2,169.51	2,186.48	0.84	0.83	-0.09
9,462.00	94.21	271.29	7,003.78	-1,715.07	-2,263.23	2,280.18	1.14	-0.37	1.09
9,556.00	93.24	272.34	6,997.67	-1,712.10	-2,356.98	2,373.89	1.52	-1.03	1.12
9,648.00	94.18	271.97	6,991.72	-1,708.65	-2,448.72	2,465.60	1.10	1.02	-0.40
9,741.00	92.04	272.19	6,986.67	-1,705.27	-2,541.52	2,558.35	2.31	-2.30	0.24
9,834.00	92.74	272.30	6,982.79	-1,701.64	-2,634.36	2,651.16	0.76	0.75	0.12
9,928.00	92.09	270.51	6,978.83	-1,699.33	-2,728.25	2,745.02	2.02	-0.69	-1.90
10,020.00	92.65	270.90	6,975.03	-1,698.20	-2,820.16	2,836.91	0.74	0.61	0.42
10,113.00	92.97	267.98	6,970.47	-1,699.11	-2,913.03	2,929.79	3.15	0.34	-3.14
10,207.00	93.77	268.31	6,964.94	-1,702.15	-3,006.82	3,023.61	0.92	0.85	0.35
10,301.00	94.55	269.08	6,958.12	-1,704.28	-3,100.55	3,117.35	1.16	0.83	0.82
10,394.00	95.01	268.60	6,950.37	-1,706.16	-3,193.20	3,210.02	0.71	0.49	-0.52
10,486.00	94.89	268.23	6,942.43	-1,708.69	-3,284.83	3,301.66	0.42	-0.13	-0.40
10,580.00	93.79	269.82	6,935.32	-1,710.29	-3,378.54	3,395.39	2.05	-1.17	1.69
10,672.00	89.48	268.22	6,932.70	-1,711.86	-3,470.46	3,487.32	5.00	-4.68	-1.74
10,765.00	90.96	269.52	6,932.34	-1,713.70	-3,563.44	3,580.31	2.12	1.59	1.40
10,858.00	91.11	269.11	6,930.66	-1,714.81	-3,656.42	3,673.30	0.47	0.16	-0.44
10,952.00	91.35	269.44	6,928.64	-1,716.00	-3,750.39	3,767.27	0.43	0.26	0.35
11,044.00	91.56	268.91	6,926.31	-1,717.32	-3,842.35	3,859.24	0.62	0.23	-0.58
11,136.00	90.75	267.79	6,924.45	-1,719.97	-3,934.29	3,951.21	1.50	-0.88	-1.22
11,229.00	93.31	267.81	6,921.16	-1,723.54	-4,027.16	4,044.10	2.75	2.75	0.02
11,324.00	92.81	267.55	6,916.09	-1,727.38	-4,121.94	4,138.92	0.59	-0.53	-0.27
11,416.00	95.21	269.45	6,909.65	-1,729.78	-4,213.67	4,230.67	3.32	2.61	2.07
11,508.00	94.09	270.19	6,902.19	-1,730.07	-4,305.37	4,322.37	1.46	-1.22	0.80
11,600.00	94.08	270.28	6,895.64	-1,729.69	-4,397.13	4,414.12	0.10	-0.01	0.10
11,693.00	93.05	271.75	6,889.86	-1,728.05	-4,489.94	4,506.90	1.93	-1.11	1.58
11,788.00	92.78	270.68	6,885.03	-1,726.04	-4,584.79	4,601.73	1.16	-0.28	-1.13
11,880.00	92.16	269.97	6,881.06	-1,725.51	-4,676.70	4,693.64	1.02	-0.67	-0.77
11,972.00	92.94	270.02	6,876.97	-1,725.52	-4,768.61	4,785.54	0.85	0.85	0.05

## Survey Report

<b>Company:</b>	Occidental Petroleum	<b>Local Co-ordinate Reference:</b>	Well SBJ 13-12HZ
<b>Project:</b>	Weld County, CO (UTM-NAD83)	<b>TVD Reference:</b>	RKB = 20' @ 4879.00usft (PD 461)
<b>Site:</b>	4N-68W-13 SBJ 22-13HZ PAD	<b>MD Reference:</b>	RKB = 20' @ 4879.00usft (PD 461)
<b>Well:</b>	SBJ 13-12HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	EDM 5000.1 Single User Db

