

HOBBS OCD

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**CENTENNIAL RESOURCE
DEVELOPMENT, LLC**

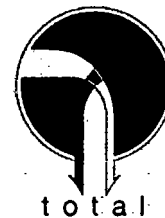
LEA COUNTY, NM (NAD 83 - UTM ZONE 13 - TRUE)

SW SE SEC. 22 T24S R34E

SOLOMON FEDERAL COM #710H

25 February, 2019

Survey: FINAL SURVEYS



Survey Report



Company:	CENTENNIAL RESOURCE DEVELOPME	Local Co-ordinate Reference:	Well SOLOMON FEDERAL COM #710H
Project:	LEA COUNTY, NM (NAD 83 - UTM ZONE	TVD Reference:	KB 25' @ 3520.00usft (H&P 650)
Site:	SW SE SEC. 22 T24S R34E	MD Reference:	KB 25' @ 3520.00usft (H&P 650)
Well:	SOLOMON FEDERAL COM #710H	North Reference:	True
Wellbore:	JOB # 2018-743-650	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Project	LEA COUNTY, NM (NAD 83 - UTM ZONE 13 - TRUE)		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 13N (108 W to 102 W)	Using geodetic scale factor	

Site	SW SE SEC. 22 T24S R34E				
Site Position:		Northing:	11,690,513.90 usft	Latitude:	32.196605
From:	Map	Easting:	2,118,464.51 usft	Longitude:	-103.454148
Position Uncertainty:	0.00 usft	Slot Radius:	1.10ft	Grid Convergence:	0.82 °

Well	SOLOMON FEDERAL COM #710H					
Well Position	+N/-S	0.00 usft	Northing:	11,690,514.22 usft	Latitude:	32.196605
	+E/-W	0.00 usft	Easting:	2,118,494.50 usft	Longitude:	-103.454051
Position Uncertainty	0.00 usft		Wellhead Elevation:	usft	Ground Level:	3,495.00 usft

Wellbore	JOB # 2018-743-650				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	05/12/2018	6.74	60.04	47,783

Design	FINAL SURVEYS				
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	357.96	

Survey Program	Date 25/02/2019				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
217.00	17,380.00	FINAL SURVEYS (JOB # 2018-743-650)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	3,520.00	0.00	0.00	0.00	0.00	0.00	0.00
217.00	0.70	314.77	216.99	3,303.01	0.93	-0.94	0.97	0.32	0.32	0.00
305.00	0.50	228.77	304.99	3,215.01	1.06	-1.61	1.12	0.94	-0.23	-97.73
394.00	0.10	30.77	393.99	3,126.01	0.87	-1.86	0.94	0.67	-0.45	182.02
480.00	0.70	312.77	479.99	3,040.01	1.29	-2.21	1.37	0.80	0.70	-90.70
565.00	0.20	174.77	564.99	2,955.01	1.50	-2.58	1.59	1.01	-0.59	-162.35
649.00	0.50	263.77	648.98	2,871.02	1.31	-2.93	1.41	0.64	0.36	105.95
734.00	0.30	15.77	733.98	2,786.02	1.48	-3.24	1.60	0.79	-0.24	131.76
818.00	0.30	123.77	817.98	2,702.02	1.57	-3.00	1.68	0.58	0.00	128.57
901.00	0.40	182.77	900.98	2,619.02	1.16	-2.83	1.26	0.43	0.12	71.08
985.00	0.30	23.77	984.98	2,535.02	1.07	-2.75	1.17	0.82	-0.12	-189.29
1,070.00	0.60	251.77	1,069.98	2,450.02	1.14	-3.09	1.24	0.98	0.35	-155.29
1,155.00	0.50	300.77	1,154.98	2,365.02	1.19	-3.83	1.32	0.55	-0.12	57.65

