

30-015-45072

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Solaris Water Midstream

Eddy County, NM (NAD 83)

Sec 19, T 23-S, 30-E

Mobley SWD

Wellbore #1

Survey: MWD Surveys

Standard Survey Report

27 February, 2019



Survey Report



Company:	Solaris Water Midstream	Local Co-ordinate Reference:	Well Mobley SWD
Project:	Eddy County, NM (NAD 83)	TVD Reference:	26' KB @ 3091.00usft
Site:	Sec 19, T 23-S, 30-E	MD Reference:	26' KB @ 3091.00usft
Well:	Mobley SWD	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1

Project	Eddy County, NM (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Sec 19, T 23-S, 30-E		
Site Position:		Northing:	472,066.06 usft
From:	Lat/Long	Easting:	668,529.30 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.29711
		Longitude:	-103.92169
		Grid Convergence:	0.22 °

Well	Mobley SWD		
Well Position	+N/-S	0.00 usft	Northing: 472,066.06 usft
	+E/-W	0.00 usft	Easting: 668,529.30 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32.29711
		Longitude:	-103.92169
		Ground Level:	3,065.00 usft

Wellbore	Wellbore #1		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	10/23/2018	7.05	60.07	47,998

Design	Wellbore #1		
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Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	0.00

Survey Program		Date	2/27/2019	
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
422.00	16,370.00	MWD Surveys (Wellbore #1)		

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
263.00	0.70	143.00	262.98	-2.84	0.58	-2.84	0.00	0.00	0.00
422.00	0.18	342.24	421.98	-3.38	1.09	-3.38	0.55	-0.33	-101.11
First MWD Survey									
510.00	0.04	196.96	509.98	-3.28	1.04	-3.28	0.24	-0.16	-165.09
600.00	0.04	56.77	599.98	-3.29	1.05	-3.29	0.08	0.00	-155.77
784.00	0.09	250.58	783.98	-3.30	0.97	-3.30	0.07	0.03	-90.32
850.00	0.04	76.29	849.98	-3.31	0.95	-3.31	0.20	-0.08	-264.08
910.00	0.13	134.47	909.98	-3.36	1.01	-3.36	0.19	0.15	96.97
1,033.00	0.22	106.35	1,032.98	-3.52	1.34	-3.52	0.10	0.07	-22.86
1,126.00	0.35	139.83	1,125.97	-3.79	1.69	-3.79	0.22	0.14	36.00
1,216.00	0.44	145.46	1,215.97	-4.28	2.07	-4.28	0.11	0.10	6.26

