



# **Weatherford®**

Weatherford International Ltd.

2000 Oil Drive

Casper, WY 82604

Tel. 307-268-7900 Fax 307-235-3958

Colorado Oil & Gas Conservation Commission  
1120 Lincoln Street, Suite 801  
Denver, Colorado 80203

Date: December 17, 2012

Attention:

Re: Shell Exploration & Production Company  
DAWSON CREEK 1-25  
ROUTT COUNTY, CO

Attached to this letter is a copy of the surveys taken by Precision Energy Services, a Weatherford International Ltd. company, MWD equipment on the subject well. The surveys from 176' to 9159' MD represent, to the best of our knowledge, a true and accurate survey of the wellbore at the time the survey was run

Tracy Williams  
Well Planning Department

Cc:



<b>Company:</b>	SHELL E&P	<b>Local Co-ordinate Reference:</b>	Well DAWSON CREEK 1-25
<b>Project:</b>	ROUTT COUNTY, COLORADO	<b>TVD Reference:</b>	WELL @ 6673.20ft (Original Well Elev)
<b>Site:</b>	DAWSON CREEK 1-25	<b>MD Reference:</b>	WELL @ 6673.20ft (Original Well Elev)
<b>Well:</b>	DAWSON CREEK 1-25	<b>North Reference:</b>	True
<b>Wellbore:</b>	DAWSON CREEK 1-25	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DAWSON CREEK 1-25	<b>Database:</b>	EDM 5000.1 Single User Db

<b>Project</b>	ROUTT COUNTY, COLORADO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

Site		DAWSON CREEK 1-25			
Site Position:		Northing:	1,411,558.97 usft	Latitude:	40° 27' 1.750 N
From:	Lat/Long	Easting:	2,523,194.60 usft	Longitude:	107° 12' 48.121 W
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.11 °

Well	DAWSON CREEK 1-25					
Well Position	+N/-S	0.00 ft	Northing:	1,411,558.97 usft	Latitude:	40° 27' 1.750 N
	+E/-W	0.00 ft	Easting:	2,523,194.60 usft	Longitude:	107° 12' 48.121 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,658.20 ft

<b>Wellbore</b>	DAWSON CREEK 1-25				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2012	9/17/2012	9.95	66.61	52,665

Design		DAWSON CREEK 1-25		
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	238.39

<b>Survey Program</b>	<b>Date</b>	12/17/2012			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
176.00	9,233.00	Survey #1 (DAWSON CREEK 1-25)	MWD	MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
176.00	1.13	138.66	175.99	-1.30	1.15	-0.29	0.64	0.64	0.00	
238.00	1.69	130.95	237.97	-2.36	2.24	-0.67	0.95	0.90	-12.44	
304.00	2.19	137.95	303.93	-3.94	3.82	-1.19	0.84	0.76	10.61	
366.00	3.00	138.45	365.87	-6.03	5.69	-1.69	1.31	1.31	0.81	
427.00	3.63	140.07	426.77	-8.70	7.99	-2.24	1.04	1.03	2.66	
489.00	4.00	142.70	488.63	-11.93	10.56	-2.74	0.66	0.60	4.24	
550.00	2.94	153.20	549.52	-15.02	12.55	-2.82	2.02	-1.74	17.21	
611.00	1.44	156.95	610.47	-17.12	13.56	-2.57	2.47	-2.46	6.15	
673.00	1.00	151.70	672.46	-18.31	14.12	-2.43	0.73	-0.71	-8.47	
733.00	1.88	139.20	732.44	-19.52	15.01	-2.55	1.55	1.47	-20.83	
795.00	0.94	145.95	794.42	-20.71	15.96	-2.74	1.54	-1.52	10.89	
856.00	0.13	27.33	855.41	-21.06	16.27	-2.82	1.65	-1.33	-194.46	