Survey Report



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Project:	LEA COUNTY, NM (NAD 83 - UTM ZONE	TVD Reference:	KB 25' @ 3520.00usft (H&P 650)
Site:	SW SE SEC. 22 T24S R34E	MD Reference:	KB 25' @ 3520.00usft (H&P 650)
Well:	SOLOMON FEDERAL COM #710H	North Reference:	True
Wellbore:	JOB # 2018-743-650	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,239.00	0.00	230.77	1,238.98	2,281.02	1.37	-4.14	1.52	0.60	-0.60	0.00
1,324.00	0.70	284.77	1,323.97	2,196.03	1.51	-4.65	1.67	0.82	0.82	0.00
LAST INVICTUS SURVEY										
1,333.00	0.70	229.77	1,332.97	2,187.03	1.48	-4.74	1.65	7.18	0.00	-611.11
13 3/8" CASING										
1,369.00	0.69	239.47	1,368.97	2,151.03	1.23	-5.09	1.41	0.33	-0.04	26.95
1,452.00	0.73	261.35	1,451.96	2,068.04	0.90	-6.05	1.12	0.33	0.05	26.36
1,547.00	0.91	259.88	1,546.95	1,973.05	0.68	-7.39	0.94	0.19	0.19	-1.55
1,641.00	1.07	252.78	1,640.94	1,879.06	0.29	-8.96	0.60	0.21	0.17	-7.55
1,735.00	1.07	251.53	1,734.92	1,785.08	-0.25	-10.63	0.13	0.02	0.00	-1.33
1,829.00	0.85	196.58	1,828.91	1,691.09	-1.20	-11.66	-0.78	0.96	-0.23	-58.46
1,923.00	1.14	185.63	1,922.90	1,597.10	-2.80	-11.95	-2.37	0.37	0.31	-11.65
2,017.00	1.07	184.40	2,016.88	1,503.12	-4.60	-12.11	-4.17	0.08	-0.07	-1.31
2,111.00	1.10	182.18	2,110.86	1,409.14	-6.38	-12.21	-5.94	0.05	0.03	-2.36
2,206.00	0.26	136.10	2,205.86	1,314.14	-7.45	-12.10	-7.01	0.99	-0.88	-48.51
2,300.00	0.45	66.53	2,299.85	1,220.15	-7.45	-11.61	-7.03	0.46	0.20	-74.01
2,394.00	0.44	75.93	2,393.85	1,126.15	-7.22	-10.92	-6.82	0.08	-0.01	10.00
2,488.00	0.49	77.76	2,487.85	1,032.15	-7.04	-10.18	-6.68	0.06	0.05	1.95
2,582.00	0.50	93.38	2,581.85	938.15	-6.98	-9.38	-6.65	0.14	0.01	16.62
2,676.00	0.54	95.54	2,675.84	844.16	-7.05	-8.53	-6.74	0.05	0.04	2.30
2,770.00	0.51	94.01	2,769.84	750.16	-7.12	-7.67	-6.85	0.04	-0.03	-1.63
2,864.00	0.49	89.18	2,863.83	656.17	-7.15	-6.85	-6.90	0.05	-0.02	-5.14
2,958.00	0.54	98.18	2,957.83	562.17	-7.20	-6.01	-6.98	0.10	0.05	9.57
3,052.00	0.64	100.41	3,051.83	468.17	-7.36	-5.05	-7.18	0.11	0.11	2.37
3,146.00	0.58	104.95	3,145.82	374.18	-7.58	-4.08	-7.43	0.08	-0.06	4.83
3,240.00	0.62	103.15	3,239.81	280.19	-7.82	-3.12	-7.70	0.05	0.04	-1.91
3,334.00	0.64	103.72	3,333.81	186.19	-8.06	-2.12	-7.98	0.02	0.02	0.61
3,428.00	0.85	110.33	3,427.80	92.20	-8.42	-0.95	-8.38	0.24	0.22	7.03
3,522.00	1.06	112.81	3,521.79	-1.79	-9.00	0.50	-9.01	0.23	0.22	2.64
3,617.00	1.17	116.83	3,616.77	-96.77	-9.78	2.18	-9.85	0.14	0.12	4.23
3,711.00	1.40	120.23	3,710.75	-190.75	-10.79	4.02	-10.93	0.26	0.24	3.62
3,805.00	0.49	82.08	3,804.73	-284.73	-11.32	5.41	-11.50	1.13	-0.97	-40.59
3,900.00	0.60	16.18	3,899.73	-379.73	-10.78	5.96	-10.99	0.63	0.12	-69.37
3,994.00	0.59	14.63	3,993.72	-473.72	-9.84	6.22	-10.06	0.02	-0.01	-1.65
4,087.00	0.64	7.67	4,086.72	-566.72	-8.86	6.41	-9.08	0.10	0.05	-7.48
4,182.00	0.47	349.88	4,181.72	-661.72	-7.95	6.41	-8.18	0.25	-0.18	-18.73
4,276.00	0.51	337.60	4,275.71	-755.71	-7.19	6.18	-7.40	0.12	0.04	-13.06
4,370.00	0.53	340.45	4,369.71	-849.71	-6.39	5.88	-6.60	0.03	0.02	3.03
4,464.00	0.64	353.11	4,463.70	-943.70	-5.46	5.67	-5.66	0.18	0.12	13.47
4,558.00	0.78	354.85	4,557.70	-1,037.70	-4.30	5.55	-4.50	0.15	0.15	1.85
4,652.00	0.34	64.72	4,651.69	-1,131.69	-3.54	5.74	-3.75	0.78	-0.47	74.33
4,746.00	0.76	119.48	4,745.69	-1,225.69	-3.73	6.54	-3.96	0.67	0.45	58.26
4,840.00	0.64	116.13	4,839.68	-1,319.68	-4.27	7.55	-4.54	0.13	-0.13	-3.56
4,935.00	0.68	119.95	4,934.67	-1,414.67	-4.79	8.52	-5.08	0.06	0.04	4.02
5,029.00	1.44	121.43	5,028.66	-1,508.66	-5.68	10.01	-6.03	0.81	0.81	1.57
5,123.00	1.87	129.30	5,122.62	-1,602.62	-7.27	12.20	-7.70	0.52	0.46	8.37
5,217.00	0.75	159.04	5,216.59	-1,696.59	-8.81	13.61	-9.29	1.36	-1.19	31.64
5,311.00	0.59	263.59	5,310.59	-1,790.59	-9.44	13.35	-9.91	1.13	-0.17	111.22
5,404.00	0.69	268.60	5,403.58	-1,883.58	-9.51	12.31	-9.94	0.12	0.11	5.39
5,500.00	0.80	280.69	5,499.58	-1,979.58	-9.40	11.08	-9.79	0.20	0.11	12.59
5,594.00	0.88	288.20	5,593.57	-2,073.57	-9.05	9.74	-9.39	0.14	0.09	7.99
5,688.00	0.91	296.59	5,687.55	-2,167.55	-8.49	8.39	-8.78	0.14	0.03	8.93
5,782.00	0.85	300.59	5,781.54	-2,261.54	-7.80	7.12	-8.05	0.09	-0.06	4.26

