



**Scientific
Drilling**

Survey Certification

7327 West Barton Road
Casper, WY 82604
(307)-472-6621 Fax (307) 472-5439

Operator	<u>KP Kauffman Co, Inc..</u>
Well Name & No.	<u>Rocky Mountain Fuel C-11</u>
County & State	<u>Weld County, CO</u>
SDI Job No.	<u>411213K95448</u>
Rig	<u>N/A</u>
Survey Date	<u>27-Dec-2013</u>

I, Steven F. Gottschalk, having personal knowledge of all the facts, hereby certify that the attached directional survey run from a measured depth of 0 feet to a measured depth of 7713.69 feet is true and correct as determined from all available records.


Signature

20-Jan-2014

Date

Steven F. Gottschalk
Rockies Region Well Planner
Scientific Drilling - Rocky Mountain District

KP Kauffman Co, Inc.

Weld County, CO

Rocky Mountain Fuel

Rocky Mountain Fuel C-11

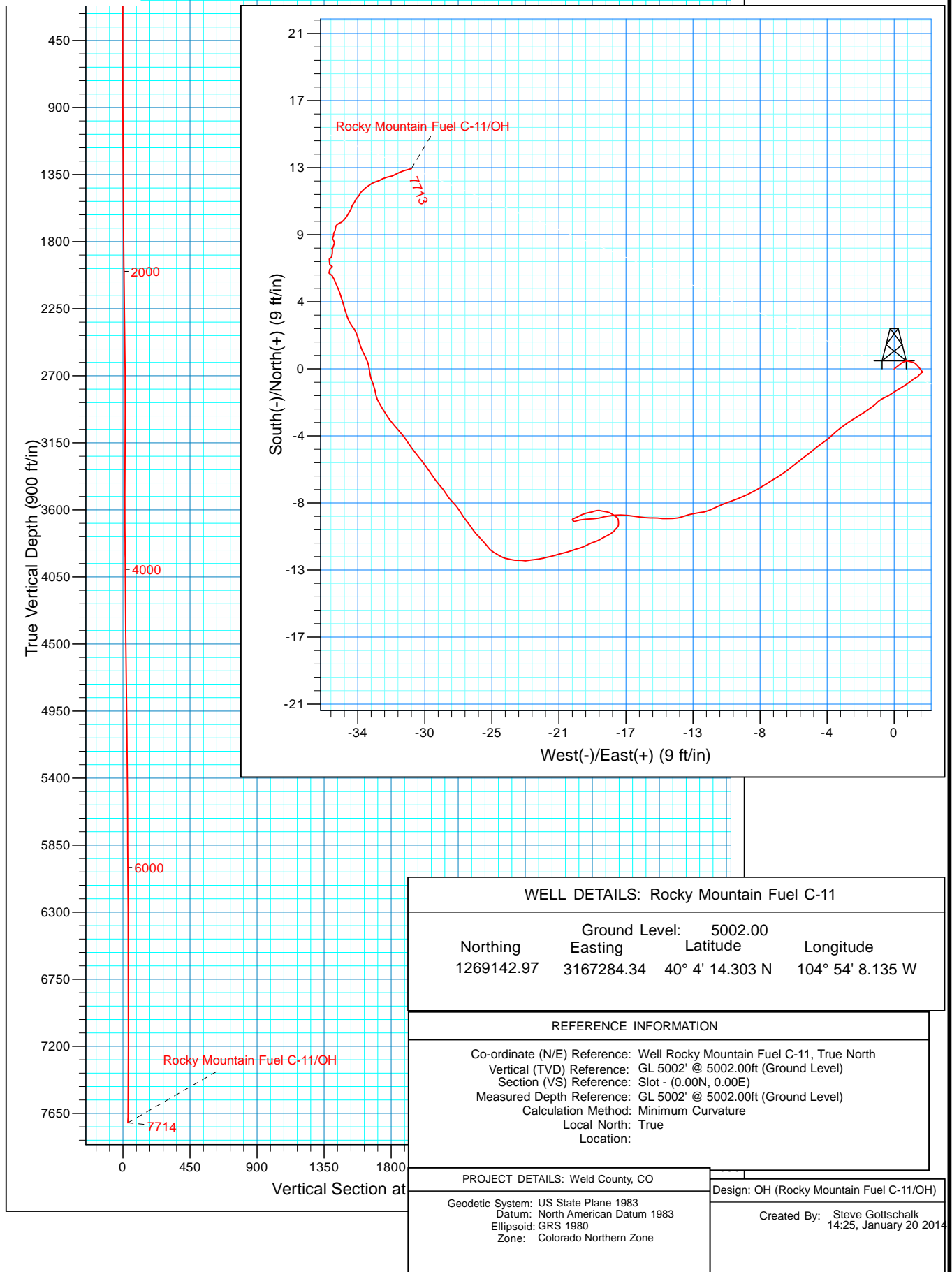
OH

Design: OH

Standard Survey Report

20 January, 2014





Scientific Drilling International

Survey Report

Company:	KP Kauffman Co, Inc.	Local Co-ordinate Reference:	Well Rocky Mountain Fuel C-11
Project:	Weld County, CO	TVD Reference:	GL 5002' @ 5002.00ft (Ground Level)
Site:	Rocky Mountain Fuel	MD Reference:	GL 5002' @ 5002.00ft (Ground Level)
Well:	Rocky Mountain Fuel C-11	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

Project	Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		Rocky Mountain Fuel			
Site Position:		Northing:	1,269,142.98 usft	Latitude:	40° 4' 14.303 N
From:	Lat/Long	Easting:	3,167,284.34 usft	Longitude:	104° 54' 8.135 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.39 °