<b>Company:</b>	SHELL E&P	<b>Local Co-ordinate Reference:</b>	Well DAWSON CREEK 1-25
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<b>Site:</b>	DAWSON CREEK 1-25	<b>MD Reference:</b>	WELL @ 6673.20ft (Original Well Elev)
<b>Well:</b>	DAWSON CREEK 1-25	<b>North Reference:</b>	True
<b>Wellbore:</b>	DAWSON CREEK 1-25	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DAWSON CREEK 1-25	<b>Database:</b>	EDM 5000.1 Single User Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
918.00	0.69	292.20	917.41	-20.86	15.96	-2.66	1.15	0.90	-153.44	
979.00	1.25	266.83	978.40	-20.76	14.95	-1.86	1.14	0.92	-41.59	
1,041.00	1.38	237.08	1,040.39	-21.20	13.65	-0.51	1.11	0.21	-47.98	
1,102.00	1.81	222.45	1,101.36	-22.31	12.39	1.15	0.97	0.70	-23.98	
1,163.00	1.81	214.58	1,162.33	-23.82	11.19	2.95	0.41	0.00	-12.90	
1,225.00	0.88	229.95	1,224.32	-24.93	10.27	4.32	1.60	-1.50	24.79	
1,286.00	0.50	314.83	1,285.31	-25.04	9.72	4.85	1.59	-0.62	139.15	
1,348.00	0.50	349.33	1,347.31	-24.59	9.48	4.81	0.48	0.00	55.65	
1,408.00	1.19	21.45	1,407.30	-23.75	9.66	4.22	1.35	1.15	53.53	
1,468.00	1.25	36.33	1,467.29	-22.64	10.27	3.12	0.54	0.10	24.80	
1,530.00	1.13	55.45	1,529.28	-21.75	11.18	1.88	0.67	-0.19	30.84	
1,564.00	1.13	63.45	1,563.27	-21.41	11.75	1.21	0.46	0.00	23.53	
1,663.00	1.69	86.99	1,662.24	-20.90	14.09	-1.04	0.80	0.57	23.78	
1,726.00	1.30	105.86	1,725.22	-21.04	15.70	-2.34	0.99	-0.62	29.95	
1,789.00	0.31	130.61	1,788.21	-21.35	16.52	-2.88	1.63	-1.57	39.29	
1,852.00	0.74	243.16	1,851.21	-21.64	16.28	-2.52	1.44	0.68	178.65	
1,915.00	1.58	260.66	1,914.20	-21.97	15.06	-1.31	1.43	1.33	27.78	
1,978.00	1.57	254.55	1,977.17	-22.34	13.38	0.32	0.27	-0.02	-9.70	
2,043.00	1.56	244.93	2,042.15	-22.95	11.72	2.05	0.40	-0.02	-14.80	
2,107.00	0.91	261.93	2,106.14	-23.39	10.42	3.38	1.16	-1.02	26.56	
2,170.00	0.51	299.94	2,169.13	-23.32	9.69	3.98	0.95	-0.63	60.33	
2,233.00	0.75	235.64	2,232.13	-23.42	9.10	4.52	1.11	0.38	-102.06	
2,296.00	1.74	212.54	2,295.11	-24.45	8.25	5.79	1.73	1.57	-36.67	
2,360.00	1.67	208.52	2,359.08	-26.09	7.28	7.48	0.22	-0.11	-6.28	
2,423.00	1.80	194.88	2,422.06	-27.86	6.59	8.99	0.69	0.21	-21.65	
2,486.00	1.79	167.97	2,485.03	-29.77	6.54	10.04	1.33	-0.02	-42.71	
2,549.00	1.13	171.00	2,548.00	-31.35	6.84	10.61	1.05	-1.05	4.81	
2,612.00	1.05	208.96	2,610.99	-32.47	6.66	11.35	1.13	-0.13	60.25	
2,677.00	1.54	206.03	2,675.98	-33.77	5.99	12.61	0.76	0.75	-4.51	
2,741.00	1.65	218.90	2,739.95	-35.26	5.03	14.20	0.58	0.17	20.11	
2,804.00	2.24	238.47	2,802.92	-36.61	3.41	16.29	1.40	0.94	31.06	
2,867.00	2.27	259.60	2,865.87	-37.48	1.13	18.68	1.31	0.05	33.54	
2,930.00	2.14	249.49	2,928.82	-38.12	-1.19	21.00	0.65	-0.21	-16.05	
2,993.00	2.48	247.40	2,991.77	-39.06	-3.55	23.50	0.56	0.54	-3.32	
3,057.00	2.71	254.67	3,055.71	-39.99	-6.29	26.32	0.63	0.36	11.36	
3,120.00	2.55	245.66	3,118.64	-40.96	-9.01	29.14	0.70	-0.25	-14.30	
3,183.00	2.47	258.37	3,181.58	-41.81	-11.61	31.80	0.89	-0.13	20.17	
3,246.00	2.29	285.65	3,244.53	-41.75	-14.15	33.93	1.80	-0.29	43.30	
3,310.00	2.37	315.61	3,308.48	-40.46	-16.31	35.10	1.89	0.13	46.81	
3,373.00	1.31	316.87	3,371.44	-39.00	-17.71	35.53	1.68	-1.68	2.00	
3,436.00	0.50	356.76	3,434.44	-38.20	-18.22	35.54	1.56	-1.29	63.32	
3,499.00	0.78	348.23	3,497.43	-37.50	-18.33	35.26	0.47	0.44	-13.54	
3,562.00	0.63	28.70	3,560.43	-36.78	-18.25	34.82	0.81	-0.24	64.24	
3,626.00	0.79	70.46	3,624.42	-36.32	-17.66	34.08	0.82	0.25	65.25	
3,689.00	1.68	8.12	3,687.41	-35.27	-17.12	33.07	2.36	1.41	-98.95	
3,752.00	2.12	350.32	3,750.38	-33.20	-17.19	32.04	1.16	0.70	-28.25	
3,815.00	1.37	357.21	3,813.35	-31.30	-17.42	31.24	1.23	-1.19	10.94	
3,878.00	0.93	41.98	3,876.33	-30.17	-17.11	30.39	1.53	-0.70	71.06	
3,942.00	0.80	93.30	3,940.33	-29.81	-16.32	29.52	1.18	-0.20	80.19	
4,005.00	0.94	1.96	4,003.32	-29.32	-15.86	28.88	1.98	0.22	-144.98	
4,068.00	1.66	335.05	4,066.31	-27.97	-16.23	28.49	1.47	1.14	-42.71	
4,131.00	1.22	327.40	4,129.29	-26.58	-16.98	28.39	0.76	-0.70	-12.14	
4,195.00	0.25	23.22	4,193.28	-25.88	-17.29	28.29	1.72	-1.52	87.22	
4,258.00	1.44	161.03	4,256.28	-26.50	-16.98	28.35	2.59	1.89	218.75	



