

End of Well Report

FOR

Jay Bee Oil & Gas

RPT 5-3

Tyler County, WV

DR130164

DDDC
Directional Drilling Contractors, LLC.
An Archer Company



Received

APR 27 2015

Office of Oil and Gas
West Virginia Department of Environmental Protection

10/07/2016

Section One

Directional Comparison Plot

Actual vs. Proposed


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APR 27 2015

Office of Oil and Gas
WV Dept. of Environmental Protection

10/07/2016

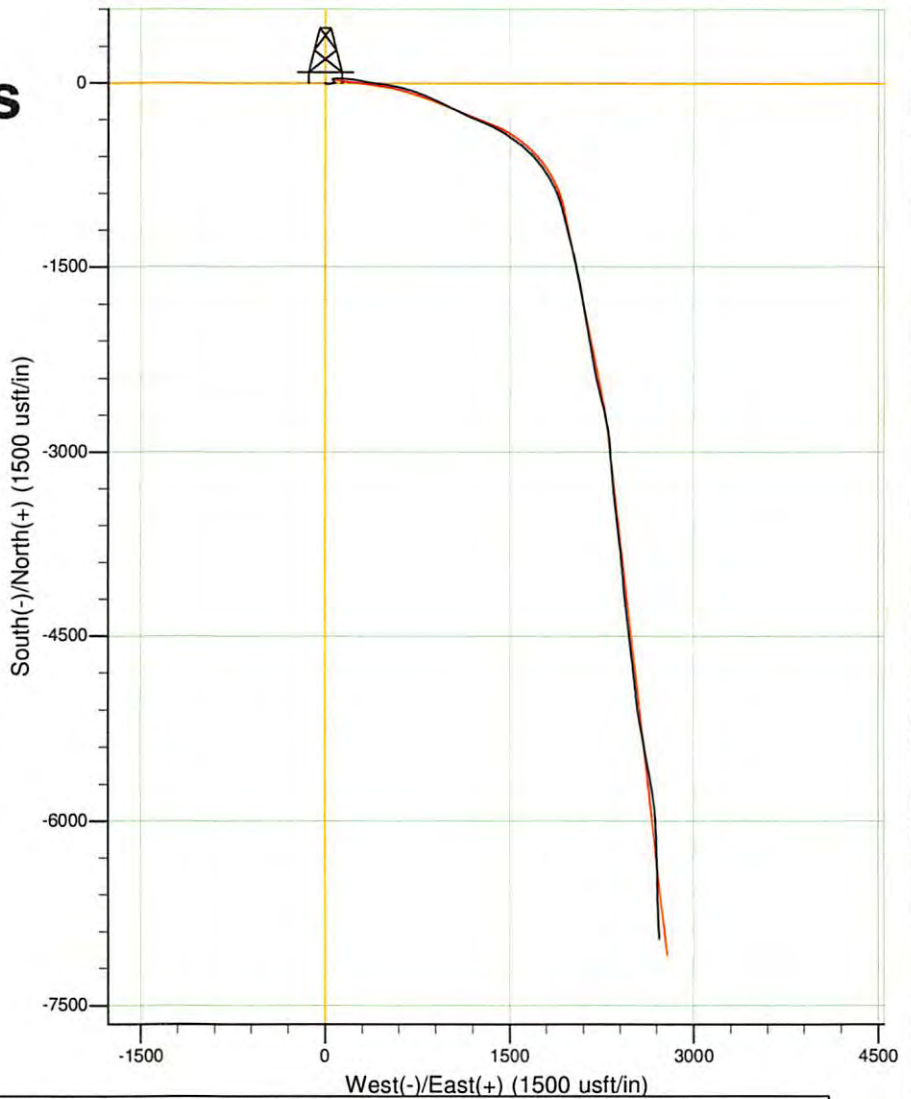
Jay Bee Oil & Gas



Azimuths to Grid North
 True North: 0.82°
 Magnetic North: -6.72°
 Magnetic Field
 Strength: 52614.0snT
 Dip Angle: 67.12°
 Date: 07/20/2013
 Model: USER DEFINED

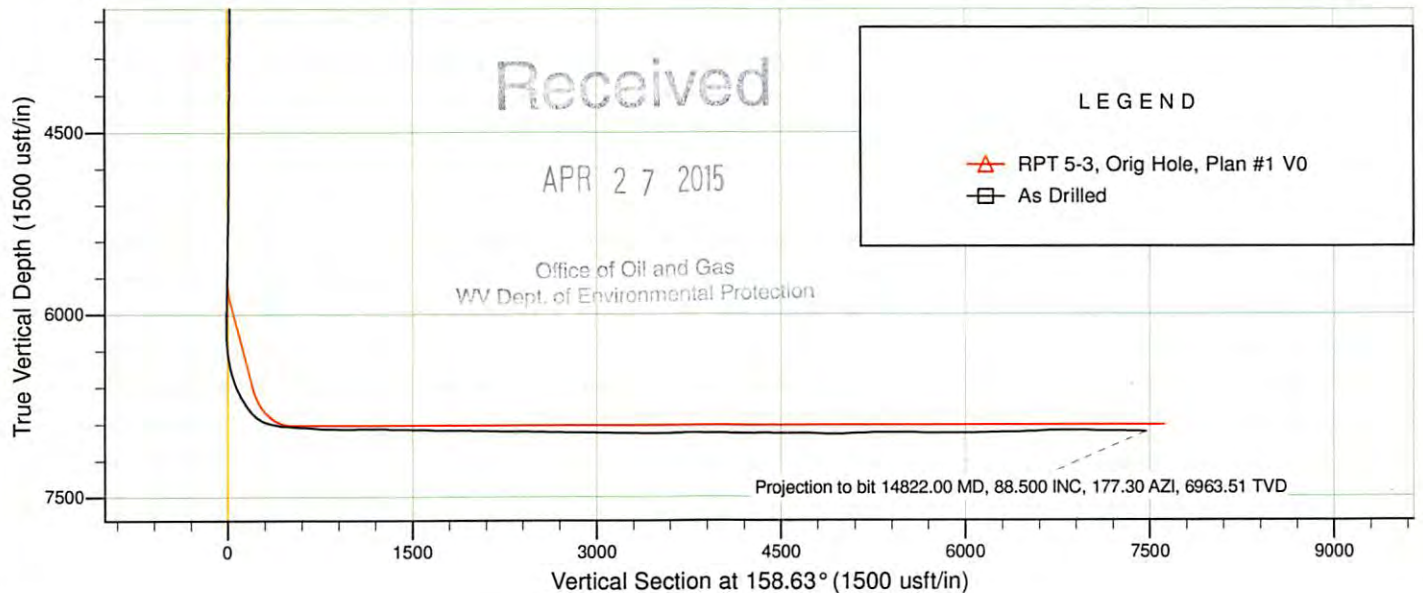
PROJECT DETAILS: Tyler County, WV

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: West Virginia Northern Zone
 System Datum: Mean Sea Level



WELL DETAILS: RPT 5-3

+N/-S	+E/-W	Northing	Ground Level:	1242.00	Longitude
0.00	0.00	358469.3284	Easting	1603354.7703	80° 47' 37.081 W
			Latitude	39° 28' 37.099 N	



10/07/2016

Jay Bee Oil & Gas

Tyler County, WV

RPT 5 Pad

RPT 5-3

Orig Hole

Design: As Drilled

Survey Report - Geographic

30 August, 2013

Received

APR 27 2015

Office of Oil and Gas
WV Dept



Directional Drilling Contractors, LLC.