Survey Report



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Wellbore:	JOB # 2018-743-650	Survey Calculation Method:	Minimum Curvature
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Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,876.00	0.86	314.28	5,875.53	-2,355.53	-6.96	6.02	-7.17	0.22	0.01	14.56
5,970.00	0.91	320.80	5,969.52	-2,449.52	-5.88	5.04	-6.06	0.12	0.05	6.94
6,064.00	0.83	318.73	6,063.51	-2,543.51	-4.79	4.12	-4.94	0.09	-0.09	-2.20
6,159.00	0.85	325.39	6,158.50	-2,638.50	-3.70	3.27	-3.81	0.10	0.02	7.01
6,253.00	1.00	324.76	6,252.49	-2,732.49	-2.45	2.40	-2.54	0.16	0.16	-0.67
6,347.00	1.16	322.80	6,346.47	-2,826.47	-1.03	1.35	-1.07	0.17	0.17	-2.09
6,441.00	0.96	320.06	6,440.46	-2,920.46	0.34	0.27	0.33	0.22	-0.21	-2.91
6,535.00	0.78	312.65	6,534.44	-3,014.44	1.37	-0.71	1.40	0.23	-0.19	-7.88
START NUDGE										
6,629.00	0.70	252.20	6,628.44	-3,108.44	1.63	-1.73	1.69	0.80	-0.09	-64.31
6,724.00	1.63	210.02	6,723.42	-3,203.42	0.28	-2.95	0.39	1.27	0.98	-44.40
6,818.00	1.94	205.48	6,817.37	-3,297.37	-2.31	-4.31	-2.16	0.36	0.33	-4.83
6,912.00	2.16	219.69	6,911.31	-3,391.31	-5.11	-6.12	-4.89	0.59	0.23	15:12
7,005.00	3.64	218.63	7,004.19	-3,484.19	-8.76	-9.09	-8.44	1.59	1.59	-1.14
7,099.00	5.27	217.68	7,097.90	-3,577.90	-14.51	-13.59	-14.02	1.74	1.73	-1.01
7,193.00	6.33	220.36	7,191.42	-3,671.42	-21.88	-19.58	-21.17	1.16	1.13	2.85
7,287.00	7.25	223.45	7,284.76	-3,764.76	-30.13	-27.02	-29.15	1.05	0.98	3.29
7,381.00	8.70	220.98	7,377.85	-3,857.85	-39.81	-35.76	-38.51	1.58	1.54	-2.63
7,475.00	9.10	219.97	7,470.72	-3,950.72	-50.87	-45.20	-49.23	0.46	0.43	-1.07
7,569.00	9.13	219.35	7,563.53	-4,043.53	-62.33	-54.70	-60.35	0.11	0.03	-0.66
7,663.00	9.16	217.92	7,656.34	-4,136.34	-74.00	-64.03	-71.68	0.24	0.03	-1.52
7,757.00	9.12	217.08	7,749.14	-4,229.14	-85.85	-73.12	-83.20	0.15	-0.04	-0.89
7,851.00	8.92	217.83	7,841.98	-4,321.98	-97.55	-82.08	-94.57	0.25	-0.21	0.80
7,945.00	8.82	218.06	7,934.86	-4,414.86	-108.98	-90.99	-105.68	0.11	-0.11	0.24
8,039.00	8.39	218.28	8,027.80	-4,507.80	-120.04	-99.68	-116.42	0.46	-0.46	0.23
8,133.00	8.08	218.60	8,120.83	-4,600.83	-130.58	-108.05	-126.66	0.33	-0.33	0.34