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)
12,065.00	93.40	269.59	6,871.82	-1,725.84	-4,861.47	4,878.40	0.68	0.49	-0.46
12,158.00	92.98	267.96	6,866.65	-1,727.82	-4,954.30	4,971.24	1.81	-0.45	-1.75
12,250.00	92.77	266.95	6,862.03	-1,731.90	-5,046.09	5,063.07	1.12	-0.23	-1.10
12,343.00	93.00	266.38	6,857.35	-1,737.31	-5,138.81	5,155.84	0.66	0.25	-0.61
12,435.00	95.27	269.22	6,850.72	-1,740.83	-5,230.49	5,247.55	3.95	2.47	3.09
12,528.00	92.94	268.85	6,844.06	-1,742.39	-5,323.23	5,340.30	2.54	-2.51	-0.40
12,620.00	92.58	268.84	6,839.63	-1,744.25	-5,415.11	5,432.19	0.39	-0.39	-0.01
12,713.00	92.35	268.10	6,835.63	-1,746.73	-5,507.99	5,525.09	0.83	-0.25	-0.80
12,805.00	92.62	268.16	6,831.64	-1,749.73	-5,599.85	5,616.98	0.30	0.29	0.07
12,898.00	92.02	266.92	6,827.88	-1,753.72	-5,692.69	5,709.85	1.48	-0.65	-1.33
12,990.00	92.78	269.31	6,824.03	-1,756.74	-5,784.55	5,801.74	2.72	0.83	2.60
13,082.00	93.50	269.65	6,818.99	-1,757.57	-5,876.41	5,893.60	0.87	0.78	0.37
13,175.00	93.72	268.93	6,813.13	-1,758.72	-5,969.22	5,986.42	0.81	0.24	-0.77
13,269.00	93.87	268.67	6,806.91	-1,760.69	-6,062.99	6,080.20	0.32	0.16	-0.28
13,362.00	94.19	269.13	6,800.37	-1,762.47	-6,155.74	6,172.97	0.60	0.34	0.49
13,457.00	94.90	269.02	6,792.84	-1,764.00	-6,250.43	6,267.67	0.76	0.75	-0.12
13,551.00	94.56	270.62	6,785.09	-1,764.29	-6,344.11	6,361.34	1.73	-0.36	1.70
13,644.00	92.84	269.94	6,779.09	-1,763.84	-6,436.91	6,454.14	1.99	-1.85	-0.73
13,737.00	92.97	269.13	6,774.38	-1,764.59	-6,529.78	6,547.02	0.88	0.14	-0.87
13,829.00	93.67	269.35	6,769.05	-1,765.81	-6,621.62	6,638.86	0.80	0.76	0.24
13,922.00	93.47	268.63	6,763.26	-1,767.45	-6,714.43	6,731.68	0.80	-0.22	-0.77
14,014.00	94.37	269.18	6,756.97	-1,769.20	-6,806.19	6,823.46	1.15	0.98	0.60
14,107.00	93.13	270.26	6,750.89	-1,769.65	-6,898.99	6,916.25	1.77	-1.33	1.16
14,200.00	93.08	271.94	6,745.85	-1,767.87	-6,991.83	7,009.07	1.80	-0.05	1.81
14,292.00	91.16	272.31	6,742.45	-1,764.46	-7,083.70	7,100.90	2.13	-2.09	0.40
14,384.00	89.73	270.53	6,741.73	-1,762.18	-7,175.66	7,192.84	2.48	-1.55	-1.93
14,476.00	89.77	270.88	6,742.13	-1,761.05	-7,267.66	7,284.82	0.38	0.04	0.38
14,570.00	88.47	270.45	6,743.58	-1,759.96	-7,361.64	7,378.78	1.46	-1.38	-0.46
14,663.00	90.59	269.11	6,744.34	-1,760.32	-7,454.62	7,471.77	2.70	2.28	-1.44
14,673.37	90.65	269.09	6,744.23	-1,760.48	-7,464.99	7,482.13	0.61	0.57	-0.19
<b>SBJ 13-12HZ_Leaseholder Buffer Target</b>									
14,757.00	91.13	268.93	6,742.93	-1,761.92	-7,548.60	7,565.75	0.61	0.57	-0.19
14,849.00	92.14	268.02	6,740.30	-1,764.37	-7,640.53	7,657.70	1.48	1.10	-0.99
14,941.00	94.13	267.63	6,735.27	-1,767.86	-7,732.32	7,749.52	2.20	2.16	-0.42
15,033.00	94.93	269.25	6,728.01	-1,770.36	-7,823.99	7,841.22	1.96	0.87	1.76
15,127.00	93.19	269.63	6,721.35	-1,771.27	-7,917.75	7,934.98	1.89	-1.85	0.40
15,219.00	91.00	268.88	6,717.99	-1,772.47	-8,009.67	8,026.91	2.52	-2.38	-0.82
15,311.00	90.47	267.27	6,716.81	-1,775.56	-8,101.61	8,118.87	1.84	-0.58	-1.75
15,404.00	91.48	269.02	6,715.22	-1,778.57	-8,194.54	8,211.83	2.17	1.09	1.88
15,496.00	91.60	268.08	6,712.75	-1,780.89	-8,286.48	8,303.79	1.03	0.13	-1.02
15,590.00	92.30	269.98	6,709.55	-1,782.48	-8,380.41	8,397.73	2.15	0.74	2.02
15,683.00	92.56	269.74	6,705.61	-1,782.71	-8,473.32	8,490.64	0.38	0.28	-0.26