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Directional Drilling Contractors

Survey Report - Geographic



Company:	Jay Bee Oil & Gas	Local Co-ordinate Reference:	Well RPT 5-3
Project:	Tyler County, WV	TVD Reference:	RKB=7' @ 1249.00usft
Site:	RPT 5 Pad	MD Reference:	RKB=7' @ 1249.00usft
Well:	RPT 5-3	North Reference:	Grid
Wellbore:	Orig Hole	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	EDM 5000.1 Single User Db

Project	Tyler County, WV		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	West Virginia Northern Zone		

Site	RPT 5 Pad				
Site Position:		Northing:	358,458.9445 usft	Latitude:	39° 28' 36.998 N
From:	Lat/Long	Easting:	1,603,365.6697 usft	Longitude:	80° 47' 36.940 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.83 °

Well	RPT 5-3					
Well Position	+N/-S	0.00 usft	Northing:	358,469.3284 usft	Latitude:	39° 28' 37.099 N
	+E/-W	0.00 usft	Easting:	1,603,354.7703 usft	Longitude:	80° 47' 37.081 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	1,242.00 usft

Wellbore	Orig Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	User Defined	07/20/13	-7.55	67.12	52.614

Design	As Drilled				
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	158.63	

Survey Program	Date	08/30/13			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.00	5,651.00	GYRO (Orig Hole)	NS-GYRO-MS	North sensing gyrocompassing m/s	
5,673.00	14,822.00	MWD (Orig Hole)	MWD	MWD - Standard	

Survey	Office of Oil and Gas WV Dept. of Environmental Protection									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.000	0.00	0.00	0.00	0.00	358,469.3284	1,603,354.7703	39° 28' 37.099 N	80° 47' 37.081 W	
100.00	0.600	204.01	100.00	-0.48	-0.21	358,468.8501	1,603,354.5572	39° 28' 37.094 N	80° 47' 37.084 W	
200.00	1.100	267.94	199.99	-0.99	-1.39	358,468.3373	1,603,353.3849	39° 28' 37.089 N	80° 47' 37.098 W	
300.00	0.210	327.68	299.98	-0.87	-2.44	358,468.4576	1,603,352.3276	39° 28' 37.090 N	80° 47' 37.112 W	
400.00	0.240	91.81	399.98	-0.72	-2.33	358,468.6059	1,603,352.4390	39° 28' 37.091 N	80° 47' 37.110 W	
500.00	0.380	15.62	499.98	-0.41	-2.03	358,468.9186	1,603,352.7376	39° 28' 37.095 N	80° 47' 37.107 W	
600.00	0.760	99.29	599.98	-0.20	-1.29	358,469.1309	1,603,353.4814	39° 28' 37.097 N	80° 47' 37.097 W	
700.00	1.240	111.13	699.96	-0.69	0.37	358,468.6338	1,603,355.1452	39° 28' 37.092 N	80° 47' 37.076 W	
800.00	1.510	115.51	799.93	-1.65	2.57	358,467.6763	1,603,357.3436	39° 28' 37.083 N	80° 47' 37.048 W	
900.00	1.320	116.73	899.90	-2.74	4.79	358,466.5908	1,603,359.5615	39° 28' 37.073 N	80° 47' 37.019 W	
1,000.00	1.880	111.26	999.86	-3.85	7.35	358,465.4780	1,603,362.1189	39° 28' 37.062 N	80° 47' 36.986 W	

Directional Drilling Contractors

Survey Report - Geographic



Company: Jay Bee Oil & Gas
Project: Tyler County, WV
Site: RPT 5 Pad
Well: RPT 5-3
Wellbore: Orig Hole
Design: As Drilled

Local Co-ordinate Reference: Well RPT 5-3
TVD Reference: RKB=7' @ 1249.00usft
MD Reference: RKB=7' @ 1249.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