Well	Rocky Mountain Fuel C-11, 1860' FNL, 945' FEL, SEC8 T1N R67W					
Well Position	+N/-S	0.00 ft	Northing:	1,269,142.97 usft	Latitude:	40° 4' 14.303 N
	+E/-W	0.00 ft	Easting:	3,167,284.34 usft	Longitude:	104° 54' 8.135 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	5,002.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	12/27/2013	8.61	66.66	52,598

Design	OH				
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	292.52	

Survey Program	Date	1/20/2014			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
99.17	7,713.69	Survey #1 Surface Gyros (OH)	SDI Standard Keeper 103	SDI Standard Wireline Keeper ver 1.0.3	

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
99.17	0.78	51.88	99.17	0.42	0.53	-0.33	0.79	0.79	0.00
First SDI Gyro Survey									
124.88	0.52	101.32	124.88	0.50	0.78	-0.53	2.31	-1.01	192.30
149.67	0.46	101.23	149.66	0.46	0.99	-0.74	0.24	-0.24	-0.36
174.53	0.38	108.08	174.52	0.42	1.17	-0.92	0.38	-0.32	27.55
199.10	0.32	121.33	199.09	0.35	1.30	-1.07	0.41	-0.24	53.93
224.68	0.29	136.07	224.67	0.27	1.41	-1.20	0.33	-0.12	57.62
248.92	0.25	143.75	248.91	0.18	1.48	-1.30	0.22	-0.17	31.68
274.15	0.23	140.60	274.14	0.10	1.55	-1.39	0.09	-0.08	-12.49
299.24	0.21	136.00	299.23	0.03	1.61	-1.48	0.11	-0.08	-18.33

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Site:	Rocky Mountain Fuel	MD Reference:	GL 5002' @ 5002.00ft (Ground Level)
Well:	Rocky Mountain Fuel C-11	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

