



ALDABRA 25 FED 7H

30-015-38603

2011

Directional Survey

API/UWI 3001538603	Surface Legal Location SEC 25 T23S R31E	Field Name AVALON SHALE	Permit No. 211335	State/Province NM	Well Configuration Type HORIZONTAL
Ground Elevation (MSL) (ft) 3,535.90	Casing Flange Elevation (ft)	KB - Ground Level (ft) 25.00	KB - Casing Flange (ft)	Original Drig Spud Date 4/29/2011 11:30	Original Drig Rig Release Date 5/22/2011 18:00

Wellbores					
Wellbore Name OH		Parent Wellbore OH		Kick Off Depth (ftKB) 8,300.0	
Deviation Survey MWD		Definitive? No		Proposed? No	
				Proposed Deviation Survey MWD	
				Vertical Section Direction (°) 359.70	

Deviation Survey					
Date 5/9/2011		Description MWD			
MD Tie In (ftKB) 5,805.00		TVD Tie In (ftKB) 5,803.39		Inclination Tie In (°) 2.65	
				Azimuth Tie In (°) 134.70	
				NSTie In (ft) -43.98	
				EWTie In (ft) 5.12	

Survey Data											
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company	
5/10/2011	5,852.00	2.81	128.99	5,850.34	-45.50	-45.47	6.79	0.67	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	5,946.00	2.73	96.38	5,944.23	-47.22	-47.17	10.80	1.66	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	6,041.00	2.64	54.11	6,039.14	-46.21	-46.14	14.82	2.04	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	6,135.00	3.17	51.38	6,133.02	-43.34	-43.25	18.61	0.58	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	6,231.00	3.43	10.87	6,228.87	-38.88	-38.77	21.23	2.39	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	6,325.00	3.61	7.70	6,322.69	-33.19	-33.07	22.15	0.28	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	6,420.00	1.23	346.78	6,417.60	-29.23	-29.12	22.32	2.63	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	6,515.00	1.14	343.53	6,512.58	-27.33	-27.22	21.82	0.12	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	6,609.00	1.32	341.60	6,606.56	-25.40	-25.29	21.21	0.20	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	6,704.00	1.41	338.96	6,701.53	-23.27	-23.16	20.45	0.12	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	6,799.00	1.32	334.30	6,796.51	-21.19	-21.09	19.55	0.15	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	6,893.00	1.23	329.65	6,890.48	-19.34	-19.24	18.57	0.15	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	6,987.00	1.23	324.55	6,984.46	-17.64	-17.55	17.48	0.12	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	7,082.00	0.97	307.94	7,079.44	-16.31	-16.22	16.25	0.43	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	7,177.00	0.88	300.20	7,174.43	-15.44	-15.36	14.99	0.16	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	7,271.00	0.79	288.34	7,268.42	-14.87	-14.80	13.75	0.21	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	7,365.84	0.70	293.70	7,363.25	-14.42	-14.36	12.60	0.12	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	7,460.00	0.53	305.65	7,457.41	-13.93	-13.87	11.72	0.23	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	7,555.00	0.62	308.46	7,552.40	-13.35	-13.30	10.96	0.10	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	7,649.00	0.70	279.20	7,646.40	-12.94	-12.89	9.99	0.36	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	