



**Scientific
Drilling**

Survey Certification

7327 West Barton Road
Casper, WY 82604

(307)-472-6621 Fax (307) 472-5439

Operator	<u>Petrox Resources</u>
Well Name & No.	<u>Ellison 33-5 #29-1 Lateral</u>
County & State	<u>La Plata County, CO</u>
SDI Job No.	<u>33HEFK11081064</u>
Rig	<u>AWS 507</u>
Survey Date	<u>31-Aug-2011</u>

I, Julie Cruse, having personal knowledge of all the facts, hereby certify that the attached directional survey run from a measured depth of 1844 feet to a measured depth of 4851 feet is true and correct as determined from all available records.

Julie Cruse
Signature

16-Sep-2011
Date

Julie Cruse
Rockies Region Engineer
Scientific Drilling - Rocky Mountain District



Scientific Drilling

Petrox Resources

San Juan Basin (CO)

SEC 29-T33N-R5W

Ellison 33-5 #29-1

Lateral 1

Design: Lateral 1

Standard Survey Report

16 September, 2011



PETROX RESOURCES INC.



Company:	Petrox Resources	Local Co-ordinate Reference:	Well Ellison 33-5 #29-1
Project:	San Juan Basin (CO)	TVD Reference:	DFE @ 6198.00ft (AWS 580)
Site:	SEC 29-T33N-R5W	MD Reference:	DFE @ 6198.00ft (AWS 580)
Well:	Ellison 33-5 #29-1	North Reference:	Grid
Wellbore:	Lateral 1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1	Database:	Rockies Compass Server

Project	San Juan Basin (CO), Colorado, Fruitland Coal		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Southern Zone		Using geodetic scale factor

Site	SEC 29-T33N-R5W				
Site Position:		Northing:	1,153,616.78 usft	Latitude:	37° 4' 22.188 N
From:	Lat/Long	Easting:	2,441,493.23 usft	Longitude:	107° 24' 51.768 W
Position Uncertainty:	15.00 ft	Slot Radius:	6.125 in	Grid Convergence:	-1.17 °

Well	Ellison 33-5 #29-1, FC HZ					
Well Position	+N/-S	0.00 ft	Northing:	1,153,616.78 usft	Latitude:	37° 4' 22.188 N
	+E/-W	0.00 ft	Easting:	2,441,493.23 usft	Longitude:	107° 24' 51.768 W
Position Uncertainty		3.50 ft	Wellhead Elevation:	ft	Ground Level:	6,186.00 ft

Wellbore	Lateral 1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2011/08/23	9.77	63.81	50,954

Design	Lateral 1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	1,844.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	28.54	

Survey Program	Date	2011/09/16			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
460.00	1,844.00	Survey #1 (Pilot Hole)	MWD SDI	MWD - Standard ver 1.0.1	
1,891.00	2,173.00	Survey #1 - Curve (Lateral 1)	MWD SDI	MWD - Standard ver 1.0.1	
2,287.00	4,851.00	Survey #2 - Lateral (Lateral 1)	MWD SDI	MWD - Standard ver 1.0.1	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
1,844.00	5.29	22.13	1,841.37	77.03	-2.56	66.44	0.31	-0.04	3.30	
TIP to Pilot Hole										
1,891.00	7.11	37.24	1,888.09	81.35	0.01	71.47	5.17	3.87	32.15	
First SDI MWD Survey										
1,923.00	8.75	47.55	1,919.79	84.57	3.01	75.73	6.76	5.13	32.22	
1,954.00	11.00	58.49	1,950.33	87.71	7.27	80.52	9.42	7.26	35.29	
1,985.00	13.29	69.78	1,980.64	90.49	13.14	85.77	10.61	7.39	36.42	
2,017.00	14.87	79.07	2,011.68	92.54	20.62	91.14	8.60	4.94	29.03	