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Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,100.00	2.210	103.73	1,099.80	-4.90	10.75	358,464.4255	1,603,365.5206	39° 28' 37.052 N	80° 47' 36.943 W
1,200.00	2.600	99.60	1,199.71	-5.74	14.86	358,463.5897	1,603,369.6300	39° 28' 37.044 N	80° 47' 36.890 W
1,300.00	3.130	97.14	1,299.59	-6.46	19.81	358,462.8721	1,603,374.5754	39° 28' 37.038 N	80° 47' 36.827 W
1,400.00	2.790	92.50	1,399.45	-6.90	24.95	358,462.4266	1,603,379.7157	39° 28' 37.034 N	80° 47' 36.762 W
1,500.00	3.020	84.31	1,499.32	-6.75	30.00	358,462.5816	1,603,384.7685	39° 28' 37.037 N	80° 47' 36.697 W
1,600.00	2.790	83.53	1,599.20	-6.21	35.04	358,463.1170	1,603,389.8080	39° 28' 37.043 N	80° 47' 36.633 W
1,700.00	2.950	82.85	1,699.07	-5.62	40.01	358,463.7115	1,603,394.7795	39° 28' 37.049 N	80° 47' 36.570 W
1,800.00	2.980	83.70	1,798.94	-5.01	45.15	358,464.3170	1,603,399.9164	39° 28' 37.056 N	80° 47' 36.504 W
1,900.00	2.610	75.18	1,898.82	-4.14	49.93	358,465.1847	1,603,404.7012	39° 28' 37.065 N	80° 47' 36.443 W
2,000.00	2.090	72.21	1,998.73	-3.00	53.87	358,466.3242	1,603,408.6386	39° 28' 37.077 N	80° 47' 36.393 W
2,100.00	2.280	76.63	2,098.66	-1.99	57.54	358,467.3413	1,603,412.3102	39° 28' 37.087 N	80° 47' 36.347 W
2,200.00	2.460	74.29	2,198.57	-0.95	61.54	358,468.3823	1,603,416.3113	39° 28' 37.098 N	80° 47' 36.296 W
2,300.00	2.400	79.72	2,298.48	0.01	65.67	358,469.3371	1,603,420.4374	39° 28' 37.108 N	80° 47' 36.243 W
2,400.00	2.720	72.46	2,398.38	1.10	69.99	358,470.4258	1,603,424.7601	39° 28' 37.120 N	80° 47' 36.189 W
2,500.00	1.960	76.82	2,498.30	2.20	73.92	358,471.5309	1,603,428.6876	39° 28' 37.131 N	80° 47' 36.139 W
2,600.00	1.360	74.09	2,598.26	2.92	76.72	358,472.2461	1,603,431.4939	39° 28' 37.139 N	80° 47' 36.103 W
2,700.00	0.390	66.76	2,698.25	3.38	78.18	358,472.7057	1,603,432.9479	39° 28' 37.143 N	80° 47' 36.085 W
2,800.00	0.160	52.31	2,798.24	3.60	78.60	358,472.9254	1,603,433.3712	39° 28' 37.146 N	80° 47' 36.079 W
2,900.00	0.180	40.40	2,898.24	3.80	78.81	358,473.1303	1,603,433.5834	39° 28' 37.148 N	80° 47' 36.077 W
3,000.00	0.150	190.18	2,998.24	3.79	78.89	358,473.1211	1,603,433.6621	39° 28' 37.148 N	80° 47' 36.076 W
3,100.00	0.550	291.48	3,098.24	3.84	78.42	358,473.1680	1,603,433.1924	39° 28' 37.148 N	80° 47' 36.082 W
3,200.00	0.790	300.14	3,198.24	4.36	77.38	358,473.6899	1,603,432.1496	39° 28' 37.153 N	80° 47' 36.095 W
3,300.00	0.630	297.78	3,298.23	4.96	76.30	358,474.2923	1,603,431.0670	39° 28' 37.159 N	80° 47' 36.109 W
3,400.00	0.690	309.22	3,398.22	5.60	75.34	358,474.9293	1,603,430.1141	39° 28' 37.165 N	80° 47' 36.121 W
3,500.00	0.620	294.39	3,498.21	6.21	74.38	358,475.5334	1,603,429.1548	39° 28' 37.171 N	80° 47' 36.133 W
3,600.00	0.710	299.61	3,598.21	6.73	73.35	358,476.0630	1,603,428.1234	39° 28' 37.176 N	80° 47' 36.147 W
3,700.00	0.750	298.53	3,698.20	7.35	72.24	358,476.6817	1,603,427.0098	39° 28' 37.182 N	80° 47' 36.161 W
3,800.00	0.750	299.98	3,798.19	7.99	71.10	358,477.3213	1,603,425.8678	39° 28' 37.188 N	80° 47' 36.176 W
3,900.00	0.710	300.26	3,898.18	8.63	70.00	358,477.9606	1,603,424.7658	39° 28' 37.194 N	80° 47' 36.190 W
4,000.00	0.780	313.43	3,998.17	9.41	68.97	358,478.7407	1,603,423.7363	39° 28' 37.202 N	80° 47' 36.203 W
4,100.00	0.290	322.85	4,098.17	10.08	68.32	358,479.4104	1,603,423.0892	39° 28' 37.208 N	80° 47' 36.212 W
4,200.00	0.540	335.36	4,198.17	10.71	67.97	358,480.0404	1,603,422.7399	39° 28' 37.214 N	80° 47' 36.216 W
4,300.00	0.690	341.80	4,298.16	11.71	67.59	358,481.0408	1,603,422.3554	39° 28' 37.224 N	80° 47' 36.221 W
4,400.00	0.710	352.93	4,398.15	12.90	67.32	358,482.2276	1,603,422.0910	39° 28' 37.236 N	80° 47' 36.225 W
4,500.00	0.440	347.24	4,498.15	13.89	67.16	358,483.2170	1,603,421.9300	39° 28' 37.246 N	80° 47' 36.227 W
4,600.00	0.600	339.49	4,598.14	14.75	66.89	358,484.0819	1,603,421.6617	39° 28' 37.254 N	80° 47' 36.231 W
4,700.00	0.630	329.11	4,698.14	15.72	66.43	358,485.0440	1,603,421.1960	39° 28' 37.264 N	80° 47' 36.237 W
4,800.00	0.420	340.54	4,798.14	16.53	66.02	358,485.8614	1,603,420.7917	39° 28' 37.272 N	80° 47' 36.242 W
4,900.00	0.680	318.42	4,898.13	17.32	65.51	358,486.6509	1,603,420.2757	39° 28' 37.279 N	80° 47' 36.249 W
5,000.00	0.790	323.18	4,998.12	18.32	64.70	358,487.6466	1,603,419.4688	39° 28' 37.289 N	80° 47' 36.259 W
5,100.00	0.550	337.45	5,098.12	19.31	64.10	358,488.6417	1,603,418.8716	39° 28' 37.299 N	80° 47' 36.267 W
5,200.00	0.840	330.17	5,198.11	20.39	63.55	358,489.7209	1,603,418.3229	39° 28' 37.310 N	80° 47' 36.274 W
5,300.00	0.930	342.05	5,298.10	21.80	62.94	358,491.1288	1,603,417.7081	39° 28' 37.323 N	80° 47' 36.282 W
5,400.00	0.790	336.15	5,398.08	23.20	62.41	358,492.5314	1,603,417.1793	39° 28' 37.337 N	80° 47' 36.289 W
5,500.00	0.940	341.43	5,498.07	24.61	61.87	358,493.9395	1,603,416.6393	39° 28' 37.351 N	80° 47' 36.296 W
5,600.00	1.080	340.27	5,598.06	26.28	61.29	358,495.6041	1,603,416.0599	39° 28' 37.367 N	80° 47' 36.304 W
5,651.00	1.100	343.10	5,649.05	27.20	60.99	358,496.5249	1,603,415.7554	39° 28' 37.376 N	80° 47' 36.308 W
5,673.00	0.800	333.90	5,671.05	27.54	60.86	358,496.8649	1,603,415.6264	39° 28' 37.380 N	80° 47' 36.310 W
5,718.00	0.900	340.10	5,716.04	28.15	60.60	358,497.4793	1,603,415.3679	39° 28' 37.386 N	80° 47' 36.313 W
5,762.00	0.800	336.10	5,760.04	28.76	60.36	358,498.0851	1,603,415.1259	39° 28' 37.392 N	80° 47' 36.317 W
5,807.00	1.000	332.30	5,805.03	29.39	60.05	358,498.7200	1,603,414.8160	39° 28' 37.398 N	80° 47' 36.321 W
5,851.00	1.000	323.00	5,849.02	30.04	59.64	358,499.3666	1,603,414.4065	39° 28' 37.404 N	80° 47' 36.326 W
5,895.00	1.000	329.70	5,893.02	30.68	59.21	358,500.0047	1,603,413.9817	39° 28' 37.411 N	80° 47' 36.331 W
5,939.00	1.100	319.30	5,937.01	31.33	58.74	358,500.6564	1,603,413.5126	39° 28' 37.417 N	80° 47' 36.338 W
5,984.00	1.100	321.40	5,982.00	31.99	58.19	358,501.3215	1,603,412.9614	39° 28' 37.423 N	80° 47' 36.345 W

Directional Drilling Contractors

Survey Report - Geographic



Company: Jay Bee Oil & Gas
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Site: RPT 5 Pad
Well: RPT 5-3
Wellbore: Orig Hole
Design: As Drilled

Local Co-ordinate Reference: Well RPT 5-3
TVD Reference: RKB=7' @ 1249.00usft
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Survey

