EXTRACTION OIL & GAS

Weld County
Sec 32-T6N-R67W
MILKSHAKE 31W-20-1N

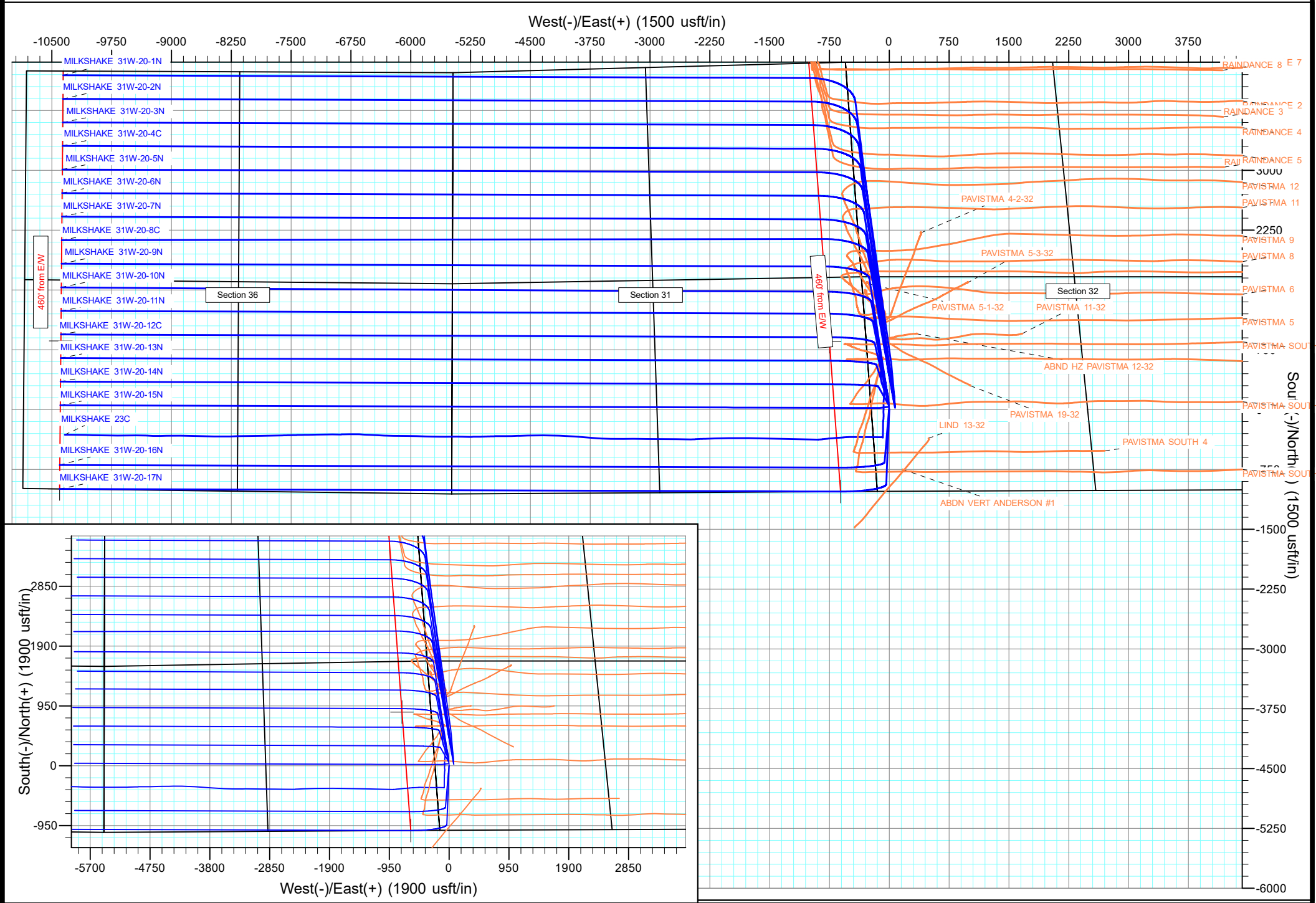
ORIGINAL WELLBORE
PROPOSAL 1

Anticollision Report

31 October, 2017

EXTRACTION Oil & Gas

Project: Weld County
Site: Sec 32-T6N-R67W
Well: MILKSHAKE 31W-20-17N
ORIGINAL WELLBORE
PROPOSAL 1



Anticollision Report

Company:	EXTRACTION OIL & GAS	**Local Co-ordinate Reference:**	Well MILKSHAKE 31W-20-1N
Project:	Weld County	**TVD Reference:**	KB 25' @ 4973.00usft
Reference Site:	Sec 32-T6N-R67W	**MD Reference:**	KB 25' @ 4973.00usft
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	MILKSHAKE 31W-20-1N	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	**Offset TVD Reference:**	Offset Datum