15,776.00	92.54	268.61	6,701.47	-1,784.05	-8,566.22	8,583.54	1.21	-0.02	-1.22

## Survey Report

<b>Company:</b>	Occidental Petroleum	<b>Local Co-ordinate Reference:</b>	Well SBJ 13-12HZ
<b>Project:</b>	Weld County, CO (UTM-NAD83)	<b>TVD Reference:</b>	RKB = 20' @ 4879.00usft (PD 461)
<b>Site:</b>	4N-68W-13 SBJ 22-13HZ PAD	<b>MD Reference:</b>	RKB = 20' @ 4879.00usft (PD 461)
<b>Well:</b>	SBJ 13-12HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	EDM 5000.1 Single User Db

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)
15,870.00	94.05	271.16	6,696.07	-1,784.24	-8,660.05	8,677.38	3.15	1.61	2.71
15,963.00	93.49	271.62	6,689.95	-1,781.99	-8,752.83	8,770.12	0.78	-0.60	0.49
16,056.00	91.57	271.66	6,685.85	-1,779.33	-8,845.69	8,862.96	2.06	-2.06	0.04
16,148.00	92.33	272.21	6,682.72	-1,776.22	-8,937.59	8,954.81	1.02	0.83	0.60
16,240.00	92.36	271.58	6,678.95	-1,773.19	-9,029.46	9,046.65	0.68	0.03	-0.68
16,333.00	91.61	270.01	6,675.73	-1,771.90	-9,122.39	9,139.57	1.87	-0.81	-1.69
16,427.00	93.93	269.91	6,671.19	-1,771.96	-9,216.27	9,233.45	2.47	2.47	-0.11
16,520.00	94.57	268.68	6,664.30	-1,773.10	-9,309.01	9,326.19	1.49	0.69	-1.32
16,613.00	95.77	269.37	6,655.92	-1,774.68	-9,401.61	9,418.80	1.49	1.29	0.74
16,706.00	94.84	271.59	6,647.32	-1,773.90	-9,494.21	9,511.38	2.58	-1.00	2.39
16,799.00	92.73	270.77	6,641.18	-1,771.99	-9,586.98	9,604.13	2.43	-2.27	-0.88
16,891.00	92.77	269.45	6,636.77	-1,771.81	-9,678.87	9,696.02	1.43	0.04	-1.43
16,984.00	91.46	270.56	6,633.33	-1,771.81	-9,771.80	9,788.94	1.85	-1.41	1.19
17,076.00	90.66	270.15	6,631.63	-1,771.24	-9,863.78	9,880.92	0.98	-0.87	-0.45
17,169.00	92.72	269.53	6,628.89	-1,771.50	-9,956.74	9,973.87	2.31	2.22	-0.67
17,261.00	92.19	268.19	6,624.95	-1,773.32	-10,048.63	10,065.78	1.57	-0.58	-1.46
17,353.00	94.49	268.26	6,619.59	-1,776.17	-10,140.43	10,157.59	2.50	2.50	0.08
17,446.00	94.52	267.76	6,612.28	-1,779.39	-10,233.08	10,250.28	0.54	0.03	-0.54
17,539.00	93.08	268.46	6,606.12	-1,782.45	-10,325.82	10,343.05	1.72	-1.55	0.75
17,631.00	93.13	267.85	6,601.14	-1,785.41	-10,417.64	10,434.89	0.66	0.05	-0.66
17,723.00	93.61	270.30	6,595.73	-1,786.89	-10,509.46	10,526.72	2.71	0.52	2.66
17,816.00	94.32	270.19	6,589.30	-1,786.49	-10,602.24	10,619.49	0.77	0.76	-0.12
17,908.00	95.02	271.11	6,581.81	-1,785.45	-10,693.93	10,711.16	1.25	0.76	1.00
18,001.00	95.39	270.07	6,573.37	-1,784.50	-10,786.54	10,803.75	1.18	0.40	-1.12
18,095.00	93.29	268.81	6,566.26	-1,785.42	-10,880.25	10,897.48	2.60	-2.23	-1.34
18,188.00	91.33	268.85	6,562.51	-1,787.31	-10,973.16	10,990.39	2.11	-2.11	0.04
18,281.00	90.40	268.30	6,561.10	-1,789.63	-11,066.11	11,083.37	1.16	-1.00	-0.59
18,373.00	90.20	268.46	6,560.62	-1,792.23	-11,158.08	11,175.35	0.28	-0.22	0.17
18,463.00	93.09	268.85	6,558.04	-1,794.34	-11,248.01	11,265.30	3.24	3.21	0.43
<b>Last Survey Reported</b>									
18,519.00	93.09	268.85	6,555.02	-1,795.46	-11,303.91	11,321.21	0.00	0.00	0.00
<b>PTB - 18519.00' MD - 1318' FSL / 422' FWL - SBJ 13-12HZ_460' Circle2 - SBJ 13-12HZ BHL</b>									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,842.00	1,812.73	-263.12	38.50	Last Survey
18,463.00	6,558.04	-1,794.34	-11,248.01	Last Survey Reported
18,519.00	6,555.02	-1,795.46	-11,303.91	PTB - 18519.00' MD - 1318' FSL / 422' FWL