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Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,306.00	0.48	159.35	1,305.97	-4.92	2.40	-4.92	0.13	0.04	15.43
1,400.00	0.66	162.42	1,399.97	-5.80	2.70	-5.80	0.19	0.19	3.27
1,492.00	0.92	164.09	1,491.96	-7.02	3.06	-7.02	0.28	0.28	1.82
1,586.00	1.05	166.38	1,585.94	-8.58	3.47	-8.58	0.14	0.14	2.44
1,680.00	1.14	173.50	1,679.93	-10.35	3.78	-10.35	0.17	0.10	7.57
1,775.00	1.14	168.31	1,774.91	-12.21	4.08	-12.21	0.11	0.00	-5.46
1,869.00	0.92	163.74	1,868.89	-13.85	4.48	-13.85	0.25	-0.23	-4.86
1,963.00	0.75	159.43	1,962.88	-15.15	4.91	-15.15	0.19	-0.18	-4.59
2,055.00	0.84	159.52	2,054.87	-16.35	5.35	-16.35	0.10	0.10	0.10
2,150.00	0.84	145.37	2,149.86	-17.57	5.99	-17.57	0.22	0.00	-14.89
2,243.00	0.88	145.55	2,242.85	-18.72	6.79	-18.72	0.04	0.04	0.19
2,337.00	0.92	143.53	2,336.84	-19.93	7.64	-19.93	0.05	0.04	-2.15
2,432.00	1.01	141.33	2,431.83	-21.19	8.62	-21.19	0.10	0.09	-2.32
2,524.00	0.92	131.13	2,523.81	-22.31	9.68	-22.31	0.21	-0.10	-11.09
2,549.00	1.05	133.33	2,548.81	-22.60	10.00	-22.60	0.54	0.52	8.80
2,643.00	2.15	130.96	2,642.77	-24.35	11.96	-24.35	1.17	1.17	-2.52
2,736.00	2.86	131.04	2,735.68	-27.02	15.02	-27.02	0.76	0.76	0.09
2,830.00	3.03	135.62	2,829.56	-30.33	18.53	-30.33	0.31	0.18	4.87
2,924.00	3.60	139.04	2,923.40	-34.33	22.20	-34.33	0.64	0.61	3.64
3,018.00	3.96	145.35	3,017.20	-39.23	25.98	-39.23	0.58	0.38	6.71
3,095.00	4.04	140.63	3,094.01	-43.52	29.22	-43.52	0.44	0.10	-6.13
3,190.00	5.01	139.83	3,188.71	-49.27	34.01	-49.27	1.02	1.02	-0.84
3,230.00	5.54	137.90	3,228.54	-52.04	36.44	-52.04	1.40	1.33	-4.83
3,325.00	4.75	142.62	3,323.16	-58.57	41.90	-58.57	0.94	-0.83	4.97
3,386.00	3.96	136.64	3,383.98	-62.11	44.88	-62.11	1.49	-1.30	-9.80
3,479.00	3.38	125.31	3,476.79	-66.03	49.32	-66.03	1.00	-0.62	-12.18
3,573.00	2.59	94.37	3,570.67	-67.79	53.70	-67.79	1.88	-0.84	-32.91
3,667.00	0.97	60.81	3,664.62	-67.57	56.51	-67.57	1.98	-1.72	-35.70
3,760.00	0.62	22.39	3,757.62	-66.72	57.39	-66.72	0.67	-0.38	-41.31
3,853.00	0.88	349.69	3,850.61	-65.55	57.45	-65.55	0.53	0.28	-35.16
3,948.00	1.01	338.00	3,945.60	-64.05	57.01	-64.05	0.24	0.14	-12.31
4,041.00	1.23	340.29	4,038.58	-62.35	56.37	-62.35	0.24	0.24	2.46
4,135.00	0.97	343.45	4,132.56	-60.64	55.80	-60.64	0.28	-0.28	3.36
4,229.00	1.01	329.92	4,226.55	-59.16	55.16	-59.16	0.25	0.04	-14.39
4,322.00	0.92	330.27	4,319.53	-57.80	54.38	-57.80	0.10	-0.10	0.38
4,416.00	1.05	344.07	4,413.52	-56.32	53.77	-56.32	0.29	0.14	14.68
4,510.00	0.92	330.18	4,507.51	-54.84	53.15	-54.84	0.29	-0.14	-14.78
4,603.00	1.14	336.16	4,600.49	-53.34	52.41	-53.34	0.26	0.24	6.43
4,698.00	0.92	324.55	4,695.48	-51.86	51.58	-51.86	0.32	-0.23	-12.22
4,791.00	1.01	333.70	4,788.46	-50.52	50.79	-50.52	0.19	0.10	9.84
4,885.00	1.05	320.60	4,882.45	-49.11	49.87	-49.11	0.25	0.04	-13.94
4,979.00	1.10	325.26	4,976.43	-47.70	48.81	-47.70	0.11	0.05	4.96
5,073.00	1.10	321.65	5,070.41	-46.25	47.74	-46.25	0.07	0.00	-3.84