Reference	PROPOSAL 1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 100.00usft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 9,999.98 usft	**Error Surface:**	Pedal Curve
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 10/31/2017

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	17,956.90	PROPOSAL 1 (ORIGINAL WELLBORE)	MWD OWSG	OWSG MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Sec 30-T6N-R67W						
RAINDANCE 2 - Wellbore #1 - Wellbore #1	7,950.00	7,025.72	138.35	60.16	1.769	ES, SF
RAINDANCE 2 - Wellbore #1 - Wellbore #1	7,978.95	7,030.05	135.68	60.19	1.797	CC
RAINDANCE 3 - Wellbore #1 - Wellbore #1	7,736.71	6,783.71	329.53	234.04	3.451	SF
RAINDANCE 3 - Wellbore #1 - Wellbore #1	7,950.00	6,992.23	315.31	229.50	3.674	ES
RAINDANCE 3 - Wellbore #1 - Wellbore #1	7,996.60	7,019.73	313.85	232.00	3.834	CC
RAINDANCE 4 - Wellbore #1 - Wellbore #1	7,432.04	6,527.08	349.26	255.35	3.719	CC, ES, SF
RAINDANCE 5 - Wellbore #1 - Wellbore #1	7,015.40	6,217.25	356.32	264.86	3.896	CC, ES, SF
RAINDANCE 6 - Wellbore #1 - Wellbore #1	6,867.68	6,107.95	376.92	286.40	4.164	CC, ES
RAINDANCE 6 - Wellbore #1 - Wellbore #1	6,900.00	6,130.67	377.62	286.73	4.155	SF
RAINDANCE 7 - Wellbore #1 - Wellbore #1	8,219.26	7,083.69	181.16	111.00	2.582	CC
RAINDANCE 7 - Wellbore #1 - Wellbore #1	8,250.00	7,074.70	183.75	110.68	2.515	ES, SF
RAINDANCE 8 - Wellbore #1 - Wellbore #1	8,368.24	7,152.75	139.28	69.40	1.993	CC
RAINDANCE 8 - Wellbore #1 - Wellbore #1	8,400.00	7,139.53	142.52	67.48	1.899	ES, SF
Sec 32-T6N-R67W						
ABDN VERT ANDERSON #1 - Wellbore #1 - Design #1	100.00	77.00	902.57	901.92	1,395.008	CC
ABDN VERT ANDERSON #1 - Wellbore #1 - Design #1	200.00	176.98	904.31	901.29	298.567	ES
ABDN VERT ANDERSON #1 - Wellbore #1 - Design #1	5,900.00	5,106.45	3,641.98	3,515.38	28.767	SF
ABND HZ PAVISTMA 12-32 - Wellbore #1 - Wellbore #1	2,314.17	2,126.95	9.82	-11.39	0.463	Level 1, CC, ES, SF
LIND 13-32 - Wellbore #1 - Wellbore #1	101.84	56.83	1,701.03	1,700.82	8,386.991	CC, ES
LIND 13-32 - Wellbore #1 - Wellbore #1	5,600.00	5,529.00	3,268.84	3,220.99	68.306	SF
MILKSHAKE 23C - ORIGINAL WELLBORE - WB #1 - PA	1,293.87	1,286.28	128.69	122.04	19.352	CC, ES
MILKSHAKE 23C - ORIGINAL WELLBORE - WB #1 - PA	17,957.60	17,369.00	4,508.94	3,956.48	8.162	SF
MILKSHAKE 31W-20-10N - ORIGINAL WELLBORE - PR	100.00	101.00	77.10	76.82	282.983	CC
MILKSHAKE 31W-20-10N - ORIGINAL WELLBORE - PR	200.00	200.98	77.38	76.39	78.189	ES
MILKSHAKE 31W-20-10N - ORIGINAL WELLBORE - PR	17,957.60	17,174.19	2,659.12	2,105.41	4.802	SF
MILKSHAKE 31W-20-11N - ORIGINAL WELLBORE - PR	100.00	101.00	83.20	82.93	305.387	CC
MILKSHAKE 31W-20-11N - ORIGINAL WELLBORE - PR	200.00	200.98	83.84	82.85	84.687	ES
MILKSHAKE 31W-20-11N - ORIGINAL WELLBORE - PR	17,957.60	17,134.06	2,954.54	2,401.14	5.339	SF
MILKSHAKE 31W-20-12C - ORIGINAL WELLBORE - PR	100.00	101.00	92.33	92.06	338.909	CC, ES
MILKSHAKE 31W-20-12C - ORIGINAL WELLBORE - PR	17,957.60	17,290.09	3,254.92	2,701.23	5.879	SF
MILKSHAKE 31W-20-13N - ORIGINAL WELLBORE - PR	100.00	100.00	103.96	103.69	386.669	CC, ES
MILKSHAKE 31W-20-13N - ORIGINAL WELLBORE - PR	17,957.60	17,102.15	3,545.45	2,991.45	6.400	SF
MILKSHAKE 31W-20-14N - ORIGINAL WELLBORE - PR	100.00	100.00	117.01	116.74	435.229	CC, ES
MILKSHAKE 31W-20-14N - ORIGINAL WELLBORE - PR	17,957.60	17,105.07	3,841.26	3,286.94	6.930	SF
MILKSHAKE 31W-20-15N - ORIGINAL WELLBORE - PR	100.00	100.00	131.53	131.26	489.209	CC, ES
MILKSHAKE 31W-20-15N - ORIGINAL WELLBORE - PR	17,957.60	17,121.49	4,136.72	3,582.02	7.458	SF