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

# **Occidental Petroleum**

**Weld County, CO (UTM-NAD83)**

**4N-68W-13 SBJ 22-13HZ PAD**

**SBJ 13-12HZ**

**Wellbore #1**

**Design: Surveys**

## **Survey Report - Geographic**

**17 January, 2022**

## Survey Report - Geographic

<b>Company:</b> Occidental Petroleum	<b>Local Co-ordinate Reference:</b> Well SBJ 13-12HZ
<b>Project:</b> Weld County, CO (UTM-NAD83)	<b>TVD Reference:</b> RKB = 20' @ 4879.00usft (PD 461)
<b>Site:</b> 4N-68W-13 SBJ 22-13HZ PAD	<b>MD Reference:</b> RKB = 20' @ 4879.00usft (PD 461)
<b>Well:</b> SBJ 13-12HZ	<b>North Reference:</b> True
<b>Wellbore:</b> Wellbore #1	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Surveys	<b>Database:</b> EDM 5000.1 Single User Db

<b>Project</b> Weld County, CO (UTM-NAD83)	
<b>Map System:</b> Universal Transverse Mercator (US Survey Fee	<b>System Datum:</b> Mean Sea Level
<b>Geo Datum:</b> North American Datum 1983	
<b>Map Zone:</b> Zone 13N (108 W to 102 W)	

<b>Site</b> 4N-68W-13 SBJ 22-13HZ PAD		
<b>Site Position:</b>	<b>Northing:</b> 14,641,145.55 usft	<b>Latitude:</b> 40.314181
<b>From:</b> Lat/Long	<b>Easting:</b> 1,652,517.50 usft	<b>Longitude:</b> -104.956591
<b>Position Uncertainty:</b> 0.00 usft	<b>Slot Radius:</b> 13.200 in	<b>Grid Convergence:</b> 0.03 °

<b>Well</b> SBJ 13-12HZ		
<b>Well Position</b> +N/-S 0.00 usft	<b>Northing:</b> 14,641,342.90 usft	<b>Latitude:</b> 40.314723
+E/-W 0.00 usft	<b>Easting:</b> 1,652,462.48 usft	<b>Longitude:</b> -104.956788
<b>Position Uncertainty</b> 3.28 usft	<b>Wellhead Elevation:</b> usft	<b>Ground Level:</b> 4,859.00 usft

<b>Wellbore</b> Wellbore #1					
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IFR	10/6/2021	7.86	66.48	51,858.00000000

<b>Design</b> Surveys					
<b>Audit Notes:</b>					
<b>Version:</b> 1.0	<b>Phase:</b> ACTUAL	<b>Tie On Depth:</b> 0.00			
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	269.43	

<b>Survey Program</b>		<b>Date</b> 1/17/2022		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
99.00	1,842.00	Survey #1 (Wellbore #1)	APC_ISCWSA REV 2 MM Fixed:v2:crustal field declination	
1,927.00	18,519.00	Survey #2 (Wellbore #1)	APC_ISCWSA REV 2 MM Fixed:v2:Rockies, crustal dec + 3-axis correction	

<b>Survey</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	14,641,342.90	1,652,462.48	40.314723	-104.956788	
4.12	0.02	0.14	4.12	0.00	0.00	14,641,342.90	1,652,462.48	40.314723	-104.956788	
<b>SBJ 13-12HZ_Hardline Box</b>										
5.11	0.03	0.14	5.11	0.00	0.00	14,641,342.90	1,652,462.48	40.314723	-104.956788	
<b>SBJ 13-12HZ_460' Circle</b>										
6.00	0.04	0.14	6.00	0.00	0.00	14,641,342.90	1,652,462.48	40.314723	-104.956788	
<b>SBJ 13-12HZ_SHL</b>										
99.00	0.60	0.14	99.00	0.52	0.00	14,641,343.41	1,652,462.49	40.314725	-104.956788	
185.00	0.24	314.21	185.00	1.09	-0.13	14,641,343.99	1,652,462.36	40.314726	-104.956789	
274.00	0.35	302.46	273.99	1.37	-0.49	14,641,344.27	1,652,461.99	40.314727	-104.956790	
366.00	1.32	210.31	365.99	0.61	-1.26	14,641,343.50	1,652,461.22	40.314725	-104.956793	