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Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,028.00	1.000	320.40	6,025.99	32.62	57.68	358,501.9474	1,603,412.4532	39° 28' 37.429 N	80° 47' 36.351 W
6,072.00	1.200	303.20	6,069.99	33.17	57.05	358,502.4955	1,603,411.8229	39° 28' 37.435 N	80° 47' 36.359 W
6,117.00	3.500	65.50	6,114.96	34.00	57.91	358,503.3235	1,603,412.6790	39° 28' 37.443 N	80° 47' 36.349 W
6,161.00	8.300	73.80	6,158.71	35.44	62.18	358,504.7674	1,603,416.9534	39° 28' 37.458 N	80° 47' 36.294 W
6,205.00	12.600	78.90	6,201.98	37.25	69.95	358,506.5782	1,603,424.7163	39° 28' 37.477 N	80° 47' 36.196 W
6,250.00	15.700	82.90	6,245.61	38.95	80.81	358,508.2762	1,603,435.5775	39° 28' 37.495 N	80° 47' 36.058 W
6,294.00	17.700	87.60	6,287.75	39.96	93.40	358,509.2922	1,603,448.1697	39° 28' 37.507 N	80° 47' 35.897 W
6,339.00	19.500	89.40	6,330.40	40.33	107.75	358,509.6574	1,603,462.5160	39° 28' 37.513 N	80° 47' 35.714 W
6,383.00	21.600	92.80	6,371.60	40.01	123.18	358,509.3386	1,603,477.9507	39° 28' 37.512 N	80° 47' 35.517 W
6,427.00	24.600	93.70	6,412.06	39.02	140.41	358,508.3518	1,603,495.1829	39° 28' 37.505 N	80° 47' 35.297 W
6,472.00	27.900	94.40	6,452.42	37.61	160.26	358,506.9392	1,603,515.0326	39° 28' 37.493 N	80° 47' 35.044 W
6,516.00	31.200	96.40	6,490.69	35.55	181.86	358,504.8785	1,603,536.6288	39° 28' 37.476 N	80° 47' 34.768 W
6,561.00	33.600	97.30	6,528.68	32.67	205.80	358,501.9967	1,603,560.5658	39° 28' 37.451 N	80° 47' 34.463 W
6,605.00	36.000	98.70	6,564.81	29.16	230.66	358,498.4931	1,603,585.4282	39° 28' 37.420 N	80° 47' 34.145 W
6,650.00	39.100	100.20	6,600.49	24.65	257.70	358,493.9786	1,603,612.4743	39° 28' 37.379 N	80° 47' 33.799 W
6,694.00	42.400	100.90	6,633.81	19.39	285.93	358,488.7149	1,603,640.7049	39° 28' 37.331 N	80° 47' 33.438 W
6,739.00	45.600	100.80	6,666.18	13.50	316.63	358,482.8322	1,603,671.4019	39° 28' 37.277 N	80° 47' 33.046 W
6,783.00	48.900	99.20	6,696.04	7.91	348.45	358,477.2346	1,603,703.2169	39° 28' 37.227 N	80° 47' 32.639 W
6,828.00	51.800	98.40	6,724.76	2.61	382.68	358,471.9396	1,603,737.4537	39° 28' 37.179 N	80° 47' 32.201 W
6,872.00	54.000	97.40	6,751.30	-2.21	417.44	358,467.1209	1,603,772.2120	39° 28' 37.136 N	80° 47' 31.757 W
6,916.00	56.700	98.00	6,776.31	-7.06	453.31	358,462.2686	1,603,808.0779	39° 28' 37.094 N	80° 47' 31.299 W
6,960.00	60.100	99.00	6,799.36	-12.60	490.36	358,456.7243	1,603,845.1351	39° 28' 37.044 N	80° 47' 30.825 W
7,005.00	63.400	99.80	6,820.66	-19.08	529.47	358,450.2468	1,603,884.2364	39° 28' 36.986 N	80° 47' 30.325 W
7,049.00	66.100	101.30	6,839.43	-26.37	568.58	358,442.9556	1,603,923.3535	39° 28' 36.919 N	80° 47' 29.825 W
7,094.00	69.400	103.80	6,856.47	-35.43	609.23	358,433.8973	1,603,963.9956	39° 28' 36.835 N	80° 47' 29.305 W
7,138.00	73.000	105.30	6,870.64	-45.90	649.53	358,423.4296	1,604,004.3028	39° 28' 36.738 N	80° 47' 28.789 W
7,183.00	76.700	106.80	6,882.40	-57.91	691.27	358,411.4183	1,604,046.0357	39° 28' 36.625 N	80° 47' 28.255 W
7,227.00	79.100	108.80	6,891.63	-71.06	732.22	358,398.2650	1,604,086.9924	39° 28' 36.501 N	80° 47' 27.730 W
7,271.00	80.500	111.30	6,899.42	-85.91	772.90	358,383.4181	1,604,127.6673	39° 28' 36.360 N	80° 47' 27.209 W
7,316.00	81.500	113.00	6,906.46	-102.67	814.06	358,366.6605	1,604,168.8307	39° 28' 36.200 N	80° 47' 26.681 W
7,360.00	83.200	115.20	6,912.32	-120.47	853.86	358,348.8542	1,604,208.6333	39° 28' 36.030 N	80° 47' 26.170 W
7,404.00	87.100	115.60	6,916.04	-139.28	893.46	358,330.0519	1,604,248.2298	39° 28' 35.849 N	80° 47' 25.662 W
7,449.00	87.000	115.40	6,918.35	-158.62	934.02	358,310.7045	1,604,288.7923	39° 28' 35.664 N	80° 47' 25.141 W
7,493.00	87.000	115.50	6,920.66	-177.51	973.70	358,291.8226	1,604,328.4681	39° 28' 35.483 N	80° 47' 24.632 W
7,537.00	87.200	115.60	6,922.88	-196.46	1,013.34	358,272.8698	1,604,368.1145	39° 28' 35.301 N	80° 47' 24.122 W
7,582.00	87.600	115.70	6,924.92	-215.92	1,053.87	358,253.4106	1,604,408.6381	39° 28' 35.115 N	80° 47' 23.602 W
7,626.00	87.700	115.60	6,926.73	-234.95	1,093.50	358,234.3804	1,604,448.2688	39° 28' 34.932 N	80° 47' 23.093 W
7,671.00	87.900	116.00	6,928.45	-254.52	1,133.98	358,214.8094	1,604,488.7531	39° 28' 34.745 N	80° 47' 22.573 W
7,715.00	87.100	113.50	6,930.37	-272.92	1,173.90	358,196.4073	1,604,528.6698	39° 28' 34.569 N	80° 47' 22.061 W
7,759.00	87.400	113.30	6,932.49	-290.38	1,214.23	358,178.9529	1,604,569.0044	39° 28' 34.402 N	80° 47' 21.543 W
7,804.00	87.100	112.00	6,934.64	-307.68	1,255.71	358,161.6437	1,604,610.4850	39° 28' 34.237 N	80° 47' 21.011 W
7,848.00	87.600	114.00	6,936.68	-324.86	1,296.17	358,144.4707	1,604,650.9416	39° 28' 34.073 N	80° 47' 20.492 W
7,893.00	88.800	115.70	6,938.09	-343.76	1,336.98	358,125.5699	1,604,691.7526	39° 28' 33.892 N	80° 47' 19.968 W
7,937.00	89.300	117.50	6,938.82	-363.46	1,376.32	358,105.8720	1,604,731.0883	39° 28' 33.702 N	80° 47' 19.463 W
7,981.00	89.400	119.30	6,939.32	-384.38	1,415.02	358,084.9468	1,604,769.7887	39° 28' 33.501 N	80° 47' 18.966 W
8,026.00	89.500	121.50	6,939.75	-407.15	1,453.83	358,062.1777	1,604,808.5976	39° 28' 33.282 N	80° 47' 18.467 W
8,070.00	89.900	123.60	6,939.98	-430.82	1,490.91	358,038.5058	1,604,845.6835	39° 28' 33.053 N	80° 47' 17.990 W
8,114.00	90.100	124.90	6,939.98	-455.59	1,527.28	358,013.7429	1,604,882.0527	39° 28' 32.813 N	80° 47' 17.521 W
8,156.00	91.200	126.60	6,939.51	-480.12	1,561.36	357,989.2074	1,604,916.1349	39° 28' 32.576 N	80° 47' 17.082 W
8,201.00	91.100	129.10	6,938.60	-507.73	1,596.89	357,961.6033	1,604,951.6578	39° 28' 32.308 N	80° 47' 16.624 W
8,245.00	90.500	131.40	6,937.99	-536.15	1,630.46	357,933.1786	1,604,985.2343	39° 28' 32.032 N	80° 47' 16.191 W
8,290.00	90.500	133.30	6,937.60	-566.46	1,663.72	357,902.8665	1,605,018.4885	39° 28' 31.737 N	80° 47' 15.761 W
8,334.00	90.000	137.20	6,937.40	-597.70	1,694.69	357,871.6248	1,605,049.4587	39° 28' 31.433 N	80° 47' 15.360 W
8,378.00	89.700	140.10	6,937.52	-630.73	1,723.75	357,838.5982	1,605,078.5244	39° 28' 31.110 N	80° 47' 14.984 W
8,423.00	88.200	142.90	6,938.34	-665.94	1,751.76	357,803.3914	1,605,106.5295	39° 28' 30.766 N	80° 47' 14.620 W