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)
324.20	0.14	149.32	324.19	-0.03	1.66	-1.54	0.32	-0.28	53.37
348.97	0.12	140.07	348.96	-0.08	1.69	-1.59	0.12	-0.08	-37.34
374.88	0.11	139.86	374.87	-0.12	1.72	-1.64	0.04	-0.04	-0.81
399.96	0.09	147.48	399.95	-0.15	1.75	-1.68	0.10	-0.08	30.38
424.72	0.07	149.17	424.71	-0.18	1.77	-1.70	0.08	-0.08	6.83
449.34	0.06	145.31	449.33	-0.20	1.78	-1.73	0.04	-0.04	-15.68
474.61	0.03	148.14	474.60	-0.22	1.79	-1.74	0.12	-0.12	11.20
498.93	0.08	282.41	498.92	-0.22	1.78	-1.73	0.42	0.21	552.10
524.26	0.04	199.53	524.25	-0.23	1.76	-1.71	0.34	-0.16	-327.20
549.28	0.06	251.19	549.27	-0.24	1.75	-1.70	0.19	0.08	206.47
574.06	0.09	229.23	574.05	-0.26	1.72	-1.69	0.17	0.12	-88.62
599.85	0.08	220.71	599.84	-0.28	1.69	-1.67	0.06	-0.04	-33.04
624.46	0.10	218.86	624.45	-0.31	1.67	-1.66	0.08	0.08	-7.52
649.94	0.08	230.94	649.93	-0.34	1.64	-1.65	0.11	-0.08	47.41
674.70	0.11	224.61	674.69	-0.37	1.61	-1.63	0.13	0.12	-25.57
700.00	0.18	226.41	699.99	-0.41	1.56	-1.60	0.28	0.28	7.11
724.36	0.17	221.84	724.35	-0.47	1.51	-1.58	0.07	-0.04	-18.76
749.78	0.13	241.93	749.77	-0.51	1.46	-1.54	0.26	-0.16	79.03
773.93	0.13	234.72	773.92	-0.54	1.41	-1.51	0.07	0.00	-29.86
799.10	0.19	243.42	799.09	-0.57	1.35	-1.47	0.26	0.24	34.56
824.11	0.42	236.37	824.10	-0.64	1.24	-1.39	0.93	0.92	-28.19
848.96	0.47	229.26	848.95	-0.76	1.09	-1.30	0.30	0.20	-28.61
874.83	0.46	238.04	874.82	-0.88	0.92	-1.19	0.28	-0.04	33.94
899.41	0.56	230.15	899.40	-1.01	0.74	-1.07	0.50	0.41	-32.10
924.98	0.43	240.09	924.97	-1.14	0.56	-0.96	0.61	-0.51	38.87
949.20	0.46	246.52	949.19	-1.22	0.40	-0.84	0.24	0.12	26.55
974.62	0.53	234.78	974.61	-1.33	0.21	-0.70	0.48	0.28	-46.18
999.55	0.56	238.85	999.53	-1.46	0.01	-0.57	0.20	0.12	16.33
1,024.11	0.54	229.83	1,024.09	-1.60	-0.18	-0.44	0.36	-0.08	-36.73
1,049.80	0.50	249.88	1,049.78	-1.72	-0.38	-0.31	0.72	-0.16	78.05
1,074.28	0.54	239.90	1,074.26	-1.81	-0.58	-0.16	0.40	0.16	-40.77
1,099.90	0.61	244.50	1,099.88	-1.93	-0.81	0.01	0.33	0.27	17.95
1,124.28	0.59	223.78	1,124.26	-2.08	-1.01	0.14	0.89	-0.08	-84.99
1,149.76	0.59	230.68	1,149.74	-2.25	-1.20	0.25	0.28	0.00	27.08
1,174.06	0.57	231.38	1,174.04	-2.41	-1.40	0.37	0.09	-0.08	2.88
1,198.94	0.60	234.43	1,198.92	-2.56	-1.60	0.50	0.17	0.12	12.26
1,224.38	0.65	237.40	1,224.35	-2.72	-1.83	0.65	0.23	0.20	11.67
1,249.23	0.59	237.55	1,249.20	-2.86	-2.06	0.80	0.24	-0.24	0.60
1,274.10	0.55	235.38	1,274.07	-3.00	-2.26	0.94	0.18	-0.16	-8.73
1,299.54	0.57	242.47	1,299.51	-3.13	-2.47	1.09	0.28	0.08	27.87
1,324.84	0.59	240.20	1,324.81	-3.25	-2.70	1.25	0.12	0.08	-8.97
1,349.78	0.68	230.30	1,349.75	-3.41	-2.92	1.40	0.57	0.36	-39.70
1,374.30	0.76	237.91	1,374.26	-3.59	-3.17	1.56	0.51	0.33	31.04

