



**PETROX RESOURCES INC.**

## **Petrox Resources**

**Archuleta County, CO NAD83**

**Dakota Unit**

**Dakota 21-3**

**OH**

**Plan #3**

## **Anticollision Report**

**09 April, 2014**



**Scientific Drilling**

[www.scientificdrilling.com](http://www.scientificdrilling.com)





<b>Company:</b>	Petrox Resources	<b>Local Co-ordinate Reference:</b>	Well Dakota 21-3
<b>Project:</b>	Archuleta County, CO NAD83	<b>TVD Reference:</b>	GL 6235' @ 6235.00usft
<b>Reference Site:</b>	Dakota Unit	<b>MD Reference:</b>	GL 6235' @ 6235.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dakota 21-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	Grand Junction District
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #3		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD Interval 100.00usft	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 2,210.21 usft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma	<b>Casing Method:</b>	Not applied

<b>Survey Tool Program</b>	<b>Date</b> 4/9/2014			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	8,106.52	Plan #3 (OH)	MWD SDI	MWD - Standard ver 1.0.1

<b>Summary</b>						
<b>Site Name</b>	<b>Reference Measured Depth (usft)</b>	<b>Offset Measured Depth (usft)</b>	<b>Distance Between Centres (usft)</b>	<b>Distance Between Ellipses (usft)</b>	<b>Separation Factor</b>	<b>Warning</b>
<b>Offset Well - Wellbore - Design</b>						
Lark Unit						
Lark 33-5 #21-2 - OH - OH						Out of range
Wright Unit						
Wright 33-5 #16-1 - OH - OH						Out of range
Wright 33-5 #21-1 - OH - OH	500.00	501.00	50.77	49.20	32.243	CC, ES
Wright 33-5 #21-1 - OH - OH	900.00	899.70	62.95	60.11	22.174	SF

<b>Offset Design</b>												
Wright Unit - Wright 33-5 #21-1 - OH - OH												
Survey Program: 2000-MWD												
Reference												
<b>Measured Depth (usft)</b>	<b>Vertical Depth (usft)</b>	<b>Measured Depth (usft)</b>	<b>Vertical Depth (usft)</b>	<b>Reference (usft)</b>	<b>Offset (usft)</b>	<b>Semi Major Axis</b>	<b>Offset Wellbore Centre</b>	<b>Distance</b>	<b>Between Centres (usft)</b>	<b>Between Ellipses (usft)</b>	<b>Minimum Separation (usft)</b>	<b>Warning</b>
						<b>Highside Toolface (°)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>				
0.00	0.00	1.00	1.00	0.00	0.00	77.59	10.91	49.58	50.77	50.77	0.00	N/A
100.00	100.00	101.00	101.00	0.11	0.11	77.59	10.91	49.58	50.77	50.55	0.23	224.574
200.00	200.00	201.00	201.00	0.34	0.23	77.59	10.91	49.58	50.77	50.21	0.56	90.145
300.00	300.00	301.00	301.00	0.56	0.34	77.59	10.91	49.58	50.77	49.87	0.90	56.390
400.00	400.00	401.00	401.00	0.79	0.45	77.59	10.91	49.58	50.77	49.53	1.24	41.028
500.00	500.00	501.00	501.00	1.01	0.56	77.59	10.91	49.58	50.77	49.20	1.57	32.243 CC, ES
600.00	599.98	600.98	600.98	1.21	0.68	-104.31	10.91	49.58	51.18	49.29	1.88	27.162
700.00	699.84	700.84	700.84	1.39	0.79	-109.80	10.91	49.58	52.71	50.53	2.18	24.162
800.00	799.45	800.45	800.45	1.61	0.90	-118.09	10.91	49.58	56.27	53.77	2.50	22.501
900.00	898.70	899.70	899.70	1.85	1.01	-127.77	10.91	49.58	62.95	60.11	2.84	22.174 SF
1,000.00	997.76	998.76	998.76	2.13	1.12	-136.37	10.91	49.58	72.22	69.03	3.19	22.669
1,100.00	1,096.81	1,097.81	1,097.81	2.42	1.23	-142.91	10.91	49.58	82.73	79.20	3.53	23.426
1,200.00	1,195.87	1,196.87	1,196.87	2.73	1.35	-147.95	10.91	49.58	94.07	90.20	3.88	24.269
1,300.00	1,294.92	1,295.92	1,295.92	3.04	1.46	-151.88	10.91	49.58	105.98	101.76	4.22	25.112
1,400.00	1,393.98	1,394.98	1,394.98	3.36	1.57	-155.01	10.91	49.58	118.28	113.71	4.56	25.914
1,500.00	1,493.03	1,494.03	1,494.03	3.68	1.68	-157.54	10.91	49.58	130.86	125.95	4.91	26.658
1,600.00	1,592.08	1,593.08	1,593.08	4.01	1.79	-159.63	10.91	49.58	143.65	138.39	5.25	27.341
1,700.00	1,691.14	1,692.14	1,692.14	4.34	1.90	-161.38	10.91	49.58	156.59	150.99	5.60	27.963
1,800.00	1,790.19	1,791.19	1,791.19	4.67	2.01	-162.85	10.91	49.58	169.66	163.71	5.95	28.530
1,900.00	1,889.25	1,890.25	1,890.25	5.00	2.12	-164.12	10.91	49.58	182.82	176.53	6.29	29.045
2,000.00	1,988.30	1,989.30	1,989.30	5.33	2.24	-165.22	10.91	49.58	196.06	189.42	6.64	29.515