## Survey Report - Geographic

<b>Company:</b>	Occidental Petroleum	<b>Local Co-ordinate Reference:</b>	Well SBJ 13-12HZ
<b>Project:</b>	Weld County, CO (UTM-NAD83)	<b>TVD Reference:</b>	RKB = 20' @ 4879.00usft (PD 461)
<b>Site:</b>	4N-68W-13 SBJ 22-13HZ PAD	<b>MD Reference:</b>	RKB = 20' @ 4879.00usft (PD 461)
<b>Well:</b>	SBJ 13-12HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
456.00	2.49	197.06	455.94	-2.16	-2.36	14,641,340.74	1,652,460.13	40.314717	-104.956797	
546.00	3.71	168.51	545.81	-6.88	-2.35	14,641,336.01	1,652,460.14	40.314704	-104.956797	
636.00	5.01	171.23	635.54	-13.62	-1.17	14,641,329.28	1,652,461.32	40.314686	-104.956792	
726.00	6.60	171.30	725.08	-22.62	0.21	14,641,320.28	1,652,462.70	40.314661	-104.956788	
815.00	7.68	167.58	813.39	-33.48	2.26	14,641,309.42	1,652,464.76	40.314631	-104.956780	
905.00	8.27	170.00	902.52	-45.73	4.68	14,641,297.17	1,652,467.19	40.314598	-104.956771	
995.00	10.01	171.54	991.37	-59.84	6.95	14,641,283.06	1,652,469.47	40.314559	-104.956763	
1,085.00	11.97	171.53	1,079.72	-76.81	9.48	14,641,266.09	1,652,472.00	40.314512	-104.956754	
1,175.00	13.15	170.92	1,167.56	-96.15	12.47	14,641,246.75	1,652,475.00	40.314459	-104.956744	
1,265.00	14.05	174.36	1,255.04	-117.13	15.16	14,641,225.77	1,652,477.70	40.314401	-104.956734	
1,355.00	15.48	169.77	1,342.07	-139.83	18.37	14,641,203.08	1,652,480.92	40.314339	-104.956722	
1,445.00	14.80	169.80	1,428.94	-162.96	22.54	14,641,179.95	1,652,485.10	40.314276	-104.956707	
1,535.00	15.41	168.77	1,515.83	-186.00	26.90	14,641,156.91	1,652,489.47	40.314212	-104.956692	
1,624.00	14.08	170.23	1,601.90	-208.27	31.04	14,641,134.64	1,652,493.63	40.314151	-104.956677	
1,714.00	13.88	172.48	1,689.24	-229.76	34.31	14,641,113.15	1,652,496.91	40.314092	-104.956665	
1,804.00	15.92	172.99	1,776.21	-252.72	37.23	14,641,090.20	1,652,499.84	40.314029	-104.956655	
1,842.00	16.09	173.06	1,812.73	-263.12	38.50	14,641,079.80	1,652,501.11	40.314001	-104.956650	
Last Survey										
1,927.00	14.05	170.39	1,894.81	-284.98	41.65	14,641,057.93	1,652,504.27	40.313941	-104.956639	
2,020.00	15.36	171.05	1,984.76	-308.28	45.45	14,641,034.64	1,652,508.08	40.313877	-104.956625	
2,112.00	14.57	167.15	2,073.64	-331.60	49.92	14,641,011.32	1,652,512.56	40.313813	-104.956609	
2,205.00	16.31	167.37	2,163.28	-355.75	55.38	14,640,987.17	1,652,518.03	40.313746	-104.956590	
2,298.00	15.78	165.83	2,252.66	-380.75	61.33	14,640,962.17	1,652,524.00	40.313678	-104.956568	
2,390.00	17.24	172.30	2,340.87	-406.40	66.22	14,640,936.53	1,652,528.90	40.313607	-104.956551	
2,482.00	17.26	172.15	2,428.73	-433.43	69.91	14,640,909.50	1,652,532.60	40.313533	-104.956537	
2,574.00	15.43	171.63	2,517.01	-459.06	73.55	14,640,883.87	1,652,536.26	40.313463	-104.956524	
2,666.00	13.95	170.93	2,606.00	-482.12	77.08	14,640,860.81	1,652,539.80	40.313399	-104.956512	
2,759.00	13.80	174.35	2,696.29	-504.23	79.94	14,640,838.71	1,652,542.67	40.313338	-104.956501	
2,851.00	14.06	173.70	2,785.58	-526.26	82.25	14,640,816.68	1,652,544.99	40.313278	-104.956493	
2,944.00	14.49	178.23	2,875.71	-549.11	83.85	14,640,793.82	1,652,546.60	40.313215	-104.956487	
3,036.00	15.10	176.38	2,964.66	-572.58	84.96	14,640,770.36	1,652,547.72	40.313151	-104.956483	
3,128.00	13.83	175.95	3,053.74	-595.51	86.49	14,640,747.43	1,652,549.27	40.313088	-104.956478	
3,220.00	14.27	172.58	3,142.99	-617.72	88.73	14,640,725.22	1,652,551.52	40.313027	-104.956470	
3,313.00	15.10	171.28	3,232.95	-641.06	92.05	14,640,701.88	1,652,554.85	40.312963	-104.956458	
3,405.00	14.58	171.10	3,321.89	-664.34	95.66	14,640,678.60	1,652,558.47	40.312899	-104.956445	
3,498.00	15.73	168.95	3,411.65	-688.28	99.89	14,640,654.66	1,652,562.71	40.312833	-104.956430	
3,589.00	18.76	172.86	3,498.55	-714.92	104.07	14,640,628.03	1,652,566.90	40.312760	-104.956415	
3,682.00	17.33	173.07	3,586.98	-743.51	107.60	14,640,599.44	1,652,570.45	40.312681	-104.956402	
3,775.00	17.07	172.47	3,675.82	-770.79	111.06	14,640,572.16	1,652,573.92	40.312606	-104.956390	
3,867.00	15.15	170.46	3,764.20	-796.03	114.82	14,640,546.92	1,652,577.70	40.312537	-104.956376	
3,959.00	14.53	168.24	3,853.13	-819.19	119.17	14,640,523.77	1,652,582.05	40.312474	-104.956361	
4,053.00	15.15	170.89	3,944.00	-842.86	123.52	14,640,500.10	1,652,586.41	40.312409	-104.956345	
4,146.00	14.87	168.40	4,033.83	-866.55	127.84	14,640,476.41	1,652,590.75	40.312344	-104.956330	
4,239.00	16.16	174.68	4,123.44	-891.13	131.44	14,640,451.83	1,652,594.36	40.312276	-104.956317	
4,332.00	16.43	172.20	4,212.71	-917.04	134.42	14,640,425.92	1,652,597.36	40.312205	-104.956306	
4,426.00	14.93	173.34	4,303.21	-942.24	137.63	14,640,400.72	1,652,600.58	40.312136	-104.956295	
4,518.00	15.70	170.89	4,391.94	-966.31	140.98	14,640,376.66	1,652,603.93	40.312070	-104.956283	
4,611.00	16.31	171.42	4,481.33	-991.64	144.92	14,640,351.32	1,652,607.89	40.312000	-104.956268	
4,704.00	14.72	171.37	4,570.94	-1,016.24	148.64	14,640,326.73	1,652,611.62	40.311932	-104.956255	
4,797.00	14.28	170.69	4,660.98	-1,039.24	152.27	14,640,303.73	1,652,615.26	40.311869	-104.956242	
4,894.00	13.17	171.08	4,774.64	-1,066.65	156.67	14,640,276.33	1,652,619.67	40.311794	-104.956226	
5,006.00	14.42	175.65	4,863.98	-1,088.43	159.16	14,640,254.55	1,652,622.18	40.311734	-104.956217	
5,098.00	15.26	176.38	4,952.91	-1,111.93	160.80	14,640,231.04	1,652,623.82	40.311670	-104.956211	
5,191.00	13.44	171.27	5,043.01	-1,134.83	163.21	14,640,208.15	1,652,626.25	40.311607	-104.956203	
5,284.00	12.59	169.57	5,133.62	-1,155.48	166.69	14,640,187.50	1,652,629.73	40.311550	-104.956190	