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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,167.00	1.10	318.75	5,164.40	-44.87	46.59	-44.87	0.06	0.00	-3.09
5,261.00	1.10	309.96	5,258.38	-43.61	45.30	-43.61	0.18	0.00	-9.35
5,355.00	1.10	308.56	5,352.36	-42.47	43.90	-42.47	0.03	0.00	-1.49
5,450.00	0.75	318.58	5,447.35	-41.43	42.78	-41.43	0.40	-0.37	10.55
5,544.00	0.88	304.16	5,541.34	-40.56	41.77	-40.56	0.26	0.14	-15.34
5,638.00	0.75	301.70	5,635.33	-39.84	40.65	-39.84	0.14	-0.14	-2.62
5,732.00	0.66	308.82	5,729.32	-39.17	39.71	-39.17	0.13	-0.10	7.57
5,826.00	0.57	321.21	5,823.32	-38.47	38.99	-38.47	0.17	-0.10	13.18
5,919.00	0.66	306.45	5,916.31	-37.79	38.27	-37.79	0.20	0.10	-15.87
6,014.00	0.57	294.32	6,011.31	-37.27	37.40	-37.27	0.17	-0.09	-12.77
6,084.00	0.53	297.13	6,081.30	-36.98	36.80	-36.98	0.07	-0.06	4.01
6,178.00	0.40	310.32	6,175.30	-36.57	36.16	-36.57	0.18	-0.14	14.03
6,272.00	0.53	307.24	6,269.30	-36.09	35.56	-36.09	0.14	0.14	-3.28
6,366.00	0.48	314.36	6,363.29	-35.56	34.93	-35.56	0.09	-0.05	7.57
6,459.00	0.57	291.68	6,456.29	-35.11	34.23	-35.11	0.24	0.10	-24.39
6,553.00	0.44	286.15	6,550.29	-34.84	33.44	-34.84	0.15	-0.14	-5.88
6,646.00	0.57	273.84	6,643.28	-34.71	32.64	-34.71	0.18	0.14	-13.24
6,740.00	0.57	293.88	6,737.28	-34.49	31.75	-34.49	0.21	0.00	21.32
6,834.00	0.57	311.99	6,831.27	-33.99	30.97	-33.99	0.19	0.00	19.27
6,928.00	0.53	316.73	6,925.27	-33.36	30.33	-33.36	0.06	-0.04	5.04
7,021.00	0.44	293.18	7,018.27	-32.90	29.70	-32.90	0.23	-0.10	-25.32
7,115.00	0.48	257.41	7,112.26	-32.85	28.99	-32.85	0.30	0.04	-38.05
7,209.00	1.23	255.74	7,206.25	-33.18	27.62	-33.18	0.80	0.80	-1.78
7,304.00	1.76	272.70	7,301.22	-33.36	25.18	-33.36	0.72	0.56	17.85
7,398.00	1.49	276.83	7,395.18	-33.15	22.52	-33.15	0.31	-0.29	4.39
7,492.00	0.92	245.28	7,489.16	-33.32	20.62	-33.32	0.91	-0.61	-33.56
7,586.00	0.79	159.76	7,583.15	-34.24	20.16	-34.24	1.24	-0.14	-90.98
7,681.00	0.92	112.47	7,678.14	-35.15	21.09	-35.15	0.73	0.14	-49.78
7,775.00	1.23	97.18	7,772.13	-35.56	22.79	-35.56	0.45	0.33	-16.27
7,869.00	1.45	60.18	7,866.10	-35.10	24.83	-35.10	0.93	0.23	-39.36
7,963.00	1.27	46.73	7,960.08	-33.79	26.62	-33.79	0.39	-0.19	-14.31
8,057.00	0.92	333.26	8,054.06	-32.41	27.04	-32.41	1.43	-0.37	-78.16
8,151.00	0.79	323.68	8,148.05	-31.21	26.31	-31.21	0.21	-0.14	-10.19
8,245.00	0.66	335.98	8,242.05	-30.19	25.71	-30.19	0.21	-0.14	13.09
8,338.00	0.40	312.16	8,335.04	-29.49	25.25	-29.49	0.36	-0.28	-25.61
8,432.00	0.66	301.70	8,429.04	-28.98	24.55	-28.98	0.29	0.28	-11.13
8,526.00	1.54	286.23	8,523.02	-28.34	22.87	-28.34	0.98	0.94	-16.46
8,619.00	2.20	274.98	8,615.97	-27.84	19.89	-27.84	0.81	0.71	-12.10
8,713.00	2.15	251.87	8,709.91	-28.23	16.42	-28.23	0.93	-0.05	-24.59
8,806.00	3.38	241.59	8,802.80	-30.08	12.35	-30.08	1.42	1.32	-11.05
8,899.00	4.22	237.63	8,895.59	-33.22	7.05	-33.22	0.95	0.90	-4.26
8,993.00	3.82	239.21	8,989.36	-36.67	1.44	-36.67	0.44	-0.43	1.68
9,087.00	3.47	243.08	9,083.17	-39.56	-3.79	-39.56	0.45	-0.37	4.12