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Survey Report

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Project:	Weld County, CO	TVD Reference:	GL 5002' @ 5002.00ft (Ground Level)
Site:	Rocky Mountain Fuel	MD Reference:	GL 5002' @ 5002.00ft (Ground Level)
Well:	Rocky Mountain Fuel C-11	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

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)
1,398.77	0.91	229.87	1,398.73	-3.80	-3.46	1.74	0.78	0.61	-32.86
1,424.52	0.66	229.97	1,424.48	-4.03	-3.73	1.90	0.97	-0.97	0.39
1,448.87	0.74	224.46	1,448.83	-4.23	-3.95	2.03	0.43	0.33	-22.63
1,474.26	0.64	232.72	1,474.22	-4.43	-4.18	2.16	0.55	-0.39	32.53
1,498.71	0.83	233.36	1,498.66	-4.62	-4.43	2.32	0.78	0.78	2.62
1,524.06	0.80	235.29	1,524.01	-4.83	-4.72	2.51	0.16	-0.12	7.61
1,549.33	0.74	230.42	1,549.28	-5.03	-4.99	2.68	0.35	-0.24	-19.27
1,574.58	0.82	229.82	1,574.53	-5.25	-5.25	2.84	0.32	0.32	-2.38
1,599.68	0.81	236.77	1,599.62	-5.47	-5.54	3.02	0.40	-0.04	27.69
1,623.87	0.89	228.64	1,623.81	-5.69	-5.82	3.20	0.60	0.33	-33.61
1,648.94	0.81	235.49	1,648.88	-5.91	-6.11	3.38	0.52	-0.32	27.32
1,674.24	0.86	228.48	1,674.18	-6.14	-6.40	3.56	0.45	0.20	-27.71
1,699.40	0.95	233.29	1,699.33	-6.39	-6.71	3.75	0.47	0.36	19.12
1,724.67	0.94	235.36	1,724.60	-6.63	-7.05	3.97	0.14	-0.04	8.19
1,749.78	0.82	236.93	1,749.71	-6.85	-7.37	4.19	0.49	-0.48	6.25
1,774.83	0.94	241.52	1,774.75	-7.05	-7.70	4.42	0.56	0.48	18.32
1,798.98	0.88	236.84	1,798.90	-7.24	-8.03	4.65	0.40	-0.25	-19.38
1,823.82	0.90	237.21	1,823.74	-7.45	-8.36	4.86	0.08	0.08	1.49
1,848.50	0.74	240.87	1,848.42	-7.63	-8.66	5.07	0.68	-0.65	14.83
1,874.66	0.84	239.85	1,874.57	-7.81	-8.97	5.29	0.39	0.38	-3.90
1,899.50	0.80	248.80	1,899.41	-7.97	-9.29	5.53	0.54	-0.16	36.03
1,924.96	0.86	245.38	1,924.87	-8.11	-9.63	5.79	0.31	0.24	-13.43
1,949.95	0.93	250.23	1,949.85	-8.26	-9.99	6.07	0.41	0.28	19.41
1,974.81	0.86	247.49	1,974.71	-8.40	-10.35	6.35	0.33	-0.28	-11.02
1,999.18	0.81	251.22	1,999.08	-8.52	-10.69	6.61	0.30	-0.21	15.31
2,024.26	0.84	245.73	2,024.16	-8.65	-11.02	6.87	0.34	0.12	-21.89
2,049.34	0.81	246.07	2,049.23	-8.80	-11.35	7.11	0.12	-0.12	1.36
2,074.34	0.91	242.57	2,074.23	-8.97	-11.69	7.36	0.45	0.40	-14.00
2,099.16	0.80	264.48	2,099.05	-9.07	-12.04	7.64	1.38	-0.44	88.28
2,124.17	0.76	259.68	2,124.06	-9.12	-12.37	7.94	0.31	-0.16	-19.19
2,149.97	0.82	259.29	2,149.85	-9.18	-12.72	8.23	0.23	0.23	-1.51
2,174.12	0.78	255.34	2,174.00	-9.26	-13.05	8.51	0.28	-0.17	-16.36
2,198.91	0.79	248.47	2,198.79	-9.36	-13.37	8.77	0.38	0.04	-27.71
2,224.42	0.78	260.26	2,224.30	-9.46	-13.71	9.04	0.63	-0.04	46.22
2,249.97	0.75	269.71	2,249.84	-9.49	-14.05	9.34	0.51	-0.12	36.99
2,273.91	0.77	267.64	2,273.78	-9.50	-14.36	9.63	0.14	0.08	-8.65
2,298.94	0.72	273.26	2,298.81	-9.49	-14.69	9.93	0.35	-0.20	22.45
2,324.99	0.66	278.71	2,324.86	-9.46	-15.00	10.23	0.34	-0.23	20.92
2,349.69	0.67	265.40	2,349.56	-9.45	-15.29	10.50	0.63	0.04	-53.89
2,374.56	0.77	274.48	2,374.42	-9.45	-15.60	10.79	0.61	0.40	36.51
2,399.77	0.64	273.40	2,399.63	-9.43	-15.91	11.08	0.52	-0.52	-4.28
2,424.79	0.97	279.25	2,424.65	-9.39	-16.25	11.42	1.36	1.32	23.38
2,449.32	0.66	276.95	2,449.18	-9.34	-16.60	11.76	1.27	-1.26	-9.38