Anticollision Report

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Reference Site:	Sec 32-T6N-R67W	**MD Reference:**	KB 25' @ 4973.00usft
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	MILKSHAKE 31W-20-1N	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	**Database:**	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Sec 32-T6N-R67W						
MILKSHAKE 31W-20-16N - ORIGINAL WELLBORE - PR	100.00	100.00	146.56	146.29	545.113	CC, ES
MILKSHAKE 31W-20-16N - ORIGINAL WELLBORE - PR	17,957.60	17,225.61	4,886.46	4,330.86	8.795	SF
MILKSHAKE 31W-20-17N - ORIGINAL WELLBORE - PR	100.00	100.00	162.17	161.90	603.191	CC, ES
MILKSHAKE 31W-20-17N - ORIGINAL WELLBORE - PR	17,957.60	17,288.05	5,186.29	4,630.28	9.328	SF
MILKSHAKE 31W-20-2N - ORIGINAL WELLBORE - PR	100.00	100.00	17.90	17.64	66.597	CC
MILKSHAKE 31W-20-2N - ORIGINAL WELLBORE - PR	17,957.60	17,847.04	295.47	-256.57	0.535	Level 1, ES, SF
MILKSHAKE 31W-20-3N - ORIGINAL WELLBORE - PR	100.00	100.00	35.81	35.54	133.194	CC, ES
MILKSHAKE 31W-20-3N - ORIGINAL WELLBORE - PR	17,957.60	17,741.76	590.92	38.65	1.070	Level 2, SF
MILKSHAKE 31W-20-4C - ORIGINAL WELLBORE - PR	100.00	100.00	54.06	53.79	201.065	CC, ES
MILKSHAKE 31W-20-4C - ORIGINAL WELLBORE - PR	17,957.60	17,803.01	904.47	358.64	1.657	SF
MILKSHAKE 31W-20-5N - ORIGINAL WELLBORE - PR	100.00	100.00	71.96	71.69	267.661	CC, ES
MILKSHAKE 31W-20-5N - ORIGINAL WELLBORE - PR	17,957.60	17,557.25	1,181.83	628.76	2.137	SF
MILKSHAKE 31W-20-6N - ORIGINAL WELLBORE - PR	100.00	100.00	89.87	89.60	334.257	CC, ES
MILKSHAKE 31W-20-6N - ORIGINAL WELLBORE - PR	17,957.60	17,463.98	1,477.29	924.60	2.673	SF
MILKSHAKE 31W-20-7N - ORIGINAL WELLBORE - PR	100.00	100.00	107.77	107.50	400.854	CC, ES
MILKSHAKE 31W-20-7N - ORIGINAL WELLBORE - PR	17,957.60	17,386.05	1,772.74	1,220.05	3.207	SF
MILKSHAKE 31W-20-8C - ORIGINAL WELLBORE - PR	100.00	101.00	126.02	125.75	462.558	CC, ES
MILKSHAKE 31W-20-8C - ORIGINAL WELLBORE - PR	17,957.60	17,480.97	2,075.87	1,524.07	3.762	SF
MILKSHAKE 31W-20-9N - ORIGINAL WELLBORE - PR	290.37	289.23	74.81	73.17	45.766	CC
MILKSHAKE 31W-20-9N - ORIGINAL WELLBORE - PR	400.00	401.55	75.39	72.94	30.794	ES
MILKSHAKE 31W-20-9N - ORIGINAL WELLBORE - PR	17,957.60	17,212.49	2,363.63	1,810.76	4.275	SF
PAVISTMA 11 - Wellbore #1 - Wellbore #1	4,040.31	3,635.05	160.41	115.90	3.604	CC, ES
PAVISTMA 11 - Wellbore #1 - Wellbore #1	4,100.00	3,690.10	162.08	116.15	3.529	SF