8,227.00	7.79	219.24	8,213.93	-4,693.93	-140.68	-116.20	-136.46	0.32	-0.31	0.68
8,321.00	7.51	219.24	8,307.09	-4,787.09	-150.37	-124.12	-145.87	0.30	-0.30	0.00
8,415.00	7.22	219.34	8,400.32	-4,880.32	-159.70	-131.75	-154.92	0.31	-0.31	0.11
8,509.00	5.72	220.69	8,493.72	-4,973.72	-167.82	-138.55	-162.79	1.60	-1.60	1.44
8,603.00	5.08	222.83	8,587.30	-5,067.30	-174.42	-144.43	-169.18	0.71	-0.68	2.28
8,697.00	4.18	227.32	8,680.99	-5,160.99	-179.80	-149.78	-174.36	1.03	-0.96	4.78
8,792.00	2.80	234.19	8,775.81	-5,255.81	-183.50	-154.21	-177.91	1.52	-1.45	7.23
8,885.00	2.40	240.40	8,868.72	-5,348.72	-185.79	-157.74	-180.07	0.53	-0.43	6.68
8,979.00	2.38	245.18	8,962.64	-5,442.64	-187.58	-161.22	-181.74	0.21	-0.02	5.09
9,074.00	1.53	262.77	9,057.58	-5,537.58	-188.57	-164.27	-182.62	1.09	-0.89	18.52
9,167.00	1.00	321.95	9,150.56	-5,630.56	-188.09	-166.00	-182.07	1.43	-0.57	63.63
9,262.00	1.10	321.19	9,245.54	-5,725.54	-186.73	-167.09	-180.67	0.11	0.11	-0.80
9,356.00	1.19	314.44	9,339.53	-5,819.53	-185.34	-168.35	-179.24	0.17	0.10	-7.18
9,450.00	1.21	321.34	9,433.51	-5,913.51	-183.88	-169.67	-177.74	0.16	0.02	7.34
9,544.00	1.03	321.55	9,527.49	-6,007.49	-182.44	-170.81	-176.26	0.19	-0.19	0.22
9,638.00	1.05	330.88	9,621.47	-6,101.47	-181.03	-171.76	-174.82	0.18	0.02	9.93
9,732.00	1.77	339.77	9,715.44	-6,195.44	-178.91	-172.68	-172.67	0.80	0.77	9.46
9,826.00	0.31	306.29	9,809.43	-6,289.43	-177.40	-173.38	-171.13	1.62	-1.55	-35.62
9,920.00	1.14	199.11	9,903.42	-6,383.42	-178.14	-173.90	-171.85	1.35	0.88	-114.02
10,014.00	0.99	201.63	9,997.40	-6,477.40	-179.77	-174.50	-173.46	0.17	-0.16	2.68
10,108.00	1.05	208.88	10,091.39	-6,571.39	-181.28	-175.22	-174.95	0.15	0.06	7.71
10,203.00	1.08	208.88	10,186.37	-6,666.37	-182.83	-176.07	-176.46	0.03	0.03	0.00
10,297.00	0.76	200.22	10,280.36	-6,760.36	-184.19	-176.71	-177.80	0.37	-0.34	-9.21
10,391.00	0.75	211.35	10,374.35	-6,854.35	-185.30	-177.25	-178.89	0.16	-0.01	11.84
10,485.00	0.86	230.92	10,468.34	-6,948.34	-186.27	-178.12	-179.83	0.31	0.12	20.82
10,579.00	0.96	228.67	10,562.33	-7,042.33	-187.23	-179.25	-180.75	0.11	0.11	-2.39
10,674.00	1.04	236.27	10,657.32	-7,137.32	-188.24	-180.57	-181.71	0.16	0.08	8.00