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2,474.88	0.73	279.00	2,474.74	-9.29	-16.91	12.06	0.29	0.27	8.02
2,499.56	0.71	269.28	2,499.41	-9.27	-17.21	12.35	0.50	-0.08	-39.38
2,524.81	0.73	267.71	2,524.66	-9.28	-17.53	12.64	0.11	0.08	-6.22
2,549.60	0.74	264.31	2,549.45	-9.30	-17.85	12.93	0.18	0.04	-13.72
2,574.28	0.65	259.91	2,574.13	-9.34	-18.15	13.18	0.42	-0.36	-17.83
2,599.47	0.58	260.59	2,599.32	-9.39	-18.41	13.41	0.28	-0.28	2.70
2,624.22	0.58	249.57	2,624.07	-9.45	-18.65	13.61	0.45	0.00	-44.53
2,649.50	0.56	268.33	2,649.34	-9.50	-18.90	13.82	0.74	-0.08	74.21
2,674.05	0.52	268.60	2,673.89	-9.50	-19.13	14.03	0.16	-0.16	1.10
2,699.64	0.45	263.94	2,699.48	-9.52	-19.34	14.22	0.31	-0.27	-18.21
2,724.45	0.50	263.31	2,724.29	-9.54	-19.55	14.40	0.20	0.20	-2.54
2,749.82	0.49	263.65	2,749.66	-9.57	-19.77	14.59	0.04	-0.04	1.34
2,774.33	0.45	261.99	2,774.17	-9.59	-19.97	14.77	0.17	-0.16	-6.77
2,799.75	0.35	243.56	2,799.59	-9.64	-20.13	14.91	0.64	-0.39	-72.50
2,824.03	0.24	258.93	2,823.87	-9.68	-20.25	15.00	0.55	-0.45	63.30
2,849.22	0.17	308.05	2,849.06	-9.67	-20.33	15.08	0.72	-0.28	195.00
2,874.35	0.14	338.93	2,874.19	-9.62	-20.37	15.13	0.35	-0.12	122.88
2,899.39	0.10	335.28	2,899.23	-9.57	-20.39	15.17	0.16	-0.16	-14.58
2,924.29	0.04	30.21	2,924.13	-9.54	-20.40	15.19	0.34	-0.24	220.60
2,949.52	0.20	63.20	2,949.36	-9.51	-20.35	15.16	0.67	0.63	130.76
2,974.66	0.27	70.39	2,974.50	-9.48	-20.26	15.08	0.30	0.28	28.60
2,999.72	0.47	60.19	2,999.56	-9.40	-20.11	14.98	0.84	0.80	-40.70
3,024.65	0.40	63.31	3,024.49	-9.31	-19.95	14.86	0.30	-0.28	12.52
3,049.37	0.32	71.59	3,049.21	-9.25	-19.80	14.75	0.39	-0.32	33.50
3,074.24	0.34	68.89	3,074.08	-9.21	-19.67	14.64	0.10	0.08	-10.86
3,098.88	0.39	69.36	3,098.72	-9.15	-19.52	14.53	0.20	0.20	1.91
3,124.20	0.43	86.23	3,124.03	-9.11	-19.35	14.38	0.50	0.16	66.63
3,148.95	0.44	72.30	3,148.78	-9.08	-19.16	14.23	0.43	0.04	-56.28
3,174.48	0.37	72.11	3,174.31	-9.02	-18.99	14.09	0.27	-0.27	-0.74
3,199.56	0.33	81.77	3,199.39	-8.99	-18.84	13.96	0.28	-0.16	38.52
3,224.83	0.33	93.88	3,224.66	-8.98	-18.70	13.83	0.28	0.00	47.92
3,249.12	0.41	105.17	3,248.95	-9.01	-18.55	13.68	0.44	0.33	46.48
3,273.94	0.39	97.21	3,273.77	-9.04	-18.38	13.51	0.24	-0.08	-32.07
3,298.86	0.35	100.48	3,298.69	-9.07	-18.22	13.35	0.18	-0.16	13.12
3,324.39	0.31	109.02	3,324.22	-9.10	-18.07	13.21	0.25	-0.16	33.45
3,349.11	0.35	128.55	3,348.94	-9.17	-17.95	13.07	0.48	0.16	79.00
3,374.72	0.34	121.14	3,374.55	-9.26	-17.83	12.92	0.18	-0.04	-28.93
3,399.50	0.30	124.95	3,399.33	-9.34	-17.71	12.78	0.18	-0.16	15.38
3,424.41	0.26	123.06	3,424.24	-9.40	-17.61	12.66	0.16	-0.16	-7.59
3,449.40	0.22	146.13	3,449.23	-9.48	-17.53	12.57	0.41	-0.16	92.32
3,474.23	0.31	170.20	3,474.06	-9.58	-17.50	12.49	0.57	0.36	96.94
3,498.92	0.32	178.29	3,498.75	-9.72	-17.48	12.43	0.18	0.04	32.77
3,523.59	0.28	177.47	3,523.42	-9.85	-17.48	12.38	0.16	-0.16	-3.32
3,549.73	0.25	204.08	3,549.56	-9.96	-17.50	12.35	0.48	-0.11	101.80