PAVISTMA 11-32 - Wellbore #1 - Wellbore #1	2,202.89	2,022.44	91.32	72.06	4.741	CC, ES, SF
PAVISTMA 12 - Wellbore #1 - Wellbore #1	4,486.16	4,044.43	168.53	116.36	3.230	CC
PAVISTMA 12 - Wellbore #1 - Wellbore #1	4,600.00	4,154.00	171.05	115.86	3.099	ES, SF
PAVISTMA 19-32 - Wellbore #1 - Wellbore #1	2,065.14	1,916.91	89.13	71.10	4.945	CC, ES, SF
PAVISTMA 4-2-32 - Wellbore #1 - Wellbore #1	3,463.34	3,091.99	397.40	359.46	10.474	CC
PAVISTMA 4-2-32 - Wellbore #1 - Wellbore #1	3,500.00	3,126.99	397.54	358.77	10.253	ES
PAVISTMA 4-2-32 - Wellbore #1 - Wellbore #1	4,000.00	3,584.07	443.49	394.92	9.131	SF
PAVISTMA 5 - Wellbore #1 - Wellbore #1	2,765.75	2,515.00	46.70	21.54	1.856	CC, ES, SF
PAVISTMA 5-1-32 - Wellbore #1 - Wellbore #1	3,447.86	3,101.66	108.85	70.02	2.803	CC, ES
PAVISTMA 5-1-32 - Wellbore #1 - Wellbore #1	3,500.00	3,149.41	110.95	71.14	2.787	SF
PAVISTMA 5-3-32 - Wellbore #1 - Wellbore #1	2,524.61	2,228.25	405.31	381.61	17.103	CC, ES
PAVISTMA 5-3-32 - Wellbore #1 - Wellbore #1	2,800.00	2,456.39	432.76	404.75	15.452	SF
PAVISTMA 6 - Wellbore #1 - Wellbore #1	3,052.21	2,760.22	106.35	77.04	3.629	CC, ES, SF
PAVISTMA 7 - Wellbore #1 - Wellbore #1	2,970.95	2,687.03	55.73	25.47	1.842	CC, ES, SF
PAVISTMA 8 - Wellbore #1 - Wellbore #1	2,776.63	2,505.50	218.59	191.82	8.165	CC
PAVISTMA 8 - Wellbore #1 - Wellbore #1	2,800.00	2,525.56	218.94	191.72	8.046	ES
PAVISTMA 8 - Wellbore #1 - Wellbore #1	2,900.00	2,611.20	228.13	199.44	7.953	SF
PAVISTMA 9 - Wellbore #1 - Wellbore #1	3,480.61	3,133.10	147.38	109.81	3.922	CC
PAVISTMA 9 - Wellbore #1 - Wellbore #1	3,500.00	3,150.23	147.66	109.64	3.884	ES, SF
PAVISTMA SOUTH 1 - Wellbore #1 - Wellbore #1	1,869.87	1,763.53	100.48	83.67	5.976	CC, ES
PAVISTMA SOUTH 1 - Wellbore #1 - Wellbore #1	1,900.00	1,789.07	101.77	84.58	5.922	SF
PAVISTMA SOUTH 2 - Wellbore #1 - Wellbore #1	1,802.63	1,708.00	88.48	72.66	5.593	CC, ES, SF
PAVISTMA SOUTH 3 - Wellbore #1 - Wellbore #1	1,690.31	1,606.03	127.52	113.12	8.856	CC, ES
PAVISTMA SOUTH 3 - Wellbore #1 - Wellbore #1	1,700.00	1,613.56	127.66	113.13	8.787	SF
PAVISTMA SOUTH 4 - Wellbore #1 - Wellbore #1	1,456.82	1,410.66	148.60	136.28	12.055	CC, ES
PAVISTMA SOUTH 4 - Wellbore #1 - Wellbore #1	1,500.00	1,443.02	151.18	138.42	11.845	SF
PAVISTMA SOUTH 5 - Wellbore #1 - Wellbore #1	1,320.75	1,296.08	171.64	160.17	14.969	CC, ES
PAVISTMA SOUTH 5 - Wellbore #1 - Wellbore #1	1,400.00	1,356.77	178.93	166.77	14.721	SF