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Site:	SW SE SEC. 22 T24S R34E	MD Reference:	KB 25' @ 3520.00usft (H&P 650)
Well:	SOLOMON FEDERAL COM #710H	North Reference:	True
Wellbore:	JOB # 2018-743-650	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,768.00	0.99	235.76	10,751.30	-7,231.30	-189.17	-181.95	-182.59	0.05	-0.05	-0.54
10,863.00	1.09	252.98	10,846.29	-7,326.29	-189.90	-183.49	-183.26	0.34	0.11	18.13
10,957.00	1.09	258.36	10,940.27	-7,420.27	-190.34	-185.22	-183.64	0.11	0.00	5.72
11,051.00	1.32	267.08	11,034.25	-7,514.25	-190.57	-187.18	-183.81	0.31	0.24	9.28
11,145.00	0.77	295.01	11,128.23	-7,608.23	-190.36	-188.83	-183.54	0.78	-0.59	29.71
11,240.00	0.71	317.18	11,223.22	-7,703.22	-189.66	-189.81	-182.80	0.31	-0.06	23.34
11,334.00	0.79	307.62	11,317.22	-7,797.22	-188.84	-190.72	-181.95	0.16	0.09	-10.17
11,428.00	0.54	288.33	11,411.21	-7,891.21	-188.30	-191.66	-181.38	0.35	-0.27	-20.52
11,522.00	0.77	281.50	11,505.20	-7,985.20	-188.04	-192.69	-181.08	0.26	0.24	-7.27
11,616.00	0.88	259.64	11,599.19	-8,079.19	-188.04	-194.02	-181.03	0.35	0.12	-23.26
11,694.00	1.18	253.60	11,677.18	-8,157.18	-188.38	-195.38	-181.32	0.41	0.38	-7.74
ICP										
11,738.00	1.00	241.78	11,721.17	-8,201.17	-188.68	-196.15	-181.60	0.66	-0.42	-26.87
11,773.00	0.89	229.30	11,756.17	-8,236.17	-189.01	-196.63	-181.90	0.66	-0.30	-35.65
11,805.00	0.82	204.82	11,788.17	-8,268.17	-189.38	-196.91	-182.26	1.15	-0.22	-76.50
11,837.00	0.85	189.07	11,820.16	-8,300.16	-189.82	-197.05	-182.70	0.72	0.09	-49.22
11,869.00	0.97	188.28	11,852.16	-8,332.16	-190.32	-197.12	-183.20	0.38	0.37	-2.47
KOP										
11,891.00	0.82	188.09	11,874.16	-8,354.16	-190.66	-197.17	-183.54	0.69	-0.69	-0.86
11,901.00	0.75	187.98	11,884.15	-8,364.15	-190.80	-197.19	-183.67	0.69	-0.69	-1.11
11,933.00	0.19	288.33	11,916.15	-8,396.15	-190.99	-197.27	-183.86	2.52	-1.75	313.59
11,964.00	2.17	356.22	11,947.15	-8,427.15	-190.38	-197.36	-183.26	6.79	6.39	219.00
11,996.00	4.07	0.04	11,979.10	-8,459.10	-188.64	-197.40	-181.52	5.97	5.94	11.94
12,028.00	5.89	4.96	12,010.98	-8,490.98	-185.87	-197.25	-178.75	5.84	5.69	15.37
12,060.00	7.92	7.08	12,042.74	-8,522.74	-182.05	-196.84	-174.94	6.39	6.34	6.62
12,092.00	10.32	2.82	12,074.34	-8,554.34	-177.00	-196.43	-169.91	7.79	7.50	-13.31
12,124.00	13.80	358.78	12,105.62	-8,585.62	-170.32	-196.37	-163.24	11.18	10.87	-12.62
12,156.00	17.71	357.24	12,136.42	-8,616.42	-161.64	-196.68	-154.55	12.29	12.22	-4.81
12,188.00	23.42	355.98	12,166.37	-8,646.37	-150.42	-197.37	-143.32	17.90	17.84	-3.94
12,220.00	27.96	357.54	12,195.19	-8,675.19	-136.57	-198.13	-129.45	14.34	14.19	4.87
12,252.00	31.70	357.98	12,222.95	-8,702.95	-120.67	-198.75	-113.54	11.71	11.69	1.37
12,284.00	35.83	358.60	12,249.55	-8,729.55	-102.90	-199.28	-95.76	12.95	12.91	1.94
12,316.00	40.54	359.10	12,274.69	-8,754.69	-83.13	-199.67	-75.98	14.75	14.72	1.56
12,348.00	44.80	359.41	12,298.22	-8,778.22	-61.44	-199.95	-54.30	13.33	13.31	0.97
12,379.00	50.07	357.67	12,319.18	-8,799.18	-38.63	-200.55	-31.48	17.49	17.00	-5.61
12,412.00	55.42	355.69	12,339.15	-8,819.15	-12.42	-202.08	-5.24	16.90	16.21	-6.00
12,444.00	61.26	355.60	12,355.94	-8,835.94	14.73	-204.15	21.97	18.25	18.25	-0.28
12,476.00	67.98	357.28	12,369.65	-8,849.65	43.57	-205.93	50.85	21.53	21.00	5.25
12,508.00	72.78	359.60	12,380.39	-8,860.39	73.69	-206.74	80.98	16.48	15.00	7.25
12,540.00	77.75	2.54	12,388.53	-8,868.53	104.61	-206.16	111.87	17.89	15.53	9.19
12,572.00	81.34	5.80	12,394.34	-8,874.34	135.99	-203.86	143.14	15.04	11.22	10.19
12,605.00	82.07	6.08	12,399.10	-8,879.10	168.47	-200.48	175.48	2.37	2.21	0.85
12,636.00	82.92	6.11	12,403.15	-8,883.15	199.03	-197.22	205.91	2.74	2.74	0.10
12,668.00	83.54	6.43	12,406.92	-8,886.92	230.62	-193.75	237.35	2.18	1.94	1.00
12,700.00	84.45	6.91	12,410.27	-8,890.27	262.22	-190.05	268.81	3.21	2.84	1.50
12,731.00	85.41	5.62	12,413.01	-8,893.01	292.92	-186.69	299.36	5.17	3.10	-4.16
12,763.00	84.41	2.00	12,415.85	-8,895.85	324.72	-184.57	331.06	11.69	-3.12	-11.31
12,795.00	83.55	358.89	12,419.20	-8,899.20	356.53	-184.32	362.85	10.03	-2.69	-9.72
12,827.00	83.50	358.68	12,422.81	-8,902.81	388.32	-184.99	394.65	0.67	-0.16	-0.66
12,874.00	84.51	358.73	12,427.72	-8,907.72	435.05	-186.05	441.38	2.15	2.15	0.11
12,922.00	83.99	0.46	12,432.53	-8,912.53	482.81	-186.39	489.12	3.75	-1.08	3.60
12,969.00	85.18	359.60	12,436.96	-8,916.96	529.60	-186.36	535.88	3.12	2.53	-1.83