Scientific Drilling International

Survey Report

Company:	KP Kauffman Co, Inc.	Local Co-ordinate Reference:	Well Rocky Mountain Fuel C-11
Project:	Weld County, CO	TVD Reference:	GL 5002' @ 5002.00ft (Ground Level)
Site:	Rocky Mountain Fuel	MD Reference:	GL 5002' @ 5002.00ft (Ground Level)
Well:	Rocky Mountain Fuel C-11	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

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)
3,574.89	0.37	222.21	3,574.72	-10.07	-17.58	12.38	0.61	0.48	72.06
3,598.80	0.47	222.50	3,598.63	-10.20	-17.69	12.44	0.42	0.42	1.21
3,624.34	0.42	223.62	3,624.17	-10.35	-17.83	12.51	0.20	-0.20	4.39
3,649.05	0.48	240.39	3,648.87	-10.46	-17.98	12.60	0.58	0.24	67.87
3,674.65	0.61	244.99	3,674.47	-10.57	-18.20	12.76	0.54	0.51	17.97
3,699.55	0.63	238.61	3,699.37	-10.70	-18.44	12.93	0.29	0.08	-25.62
3,723.82	0.57	241.60	3,723.64	-10.83	-18.66	13.09	0.28	-0.25	12.32
3,749.65	0.62	249.35	3,749.47	-10.94	-18.90	13.27	0.37	0.19	30.00
3,774.21	0.63	249.99	3,774.03	-11.03	-19.15	13.47	0.05	0.04	2.61
3,799.88	0.67	243.39	3,799.70	-11.15	-19.42	13.67	0.33	0.16	-25.71
3,824.21	0.64	244.51	3,824.02	-11.27	-19.67	13.85	0.13	-0.12	4.60
3,849.68	0.62	253.59	3,849.49	-11.37	-19.93	14.05	0.40	-0.08	35.65
3,873.95	0.67	256.38	3,873.76	-11.44	-20.19	14.27	0.24	0.21	11.50
3,899.24	0.68	247.20	3,899.05	-11.53	-20.47	14.50	0.43	0.04	-36.30
3,924.06	0.61	255.96	3,923.87	-11.62	-20.74	14.71	0.49	-0.28	35.29
3,949.52	0.63	256.33	3,949.33	-11.69	-21.01	14.93	0.08	0.08	1.45
3,974.60	0.69	255.98	3,974.41	-11.76	-21.29	15.16	0.24	0.24	-1.40
3,999.89	0.62	250.47	3,999.69	-11.84	-21.56	15.38	0.37	-0.28	-21.79
4,024.37	0.57	259.69	4,024.17	-11.91	-21.81	15.58	0.44	-0.20	37.66
4,049.04	0.72	255.70	4,048.84	-11.97	-22.08	15.81	0.63	0.61	-16.17
4,073.83	0.59	256.95	4,073.63	-12.03	-22.35	16.04	0.53	-0.52	5.04