7,744.00	0.88	270.14	7,741.39	-12.84	-12.79	8.69	0.23	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	7,839.00	0.79	269.09	7,836.38	-12.84	-12.80	7.31	0.10	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	7,933.00	0.79	246.94	7,930.37	-13.10	-13.07	6.06	0.32	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	8,028.00	0.88	233.93	8,025.36	-13.78	-13.75	4.87	0.22	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	8,123.00	0.97	231.21	8,120.35	-14.70	-14.69	3.65	0.11	MWD	PATHFINDER ENERGY SERVIC...	
5/10/2011	8,217.00	1.23	230.94	8,214.33	-15.83	-15.82	2.25	0.28	MWD	PATHFINDER ENERGY SERVIC...	
5/12/2011	8,289.00	1.06	253.88	8,286.32	-16.50	-16.49	1.01	0.67	MWD	PATHFINDER ENERGY SERVIC...	
5/12/2011	8,321.00	2.02	342.21	8,318.31	-16.04	-16.04	0.55	7.04	MWD	PATHFINDER ENERGY SERVIC...	
5/12/2011	8,352.00	5.72	4.80	8,349.23	-13.98	-13.98	0.52	12.68	MWD	PATHFINDER ENERGY SERVIC...	
5/12/2011	8,384.00	9.76	6.30	8,380.94	-9.69	-9.69	0.95	12.64	MWD	PATHFINDER ENERGY SERVIC...	
5/12/2011	8,415.00	13.28	3.04	8,411.31	-3.53	-3.52	1.42	11.54	MWD	PATHFINDER ENERGY SERVIC...	
5/12/2011	8,442.00	15.39	3.13	8,437.46	3.15	3.16	1.78	7.82	MWD	PATHFINDER ENERGY SERVIC...	
5/12/2011	8,478.00	16.88	4.45	8,472.05	13.12	13.14	2.45	4.26	MWD	PATHFINDER ENERGY SERVIC...	
5/12/2011	8,510.00	19.43	4.54	8,502.45	23.06	23.08	3.23	7.97	MWD	PATHFINDER ENERGY SERVIC...	
5/12/2011	8,541.00	22.51	3.22	8,531.39	34.12	34.14	3.97	10.05	MWD	PATHFINDER ENERGY SERVIC...	
5/12/2011	8,573.00	25.59	1.37	8,560.61	47.15	47.17	4.48	9.91	MWD	PATHFINDER ENERGY SERVIC...	
5/12/2011	8,604.00	28.93	359.88	8,588.17	61.34	61.37	4.63	11.00	MWD	PATHFINDER ENERGY SERVIC...	
5/13/2011	8,636.00	32.10	0.23	8,615.73	77.59	77.61	4.65	9.92	MWD	PATHFINDER ENERGY SERVIC...	
5/13/2011	8,667.00	35.00	1.02	8,641.56	94.72	94.74	4.84	9.46	MWD	PATHFINDER ENERGY SERVIC...	
5/13/2011	8,699.00	38.51	1.02	8,667.20	113.86	113.88	5.18	10.97	MWD	PATHFINDER ENERGY SERVIC...	
5/13/2011	8,727.00	42.03	0.14	8,688.56	131.95	131.98	5.36	12.73	MWD	PATHFINDER ENERGY SERVIC...	
5/13/2011	8,759.00	44.93	358.83	8,711.78	153.97	153.99	5.15	9.49	MWD	PATHFINDER ENERGY SERVIC...	
5/13/2011	8,790.00	48.19	358.91	8,733.09	176.47	176.50	4.71	10.52	MWD	PATHFINDER ENERGY SERVIC...	
5/13/2011	8,822.00	51.27	358.91	8,753.77	200.88	200.90	4.24	9.63	MWD	PATHFINDER ENERGY SERVIC...	
5/13/2011	8,854.00	54.69	358.47	8,773.03	226.42	226.44	3.66	10.74	MWD	PATHFINDER ENERGY SERVIC...	
5/13/2011	8,885.00	58.30	359.09	8,790.14	252.26	252.28	3.11	11.76	MWD	PATHFINDER ENERGY SERVIC...	
5/13/2011	8,917.00	61.55	0.14	8,806.18	279.95	279.97	2.93	10.55	MWD	PATHFINDER ENERGY SERVIC...	
5/13/2011	8,948.00	64.10	1.20	8,820.34	307.52	307.54	3.25	8.77	MWD	PATHFINDER ENERGY SERVIC...	
5/13/2011	8,980.00	66.65	1.37	8,833.67	336.60	336.62	3.91	7.98	MWD	PATHFINDER ENERGY SERVIC...	
5/13/2011	9,011.00	70.43	0.85	8,845.01	365.43	365.46	4.46	12.29	MWD	PATHFINDER ENERGY SERVIC...	
5/13/2011	9,042.00	74.83	359.88	8,854.26	395.01	395.04	4.65	14.50	MWD	PATHFINDER ENERGY SERVIC...	
5/13/2011	9,074.00	78.17	359.53	8,861.73	426.12	426.15	4.49	10.49	MWD	PATHFINDER ENERGY SERVIC...	