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9,181.00	2.73	239.12	9,177.03	-42.00	-8.25	-42.00	0.82	-0.79	-4.21
9,275.00	2.29	238.25	9,270.94	-44.13	-11.76	-44.13	0.47	-0.47	-0.93
9,368.00	1.85	236.49	9,363.88	-45.94	-14.60	-45.94	0.48	-0.47	-1.89
9,462.00	1.32	213.20	9,457.84	-47.68	-16.45	-47.68	0.88	-0.56	-24.78
9,556.00	0.75	89.45	9,551.84	-48.59	-16.43	-48.59	1.96	-0.61	-131.65
9,650.00	0.79	72.22	9,645.83	-48.38	-15.20	-48.38	0.25	0.04	-18.33
9,744.00	0.92	50.25	9,739.82	-47.70	-14.00	-47.70	0.37	0.14	-23.37
9,837.00	0.44	82.24	9,832.81	-47.18	-13.07	-47.18	0.64	-0.52	34.40
9,931.00	0.99	357.69	9,926.80	-46.32	-12.75	-46.32	1.11	0.59	-89.95
10,024.00	0.26	87.25	10,019.80	-45.50	-12.57	-45.50	1.10	-0.78	96.30
10,118.00	0.18	207.04	10,113.80	-45.62	-12.42	-45.62	0.41	-0.09	127.44
10,212.00	0.22	169.60	10,207.80	-45.93	-12.46	-45.93	0.14	0.04	-39.83
10,306.00	0.40	187.97	10,301.80	-46.43	-12.47	-46.43	0.22	0.19	19.54
10,379.00	0.31	184.19	10,374.80	-46.88	-12.52	-46.88	0.13	-0.12	-5.18
10,473.00	0.31	178.30	10,468.79	-47.39	-12.53	-47.39	0.03	0.00	-6.27
10,567.00	0.26	218.82	10,562.79	-47.81	-12.66	-47.81	0.22	-0.05	43.11
10,661.00	0.18	158.09	10,656.79	-48.12	-12.74	-48.12	0.25	-0.09	-64.61
10,755.00	0.48	191.93	10,750.79	-48.64	-12.76	-48.64	0.37	0.32	36.00
10,850.00	0.66	190.08	10,845.79	-49.57	-12.94	-49.57	0.19	0.19	-1.95
10,942.00	0.62	213.11	10,937.78	-50.50	-13.31	-50.50	0.28	-0.04	25.03
10,981.00	0.79	204.94	10,976.78	-50.92	-13.54	-50.92	0.51	0.44	-20.95
11,076.00	1.05	214.52	11,071.77	-52.24	-14.30	-52.24	0.32	0.27	10.08
11,138.00	1.67	224.80	11,133.75	-53.35	-15.26	-53.35	1.07	1.00	16.58
11,229.00	2.86	230.69	11,224.68	-55.72	-17.95	-55.72	1.33	1.31	6.47
11,324.00	2.90	233.41	11,319.56	-58.66	-21.72	-58.66	0.15	0.04	2.86
11,419.00	2.59	229.19	11,414.45	-61.49	-25.27	-61.49	0.39	-0.33	-4.44
11,513.00	2.42	230.60	11,508.36	-64.14	-28.41	-64.14	0.19	-0.18	1.50
11,607.00	2.29	231.83	11,602.28	-66.56	-31.42	-66.56	0.15	-0.14	1.31
11,701.00	2.11	220.49	11,696.21	-69.04	-34.02	-69.04	0.50	-0.19	-12.06
11,794.00	2.11	218.12	11,789.15	-71.69	-36.19	-71.69	0.09	0.00	-2.55
11,888.00	1.76	232.18	11,883.09	-73.93	-38.40	-73.93	0.62	-0.37	14.96
11,982.00	1.23	237.19	11,977.06	-75.37	-40.39	-75.37	0.58	-0.56	5.33
12,075.00	1.14	240.09	12,070.04	-76.37	-42.03	-76.37	0.12	-0.10	3.12
12,170.00	0.70	230.60	12,165.03	-77.21	-43.30	-77.21	0.49	-0.46	-9.99
12,264.00	0.40	189.03	12,259.02	-77.90	-43.79	-77.90	0.51	-0.32	-44.22
12,359.00	0.70	153.34	12,354.02	-78.74	-43.58	-78.74	0.47	0.32	-37.57
12,454.00	0.66	141.13	12,449.01	-79.69	-42.98	-79.69	0.16	-0.04	-12.85
12,547.00	0.66	166.09	12,542.01	-80.62	-42.52	-80.62	0.31	0.00	26.84
12,642.00	0.66	160.29	12,637.00	-81.67	-42.20	-81.67	0.07	0.00	-6.11
12,735.00	0.70	148.77	12,729.99	-82.66	-41.72	-82.66	0.15	0.04	-12.39
12,817.00	0.79	139.98	12,811.99	-83.52	-41.10	-83.52	0.18	0.11	-10.72
12,911.00	0.35	168.81	12,905.98	-84.30	-40.63	-84.30	0.54	-0.47	30.67
13,006.00	0.04	157.56	13,000.98	-84.61	-40.56	-84.61	0.33	-0.33	-11.84
13,101.00	0.48	301.79	13,095.98	-84.44	-40.88	-84.44	0.54	0.46	151.82