4,099.92	0.56	266.26	4,099.72	-12.07	-22.61	16.26	0.38	-0.11	35.68
4,124.66	0.62	263.55	4,124.46	-12.09	-22.87	16.49	0.27	0.24	-10.95
4,149.02	0.67	254.52	4,148.81	-12.15	-23.13	16.72	0.46	0.21	-37.07
4,174.90	0.46	275.28	4,174.69	-12.18	-23.38	16.94	1.12	-0.81	80.22
4,199.56	0.51	278.29	4,199.35	-12.15	-23.59	17.14	0.23	0.20	12.21
4,224.20	0.56	268.87	4,223.99	-12.14	-23.82	17.35	0.41	0.20	-38.23
4,249.96	0.36	273.44	4,249.75	-12.14	-24.03	17.54	0.79	-0.78	17.74
4,274.46	0.33	285.96	4,274.25	-12.11	-24.17	17.69	0.33	-0.12	51.10
4,298.87	0.41	277.34	4,298.66	-12.08	-24.32	17.84	0.40	0.33	-35.31
4,324.33	0.38	278.84	4,324.12	-12.06	-24.50	18.01	0.12	-0.12	5.89
4,349.70	0.28	288.33	4,349.49	-12.03	-24.64	18.16	0.45	-0.39	37.41
4,374.17	0.34	290.31	4,373.96	-11.98	-24.76	18.29	0.25	0.25	8.09
4,398.94	0.47	301.87	4,398.73	-11.90	-24.92	18.46	0.62	0.52	46.67
4,423.99	0.33	294.58	4,423.78	-11.82	-25.07	18.63	0.59	-0.56	-29.10
4,449.24	0.32	307.61	4,449.03	-11.74	-25.19	18.78	0.29	-0.04	51.60
4,474.84	0.52	297.91	4,474.63	-11.65	-25.35	18.96	0.83	0.78	-37.89
4,499.58	0.56	310.47	4,499.37	-11.52	-25.55	19.19	0.50	0.16	50.77
4,524.23	0.48	317.62	4,524.01	-11.36	-25.71	19.40	0.42	-0.32	29.01
4,549.85	0.61	322.17	4,549.63	-11.17	-25.86	19.61	0.53	0.51	17.76
4,574.70	0.78	317.44	4,574.48	-10.95	-26.06	19.88	0.72	0.68	-19.03
4,599.81	0.72	318.17	4,599.59	-10.70	-26.28	20.18	0.24	-0.24	2.91
4,624.32	0.69	314.73	4,624.10	-10.48	-26.49	20.45	0.21	-0.12	-14.04

Scientific Drilling International

Survey Report

Company:	KP Kauffman Co, Inc.	Local Co-ordinate Reference:	Well Rocky Mountain Fuel C-11
Project:	Weld County, CO	TVD Reference:	GL 5002' @ 5002.00ft (Ground Level)
Site:	Rocky Mountain Fuel	MD Reference:	GL 5002' @ 5002.00ft (Ground Level)
Well:	Rocky Mountain Fuel C-11	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