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<b>Well:</b>	DAWSON CREEK 1-25	<b>North Reference:</b>	True
<b>Wellbore:</b>	DAWSON CREEK 1-25	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DAWSON CREEK 1-25	<b>Database:</b>	EDM 5000.1 Single User Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,318.00	3.05	185.85	4,316.23	-28.80	-16.90	29.49	3.07	2.68	41.37	
4,349.00	3.90	189.29	4,347.17	-30.66	-17.15	30.68	2.82	2.74	11.10	
4,381.00	4.40	194.75	4,379.09	-32.92	-17.64	32.28	1.99	1.56	17.06	
4,413.00	5.12	201.14	4,410.98	-35.44	-18.47	34.30	2.79	2.25	19.97	
4,444.00	6.01	208.12	4,441.83	-38.16	-19.73	36.81	3.60	2.87	22.52	
4,476.00	7.12	213.42	4,473.62	-41.30	-21.61	40.05	3.95	3.47	16.56	
4,508.00	8.24	218.62	4,505.33	-44.74	-24.14	44.01	4.12	3.50	16.25	
4,539.00	9.30	221.98	4,535.97	-48.34	-27.20	48.50	3.80	3.42	10.84	
4,571.00	9.99	223.31	4,567.52	-52.28	-30.83	53.66	2.27	2.16	4.16	
4,602.00	10.58	224.17	4,598.02	-56.28	-34.66	59.02	1.97	1.90	2.77	
4,634.00	11.06	223.36	4,629.45	-60.62	-38.81	64.83	1.57	1.50	-2.53	
4,666.00	11.50	224.90	4,660.83	-65.11	-43.17	70.89	1.67	1.38	4.81	
4,697.00	11.98	224.94	4,691.18	-69.58	-47.63	77.03	1.55	1.55	0.13	
4,729.00	12.85	226.46	4,722.44	-74.38	-52.55	83.74	2.90	2.72	4.75	
4,760.00	13.64	230.45	4,752.61	-79.08	-57.87	90.73	3.90	2.55	12.87	
4,792.00	14.59	233.10	4,783.65	-83.91	-64.00	98.48	3.59	2.97	8.28	
4,824.00	15.70	234.79	4,814.53	-88.82	-70.76	106.82	3.73	3.47	5.28	
4,855.00	16.70	235.70	4,844.30	-93.75	-77.87	115.45	3.33	3.23	2.94	
4,887.00	17.52	236.86	4,874.89	-98.97	-85.70	124.86	2.78	2.56	3.63	
4,919.00	17.97	237.13	4,905.36	-104.29	-93.88	134.61	1.43	1.41	0.84	
4,950.00	18.93	238.49	4,934.77	-109.51	-102.18	144.42	3.39	3.10	4.39	
4,982.00	19.69	238.92	4,964.97	-115.01	-111.23	155.00	2.42	2.38	1.34	
5,013.00	20.74	239.39	4,994.06	-120.50	-120.42	165.71	3.43	3.39	1.52	
5,045.00	21.75	240.91	5,023.89	-126.27	-130.48	177.30	3.59	3.16	4.75	
5,077.00	23.06	241.58	5,053.47	-132.13	-141.17	189.48	4.17	4.09	2.09	
5,108.00	23.84	241.98	5,081.91	-137.96	-152.04	201.80	2.57	2.52	1.29	
5,140.00	25.11	242.71	5,111.03	-144.12	-163.79	215.02	4.08	3.97	2.28	
5,171.00	25.50	242.33	5,139.06	-150.23	-175.54	228.24	1.36	1.26	-1.23	
5,203.00	26.22	240.80	5,167.85	-156.88	-187.81	242.17	3.07	2.25	-4.78	
5,235.00	26.72	240.18	5,196.50	-163.90	-200.23	256.43	1.79	1.56	-1.94	
5,266.00	27.63	240.38	5,224.08	-170.92	-212.52	270.58	2.95	2.94	0.65	
5,298.00	28.10	240.62	5,252.37	-178.29	-225.54	285.52	1.51	1.47	0.75	
5,329.00	28.47	240.66	5,279.66	-185.49	-238.34	300.20	1.20	1.19	0.13	
5,361.00	28.93	240.85	5,307.73	-193.00	-251.75	315.56	1.47	1.44	0.59	
5,393.00	29.65	242.50	5,335.64	-200.42	-265.53	331.18	3.38	2.25	5.16	
5,424.00	31.29	243.83	5,362.36	-207.51	-279.56	346.85	5.72	5.29	4.29	
5,456.00	33.03	245.45	5,389.45	-214.80	-294.95	363.78	6.07	5.44	5.06	
5,488.00	33.67	245.99	5,416.18	-222.04	-310.99	381.23	2.20	2.00	1.69	
5,519.00	33.63	245.34	5,441.99	-229.11	-326.64	398.26	1.17	-0.13	-2.10	
5,551.00	34.84	244.56	5,468.44	-236.74	-342.95	416.15	4.02	3.78	-2.44	
5,582.00	36.46	244.29	5,493.63	-244.54	-359.24	434.12	5.25	5.23	-0.87	
5,614.00	38.79	243.87	5,518.97	-253.08	-376.81	453.55	7.33	7.28	-1.31	
5,646.00	39.43	245.17	5,543.80	-261.76	-395.03	473.62	3.25	2.00	4.06	
5,677.00	39.16	244.86	5,567.80	-270.05	-412.83	493.12	1.08	-0.87	-1.00	
5,709.00	40.00	244.41	5,592.46	-278.79	-431.25	513.39	2.77	2.63	-1.41	
5,740.00	40.62	244.75	5,616.10	-287.40	-449.37	533.33	2.12	2.00	1.10	
5,772.00	41.15	244.25	5,640.29	-296.41	-468.27	554.16	1.95	1.66	-1.56	
5,804.00	41.97	244.57	5,664.23	-305.58	-487.42	575.27	2.65	2.56	1.00	
5,836.00	42.49	243.74	5,687.93	-314.96	-506.77	596.67	2.38	1.63	-2.59	
5,899.00	42.30	242.03	5,734.46	-334.32	-544.58	639.01	1.85	-0.30	-2.71	
5,962.00	40.23	240.14	5,781.81	-354.39	-580.95	680.51	3.84	-3.29	-3.00	
6,025.00	39.41	239.11	5,830.20	-374.79	-615.76	720.84	1.67	-1.30	-1.63	
6,088.00	38.79	242.13	5,879.09	-394.28	-650.37	760.53	3.18	-0.98	4.79	
6,116.00	38.15	242.22	5,901.02	-402.41	-665.77	777.91	2.29	-2.29	0.32	