## Survey Report - Geographic

<b>Company:</b>	Occidental Petroleum	<b>Local Co-ordinate Reference:</b>	Well SBJ 13-12HZ
<b>Project:</b>	Weld County, CO (UTM-NAD83)	<b>TVD Reference:</b>	RKB = 20' @ 4879.00usft (PD 461)
<b>Site:</b>	4N-68W-13 SBJ 22-13HZ PAD	<b>MD Reference:</b>	RKB = 20' @ 4879.00usft (PD 461)
<b>Well:</b>	SBJ 13-12HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
5,377.00	13.82	172.21	5,224.16	-1,176.46	170.03	14,640,166.52	1,652,633.09	40.311492	-104.956178	
5,469.00	13.78	176.57	5,313.51	-1,198.28	172.17	14,640,144.70	1,652,635.24	40.311433	-104.956171	
5,563.00	15.59	176.70	5,404.44	-1,222.07	173.57	14,640,120.91	1,652,636.65	40.311367	-104.956166	
5,655.00	15.48	173.91	5,493.08	-1,246.62	175.58	14,640,096.36	1,652,638.68	40.311300	-104.956158	
5,749.00	16.12	171.65	5,583.53	-1,272.00	178.81	14,640,070.98	1,652,641.91	40.311230	-104.956147	
5,843.00	14.23	170.85	5,674.24	-1,296.32	182.54	14,640,046.66	1,652,645.66	40.311163	-104.956133	
5,936.00	15.45	171.38	5,764.14	-1,319.86	186.22	14,640,023.13	1,652,649.34	40.311099	-104.956120	
6,029.00	16.63	173.08	5,853.52	-1,345.32	189.68	14,639,997.67	1,652,652.82	40.311029	-104.956108	
6,122.00	16.14	170.63	5,942.74	-1,371.28	193.38	14,639,971.71	1,652,656.54	40.310957	-104.956095	
6,215.00	16.56	170.94	6,031.98	-1,397.12	197.58	14,639,945.87	1,652,660.74	40.310887	-104.956080	
6,309.00	15.12	170.46	6,122.41	-1,422.44	201.72	14,639,920.55	1,652,664.90	40.310817	-104.956065	
6,403.00	14.55	171.68	6,213.28	-1,446.22	205.46	14,639,896.78	1,652,668.65	40.310752	-104.956051	
6,497.00	15.10	172.95	6,304.15	-1,470.05	208.67	14,639,872.95	1,652,671.87	40.310686	-104.956040	
6,590.00	15.27	189.98	6,393.94	-1,494.15	208.03	14,639,848.85	1,652,671.25	40.310620	-104.956042	
6,682.00	18.13	212.97	6,482.15	-1,518.12	198.13	14,639,824.87	1,652,661.36	40.310554	-104.956078	
6,776.00	20.94	234.29	6,570.84	-1,540.23	176.50	14,639,802.76	1,652,639.74	40.310494	-104.956155	
6,868.00	26.24	244.30	6,655.16	-1,558.66	144.79	14,639,784.30	1,652,608.04	40.310443	-104.956269	
6,960.00	32.07	242.13	6,735.47	-1,578.92	104.84	14,639,764.03	1,652,568.09	40.310387	-104.956412	
7,052.00	41.15	250.17	6,809.29	-1,600.66	54.64	14,639,742.26	1,652,517.90	40.310328	-104.956592	
7,145.00	47.75	252.74	6,875.64	-1,621.28	-7.09	14,639,721.61	1,652,456.19	40.310271	-104.956814	
7,237.00	54.24	254.95	6,933.52	-1,641.10	-75.73	14,639,701.76	1,652,387.55	40.310217	-104.957060	
7,330.00	61.62	258.11	6,982.87	-1,659.35	-152.32	14,639,683.47	1,652,310.97	40.310166	-104.957335	
7,422.00	69.24	262.85	7,021.12	-1,673.07	-234.77	14,639,669.71	1,652,228.53	40.310129	-104.957630	
7,514.00	75.64	264.41	7,048.86	-1,682.78	-321.89	14,639,659.96	1,652,141.41	40.310102	-104.957943	
7,606.00	79.21	264.21	7,068.89	-1,691.68	-411.23	14,639,651.02	1,652,052.08	40.310078	-104.958263	
7,700.00	84.49	267.38	7,082.21	-1,698.48	-503.98	14,639,644.17	1,651,959.33	40.310059	-104.958596	
7,740.93	87.35	268.21	7,085.13	-1,700.05	-544.78	14,639,642.58	1,651,918.53	40.310055	-104.958742	
<b>SBJ 13-12HZ LP P2</b>										
7,793.00	90.99	269.25	7,085.88	-1,701.21	-596.82	14,639,641.40	1,651,866.50	40.310051	-104.958929	
7,886.00	91.23	267.18	7,084.08	-1,704.11	-689.75	14,639,638.45	1,651,773.57	40.310044	-104.959262	
7,980.00	93.39	269.78	7,080.29	-1,706.60	-783.63	14,639,635.92	1,651,679.69	40.310037	-104.959599	
8,072.00	91.98	269.22	7,075.98	-1,707.40	-875.52	14,639,635.07	1,651,587.80	40.310034	-104.959929	
8,165.00	91.61	270.36	7,073.07	-1,707.74	-968.47	14,639,634.68	1,651,494.85	40.310034	-104.960262	
8,258.00	90.36	269.54	7,071.47	-1,707.82	-1,061.46	14,639,634.56	1,651,401.86	40.310033	-104.960596	
8,352.00	92.73	270.35	7,068.93	-1,707.91	-1,155.41	14,639,634.42	1,651,307.90	40.310033	-104.960933	
8,444.00	94.82	270.86	7,062.88	-1,706.94	-1,247.20	14,639,635.34	1,651,216.11	40.310036	-104.961262	
8,537.00	94.35	269.93	7,055.44	-1,706.30	-1,339.90	14,639,635.94	1,651,123.41	40.310037	-104.961595	
8,629.00	94.25	270.63	7,048.54	-1,705.86	-1,431.64	14,639,636.34	1,651,031.67	40.310039	-104.961924	
8,721.00	93.06	268.83	7,042.68	-1,706.29	-1,523.45	14,639,635.86	1,650,939.87	40.310037	-104.962253	
8,815.00	92.73	269.06	7,037.93	-1,708.02	-1,617.31	14,639,634.09	1,650,846.01	40.310033	-104.962590	
8,908.00	92.18	267.98	7,033.95	-1,710.42	-1,710.19	14,639,631.64	1,650,753.12	40.310026	-104.962923	
9,000.00	92.77	269.39	7,029.97	-1,712.53	-1,802.08	14,639,629.49	1,650,661.24	40.310020	-104.963252	
9,093.00	92.26	269.14	7,025.89	-1,713.72	-1,894.98	14,639,628.25	1,650,568.34	40.310017	-104.963586	
9,186.00	92.15	268.33	7,022.31	-1,715.77	-1,987.89	14,639,626.16	1,650,475.43	40.310011	-104.963919	
9,278.00	93.81	270.35	7,017.53	-1,716.83	-2,079.75	14,639,625.05	1,650,383.57	40.310008	-104.964248	
9,368.00	94.56	270.27	7,010.96	-1,716.35	-2,169.51	14,639,625.49	1,650,293.81	40.310010	-104.964570	
9,462.00	94.21	271.29	7,003.78	-1,715.07	-2,263.23	14,639,626.72	1,650,200.10	40.310013	-104.964907	
9,556.00	93.24	272.34	6,997.67	-1,712.10	-2,356.98	14,639,629.65	1,650,106.34	40.310021	-104.965243	
9,648.00	94.18	271.97	6,991.72	-1,708.65	-2,448.72	14,639,633.06	1,650,014.60	40.310031	-104.965572	
9,741.00	92.04	272.19	6,986.67	-1,705.27	-2,541.52	14,639,636.38	1,649,921.80	40.310040	-104.965905	
9,834.00	92.74	272.30	6,982.79	-1,701.64	-2,634.36	14,639,639.98	1,649,828.95	40.310050	-104.966238	
9,928.00	92.09	270.51	6,978.83	-1,699.33	-2,728.25	14,639,642.23	1,649,735.07	40.310056	-104.966575	
10,020.00	92.65	270.90	6,975.03	-1,698.20	-2,820.16	14,639,643.32	1,649,643.15	40.310059	-104.966904	
10,113.00	92.97	267.98	6,970.47	-1,699.11	-2,913.03	14,639,642.37	1,649,550.28	40.310057	-104.967237	
10,207.00	93.77	268.31	6,964.94	-1,702.15	-3,006.82	14,639,639.28	1,649,456.49	40.310048	-104.967574	