<b>Company:</b>	Petrox Resources	<b>Local Co-ordinate Reference:</b>	Well Dakota 21-3
<b>Project:</b>	Archuleta County, CO NAD83	<b>TVD Reference:</b>	GL 6235' @ 6235.00usft
<b>Reference Site:</b>	Dakota Unit	<b>MD Reference:</b>	GL 6235' @ 6235.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Dakota 21-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	Grand Junction District
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

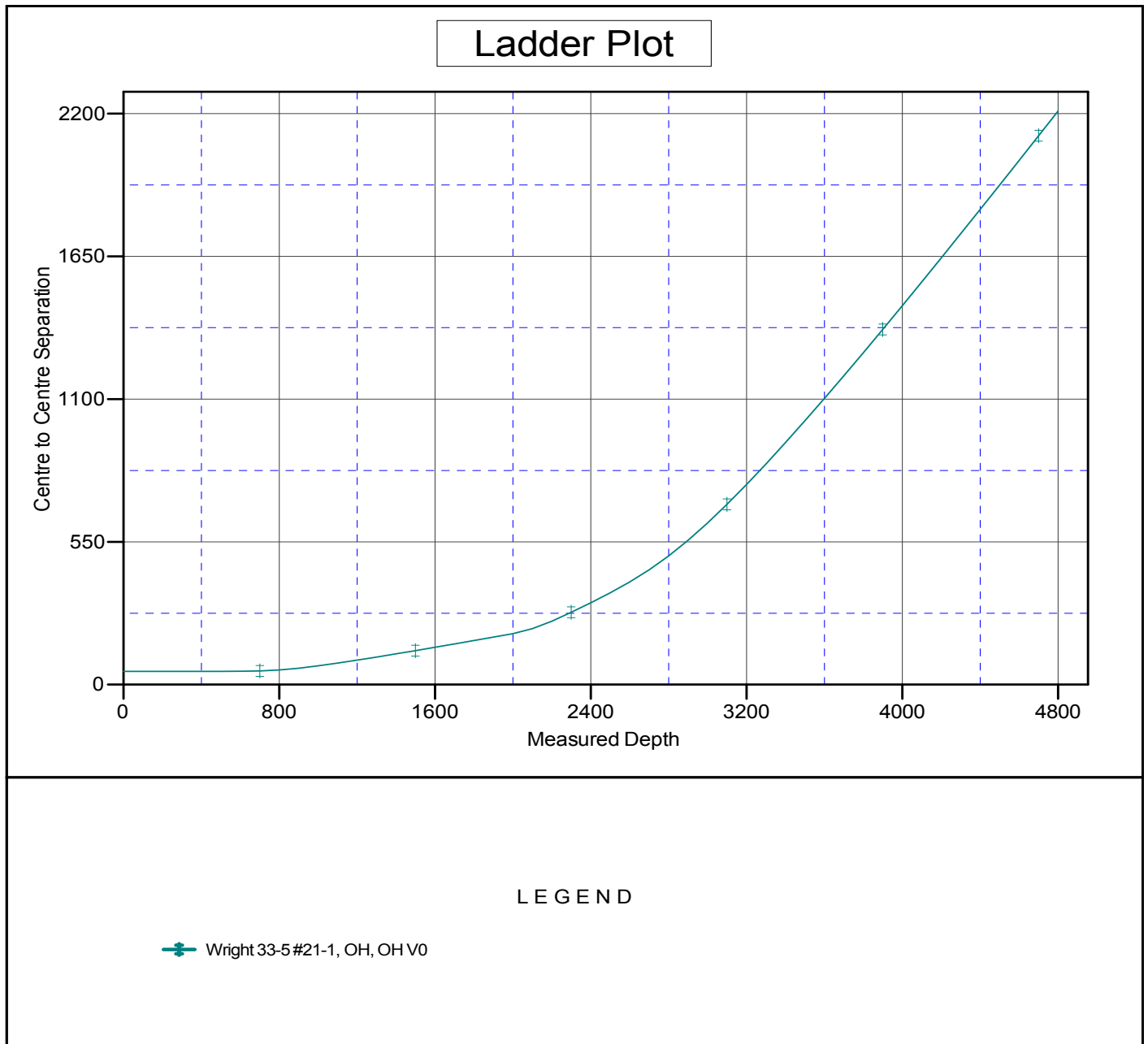
Offset Design Wright Unit - Wright 33-5 #21-1 - OH - OH													Offset Site Error: 0.00 usft	
Survey Program: 2000-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,100.00	2,087.36	2,061.15	2,060.73	5.67	2.41	-164.66	13.97	55.05	215.45	208.37	7.08	30.429		
2,200.00	2,186.41	2,145.24	2,141.94	6.00	2.65	-161.02	21.33	75.37	243.98	236.37	7.61	32.064		
2,300.00	2,285.47	2,227.09	2,218.60	6.34	2.93	-156.64	29.67	102.79	278.34	270.13	8.21	33.905		
2,400.00	2,384.66	2,314.94	2,298.46	6.64	3.42	-151.70	36.19	138.68	314.77	305.89	8.88	35.441		
2,500.00	2,484.22	2,391.13	2,364.38	6.86	4.01	-146.90	39.12	176.69	353.23	343.64	9.59	36.829		
2,600.00	2,584.05	2,459.96	2,422.09	7.05	4.66	-142.84	41.68	214.13	395.11	384.83	10.29	38.408		
2,700.00	2,684.02	2,517.40	2,468.23	7.22	5.31	-139.75	44.47	248.20	441.91	431.01	10.91	40.520		
2,800.00	2,784.02	2,562.29	2,502.35	7.38	5.88	43.00	47.28	277.22	495.11	483.66	11.45	43.257		
2,900.00	2,884.02	2,602.99	2,531.49	7.53	6.47	45.43	50.82	305.41	555.65	543.72	11.94	46.556		
3,000.00	2,984.02	2,633.99	2,552.29	7.69	6.96	47.18	54.13	328.15	622.44	610.09	12.34	50.421		
3,100.00	3,084.02	2,664.99	2,571.76	7.85	7.49	48.82	57.92	351.97	694.36	681.61	12.75	54.472		