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Survey Data

Date	MD (ftKB)	Incl. (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
5/13/2011	9,106.00	79.05	359.53	8,868.05	457.49	457.52	4.23	2.75	MWD	PATHFINDER ENERGY SERVIC...
5/13/2011	9,137.00	82.04	359.35	8,873.14	488.07	488.09	3.93	9.66	MWD	PATHFINDER ENERGY SERVIC...
5/13/2011	9,169.00	85.30	359.62	8,876.67	519.87	519.89	3.65	10.22	MWD	PATHFINDER ENERGY SERVIC...
5/13/2011	9,200.00	89.60	0.67	8,878.05	550.83	550.86	3.72	14.28	MWD	PATHFINDER ENERGY SERVIC...
5/13/2011	9,263.00	91.36	1.37	8,877.52	613.81	613.84	4.85	3.01	MWD	PATHFINDER ENERGY SERVIC...
5/14/2011	9,349.00	90.13	1.11	8,876.40	699.77	699.81	6.71	1.46	MWD	PATHFINDER ENERGY SERVIC...
5/14/2011	9,443.00	89.78	0.93	8,876.48	793.74	793.80	8.38	0.42	MWD	PATHFINDER ENERGY SERVIC...
5/14/2011	9,538.00	90.13	1.37	8,876.55	888.71	888.78	10.29	0.59	MWD	PATHFINDER ENERGY SERVIC...
5/14/2011	9,632.00	89.43	1.46	8,876.91	982.67	982.75	12.61	0.75	MWD	PATHFINDER ENERGY SERVIC...
5/14/2011	9,727.00	88.99	359.97	8,878.22	1,077.64	1,077.73	13.79	1.64	MWD	PATHFINDER ENERGY SERVIC...
5/14/2011	9,821.00	88.99	0.49	8,879.88	1,171.62	1,171.71	14.17	0.55	MWD	PATHFINDER ENERGY SERVIC...
5/14/2011	9,916.00	88.64	358.83	8,881.84	1,266.60	1,266.69	13.61	1.79	MWD	PATHFINDER ENERGY SERVIC...
5/14/2011	10,011.00	90.40	359.79	8,882.64	1,361.59	1,361.67	12.46	2.11	MWD	PATHFINDER ENERGY SERVIC...
5/14/2011	10,105.00	90.22	359.97	8,882.13	1,455.59	1,455.67	12.27	0.27	MWD	PATHFINDER ENERGY SERVIC...
5/14/2011	10,200.00	89.78	0.06	8,882.13	1,550.58	1,550.67	12.29	0.47	MWD	PATHFINDER ENERGY SERVIC...
5/14/2011	10,294.00	90.13	0.76	8,882.20	1,644.58	1,644.67	12.96	0.83	MWD	PATHFINDER ENERGY SERVIC...
5/14/2011	10,389.00	89.87	359.44	8,882.20	1,739.57	1,739.66	13.13	1.42	MWD	PATHFINDER ENERGY SERVIC...
5/14/2011	10,484.00	89.96	359.88	8,882.35	1,834.57	1,834.66	12.57	0.47	MWD	PATHFINDER ENERGY SERVIC...
5/14/2011	10,578.00	90.75	1.02	8,881.76	1,928.56	1,928.65	13.30	1.48	MWD	PATHFINDER ENERGY SERVIC...
5/16/2011	10,673.00	89.25	358.82	8,881.76	2,023.55	2,023.65	13.17	2.80	MWD	PATHFINDER ENERGY SERVIC...
5/16/2011	10,768.00	89.78	358.59	8,882.57	2,118.53	2,118.62	11.02	0.61	MWD	PATHFINDER ENERGY SERVIC...
5/16/2011	10,862.00	89.96	357.81	8,882.78	2,212.50	2,212.57	8.07	0.85	MWD	PATHFINDER ENERGY SERVIC...
5/16/2011	10,957.00	90.66	358.24	8,882.27	2,307.46	2,307.51	4.80	0.86	MWD	PATHFINDER ENERGY SERVIC...
5/16/2011	11,051.00	90.84	358.03	8,881.04	2,401.41	2,401.45	1.74	0.29	MWD	PATHFINDER ENERGY SERVIC...
5/16/2011	11,146.00	90.13	359.31	8,880.23	2,496.39	2,496.42	-0.47	1.54	MWD	PATHFINDER ENERGY SERVIC...