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<b>Well:</b>	DAWSON CREEK 1-25	<b>North Reference:</b>	True
<b>Wellbore:</b>	DAWSON CREEK 1-25	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DAWSON CREEK 1-25	<b>Database:</b>	EDM 5000.1 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,188.00	36.15	240.70	5,958.40	-423.17	-703.97	821.33	3.06	-2.78	-2.11
6,220.00	35.42	239.40	5,984.36	-432.51	-720.18	840.03	3.29	-2.28	-4.06
6,251.00	35.22	239.33	6,009.66	-441.64	-735.61	857.95	0.66	-0.65	-0.23
6,283.00	35.54	239.29	6,035.75	-451.10	-751.54	876.47	1.00	1.00	-0.13
6,315.00	34.91	235.78	6,061.89	-461.00	-767.11	894.92	6.63	-1.97	-10.97
6,346.00	35.66	239.34	6,087.20	-470.60	-782.22	912.82	7.06	2.42	11.48
6,378.00	35.99	239.49	6,113.14	-480.13	-798.34	931.55	1.07	1.03	0.47
6,409.00	36.83	239.07	6,138.09	-489.53	-814.16	949.95	2.83	2.71	-1.35
6,441.00	37.74	238.73	6,163.55	-499.54	-830.76	969.33	2.92	2.84	-1.06
6,473.00	38.54	238.97	6,188.72	-509.76	-847.67	989.09	2.54	2.50	0.75
6,504.00	39.24	237.93	6,212.85	-519.95	-864.26	1,008.55	3.09	2.26	-3.35
6,536.00	39.82	237.53	6,237.53	-530.82	-881.48	1,028.92	1.98	1.81	-1.25
6,567.00	40.75	237.60	6,261.18	-541.57	-898.39	1,048.96	3.00	3.00	0.23
6,599.00	40.91	237.31	6,285.39	-552.83	-916.03	1,069.88	0.78	0.50	-0.91
6,630.00	41.02	237.14	6,308.80	-563.83	-933.12	1,090.20	0.51	0.35	-0.55
6,662.00	40.81	236.27	6,332.98	-575.34	-950.64	1,111.15	1.90	-0.66	-2.72
6,694.00	40.59	235.11	6,357.24	-587.10	-967.87	1,131.99	2.46	-0.69	-3.63
6,725.00	41.68	235.24	6,380.59	-598.74	-984.61	1,152.35	3.53	3.52	0.42
6,757.00	42.93	235.75	6,404.26	-610.94	-1,002.36	1,173.86	4.05	3.91	1.59
6,788.00	44.50	236.26	6,426.66	-622.92	-1,020.12	1,195.27	5.19	5.06	1.65
6,820.00	46.41	238.49	6,449.11	-635.21	-1,039.33	1,218.07	7.76	5.97	6.97
6,852.00	46.21	237.88	6,471.21	-647.40	-1,058.99	1,241.20	1.51	-0.63	-1.91
6,883.00	47.04	238.64	6,492.50	-659.26	-1,078.16	1,263.74	3.22	2.68	2.45
6,915.00	47.87	238.58	6,514.14	-671.54	-1,098.28	1,287.31	2.60	2.59	-0.19
6,947.00	49.19	239.45	6,535.33	-683.88	-1,118.84	1,311.29	4.60	4.13	2.72
6,978.00	50.42	240.37	6,555.34	-695.75	-1,139.33	1,334.96	4.57	3.97	2.97