## Survey Report - Geographic

<b>Company:</b>	Occidental Petroleum	<b>Local Co-ordinate Reference:</b>	Well SBJ 13-12HZ
<b>Project:</b>	Weld County, CO (UTM-NAD83)	<b>TVD Reference:</b>	RKB = 20' @ 4879.00usft (PD 461)
<b>Site:</b>	4N-68W-13 SBJ 22-13HZ PAD	<b>MD Reference:</b>	RKB = 20' @ 4879.00usft (PD 461)
<b>Well:</b>	SBJ 13-12HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
10,301.00	94.55	269.08	6,958.12	-1,704.28	-3,100.55	14,639,637.10	1,649,362.77	40.310043	-104.967910	
10,394.00	95.01	268.60	6,950.37	-1,706.16	-3,193.20	14,639,635.18	1,649,270.11	40.310037	-104.968242	
10,486.00	94.89	268.23	6,942.43	-1,708.69	-3,284.83	14,639,632.60	1,649,178.49	40.310030	-104.968571	
10,580.00	93.79	269.82	6,935.32	-1,710.29	-3,378.54	14,639,630.96	1,649,084.78	40.310026	-104.968907	
10,672.00	89.48	268.22	6,932.70	-1,711.86	-3,470.46	14,639,629.34	1,648,992.86	40.310022	-104.969237	
10,765.00	90.96	269.52	6,932.34	-1,713.70	-3,563.44	14,639,627.46	1,648,899.88	40.310017	-104.969571	
10,858.00	91.11	269.11	6,930.66	-1,714.81	-3,656.42	14,639,626.31	1,648,806.90	40.310013	-104.969904	
10,952.00	91.35	269.44	6,928.64	-1,716.00	-3,750.39	14,639,625.07	1,648,712.93	40.310010	-104.970241	
11,044.00	91.56	268.91	6,926.31	-1,717.32	-3,842.35	14,639,623.70	1,648,620.97	40.310006	-104.970571	
11,136.00	90.75	267.79	6,924.45	-1,719.97	-3,934.29	14,639,621.01	1,648,529.03	40.309999	-104.970901	
11,229.00	93.31	267.81	6,921.16	-1,723.54	-4,027.16	14,639,617.39	1,648,436.17	40.309989	-104.971234	
11,324.00	92.81	267.55	6,916.09	-1,727.38	-4,121.94	14,639,613.51	1,648,341.39	40.309979	-104.971574	
11,416.00	95.21	269.45	6,909.65	-1,729.78	-4,213.67	14,639,611.06	1,648,249.65	40.309972	-104.971903	
11,508.00	94.09	270.19	6,902.19	-1,730.07	-4,305.37	14,639,610.73	1,648,157.96	40.309971	-104.972232	
11,600.00	94.08	270.28	6,895.64	-1,729.69	-4,397.13	14,639,611.06	1,648,066.19	40.309972	-104.972561	
11,693.00	93.05	271.75	6,889.86	-1,728.05	-4,489.94	14,639,612.66	1,647,973.39	40.309977	-104.972894	
11,788.00	92.78	270.68	6,885.03	-1,726.04	-4,584.79	14,639,614.62	1,647,878.54	40.309982	-104.973234	
11,880.00	92.16	269.97	6,881.06	-1,725.51	-4,676.70	14,639,615.10	1,647,786.62	40.309984	-104.973564	
11,972.00	92.94	270.02	6,876.97	-1,725.52	-4,768.61	14,639,615.05	1,647,694.72	40.309983	-104.973894	
12,065.00	93.40	269.59	6,871.82	-1,725.84	-4,861.47	14,639,614.69	1,647,601.86	40.309983	-104.974227	
12,158.00	92.98	267.96	6,866.65	-1,727.82	-4,954.30	14,639,612.66	1,647,509.03	40.309977	-104.974560	
12,250.00	92.77	266.95	6,862.03	-1,731.90	-5,046.09	14,639,608.53	1,647,417.24	40.309966	-104.974889	
12,343.00	93.00	266.38	6,857.35	-1,737.31	-5,138.81	14,639,603.08	1,647,324.52	40.309951	-104.975221	
12,435.00	95.27	269.22	6,850.72	-1,740.83	-5,230.49	14,639,599.51	1,647,232.84	40.309941	-104.975550	
12,528.00	92.94	268.85	6,844.06	-1,742.39	-5,323.23	14,639,597.90	1,647,140.10	40.309937	-104.975883	
12,620.00	92.58	268.84	6,839.63	-1,744.25	-5,415.11	14,639,596.01	1,647,048.23	40.309932	-104.976213	
12,713.00	92.35	268.10	6,835.63	-1,746.73	-5,507.99	14,639,593.48	1,646,955.35	40.309925	-104.976546	
12,805.00	92.62	268.16	6,831.64	-1,749.73	-5,599.85	14,639,590.44	1,646,863.49	40.309917	-104.976875	
12,898.00	92.02	266.92	6,827.88	-1,753.72	-5,692.69	14,639,586.40	1,646,770.65	40.309906	-104.977208	
12,990.00	92.78	269.31	6,824.03	-1,756.74	-5,784.55	14,639,583.33	1,646,678.79	40.309897	-104.977538	
13,082.00	93.50	269.65	6,818.99	-1,757.57	-5,876.41	14,639,582.46	1,646,586.93	40.309895	-104.977867	
13,175.00	93.72	268.93	6,813.13	-1,758.72	-5,969.22	14,639,581.26	1,646,494.13	40.309892	-104.978200	
13,269.00	93.87	268.67	6,806.91	-1,760.69	-6,062.99	14,639,579.25	1,646,400.35	40.309886	-104.978536	
13,362.00	94.19	269.13	6,800.37	-1,762.47	-6,155.74	14,639,577.42	1,646,307.60	40.309881	-104.978869	
13,457.00	94.90	269.02	6,792.84	-1,764.00	-6,250.43	14,639,575.85	1,646,212.92	40.309877	-104.979209	
13,551.00	94.56	270.62	6,785.09	-1,764.29	-6,344.11	14,639,575.51	1,646,119.24	40.309876	-104.979545	
13,644.00	92.84	269.94	6,779.09	-1,763.84	-6,436.91	14,639,575.92	1,646,026.44	40.309877	-104.979878	
13,737.00	92.97	269.13	6,774.38	-1,764.59	-6,529.78	14,639,575.12	1,645,933.56	40.309875	-104.980211	
13,829.00	93.67	269.35	6,769.05	-1,765.81	-6,621.62	14,639,573.85	1,645,841.73	40.309872	-104.980540	
13,922.00	93.47	268.63	6,763.26	-1,767.45	-6,714.43	14,639,572.17	1,645,748.92	40.309867	-104.980873	
14,014.00	94.37	269.18	6,756.97	-1,769.20	-6,806.19	14,639,570.37	1,645,657.16	40.309862	-104.981202	
14,107.00	93.13	270.26	6,750.89	-1,769.65	-6,898.99	14,639,569.88	1,645,564.36	40.309861	-104.981535	
14,200.00	93.08	271.94	6,745.85	-1,767.87	-6,991.83	14,639,571.61	1,645,471.52	40.309866	-104.981868	
14,292.00	91.16	272.31	6,742.45	-1,764.46	-7,083.70	14,639,574.98	1,645,379.65	40.309875	-104.982198	
14,384.00	89.73	270.53	6,741.73	-1,762.18	-7,175.66	14,639,577.21	1,645,287.68	40.309881	-104.982528	
14,476.00	89.77	270.88	6,742.13	-1,761.05	-7,267.66	14,639,578.30	1,645,195.69	40.309884	-104.982858	
14,570.00	88.47	270.45	6,743.58	-1,759.96	-7,361.64	14,639,579.34	1,645,101.71	40.309887	-104.983195	
14,663.00	90.59	269.11	6,744.34	-1,760.32	-7,454.62	14,639,578.94	1,645,008.72	40.309886	-104.983528	
14,673.37	90.65	269.09	6,744.23	-1,760.48	-7,464.99	14,639,578.77	1,644,998.35	40.309886	-104.983566	
<b>SBJ 13-12HZ_Leaseholder Buffer Target</b>										
14,757.00	91.13	268.93	6,742.93	-1,761.92	-7,548.60	14,639,577.29	1,644,914.74	40.309882	-104.983865	
14,849.00	92.14	268.02	6,740.30	-1,764.37	-7,640.53	14,639,574.80	1,644,822.82	40.309875	-104.984195	
14,941.00	94.13	267.63	6,735.27	-1,767.86	-7,732.32	14,639,571.27	1,644,731.03	40.309865	-104.984524	
15,033.00	94.93	269.25	6,728.01	-1,770.36	-7,823.99	14,639,568.72	1,644,639.35	40.309858	-104.984853	
15,127.00	93.19	269.63	6,721.35	-1,771.27	-7,917.75	14,639,567.76	1,644,545.60	40.309856	-104.985190	