5/16/2011	11,240.00	91.10	0.07	8,879.22	2,590.38	2,590.41	-0.97	1.31	MWD	PATHFINDER ENERGY SERVIC...
5/16/2011	11,335.00	88.55	359.03	8,879.51	2,685.37	2,685.40	-1.72	2.90	MWD	PATHFINDER ENERGY SERVIC...
5/17/2011	11,429.00	88.64	359.47	8,881.82	2,779.34	2,779.37	-2.95	0.48	MWD	PATHFINDER ENERGY SERVIC...
5/17/2011	11,524.00	88.81	359.97	8,883.93	2,874.32	2,874.34	-3.41	0.56	MWD	PATHFINDER ENERGY SERVIC...
5/17/2011	11,619.00	89.25	359.91	8,885.54	2,969.30	2,969.33	-3.51	0.47	MWD	PATHFINDER ENERGY SERVIC...
5/17/2011	11,713.00	89.69	359.45	8,886.41	3,063.30	3,063.32	-4.04	0.68	MWD	PATHFINDER ENERGY SERVIC...
5/17/2011	11,808.00	89.87	359.56	8,886.77	3,158.30	3,158.32	-4.86	0.22	MWD	PATHFINDER ENERGY SERVIC...
5/17/2011	11,902.00	90.13	359.63	8,886.77	3,252.30	3,252.31	-5.52	0.29	MWD	PATHFINDER ENERGY SERVIC...
5/17/2011	11,997.00	90.22	359.76	8,886.48	3,347.30	3,347.31	-6.03	0.17	MWD	PATHFINDER ENERGY SERVIC...
5/17/2011	12,092.00	91.36	358.97	8,885.17	3,442.28	3,442.29	-7.08	1.46	MWD	PATHFINDER ENERGY SERVIC...
5/17/2011	12,186.00	91.71	358.88	8,882.66	3,536.24	3,536.24	-8.85	0.38	MWD	PATHFINDER ENERGY SERVIC...
5/18/2011	12,281.00	91.36	358.75	8,880.11	3,631.20	3,631.19	-10.81	0.39	MWD	PATHFINDER ENERGY SERVIC...
5/18/2011	12,375.00	90.04	358.69	8,878.96	3,725.17	3,725.16	-12.91	1.41	MWD	PATHFINDER ENERGY SERVIC...
5/18/2011	12,470.00	90.31	358.81	8,878.67	3,820.16	3,820.13	-14.98	0.31	MWD	PATHFINDER ENERGY SERVIC...
5/18/2011	12,565.00	90.31	358.77	8,878.16	3,915.15	3,915.11	-16.99	0.04	MWD	PATHFINDER ENERGY SERVIC...
5/19/2011	12,659.00	89.43	357.97	8,878.37	4,009.12	4,009.07	-19.66	1.27	MWD	PATHFINDER ENERGY SERVIC...
5/19/2011	12,754.00	89.52	358.07	8,879.24	4,104.07	4,104.01	-22.94	0.14	MWD	PATHFINDER ENERGY SERVIC...
5/19/2011	12,848.00	89.52	358.27	8,880.03	4,198.04	4,197.96	-25.94	0.21	MWD	PATHFINDER ENERGY SERVIC...
5/19/2011	12,943.00	89.96	358.95	8,880.46	4,293.02	4,292.93	-28.25	0.85	MWD	PATHFINDER ENERGY SERVIC...
5/19/2011	13,037.00	89.52	358.85	8,880.89	4,387.01	4,386.91	-30.05	0.48	MWD	PATHFINDER ENERGY SERVIC...
5/19/2011	13,132.00	90.84	359.98	8,880.59	4,482.00	4,481.90	-31.02	1.83	MWD	PATHFINDER ENERGY SERVIC...
5/19/2011	13,226.00	91.10	359.83	8,879.00	4,575.99	4,575.89	-31.18	0.32	MWD	PATHFINDER ENERGY SERVIC...
5/19/2011	13,321.00	91.98	359.78	8,876.44	4,670.95	4,670.85	-31.50	0.93	MWD	PATHFINDER ENERGY SERVIC...
5/19/2011	13,350.00	91.71	359.91	8,875.51	4,699.94	4,699.84	-31.58	1.03	MWD	PATHFINDER ENERGY SERVIC...
5/19/2011	13,400.00	91.71	359.91	8,874.02	4,749.92	4,749.81	-31.66	0.00	BIT	PATHFINDER ENERGY SERVIC...

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