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Well:	Ellison 33-5 #29-1	North Reference:	Grid
Wellbore:	Lateral 1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1	Database:	Rockies Compass Server

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
2,049.00	14.86	83.26	2,042.61	93.80	28.73	96.12	3.36	-0.03	13.09	
2,080.00	15.34	90.71	2,072.54	94.21	36.78	100.34	6.44	1.55	24.03	
2,111.00	17.05	98.24	2,102.31	93.51	45.38	103.83	8.73	5.52	24.29	
2,142.00	18.24	103.49	2,131.86	91.73	54.59	106.66	6.41	3.84	16.94	
2,173.00	19.85	107.86	2,161.16	88.98	64.32	108.90	6.93	5.19	14.10	
Last Survey in 8 3/4" Hole										
2,287.00	22.47	111.47	2,267.47	75.07	103.03	115.17	2.57	2.30	3.17	
First Survey in 6 1/4" Hole										
2,319.00	22.28	110.97	2,297.06	70.66	114.38	116.72	0.84	-0.59	-1.56	
2,351.00	24.25	111.97	2,326.46	66.03	126.14	118.27	6.28	6.16	3.13	
2,383.00	27.14	111.83	2,355.29	60.86	139.01	119.88	9.03	9.03	-0.44	
2,413.00	29.80	112.56	2,381.66	55.45	152.25	121.46	8.94	8.87	2.43	
2,446.00	32.12	112.19	2,409.96	48.99	167.95	123.28	7.05	7.03	-1.12	
2,478.00	34.42	112.71	2,436.71	42.28	184.17	125.14	7.24	7.19	1.63	
2,510.00	36.48	113.94	2,462.78	34.93	201.21	126.83	6.81	6.44	3.84	
2,542.00	38.17	114.53	2,488.22	26.97	218.90	128.28	5.40	5.28	1.84	
2,574.00	41.14	114.11	2,512.86	18.56	237.51	129.79	9.32	9.28	-1.31	
2,605.00	45.25	115.02	2,535.45	9.73	256.80	131.25	13.41	13.26	2.94	
2,637.00	47.07	110.96	2,557.62	0.73	278.04	133.50	10.77	5.69	-12.69	
2,669.00	51.47	112.11	2,578.49	-8.17	300.59	136.44	14.02	13.75	3.59	
2,701.00	55.77	113.58	2,597.47	-18.18	324.32	138.99	13.94	13.44	4.59	
2,732.00	60.27	112.39	2,613.89	-28.44	348.53	141.54	14.88	14.52	-3.84	
2,764.00	64.99	113.24	2,628.59	-39.46	374.71	144.37	14.94	14.75	2.66	
2,796.00	68.89	113.19	2,641.12	-51.06	401.77	147.11	12.19	12.19	-0.16	
2,827.00	71.93	115.80	2,651.52	-63.17	428.33	149.16	12.61	9.81	8.42	
2,859.00	75.07	116.97	2,660.61	-76.81	455.81	150.31	10.42	9.81	3.66	
2,891.00	77.15	118.67	2,668.29	-91.31	483.29	150.70	8.30	6.50	5.31	
2,923.00	79.63	118.18	2,674.73	-106.23	510.85	150.77	7.89	7.75	-1.53	
2,955.00	83.06	117.68	2,679.54	-121.04	538.80	151.11	10.83	10.72	-1.56	
2,987.00	87.55	117.88	2,682.16	-135.90	567.01	151.53	14.05	14.03	0.63	
3,019.00	91.28	118.25	2,682.49	-150.95	595.24	151.80	11.71	11.66	1.16	
3,051.00	92.32	117.86	2,681.48	-166.00	623.46	152.07	3.47	3.25	-1.22	
3,083.00	90.27	116.05	2,680.76	-180.50	651.98	152.95	8.54	-6.41	-5.66	
3,115.00	87.65	114.65	2,681.34	-194.19	680.89	154.74	9.28	-8.19	-4.38	
3,147.00	84.92	115.11	2,683.41	-207.63	709.85	156.77	8.65	-8.53	1.44	
3,177.00	85.30	114.87	2,685.97	-220.25	736.95	158.63	1.50	1.27	-0.80	
3,209.00	86.03	114.47	2,688.39	-233.57	765.94	160.78	2.60	2.28	-1.25	
3,240.00	86.50	114.64	2,690.41	-246.43	794.08	162.93	1.61	1.52	0.55	
3,273.00	87.65	113.94	2,692.09	-259.98	824.12	165.38	4.08	3.48	-2.12	
3,305.00	87.78	114.36	2,693.37	-273.07	853.29	167.82	1.37	0.41	1.31	
3,336.00	88.05	114.31	2,694.50	-285.83	881.52	170.10	0.89	0.87	-0.16	
3,368.00	88.35	114.35	2,695.50	-299.01	910.66	172.45	0.95	0.94	0.13	
3,400.00	88.42	114.78	2,696.40	-312.31	939.75	174.66	1.36	0.22	1.34	