Survey Report



Company:	CENTENNIAL RESOURCE DEVELOPME	Local Co-ordinate Reference:	Well SOLOMON FEDERAL COM #710H
Project:	LEA COUNTY, NM (NAD 83 - UTM ZONE	TVD Reference:	KB 25' @ 3520.00usft (H&P 650)
Site:	SW SE SEC. 22 T24S R34E	MD Reference:	KB 25' @ 3520.00usft (H&P 650)
Well:	SOLOMON FEDERAL COM #710H	North Reference:	True
Wellbore:	JOB # 2018-743-650	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
HZ LANDING										
13,019.00	86.47	359.39	12,440.60	-8,920.60	579.46	-186.80	585.73	2.61	2.58	-0.42
13,066.00	86.57	0.94	12,443.46	-8,923.46	626.37	-186.67	632.61	3.30	0.21	3.30
13,114.00	87.44	0.75	12,445.96	-8,925.96	674.30	-185.96	680.48	1.86	1.81	-0.40
13,161.00	88.21	0.21	12,447.75	-8,927.75	721.27	-185.57	727.40	2.00	1.64	-1.15
13,210.00	87.15	1.73	12,449.73	-8,929.73	770.22	-184.74	776.29	3.78	-2.16	3.10
13,257.00	87.86	1.94	12,451.78	-8,931.78	817.15	-183.24	823.14	1.58	1.51	0.45
13,305.00	88.34	1.80	12,453.37	-8,933.37	865.10	-181.67	871.00	1.04	1.00	-0.29
13,401.00	87.40	1.05	12,456.94	-8,936.94	961.00	-179.28	966.76	1.25	-0.98	-0.78
13,497.00	87.37	0.75	12,461.32	-8,941.32	1,056.89	-177.78	1,062.53	0.31	-0.03	-0.31
13,593.00	87.34	0.98	12,465.75	-8,945.75	1,152.77	-176.33	1,158.31	0.24	-0.03	0.24
13,689.00	90.36	0.01	12,467.67	-8,947.67	1,248.74	-175.50	1,254.18	3.30	3.15	-1.01
13,784.00	93.64	359.54	12,464.36	-8,944.36	1,343.67	-175.87	1,349.06	3.49	3.45	-0.49
13,816.00	92.64	358.87	12,462.61	-8,942.61	1,375.61	-176.32	1,381.01	3.76	-3.12	-2.09
13,848.00	93.34	359.72	12,460.94	-8,940.94	1,407.57	-176.71	1,412.95	3.44	2.19	2.66
13,880.00	93.02	0.47	12,459.16	-8,939.16	1,439.52	-176.66	1,444.88	2.54	-1.00	2.34
13,913.00	93.06	359.77	12,457.41	-8,937.41	1,472.47	-176.59	1,477.81	2.12	0.12	-2.12
13,943.00	91.73	359.36	12,456.16	-8,936.16	1,502.44	-176.82	1,507.77	4.64	-4.43	-1.37
13,975.00	90.67	358.79	12,455.49	-8,935.49	1,534.43	-177.33	1,539.76	3.76	-3.31	-1.78
14,007.00	90.14	358.38	12,455.26	-8,935.26	1,566.42	-178.12	1,571.76	2.09	-1.66	-1.28
14,039.00	89.82	358.31	12,455.27	-8,935.27	1,598.41	-179.05	1,603.76	1.02	-1.00	-0.22
14,071.00	89.83	358.11	12,455.37	-8,935.37	1,630.39	-180.05	1,635.76	0.63	0.03	-0.62
14,167.00	93.08	0.17	12,452.93	-8,932.93	1,726.33	-181.49	1,731.69	4.01	3.39	2.15
14,262.00	93.36	1.13	12,447.60	-8,927.60	1,821.17	-180.41	1,826.43	1.05	0.29	1.01
14,358.00	89.54	0.83	12,445.17	-8,925.17	1,917.11	-178.77	1,922.25	3.99	-3.98	-0.31