Directional Drilling Contractors

Survey Report - Geographic



Received

APR 27 2015

Company:	Jay Bee Oil & Gas	Local Co-ordinate Reference:	Well RPT 5-3
Project:	Tyler County, WV	TVD Reference:	RKB=7' @ 1249.00usft
Site:	RPT 5 Pad	MD Reference:	RKB=7' @ 1249.00usft
Well:	RPT 5-3	North Reference:	Grid
Wellbore:	Orig Hole	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	EDM 5000.1 Single User Db

Office of Oil and Gas
WV Dept. of Environmental Protection

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
8,467.00	87.100	145.20	6,940.15	-701.52	1,777.57	357,767.8052	1,605,132.3374	39° 28' 30.418 N	80° 47' 14.285 W
8,511.00	87.900	147.40	6,942.07	-738.09	1,801.96	357,731.2365	1,605,156.7254	39° 28' 30.060 N	80° 47' 13.967 W
8,556.00	89.400	149.70	6,943.13	-776.47	1,825.43	357,692.8613	1,605,180.1952	39° 28' 29.684 N	80° 47' 13.661 W
8,600.00	89.900	151.80	6,943.40	-814.85	1,846.92	357,654.4745	1,605,201.6929	39° 28' 29.308 N	80° 47' 13.380 W
8,644.00	89.200	154.70	6,943.74	-854.14	1,866.72	357,615.1891	1,605,221.4944	39° 28' 28.923 N	80° 47' 13.120 W
8,689.00	88.400	157.00	6,944.69	-895.19	1,885.13	357,574.1398	1,605,239.8998	39° 28' 28.520 N	80° 47' 12.878 W
8,733.00	89.000	160.60	6,945.68	-936.19	1,901.03	357,533.1350	1,605,255.8043	39° 28' 28.117 N	80° 47' 12.667 W
8,777.00	88.700	162.60	6,946.57	-977.93	1,914.92	357,491.3950	1,605,269.6894	39° 28' 27.706 N	80° 47' 12.483 W
8,821.00	88.500	164.90	6,947.64	-1,020.16	1,927.23	357,449.1683	1,605,281.9974	39° 28' 27.290 N	80° 47' 12.318 W
8,866.00	88.600	165.50	6,948.78	-1,063.65	1,938.72	357,405.6754	1,605,293.4887	39° 28' 26.862 N	80° 47' 12.163 W
8,910.00	88.700	165.40	6,949.82	-1,106.23	1,949.77	357,363.0983	1,605,304.5396	39° 28' 26.443 N	80° 47' 12.015 W
8,952.00	89.700	166.50	6,950.40	-1,146.97	1,959.96	357,322.3599	1,605,314.7345	39° 28' 26.042 N	80° 47' 11.877 W
8,994.00	89.900	165.70	6,950.55	-1,187.74	1,970.05	357,281.5904	1,605,324.8239	39° 28' 25.640 N	80° 47' 11.741 W
9,039.00	90.100	165.90	6,950.55	-1,231.36	1,981.09	357,237.9654	1,605,335.8628	39° 28' 25.211 N	80° 47' 11.593 W
9,083.00	90.600	166.00	6,950.28	-1,274.05	1,991.77	357,195.2826	1,605,346.5443	39° 28' 24.791 N	80° 47' 11.449 W
9,128.00	88.700	165.70	6,950.56	-1,317.68	2,002.77	357,151.6508	1,605,357.5444	39° 28' 24.361 N	80° 47' 11.300 W
9,172.00	88.700	165.50	6,951.56	-1,360.28	2,013.71	357,109.0442	1,605,368.4839	39° 28' 23.941 N	80° 47' 11.153 W
9,216.00	88.200	166.70	6,952.75	-1,402.98	2,024.28	357,066.3492	1,605,379.0499	39° 28' 23.521 N	80° 47' 11.010 W
9,260.00	88.400	166.80	6,954.05	-1,445.79	2,034.36	357,023.5394	1,605,389.1303	39° 28' 23.099 N	80° 47' 10.874 W
9,305.00	89.100	168.90	6,955.03	-1,489.77	2,043.83	356,979.5606	1,605,398.5985	39° 28' 22.666 N	80° 47' 10.745 W
9,349.00	89.300	169.10	6,955.65	-1,532.96	2,052.22	356,936.3732	1,605,406.9933	39° 28' 22.240 N	80° 47' 10.630 W
9,394.00	89.500	169.30	6,956.12	-1,577.16	2,060.65	356,892.1728	1,605,415.4250	39° 28' 21.805 N	80° 47' 10.515 W
9,439.00	90.000	169.30	6,956.31	-1,621.37	2,069.01	356,847.9558	1,605,423.7799	39° 28' 21.369 N	80° 47' 10.400 W
9,483.00	90.300	169.20	6,956.20	-1,664.60	2,077.22	356,804.7281	1,605,431.9869	39° 28' 20.943 N	80° 47' 10.288 W
9,527.00	89.700	169.10	6,956.20	-1,707.81	2,085.50	356,761.5149	1,605,440.2694	39° 28' 20.517 N	80° 47' 10.174 W
9,572.00	88.200	170.00	6,957.02	-1,752.06	2,093.66	356,717.2705	1,605,448.4297	39° 28' 20.081 N	80° 47' 10.062 W
9,616.00	88.500	169.80	6,958.29	-1,795.36	2,101.37	356,673.9704	1,605,456.1427	39° 28' 19.654 N	80° 47' 9.956 W
9,661.00	88.700	170.80	6,959.39	-1,839.70	2,108.95	356,629.6275	1,605,463.7223	39° 28' 19.217 N	80° 47' 9.851 W
9,705.00	88.700	170.90	6,960.39	-1,883.13	2,115.95	356,586.1986	1,605,470.7174	39° 28' 18.789 N	80° 47' 9.754 W
9,749.00	88.800	170.90	6,961.35	-1,926.57	2,122.90	356,542.7627	1,605,477.6747	39° 28' 18.360 N	80° 47' 9.657 W
9,794.00	89.100	170.70	6,962.17	-1,970.98	2,130.10	356,498.3491	1,605,484.8681	39° 28' 17.922 N	80° 47' 9.557 W
9,838.00	89.400	171.20	6,962.75	-2,014.43	2,137.02	356,454.9008	1,605,491.7885	39° 28' 17.494 N	80° 47' 9.461 W
9,882.00	89.500	170.40	6,963.17	-2,057.86	2,144.05	356,411.4691	1,605,498.8229	39° 28' 17.066 N	80° 47' 9.364 W
9,927.00	89.300	168.60	6,963.64	-2,102.10	2,152.25	356,367.2269	1,605,507.0227	39° 28' 16.630 N	80° 47' 9.261 W
9,971.00	89.700	168.60	6,964.03	-2,145.23	2,160.95	356,324.0967	1,605,515.7193	39° 28' 16.205 N	80° 47' 9.132 W
10,016.00	89.900	169.90	6,964.18	-2,189.44	2,169.34	356,279.8877	1,605,524.1126	39° 28' 15.769 N	80° 47' 9.017 W
10,060.00	88.700	170.40	6,964.72	-2,232.79	2,176.87	356,236.5405	1,605,531.6390	39° 28' 15.342 N	80° 47' 8.913 W
10,102.00	88.900	171.30	6,965.60	-2,274.24	2,183.55	356,195.0844	1,605,538.3163	39° 28' 14.933 N	80° 47' 8.821 W
10,147.00	89.300	170.80	6,966.31	-2,318.69	2,190.55	356,150.6381	1,605,545.3161	39° 28' 14.495 N	80° 47' 8.723 W
10,191.00	88.600	167.90	6,967.11	-2,361.92	2,198.68	356,107.4081	1,605,553.4453	39° 28' 14.069 N	80° 47' 8.612 W
10,236.00	88.800	167.60	6,968.14	-2,405.88	2,208.22	356,063.4441	1,605,562.9908	39° 28' 13.635 N	80° 47' 8.482 W
10,280.00	88.900	166.70	6,969.02	-2,448.77	2,218.00	356,020.5551	1,605,572.7744	39° 28' 13.213 N	80° 47' 8.349 W
10,325.00	89.200	166.40	6,969.76	-2,492.53	2,228.47	355,976.7955	1,605,583.2397	39° 28' 12.782 N	80° 47' 8.208 W
10,369.00	89.500	166.10	6,970.26	-2,535.27	2,238.93	355,934.0593	1,605,593.6972	39° 28' 12.361 N	80° 47' 8.067 W
10,414.00	89.600	165.20	6,970.62	-2,578.86	2,250.08	355,890.4651	1,605,604.8498	39° 28' 11.932 N	80° 47' 7.917 W
10,458.00	89.900	167.40	6,970.81	-2,621.61	2,260.50	355,847.7200	1,605,615.2699	39° 28' 11.511 N	80° 47' 7.776 W
10,502.00	90.000	167.00	6,970.85	-2,664.51	2,270.25	355,804.8135	1,605,625.0180	39° 28' 11.088 N	80° 47' 7.644 W
10,546.00	89.200	168.60	6,971.15	-2,707.52	2,279.55	355,761.8100	1,605,634.3157	39° 28' 10.665 N	80° 47' 7.517 W
10,591.00	89.300	167.80	6,971.74	-2,751.56	2,288.75	355,717.7651	1,605,643.5172	39° 28' 10.231 N	80° 47' 7.392 W
10,636.00	88.800	169.90	6,972.49	-2,795.71	2,297.45	355,673.6232	1,605,652.2176	39° 28' 9.796 N	80° 47' 7.273 W
10,680.00	89.100	170.70	6,973.30	-2,839.07	2,304.86	355,630.2599	1,605,659.6298	39° 28' 9.368 N	80° 47' 7.171 W
10,724.00	90.500	172.50	6,973.45	-2,882.59	2,311.29	355,586.7351	1,605,666.0569	39° 28' 8.939 N	80° 47' 7.081 W
10,769.00	91.800	175.10	6,972.55	-2,927.32	2,316.15	355,542.0121	1,605,670.9156	39° 28' 8.497 N	80° 47' 7.011 W
10,813.00	92.200	176.40	6,971.01	-2,971.17	2,319.40	355,498.1609	1,605,674.1744	39° 28' 8.065 N	80° 47' 6.961 W
10,858.00	90.700	175.80	6,969.87	-3,016.05	2,322.46	355,453.2810	1,605,677.2341	39° 28' 7.621 N	80° 47' 6.914 W