3,200.00	3,184.02	2,696.99	2,590.40	8.01	8.07	50.41	62.28	377.60	770.50	757.35	13.15	58.611		
3,300.00	3,284.02	2,712.32	2,598.80	8.17	8.37	51.13	64.49	390.23	849.75	836.32	13.43	63.291		
3,400.00	3,384.02	2,727.99	2,607.08	8.34	8.67	51.86	66.75	403.34	931.77	918.07	13.71	67.988		
3,500.00	3,484.02	2,758.99	2,622.44	8.51	9.31	53.24	71.20	429.90	1,015.88	1,001.81	14.08	72.171		
3,600.00	3,584.02	2,772.62	2,628.76	8.68	9.60	53.82	73.13	441.82	1,101.84	1,087.50	14.34	76.837		
3,700.00	3,684.02	2,788.99	2,636.01	8.86	9.95	54.50	75.45	456.31	1,189.35	1,174.73	14.62	81.369		
3,800.00	3,784.02	2,803.82	2,642.26	9.04	10.28	55.10	77.55	469.59	1,278.16	1,263.28	14.89	85.867		
3,900.00	3,884.02	2,819.99	2,648.72	9.22	10.63	55.74	79.87	484.24	1,368.11	1,352.96	15.16	90.255		
4,000.00	3,984.02	2,819.99	2,648.72	9.40	10.63	55.74	79.87	484.24	1,459.11	1,443.76	15.35	95.075		
4,100.00	4,084.02	2,839.00	2,655.80	9.58	11.07	56.45	82.63	501.65	1,550.79	1,535.16	15.64	99.183		
4,200.00	4,184.02	2,850.99	2,659.98	9.77	11.35	56.89	84.39	512.76	1,643.32	1,627.43	15.89	103.445		
4,300.00	4,284.02	2,850.99	2,659.98	9.95	11.35	56.89	84.39	512.76	1,736.52	1,720.44	16.08	108.002		
4,400.00	4,384.02	2,864.37	2,664.35	10.14	11.66	57.36	86.37	525.24	1,830.22	1,813.89	16.34	112.029		
4,500.00	4,484.02	2,881.99	2,669.63	10.33	12.08	57.97	89.02	541.85	1,924.62	1,908.01	16.61	115.853		
4,600.00	4,584.02	2,881.99	2,669.63	10.52	12.08	57.97	89.02	541.85	2,019.22	2,002.41	16.81	120.128		
4,700.00	4,684.02	2,881.99	2,669.63	10.71	12.08	57.97	89.02	541.85	2,114.31	2,097.30	17.01	124.326		
4,800.00	4,784.02	2,881.99	2,669.63	10.91	12.08	57.97	89.02	541.85	2,209.84	2,192.63	17.20	128.444		