14,454.00	89.27	0.19	12,446.17	-8,926.17	2,013.10	-177.92	2,018.15	0.72	-0.28	-0.67
14,549.00	89.93	359.90	12,446.83	-8,926.83	2,108.10	-177.84	2,113.08	0.76	0.69	-0.31
14,645.00	93.60	2.25	12,443.87	-8,923.87	2,204.01	-176.04	2,208.87	4.54	3.82	2.45
14,677.00	93.01	2.23	12,442.03	-8,922.03	2,235.94	-174.80	2,240.73	1.84	-1.84	-0.06
14,708.00	92.38	2.73	12,440.57	-8,920.57	2,266.87	-173.46	2,271.60	2.59	-2.03	1.61
14,740.00	91.93	3.47	12,439.37	-8,919.37	2,298.80	-171.73	2,303.45	2.71	-1.41	2.31
14,836.00	93.18	3.85	12,435.09	-8,915.09	2,394.51	-165.60	2,398.88	1.36	1.30	0.40
14,931.00	91.68	1.29	12,431.06	-8,911.06	2,489.32	-161.35	2,493.48	3.12	-1.58	-2.69
15,027.00	93.21	1.42	12,426.96	-8,906.96	2,585.20	-159.08	2,589.22	1.60	1.59	0.14
15,123.00	92.35	359.53	12,422.31	-8,902.31	2,681.08	-158.29	2,685.01	2.16	-0.90	-1.97
15,218.00	94.49	359.86	12,416.64	-8,896.64	2,775.90	-158.79	2,779.79	2.28	2.25	0.35
15,250.00	94.41	359.78	12,414.16	-8,894.16	2,807.81	-158.89	2,811.68	0.35	-0.25	-0.25
15,282.00	93.07	359.54	12,412.07	-8,892.07	2,839.74	-159.08	2,843.59	4.25	-4.19	-0.75
15,314.00	91.38	359.23	12,410.83	-8,890.83	2,871.71	-159.43	2,875.56	5.37	-5.28	-0.97
15,409.00	90.32	359.80	12,409.42	-8,889.42	2,966.69	-160.23	2,970.51	1.27	-1.12	0.60
15,505.00	90.48	2.03	12,408.75	-8,888.75	3,062.67	-158.70	3,066.38	2.33	0.17	2.32
15,601.00	89.57	0.50	12,408.71	-8,888.71	3,158.65	-156.58	3,162.21	1.85	-0.95	-1.59
15,696.00	91.51	3.89	12,407.81	-8,887.81	3,253.55	-152.94	3,256.93	4.11	2.04	3.57
15,792.00	89.38	3.40	12,407.06	-8,887.06	3,349.35	-146.84	3,352.45	2.28	-2.22	-0.51
15,887.00	89.16	1.55	12,408.28	-8,888.28	3,444.25	-142.74	3,447.15	1.96	-0.23	-1.95
15,983.00	88.92	359.11	12,409.88	-8,889.88	3,540.23	-142.18	3,543.04	2.55	-0.25	-2.54
16,079.00	91.74	359.19	12,409.33	-8,889.33	3,636.21	-143.61	3,639.01	2.94	2.94	0.08
16,175.00	91.04	358.90	12,407.00	-8,887.00	3,732.16	-145.21	3,734.97	0.79	-0.73	-0.30
16,270.00	89.57	357.91	12,406.50	-8,886.50	3,827.12	-147.85	3,829.96	1.87	-1.55	-1.04
16,365.00	89.24	357.18	12,407.48	-8,887.48	3,922.03	-151.92	3,924.95	0.84	-0.35	-0.77
16,461.00	88.60	357.14	12,409.29	-8,889.29	4,017.89	-156.68	4,020.92	0.67	-0.67	-0.04
16,557.00	89.68	357.70	12,410.73	-8,890.73	4,113.78	-161.00	4,116.91	1.27	1.12	0.58
16,652.00	92.31	359.36	12,409.08	-8,889.08	4,208.73	-163.43	4,211.88	3.27	2.77	1.75