Directional Drilling Contractors

Survey Report - Geographic



Office of Oil and Gas
WV Dept. of Environmental Protection

Company: Jay Bee Oil & Gas	Local Co-ordinate Reference: Well RPT 5-3
Project: Tyler County, WV	TVD Reference: RKB=7' @ 1249.00usft
Site: RPT 5 Pad	MD Reference: RKB=7' @ 1249.00usft
Well: RPT 5-3	North Reference: Grid
Wellbore: Orig Hole	Survey Calculation Method: Minimum Curvature
Design: As Drilled	Database: EDM 5000.1 Single User Db

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,902.00	90.100	176.30	6,969.56	-3,059.94	2,325.49	355,409.3869	1,605,680.2650	39° 28' 7.188 N	80° 47' 6.867 W
10,946.00	90.100	175.90	6,969.49	-3,103.84	2,328.49	355,365.4889	1,605,683.2576	39° 28' 6.755 N	80° 47' 6.821 W
10,991.00	90.000	175.00	6,969.45	-3,148.70	2,332.06	355,320.6312	1,605,686.8274	39° 28' 6.312 N	80° 47' 6.767 W
11,033.00	90.000	175.30	6,969.45	-3,190.55	2,335.61	355,278.7817	1,605,690.3784	39° 28' 5.899 N	80° 47' 6.714 W
11,077.00	89.600	175.50	6,969.60	-3,234.40	2,339.14	355,234.9238	1,605,693.9071	39° 28' 5.466 N	80° 47' 6.661 W
11,122.00	89.800	174.90	6,969.84	-3,279.25	2,342.90	355,190.0824	1,605,697.6725	39° 28' 5.023 N	80° 47' 6.605 W
11,166.00	89.700	174.30	6,970.03	-3,323.05	2,347.04	355,146.2783	1,605,701.8132	39° 28' 4.591 N	80° 47' 6.544 W
11,211.00	89.300	173.70	6,970.42	-3,367.80	2,351.75	355,101.5268	1,605,706.5168	39° 28' 4.149 N	80° 47' 6.476 W
11,255.00	89.300	174.10	6,970.96	-3,411.55	2,356.42	355,057.7793	1,605,711.1921	39° 28' 3.718 N	80° 47' 6.409 W
11,299.00	89.000	173.80	6,971.61	-3,455.30	2,361.06	355,014.0293	1,605,715.8290	39° 28' 3.286 N	80° 47' 6.342 W
11,344.00	88.900	173.40	6,972.44	-3,500.01	2,366.07	354,969.3174	1,605,720.8442	39° 28' 2.845 N	80° 47' 6.270 W
11,388.00	90.400	173.50	6,972.71	-3,543.72	2,371.09	354,925.6066	1,605,725.8631	39° 28' 2.413 N	80° 47' 6.198 W
11,433.00	90.400	173.50	6,972.39	-3,588.43	2,376.19	354,880.8970	1,605,730.9571	39° 28' 1.972 N	80° 47' 6.124 W
11,477.00	90.700	173.40	6,971.97	-3,632.14	2,381.21	354,837.1863	1,605,735.9759	39° 28' 1.541 N	80° 47' 6.052 W
11,522.00	91.200	173.10	6,971.22	-3,676.82	2,386.49	354,792.5045	1,605,741.2644	39° 28' 1.100 N	80° 47' 5.977 W
11,566.00	89.700	172.80	6,970.88	-3,720.49	2,391.89	354,748.8398	1,605,746.6644	39° 28' 0.669 N	80° 47' 5.900 W
11,610.00	90.000	172.60	6,970.99	-3,764.13	2,397.49	354,705.1967	1,605,752.2552	39° 28' 0.239 N	80° 47' 5.821 W
11,655.00	89.500	173.50	6,971.19	-3,808.80	2,402.93	354,660.5284	1,605,757.7002	39° 27' 59.798 N	80° 47' 5.743 W
11,699.00	89.200	174.70	6,971.69	-3,852.56	2,407.45	354,616.7651	1,605,762.2228	39° 27' 59.366 N	80° 47' 5.678 W
11,743.00	89.600	174.60	6,972.15	-3,896.37	2,411.55	354,572.9593	1,605,766.3251	39° 27' 58.934 N	80° 47' 5.617 W
11,788.00	89.800	175.60	6,972.39	-3,941.20	2,415.40	354,528.1249	1,605,770.1687	39° 27' 58.491 N	80° 47' 5.560 W
11,832.00	89.600	174.60	6,972.62	-3,985.04	2,419.16	354,484.2869	1,605,773.9270	39° 27' 58.059 N	80° 47' 5.504 W
11,877.00	90.400	175.60	6,972.62	-4,029.88	2,423.00	354,439.4523	1,605,777.7706	39° 27' 57.616 N	80° 47' 5.447 W
11,919.00	90.000	174.70	6,972.47	-4,071.72	2,426.55	354,397.6035	1,605,781.3216	39° 27' 57.203 N	80° 47' 5.394 W
11,963.00	88.600	175.20	6,973.01	-4,115.55	2,430.42	354,353.7788	1,605,785.1943	39° 27' 56.771 N	80° 47' 5.337 W