7,041.00	51.48	240.02	6,595.03	-720.07	-1,181.78	1,383.86	1.74	1.68	-0.56
7,105.00	52.57	239.05	6,634.41	-745.65	-1,225.26	1,434.30	2.08	1.70	-1.52
7,168.00	50.55	235.65	6,673.58	-772.24	-1,266.81	1,483.62	5.30	-3.21	-5.40
7,231.00	46.97	231.13	6,715.12	-800.44	-1,304.84	1,530.79	7.83	-5.68	-7.17
7,294.00	46.01	229.26	6,758.49	-829.68	-1,339.94	1,576.01	2.64	-1.52	-2.97
7,357.00	44.74	228.96	6,802.75	-859.03	-1,373.84	1,620.26	2.04	-2.02	-0.48
7,421.00	43.99	228.56	6,848.50	-888.53	-1,407.49	1,664.38	1.25	-1.17	-0.63
7,484.00	44.96	230.85	6,893.46	-917.06	-1,441.15	1,708.00	2.98	1.54	3.63
7,547.00	46.10	232.79	6,937.59	-944.84	-1,476.49	1,752.66	2.85	1.81	3.08
7,610.00	44.60	237.37	6,981.88	-970.51	-1,513.21	1,797.38	5.69	-2.38	7.27
7,673.00	43.72	242.49	7,027.09	-992.50	-1,551.16	1,841.22	5.83	-1.40	8.13
7,737.00	44.25	242.31	7,073.14	-1,013.09	-1,590.55	1,885.56	0.85	0.83	-0.28
7,800.00	40.72	240.19	7,119.59	-1,033.52	-1,627.85	1,928.04	6.05	-5.60	-3.37
7,863.00	39.76	236.85	7,167.69	-1,054.76	-1,662.56	1,968.73	3.75	-1.52	-5.30
7,926.00	43.10	235.26	7,214.92	-1,078.05	-1,697.12	2,010.37	5.56	5.30	-2.52
7,989.00	45.75	237.73	7,259.91	-1,102.37	-1,733.90	2,054.44	5.02	4.21	3.92
8,053.00	44.87	237.37	7,304.92	-1,126.78	-1,772.29	2,099.93	1.43	-1.38	-0.56
8,116.00	42.05	238.61	7,350.64	-1,149.76	-1,809.03	2,143.26	4.68	-4.48	1.97
8,179.00	41.34	238.78	7,397.68	-1,171.53	-1,844.83	2,185.16	1.14	-1.13	0.27
8,242.00	42.40	241.43	7,444.60	-1,192.47	-1,881.28	2,227.18	3.27	1.68	4.21
8,274.00	44.60	241.78	7,467.81	-1,202.95	-1,900.66	2,249.17	6.92	6.88	1.09
8,306.00	46.45	241.78	7,490.23	-1,213.74	-1,920.78	2,271.97	5.78	5.78	0.00
8,369.00	49.98	240.72	7,532.20	-1,236.35	-1,961.95	2,318.88	5.74	5.60	-1.68
8,432.00	46.10	235.96	7,574.33	-1,260.87	-2,001.83	2,365.69	8.33	-6.16	-7.56
8,495.00	41.78	232.79	7,619.69	-1,286.28	-2,037.37	2,409.28	7.69	-6.86	-5.03
8,559.00	44.52	237.90	7,666.39	-1,311.11	-2,073.38	2,452.96	6.94	4.28	7.98
8,622.00	42.84	238.26	7,711.95	-1,334.11	-2,110.30	2,496.46	2.70	-2.67	0.57
8,685.00	43.46	241.61	7,757.92	-1,355.69	-2,147.59	2,539.52	3.77	0.98	5.32