## Survey Report - Geographic

<b>Company:</b>	Occidental Petroleum	<b>Local Co-ordinate Reference:</b>	Well SBJ 13-12HZ
<b>Project:</b>	Weld County, CO (UTM-NAD83)	<b>TVD Reference:</b>	RKB = 20' @ 4879.00usft (PD 461)
<b>Site:</b>	4N-68W-13 SBJ 22-13HZ PAD	<b>MD Reference:</b>	RKB = 20' @ 4879.00usft (PD 461)
<b>Well:</b>	SBJ 13-12HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
15,219.00	91.00	268.88	6,717.99	-1,772.47	-8,009.67	14,639,566.52	1,644,453.68	40.309852	-104.985519	
15,311.00	90.47	267.27	6,716.81	-1,775.56	-8,101.61	14,639,563.39	1,644,361.74	40.309844	-104.985849	
15,404.00	91.48	269.02	6,715.22	-1,778.57	-8,194.54	14,639,560.33	1,644,268.81	40.309835	-104.986182	
15,496.00	91.60	268.08	6,712.75	-1,780.89	-8,286.48	14,639,557.96	1,644,176.87	40.309829	-104.986512	
15,590.00	92.30	269.98	6,709.55	-1,782.48	-8,380.41	14,639,556.32	1,644,082.95	40.309824	-104.986849	
15,683.00	92.56	269.74	6,705.61	-1,782.71	-8,473.32	14,639,556.05	1,643,990.03	40.309824	-104.987182	
15,776.00	92.54	268.61	6,701.47	-1,784.05	-8,566.22	14,639,554.67	1,643,897.13	40.309820	-104.987516	
15,870.00	94.05	271.16	6,696.07	-1,784.24	-8,660.05	14,639,554.43	1,643,803.30	40.309819	-104.987852	
15,963.00	93.49	271.62	6,689.95	-1,781.99	-8,752.83	14,639,556.64	1,643,710.53	40.309825	-104.988185	
16,056.00	91.57	271.66	6,685.85	-1,779.33	-8,845.69	14,639,559.25	1,643,617.66	40.309833	-104.988518	
16,148.00	92.33	272.21	6,682.72	-1,776.22	-8,937.59	14,639,562.31	1,643,525.77	40.309841	-104.988848	
16,240.00	92.36	271.58	6,678.95	-1,773.19	-9,029.46	14,639,565.31	1,643,433.89	40.309849	-104.989177	
16,333.00	91.61	270.01	6,675.73	-1,771.90	-9,122.39	14,639,566.55	1,643,340.96	40.309853	-104.989511	
16,427.00	93.93	269.91	6,671.19	-1,771.96	-9,216.27	14,639,566.44	1,643,247.08	40.309852	-104.989847	
16,520.00	94.57	268.68	6,664.30	-1,773.10	-9,309.01	14,639,565.25	1,643,154.34	40.309849	-104.990180	
16,613.00	95.77	269.37	6,655.92	-1,774.68	-9,401.61	14,639,563.63	1,643,061.74	40.309845	-104.990512	
16,706.00	94.84	271.59	6,647.32	-1,773.90	-9,494.21	14,639,564.36	1,642,969.15	40.309847	-104.990844	
16,799.00	92.73	270.77	6,641.18	-1,771.99	-9,586.98	14,639,566.23	1,642,876.37	40.309852	-104.991177	
16,891.00	92.77	269.45	6,636.77	-1,771.81	-9,678.87	14,639,566.36	1,642,784.48	40.309852	-104.991507	
16,984.00	91.46	270.56	6,633.33	-1,771.81	-9,771.80	14,639,566.32	1,642,691.55	40.309852	-104.991840	
17,076.00	90.66	270.15	6,631.63	-1,771.24	-9,863.78	14,639,566.85	1,642,599.57	40.309854	-104.992170	
17,169.00	92.72	269.53	6,628.89	-1,771.50	-9,956.74	14,639,566.54	1,642,506.61	40.309853	-104.992504	
17,261.00	92.19	268.19	6,624.95	-1,773.32	-10,048.63	14,639,564.67	1,642,414.72	40.309848	-104.992833	
17,353.00	94.49	268.26	6,619.59	-1,776.17	-10,140.43	14,639,561.78	1,642,322.93	40.309840	-104.993162	
17,446.00	94.52	267.76	6,612.28	-1,779.39	-10,233.08	14,639,558.51	1,642,230.27	40.309831	-104.993495	
17,539.00	93.08	268.46	6,606.12	-1,782.45	-10,325.82	14,639,555.41	1,642,137.53	40.309822	-104.993827	
17,631.00	93.13	267.85	6,601.14	-1,785.41	-10,417.64	14,639,552.41	1,642,045.72	40.309814	-104.994157	
17,723.00	93.61	270.30	6,595.73	-1,786.89	-10,509.46	14,639,550.88	1,641,953.89	40.309810	-104.994486	
17,816.00	94.32	270.19	6,589.30	-1,786.49	-10,602.24	14,639,551.23	1,641,861.12	40.309811	-104.994819	
17,908.00	95.02	271.11	6,581.81	-1,785.45	-10,693.93	14,639,552.23	1,641,769.43	40.309814	-104.995148	
18,001.00	95.39	270.07	6,573.37	-1,784.50	-10,786.54	14,639,553.13	1,641,676.82	40.309816	-104.995480	
18,095.00	93.29	268.81	6,566.26	-1,785.42	-10,880.25	14,639,552.17	1,641,583.10	40.309814	-104.995816	
18,188.00	91.33	268.85	6,562.51	-1,787.31	-10,973.16	14,639,550.23	1,641,490.20	40.309808	-104.996149	
18,281.00	90.40	268.30	6,561.10	-1,789.63	-11,066.11	14,639,547.87	1,641,397.24	40.309802	-104.996483	
18,373.00	90.20	268.46	6,560.62	-1,792.23	-11,158.08	14,639,545.22	1,641,305.28	40.309795	-104.996813	
18,463.00	93.09	268.85	6,558.04	-1,794.34	-11,248.01	14,639,543.07	1,641,215.36	40.309789	-104.997135	
<b>Last Survey Reported</b>										
18,519.00	93.09	268.85	6,555.02	-1,795.46	-11,303.91	14,639,541.92	1,641,159.45	40.309786	-104.997336	
<b>PTB - 18519.00' MD - 1318' FSL / 422' FWL - SBJ 13-12HZ_460' Circle2 - SBJ 13-12HZ BHL</b>										

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
1,842.00	1,812.73	-263.12	38.50	Last Survey	
18,463.00	6,558.04	-1,794.34	-11,248.01	Last Survey Reported	
18,519.00	6,555.02	-1,795.46	-11,303.91	PTB - 18519.00' MD - 1318' FSL / 422' FWL	

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_