Survey Report



Company:	Solaris Water Midstream	Local Co-ordinate Reference:	Well Mobley SWD
Project:	Eddy County, NM (NAD 83)	TVD Reference:	26' KB @ 3091.00usft
Site:	Sec 19, T 23-S, 30-E	MD Reference:	26' KB @ 3091.00usft
Well:	Mobley SWD	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,194.00	1.68	321.65	13,188.96	-83.16	-42.06	-83.16	1.33	1.29	21.35
13,248.00	2.37	321.21	13,242.93	-81.67	-43.25	-81.67	1.28	1.28	-0.81
13,379.00	2.15	308.56	13,373.83	-78.03	-46.87	-78.03	0.42	-0.17	-9.66
13,411.00	1.80	303.02	13,405.81	-77.38	-47.76	-77.38	1.24	-1.09	-17.31
13,504.00	1.76	303.90	13,498.76	-75.79	-50.17	-75.79	0.05	-0.04	0.95
13,598.00	1.41	313.83	13,592.73	-74.18	-52.20	-74.18	0.47	-0.37	10.56
13,692.00	1.49	306.36	13,686.70	-72.65	-54.02	-72.65	0.22	0.09	-7.95
13,798.00	0.40	222.00	13,792.68	-72.11	-55.38	-72.11	1.42	-1.03	-79.58
13,838.00	1.10	151.00	13,832.68	-72.55	-55.29	-72.55	2.60	1.75	-177.50
13,932.00	1.80	195.00	13,926.65	-74.77	-55.23	-74.77	1.35	0.74	46.81
14,026.00	1.10	202.00	14,020.62	-77.03	-55.95	-77.03	0.77	-0.74	7.45
14,120.00	1.50	183.00	14,114.60	-79.10	-56.35	-79.10	0.62	0.43	-20.21
14,213.00	0.90	240.00	14,207.58	-80.68	-57.05	-80.68	1.36	-0.65	61.29
14,307.00	1.70	257.00	14,301.56	-81.36	-59.05	-81.36	0.94	0.85	18.09
14,402.00	1.60	308.00	14,396.52	-80.86	-61.47	-80.86	1.50	-0.11	53.68
14,497.00	1.20	324.00	14,491.49	-79.24	-63.10	-79.24	0.58	-0.42	16.84
14,591.00	1.00	351.00	14,585.48	-77.63	-63.80	-77.63	0.58	-0.21	28.72
14,685.00	1.60	356.00	14,679.45	-75.51	-64.02	-75.51	0.65	0.64	5.32
14,770.00	1.40	39.00	14,764.43	-73.52	-63.45	-73.52	1.31	-0.24	50.59
14,819.00	0.48	27.13	14,813.42	-72.87	-62.98	-72.87	1.91	-1.88	-24.22
14,914.00	0.62	46.38	14,908.41	-72.16	-62.43	-72.16	0.24	0.15	20.26
15,007.00	1.10	53.50	15,001.40	-71.29	-61.35	-71.29	0.53	0.52	7.66
15,102.00	0.92	36.62	15,096.39	-70.13	-60.16	-70.13	0.36	-0.19	-17.77
15,127.00	1.23	42.34	15,121.38	-69.77	-59.86	-69.77	1.31	1.24	22.88
15,211.00	1.19	57.37	15,205.37	-68.64	-58.52	-68.64	0.38	-0.05	17.89
15,242.00	1.10	41.72	15,236.36	-68.24	-58.05	-68.24	1.05	-0.29	-50.48
15,335.00	1.23	25.46	15,329.34	-66.67	-57.02	-66.67	0.38	0.14	-17.48
15,430.00	1.01	19.40	15,424.32	-64.96	-56.31	-64.96	0.26	-0.23	-6.38
15,525.00	1.10	38.29	15,519.31	-63.46	-55.46	-63.46	0.38	0.09	19.88
15,618.00	0.92	22.39	15,612.29	-62.07	-54.63	-62.07	0.36	-0.19	-17.10
15,711.00	1.10	46.82	15,705.28	-60.76	-53.69	-60.76	0.50	0.19	26.27
15,806.00	1.63	115.29	15,800.26	-60.72	-51.81	-60.72	1.68	0.56	72.07
15,901.00	1.67	113.44	15,895.22	-61.85	-49.31	-61.85	0.07	0.04	-1.95
15,996.00	2.46	116.17	15,990.15	-63.30	-46.21	-63.30	0.84	0.83	2.87
16,090.00	2.68	125.75	16,084.06	-65.47	-42.62	-65.47	0.51	0.23	10.19
16,184.00	3.25	122.67	16,177.93	-68.19	-38.59	-68.19	0.63	0.61	-3.28
16,262.00	3.69	122.58	16,255.79	-70.74	-34.62	-70.74	0.56	0.56	-0.12
16,312.00	3.56	122.67	16,305.69	-72.44	-31.95	-72.44	0.26	-0.26	0.18
16,332.00	3.43	121.88	16,325.65	-73.09	-30.92	-73.09	0.69	-0.65	-3.95
Final MWD Survey									
16,370.00	3.43	121.88	16,363.59	-74.29	-28.99	-74.29	0.00	0.00	0.00
Projection to TD									