12,008.00	86.700	174.40	6,974.85	-4,160.32	2,434.50	354,309.0041	1,605,789.2689	39° 27' 56.329 N	80° 47' 5.277 W
12,052.00	87.200	174.30	6,977.19	-4,204.05	2,438.82	354,265.2801	1,605,793.5946	39° 27' 55.897 N	80° 47' 5.214 W
12,097.00	88.100	173.30	6,979.04	-4,248.75	2,443.68	354,220.5820	1,605,798.4505	39° 27' 55.456 N	80° 47' 5.143 W
12,142.00	88.100	172.90	6,980.53	-4,293.40	2,449.08	354,175.9325	1,605,803.8537	39° 27' 55.016 N	80° 47' 5.066 W
12,186.00	89.500	173.00	6,981.45	-4,337.05	2,454.48	354,132.2759	1,605,809.2527	39° 27' 54.585 N	80° 47' 4.990 W
12,230.00	91.900	173.90	6,980.91	-4,380.76	2,459.50	354,088.5700	1,605,814.2711	39° 27' 54.154 N	80° 47' 4.918 W
12,274.00	92.600	174.80	6,979.19	-4,424.51	2,463.83	354,044.8182	1,605,818.5996	39° 27' 53.722 N	80° 47' 4.854 W
12,319.00	92.700	174.30	6,977.11	-4,469.26	2,468.10	354,000.0697	1,605,822.8690	39° 27' 53.280 N	80° 47' 4.792 W
12,363.00	92.100	173.30	6,975.26	-4,512.96	2,472.85	353,956.3662	1,605,827.6168	39° 27' 52.849 N	80° 47' 4.723 W
12,408.00	92.400	173.50	6,973.50	-4,557.63	2,478.01	353,911.6990	1,605,832.7850	39° 27' 52.408 N	80° 47' 4.649 W
12,452.00	91.900	172.80	6,971.85	-4,601.28	2,483.26	353,868.0442	1,605,838.0292	39° 27' 51.978 N	80° 47' 4.575 W
12,496.00	91.700	172.60	6,970.46	-4,644.91	2,488.85	353,824.4224	1,605,843.6173	39° 27' 51.547 N	80° 47' 4.495 W
12,540.00	92.100	172.50	6,969.01	-4,688.51	2,494.55	353,780.8179	1,605,849.3192	39° 27' 51.117 N	80° 47' 4.415 W
12,585.00	90.900	174.40	6,967.83	-4,733.20	2,499.68	353,736.1298	1,605,854.4501	39° 27' 50.676 N	80° 47' 4.341 W
12,629.00	91.000	174.30	6,967.10	-4,776.98	2,504.01	353,692.3496	1,605,858.7813	39° 27' 50.244 N	80° 47' 4.278 W
12,674.00	89.800	172.60	6,966.78	-4,821.68	2,509.14	353,647.6469	1,605,863.9142	39° 27' 49.803 N	80° 47' 4.204 W
12,718.00	90.400	172.70	6,966.71	-4,865.32	2,514.77	353,604.0087	1,605,869.5430	39° 27' 49.373 N	80° 47' 4.125 W
12,763.00	89.400	173.20	6,966.79	-4,909.98	2,520.30	353,559.3497	1,605,875.0660	39° 27' 48.932 N	80° 47' 4.046 W
12,807.00	88.100	174.50	6,967.74	-4,953.71	2,525.01	353,515.6152	1,605,879.7786	39° 27' 48.501 N	80° 47' 3.978 W
12,851.00	88.000	173.90	6,969.24	-4,997.46	2,529.45	353,471.8660	1,605,884.2225	39° 27' 48.069 N	80° 47' 3.913 W
12,896.00	87.800	174.10	6,970.89	-5,042.19	2,534.15	353,427.1427	1,605,888.9231	39° 27' 47.627 N	80° 47' 3.845 W
12,940.00	88.600	171.60	6,972.27	-5,085.82	2,539.63	353,383.5102	1,605,894.3967	39° 27' 47.197 N	80° 47' 3.768 W
12,985.00	89.700	171.00	6,972.94	-5,130.29	2,546.43	353,339.0338	1,605,901.2026	39° 27' 46.758 N	80° 47' 3.673 W
13,029.00	89.600	170.10	6,973.21	-5,173.70	2,553.66	353,295.6321	1,605,908.4266	39° 27' 46.331 N	80° 47' 3.573 W
13,071.00	89.600	169.70	6,973.50	-5,215.04	2,561.02	353,254.2841	1,605,915.7918	39° 27' 45.923 N	80° 47' 3.471 W
13,115.00	90.300	168.80	6,973.54	-5,258.27	2,569.23	353,211.0570	1,605,923.9988	39° 27' 45.497 N	80° 47' 3.359 W
13,160.00	90.100	169.10	6,973.38	-5,302.44	2,577.85	353,166.8916	1,605,932.6236	39° 27' 45.062 N	80° 47' 3.241 W
13,204.00	90.200	170.20	6,973.27	-5,345.72	2,585.76	353,123.6084	1,605,940.5286	39° 27' 44.635 N	80° 47' 3.132 W
13,248.00	90.200	169.90	6,973.12	-5,389.06	2,593.36	353,080.2705	1,605,948.1312	39° 27' 44.208 N	80° 47' 3.027 W
13,293.00	90.400	169.70	6,972.88	-5,433.35	2,601.33	353,035.9824	1,605,956.0999	39° 27' 43.771 N	80° 47' 2.917 W