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Well:	Ellison 33-5 #29-1	North Reference:	Grid
Wellbore:	Lateral 1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1	Database:	Rockies Compass Server

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
3,432.00	89.13	114.85	2,697.09	-325.73	968.79	176.74	2.23	2.22	0.22	
3,464.00	89.16	114.77	2,697.57	-339.16	997.84	178.83	0.27	0.09	-0.25	
3,496.00	88.76	113.96	2,698.15	-352.36	1,026.98	181.16	2.82	-1.25	-2.53	
3,528.00	89.29	114.03	2,698.69	-365.37	1,056.21	183.69	1.67	1.66	0.22	
3,560.00	89.23	113.99	2,699.10	-378.39	1,085.44	186.22	0.23	-0.19	-0.13	
3,592.00	89.16	113.68	2,699.55	-391.32	1,114.71	188.85	0.99	-0.22	-0.97	
3,624.00	89.19	114.55	2,700.01	-404.39	1,143.91	191.32	2.72	0.09	2.72	
3,656.00	89.19	114.74	2,700.47	-417.74	1,172.99	193.49	0.59	0.00	0.59	
3,689.00	89.16	114.14	2,700.94	-431.39	1,203.03	195.85	1.82	-0.09	-1.82	
3,721.00	89.29	114.61	2,701.37	-444.59	1,232.18	198.18	1.52	0.41	1.47	
3,753.00	89.56	114.36	2,701.70	-457.85	1,261.30	200.44	1.15	0.84	-0.78	
3,785.00	89.56	113.67	2,701.94	-470.88	1,290.53	202.97	2.16	0.00	-2.16	
3,817.00	89.83	113.72	2,702.11	-483.74	1,319.83	205.67	0.86	0.84	0.16	
3,849.00	90.03	114.21	2,702.15	-496.73	1,349.07	208.22	1.65	0.63	1.53	
3,882.00	90.13	113.84	2,702.11	-510.17	1,379.21	210.82	1.16	0.30	-1.12	
3,914.00	90.27	113.58	2,701.99	-523.04	1,408.51	213.52	0.92	0.44	-0.81	
3,945.00	90.13	113.81	2,701.89	-535.49	1,436.90	216.14	0.87	-0.45	0.74	
3,974.00	88.72	114.45	2,702.18	-547.35	1,463.36	218.37	5.34	-4.86	2.21	
4,005.00	88.66	113.74	2,702.88	-560.00	1,491.65	220.77	2.30	-0.19	-2.29	
4,034.00	88.99	114.49	2,703.48	-571.85	1,518.12	223.01	2.82	1.14	2.59	
4,063.00	88.92	114.20	2,704.01	-583.80	1,544.53	225.13	1.03	-0.24	-1.00	
4,094.00	89.29	115.11	2,704.49	-596.73	1,572.70	227.23	3.17	1.19	2.94	
4,123.00	89.50	114.76	2,704.80	-608.96	1,599.00	229.05	1.41	0.72	-1.21	
4,154.00	89.83	115.59	2,704.98	-622.14	1,627.05	230.88	2.88	1.06	2.68	
4,185.00	90.03	115.49	2,705.02	-635.51	1,655.02	232.50	0.72	0.65	-0.32	
4,216.00	90.20	115.38	2,704.96	-648.82	1,683.02	234.18	0.65	0.55	-0.35	
4,246.00	90.27	115.44	2,704.83	-661.69	1,710.12	235.82	0.31	0.23	0.20	