Survey Report



Company:	CENTENNIAL RESOURCE DEVELOPME	Local Co-ordinate Reference:	Well SOLOMON FEDERAL COM #710H
Project:	LEA COUNTY, NM (NAD 83 - UTM ZONE	TVD Reference:	KB 25' @ 3520.00usft (H&P 650)
Site:	SW SE SEC. 22 T24S R34E	MD Reference:	KB 25' @ 3520.00usft (H&P 650)
Well:	SOLOMON FEDERAL COM #710H	North Reference:	True
Wellbore:	JOB # 2018-743-650	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
16,748.00	89.54	357.92	12,407.53	-8,887.53	4,304.67	-165.71	4,307.84	3.25	-2.89	-1.50
16,844.00	91.01	0.45	12,407.07	-8,887.07	4,400.65	-167.08	4,403.81	3.05	1.53	2.64
16,939.00	90.87	0.21	12,405.51	-8,885.51	4,495.64	-166.53	4,498.72	0.29	-0.15	-0.25
17,035.00	90.21	358.95	12,404.61	-8,884.61	4,591.63	-167.23	4,594.67	1.48	-0.69	-1.31
17,131.00	88.92	357.99	12,405.34	-8,885.34	4,687.59	-169.80	4,690.66	1.67	-1.34	-1.00
17,226.00	89.15	0.28	12,406.94	-8,886.94	4,782.56	-171.23	4,785.62	2.42	0.24	2.41
- CROSS SETBACK										
17,319.67	89.65	0.30	12,407.92	-8,887.92	4,876.22	-170.76	4,879.21	0.53	0.53	0.02
LAST SURVEY FEB 24, 2019										
17,322.00	89.66	0.30	12,407.94	-8,887.94	4,878.55	-170.74	4,881.54	0.53	0.53	0.02
PROJECTION TO TD										
17,380.00	89.66	0.30	12,408.28	-8,888.28	4,936.55	-170.44	4,939.49	0.00	0.00	0.00

Survey Report



Company:	CENTENNIAL RESOURCE DEVELOPME	Local Co-ordinate Reference:	Well SOLOMON FEDERAL COM #710H
Project:	LEA COUNTY, NM (NAD 83 - UTM ZONE	TVD Reference:	KB 25' @ 3520.00usft (H&P 650)
Site:	SW SE SEC. 22 T24S R34E	MD Reference:	KB 25' @ 3520.00usft (H&P 650)
Well:	SOLOMON FEDERAL COM #710H	North Reference:	True
Wellbore:	JOB # 2018-743-650	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
FTP/PP - SOLOMON FE	0.00	0.00	12,455.27	380.16	-175.01	11,690,891.77	2,118,314.07	32.197650	-103.454617
- survey misses target center by 34.61usft at 12822.34usft MD (12422.28 TVD, 383.70 N, -184.89 E)									
- Point									
KOP - SOLOMON FEDE	0.00	0.00	11,889.44	-779.80	-175.22	11,689,732.09	2,118,330.53	32.194462	-103.454617
- survey misses target center by 589.33usft at 11909.74usft MD (11892.90 TVD, -190.89 N, -197.21 E)									
- Point									
LTP/BHL - SOLOMON F	0.00	0.00	12,400.50	4,876.22	-173.27	11,695,386.77	2,118,251.16	32.210008	-103.454611
- survey misses target center by 7.84usft at 17319.58usft MD (12407.92 TVD, 4876.13 N, -170.76 E)									
- Point									
KOP - SOLOMON FEDE	0.00	0.00	11,882.35	-199.80	-175.22	11,690,311.95	2,118,322.20	32.196056	-103.454617
- survey misses target center by 23.75usft at 11899.28usft MD (11882.43 TVD, -190.77 N, -197.19 E)									
- Point									
FTP/PP - SOLOMON FE	0.00	0.00	12,462.36	-199.84	-175.02	11,690,311.91	2,118,322.40	32.196056	-103.454617
- survey misses target center by 215.68usft at 12356.67usft MD (12304.29 TVD, -55.26 N, -200.04 E)									
- Point									
ABDN VERT BUFF 22	0.00	0.00	15,522.20	1,685.05	-1,825.86	11,692,172.62	2,116,644.86	32.201237	-103.459953
- survey misses target center by 3480.92usft at 14072.47usft MD (12455.37 TVD, 1631.86 N, -180.09 E)									
- Circle (radius 30.00)									
LTP/BHL - SOLOMON F	0.00	0.00	12,400.50	4,876.22	-173.27	11,695,386.77	2,118,251.16	32.210008	-103.454611
- survey misses target center by 7.84usft at 17319.58usft MD (12407.92 TVD, 4876.13 N, -170.76 E)									
- Point									
ABDN VERT MADRA B	0.00	0.00	15,489.00	363.85	-2,153.99	11,690,847.02	2,116,335.80	32.197605	-103.461014
- survey misses target center by 3634.42usft at 13019.00usft MD (12440.60 TVD, 579.46 N, -186.80 E)									
- Circle (radius 30.00)									

Survey Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
1,333.00	1,332.97	1.48	-4.74	LAST INVICTUS SURVEY
1,369.00	1,368.97	1.23	-5.09	13 3/8" CASING
6,629.00	6,628.44	1.63	-1.73	START NUDGE
11,738.00	11,721.17	-188.68	-196.15	ICP
11,891.00	11,874.16	-190.66	-197.17	KOP
13,019.00	12,440.60	579.46	-186.80	HZ LANDING
17,319.67	12,407.92	4,876.22	-170.76	~ CROSS SETBACK
17,322.00	12,407.94	4,878.55	-170.74	LAST SURVEY FEB 24, 2019
17,380.00	12,408.28	4,936.55	-170.44	PROJECTION TO TD

Checked By: _____ Approved By: _____ Date: _____