<b>Company:</b>	SHELL E&P	<b>Local Co-ordinate Reference:</b>	Well DAWSON CREEK 1-25
<b>Project:</b>	ROUTT COUNTY, COLORADO	<b>TVD Reference:</b>	WELL @ 6673.20ft (Original Well Elev)
<b>Site:</b>	DAWSON CREEK 1-25	<b>MD Reference:</b>	WELL @ 6673.20ft (Original Well Elev)
<b>Well:</b>	DAWSON CREEK 1-25	<b>North Reference:</b>	True
<b>Wellbore:</b>	DAWSON CREEK 1-25	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DAWSON CREEK 1-25	<b>Database:</b>	EDM 5000.1 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,748.00	46.98	244.95	7,802.30	-1,375.75	-2,187.53	2,584.05	6.73	5.59	5.30
8,811.00	49.19	244.95	7,844.38	-1,395.60	-2,230.00	2,630.63	3.51	3.51	0.00
8,875.00	49.26	243.92	7,886.18	-1,416.51	-2,273.72	2,678.82	1.22	0.11	-1.61
8,938.00	49.59	242.61	7,927.16	-1,438.04	-2,316.45	2,726.50	1.66	0.52	-2.08
9,001.00	50.43	241.87	7,967.64	-1,460.52	-2,359.16	2,774.66	1.61	1.33	-1.17
9,064.00	51.40	241.33	8,007.36	-1,483.78	-2,402.18	2,823.48	1.68	1.54	-0.86
9,127.00	51.73	240.69	8,046.53	-1,507.70	-2,445.34	2,872.78	0.95	0.52	-1.02
LAST SVY									
9,159.00	51.91	240.10	8,066.31	-1,520.13	-2,467.21	2,897.91	1.55	0.56	-1.84
PROJ SVY - PBHL DAWSON CREEK 1-25									
9,233.00	51.91	240.20	8,111.96	-1,549.11	-2,517.73	2,956.13	0.11	0.00	0.14

Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
9,159.00	8,066.31	-1,520.13	-2,467.21	LAST SVY
9,233.00	8,111.96	-1,549.11	-2,517.73	PROJ SVY

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_