4,277.00	90.40	114.81	2,704.65	-674.86	1,738.18	237.67	2.08	0.42	-2.03	
4,308.00	88.65	114.74	2,704.91	-687.85	1,766.33	239.70	5.65	-5.65	-0.23	
4,338.00	88.45	115.19	2,705.67	-700.50	1,793.52	241.57	1.64	-0.67	1.50	
4,367.00	88.79	115.23	2,706.37	-712.85	1,819.75	243.26	1.18	1.17	0.14	
4,398.00	88.86	115.33	2,707.00	-726.09	1,847.77	245.02	0.39	0.23	0.32	
4,428.00	89.09	115.06	2,707.54	-738.86	1,874.91	246.77	1.18	0.77	-0.90	
4,459.00	89.23	115.43	2,707.99	-752.08	1,902.95	248.56	1.28	0.45	1.19	
4,489.00	89.36	114.48	2,708.36	-764.73	1,930.15	250.43	3.20	0.43	-3.17	
4,520.00	89.70	114.70	2,708.62	-777.63	1,958.33	252.57	1.31	1.10	0.71	
4,551.00	89.73	114.90	2,708.77	-790.64	1,986.47	254.59	0.65	0.10	0.65	
4,582.00	89.87	114.50	2,708.88	-803.59	2,014.64	256.67	1.37	0.45	-1.29	
4,612.00	89.87	115.01	2,708.95	-816.15	2,041.88	258.65	1.70	0.00	1.70	
4,643.00	89.09	114.49	2,709.23	-829.13	2,070.03	260.70	3.02	-2.52	-1.68	
4,673.00	89.06	114.22	2,709.71	-841.50	2,097.36	262.89	0.91	-0.10	-0.90	
4,703.00	89.06	113.80	2,710.20	-853.70	2,124.76	265.26	1.40	0.00	-1.40	
4,732.00	89.13	114.32	2,710.66	-865.53	2,151.24	267.53	1.81	0.24	1.79	
4,761.00	88.96	114.67	2,711.15	-877.55	2,177.62	269.57	1.34	-0.59	1.21	



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Wellbore:	Lateral 1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1	Database:	Rockies Compass Server

Survey										
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4,785.00	88.99	114.26	2,711.58	-887.49	2,199.46	271.28	1.71	0.13	-1.71	
4,804.00	88.76	114.35	2,711.95	-895.30	2,216.78	272.68	1.30	-1.21	0.47	
Last SDI MWD Survey										
4,851.00	88.76	114.35	2,712.97	-914.68	2,259.59	276.12	0.00	0.00	0.00	
Projection to TD										

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
1,844.00	1,841.37	77.03	-2.56	TIP to Pilot Hole	
1,891.00	1,888.09	81.35	0.01	First SDI MWD Survey	
2,173.00	2,161.16	88.98	64.32	Last Survey in 8 3/4" Hole	
2,287.00	2,267.47	75.07	103.03	First Survey in 6 1/4" Hole	
4,804.00	2,711.95	-895.30	2,216.78	Last SDI MWD Survey	
4,851.00	2,712.97	-914.68	2,259.59	Projection to TD	

Checked By: _____ Approved By: _____ Date: _____