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Reference Depths are relative to GL 6235' @ 6235.00usft  
Offset Depths are relative to Offset Datum  
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Dakota 21-3  
Coordinate System is US State Plane 1983, Colorado Southern Zone  
Grid Convergence at Surface is: -1.17°



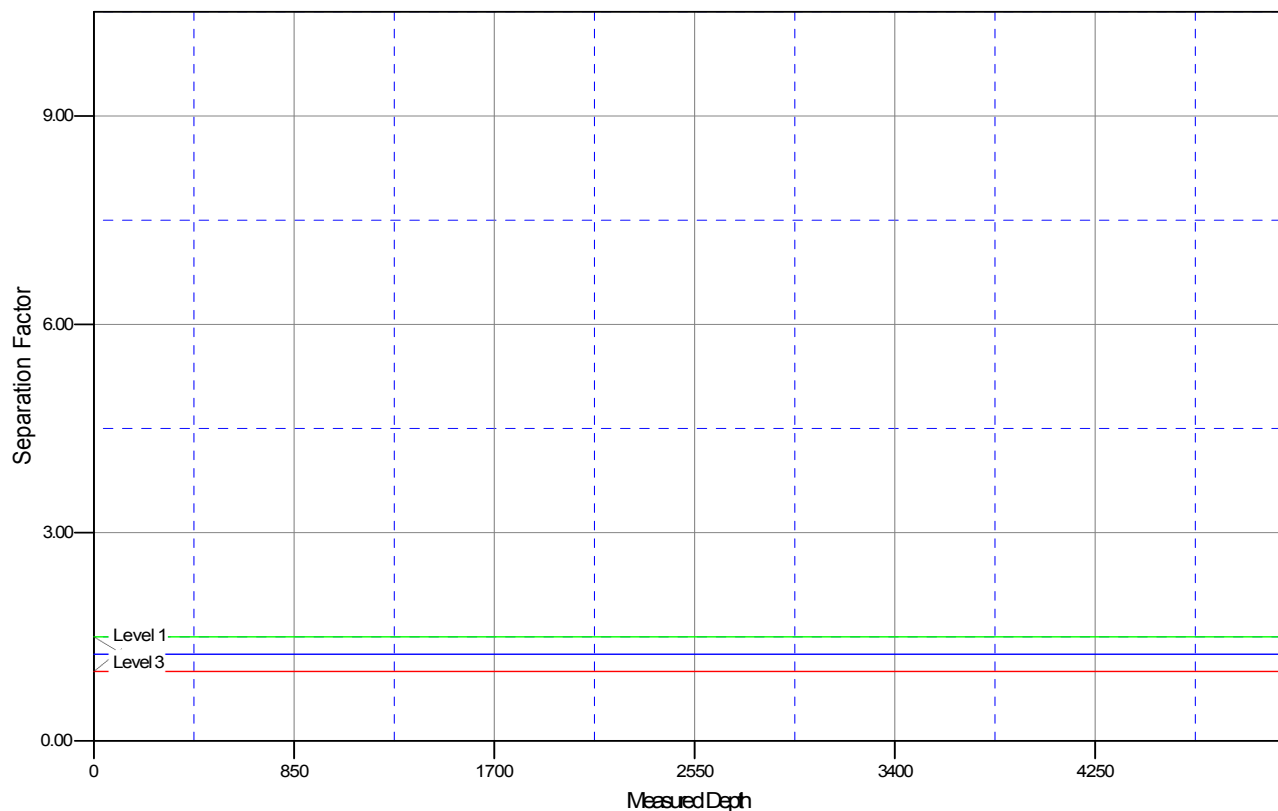


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## Separation Factor Plot



### LEGEND

Wright 33-5 #21-1, OH, OH V0