Directional Drilling Contractors

Survey Report - Geographic



Received

APR 27 2015

Office of Oil and Gas
WV Dept. of Environmental Protection

Company:	Jay Bee Oil & Gas	Local Co-ordinate Reference:	Well RPT 5-3
Project:	Tyler County, WV	TVD Reference:	RKB=7' @ 1249.00usft
Site:	RPT 5 Pad	MD Reference:	RKB=7' @ 1249.00usft
Well:	RPT 5-3	North Reference:	Grid
Wellbore:	Orig Hole	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	EDM 5000.1 Single User Db

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
13,337.00	90.600	169.90	6,972.50	-5,476.65	2,609.12	352,992.6794	1,605,963.8913	39° 27' 43.344 N	80° 47' 2.810 W
13,382.00	91.200	170.50	6,971.79	-5,520.99	2,616.78	352,948.3420	1,605,971.5498	39° 27' 42.907 N	80° 47' 2.705 W
13,426.00	91.300	169.10	6,970.83	-5,564.28	2,624.57	352,905.0487	1,605,979.3394	39° 27' 42.481 N	80° 47' 2.597 W
13,470.00	91.500	168.80	6,969.75	-5,607.45	2,633.00	352,861.8775	1,605,987.7702	39° 27' 42.055 N	80° 47' 2.482 W
13,515.00	91.500	169.80	6,968.58	-5,651.65	2,641.35	352,817.6756	1,605,996.1222	39° 27' 41.619 N	80° 47' 2.367 W
13,560.00	91.500	170.30	6,967.40	-5,695.96	2,649.12	352,773.3678	1,606,003.8950	39° 27' 41.183 N	80° 47' 2.260 W
13,604.00	91.500	169.80	6,966.25	-5,739.28	2,656.72	352,730.0446	1,606,011.4951	39° 27' 40.756 N	80° 47' 2.155 W
13,649.00	91.000	171.10	6,965.26	-5,783.65	2,664.19	352,685.6799	1,606,018.9590	39° 27' 40.318 N	80° 47' 2.052 W
13,693.00	91.300	171.80	6,964.38	-5,827.15	2,670.73	352,642.1779	1,606,025.4992	39° 27' 39.889 N	80° 47' 1.961 W
13,735.00	90.900	172.70	6,963.58	-5,868.76	2,676.39	352,600.5697	1,606,031.1618	39° 27' 39.479 N	80° 47' 1.881 W
13,779.00	90.600	173.60	6,963.00	-5,912.44	2,681.64	352,556.8881	1,606,036.4092	39° 27' 39.048 N	80° 47' 1.806 W
13,824.00	92.400	175.90	6,961.82	-5,957.23	2,685.76	352,512.0971	1,606,040.5253	39° 27' 38.606 N	80° 47' 1.746 W
13,868.00	92.500	175.70	6,959.94	-6,001.07	2,688.97	352,468.2554	1,606,043.7448	39° 27' 38.173 N	80° 47' 1.697 W
13,913.00	92.900	177.50	6,957.82	-6,045.94	2,691.64	352,423.3864	1,606,046.4106	39° 27' 37.730 N	80° 47' 1.654 W
13,957.00	93.000	177.10	6,955.56	-6,089.83	2,693.71	352,379.4936	1,606,048.4805	39° 27' 37.296 N	80° 47' 1.620 W
14,002.00	91.500	177.90	6,953.79	-6,134.76	2,695.67	352,334.5727	1,606,050.4417	39° 27' 36.853 N	80° 47' 1.587 W
14,046.00	91.900	178.20	6,952.48	-6,178.71	2,697.17	352,290.6177	1,606,051.9382	39° 27' 36.418 N	80° 47' 1.560 W
14,090.00	90.100	178.20	6,951.72	-6,222.68	2,698.55	352,246.6479	1,606,053.3200	39° 27' 35.984 N	80° 47' 1.534 W
14,135.00	89.100	178.60	6,952.03	-6,267.66	2,699.81	352,201.6672	1,606,054.5765	39° 27' 35.540 N	80° 47' 1.510 W
14,179.00	89.400	178.90	6,952.61	-6,311.65	2,700.77	352,157.6816	1,606,055.5362	39° 27' 35.105 N	80° 47' 1.490 W
14,223.00	89.800	179.20	6,952.91	-6,355.64	2,701.50	352,113.6888	1,606,056.2657	39° 27' 34.671 N	80° 47' 1.472 W
14,268.00	88.700	179.20	6,953.50	-6,400.63	2,702.12	352,068.6977	1,606,056.8939	39° 27' 34.226 N	80° 47' 1.456 W
14,312.00	88.800	178.90	6,954.46	-6,444.61	2,702.85	352,024.7143	1,606,057.6233	39° 27' 33.791 N	80° 47' 1.439 W
14,357.00	89.000	179.10	6,955.33	-6,489.60	2,703.64	351,979.7295	1,606,058.4085	39° 27' 33.347 N	80° 47' 1.421 W
14,401.00	89.200	178.60	6,956.02	-6,533.58	2,704.52	351,935.7440	1,606,059.2915	39° 27' 32.912 N	80° 47' 1.401 W
14,445.00	89.400	178.40	6,956.55	-6,577.57	2,705.67	351,891.7624	1,606,060.4432	39° 27' 32.478 N	80° 47' 1.379 W
14,490.00	89.500	178.20	6,956.99	-6,622.54	2,707.01	351,846.7843	1,606,061.7781	39° 27' 32.034 N	80° 47' 1.353 W
14,534.00	89.900	178.10	6,957.22	-6,666.52	2,708.43	351,802.8079	1,606,063.1985	39° 27' 31.599 N	80° 47' 1.327 W
14,579.00	88.800	177.90	6,957.73	-6,711.49	2,710.00	351,757.8389	1,606,064.7689	39° 27' 31.155 N	80° 47' 1.299 W
14,623.00	88.900	177.90	6,958.61	-6,755.45	2,711.61	351,713.8773	1,606,066.3809	39° 27' 30.721 N	80° 47' 1.271 W
14,667.00	88.600	177.40	6,959.57	-6,799.40	2,713.41	351,669.9250	1,606,068.1846	39° 27' 30.287 N	80° 47' 1.240 W
14,712.00	88.600	177.60	6,960.67	-6,844.35	2,715.38	351,624.9813	1,606,070.1469	39° 27' 29.843 N	80° 47' 1.206 W
14,762.00	88.500	177.30	6,961.94	-6,894.28	2,717.60	351,575.0468	1,606,072.3707	39° 27' 29.350 N	80° 47' 1.169 W
14,822.00	88.500	177.30	6,963.51	-6,954.19	2,720.43	351,515.1340	1,606,075.1961	39° 27' 28.758 N	80° 47' 1.122 W

Projection to bit 14822.00 MD, 88.500 INC, 177.30 AZI, 6963.51 TVD

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
14,822.00	6,963.51	-6,954.19	2,720.43	Projection to bit 14822.00 MD, 88.500 INC, 177.30 AZI, 6963.51 TVD

Checked By: _____	Approved By: _____	Date: _____
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