Survey Report



Company:	Solaris Water Midstream	Local Co-ordinate Reference:	Well Mobley SWD
Project:	Eddy County, NM (NAD 83)	TVD Reference:	26' KB @ 3091.00usft
Site:	Sec 19, T 23-S, 30-E	MD Reference:	26' KB @ 3091.00usft
Well:	Mobley SWD	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
422.00	421.98	-3.38	1.09	First MWD Survey
16,332.00	16,325.65	-73.09	-30.92	Final MWD Survey
16,370.00	16,363.59	-74.29	-28.99	Projection to TD

Checked By: _____ Approved By: _____ Date: _____

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Carlsbad Field Office

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.Lease Serial No.
NMNM89172

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.
SUNRISE MDP1 8-5 FEDERAL COM 171H9. API Well No.
30-015-44930-00-X110. Field and Pool or Exploratory Area
PURPLE SAGE-WOLFCAMP (GAS)11. County or Parish, State
EDDY COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
OXY USA INCORPORATEDContact: SARAH E CHAPMAN
E-Mail: SARAH_CHAPMAN@OXY.COM3a. Address
5 GREENWAY PLAZA SUITE 110
HOUSTON, TX 77046-05213b. Phone No. (include area code)
Ph: 713-350-4997

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 17 T24S R31E NENW 194FNL 1544FWL
32.224060 N Lat, 103.803398 W Lon**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Workover Operations
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

RUPU 5/3/19, RIH & cleanout to PBDT @ 22275'. Test 5-1/2" csg to 9800# for 30 minutes, good test. RIH & perf from 22195-22054, 22022-21882, 21850-21710, 21678-21538, 21506-21366, 21334-21194, 21162-21022, 20990-20850, 20818-20678, 20646-20506, 20474-20334, 20302-20162, 20130-19990, 19958-19818, 19786-19646, 19614-19474, 19439-19302, 19270-19130, 19098-18958, 18928-18786, 18754-18614, 18582-18442, 18410-18270, 18238-18098, 18066-17925, 17894-17754, 17722-17582, 17552-17410, 17378-17238, 17206-17066, 17034-16894, 16862-16722, 16690-16550, 16518-16378, 16346-16206, 16172-16034, 15998-15862, 15830-15690, 15658-15518, 15486-15346, 15514-15171, 15142-15004, 14970-14830, 14798-14658, 14626-14486, 14454-14314, 14282-14142, 14110-13970, 13938-13798, 13766-13626, 13594-13454, 13422-13282, 13250-13110, 13078-12938, 12906-12766, 12734-12594, 12562-12422, 12390-12250, 12218-12078, 12046-11906. Total 1500 holes. Frac in 60 stages w 11249112g slickwater, 4295g 7.5% HCL acid w/ 16818838# sand. 5/26/19 RD Schlumberger, RIH & cleanout for initial potential.

GC 6/25/19
Accepted for record - NMOC

RECEIVED

JUN 25 2019

DISTRICT II-ARTESIA O.C.D.

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #466975 verified by the BLM Well Information System
For OXY USA INCORPORATED, sent to the Carlsbad
Committed to AFMSS for processing by PRISCILLA PEREZ on 05/30/2019 (19PP2265SE)

Name (Printed/Typed) SARAH E CHAPMAN

Title REGULATORY SPECIALIST

Signature (Electronic Submission)

Date 05/30/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Title Accepted for Record

MAY 30 2019
Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office
Jonathon Shepard
Carlsbad Field Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

Additional data for EC transaction #466975 that would not fit on the form

32. Additional remarks, continued