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)
4,649.44	0.85	327.18	4,649.21	-10.22	-26.70	20.75	0.92	0.64	49.56
4,674.98	0.79	324.40	4,674.75	-9.92	-26.90	21.05	0.28	-0.23	-10.88
4,699.37	0.76	319.26	4,699.14	-9.66	-27.10	21.34	0.31	-0.12	-21.07
4,724.15	0.88	327.16	4,723.92	-9.37	-27.31	21.64	0.66	0.48	31.88
4,749.72	0.87	327.04	4,749.48	-9.05	-27.53	21.96	0.04	-0.04	-0.47
4,774.89	0.85	323.23	4,774.65	-8.74	-27.74	22.28	0.24	-0.08	-15.14
4,799.27	0.79	313.19	4,799.03	-8.48	-27.97	22.59	0.64	-0.25	-41.18
4,824.72	0.75	322.14	4,824.48	-8.22	-28.20	22.90	0.50	-0.16	35.17
4,848.94	0.80	330.47	4,848.69	-7.95	-28.38	23.17	0.51	0.21	34.39
4,874.25	0.90	320.68	4,874.00	-7.65	-28.60	23.49	0.70	0.40	-38.68
4,899.45	0.85	319.06	4,899.20	-7.35	-28.84	23.83	0.22	-0.20	-6.43
4,924.61	0.83	322.70	4,924.36	-7.06	-29.08	24.15	0.23	-0.08	14.47
4,949.66	0.80	325.78	4,949.40	-6.78	-29.29	24.46	0.21	-0.12	12.30
4,974.58	0.82	328.47	4,974.32	-6.48	-29.48	24.75	0.17	0.08	10.79
4,999.42	0.87	322.90	4,999.16	-6.18	-29.68	25.05	0.39	0.20	-22.42
5,024.20	0.86	320.86	5,023.94	-5.88	-29.91	25.38	0.13	-0.04	-8.23
5,048.90	0.88	321.51	5,048.63	-5.59	-30.15	25.71	0.09	0.08	2.63
5,073.78	0.80	321.42	5,073.51	-5.31	-30.38	26.03	0.32	-0.32	-0.36
5,099.05	0.79	324.67	5,098.78	-5.03	-30.59	26.33	0.18	-0.04	12.86
5,124.02	0.87	326.67	5,123.75	-4.73	-30.79	26.63	0.34	0.32	8.01
5,149.42	0.87	322.55	5,149.14	-4.41	-31.01	26.96	0.25	0.00	-16.22
5,173.82	0.88	321.21	5,173.54	-4.12	-31.24	27.28	0.09	0.04	-5.49
5,199.91	0.84	318.80	5,199.63	-3.82	-31.50	27.63	0.21	-0.15	-9.24
5,224.91	0.77	318.53	5,224.62	-3.56	-31.73	27.95	0.28	-0.28	-1.08
5,249.70	0.74	323.08	5,249.41	-3.30	-31.93	28.23	0.27	-0.12	18.35
5,274.16	0.70	327.72	5,273.87	-3.05	-32.11	28.49	0.29	-0.16	18.97
5,299.16	0.69	326.42	5,298.87	-2.80	-32.27	28.74	0.07	-0.04	-5.20
5,324.25	0.72	329.25	5,323.96	-2.54	-32.44	28.99	0.18	0.12	11.28
5,349.46	0.57	330.50	5,349.16	-2.29	-32.58	29.22	0.60	-0.60	4.96
5,374.35	0.52	329.22	5,374.05	-2.09	-32.70	29.41	0.21	-0.20	-5.14
5,399.68	0.42	342.74	5,399.38	-1.90	-32.79	29.56	0.59	-0.39	53.38
5,424.02	0.42	343.91	5,423.72	-1.73	-32.84	29.67	0.04	0.00	4.81
5,449.66	0.47	347.67	5,449.36	-1.53	-32.89	29.79	0.23	0.20	14.66
5,474.54	0.47	347.85	5,474.24	-1.33	-32.93	29.91	0.01	0.00	0.72
5,499.72	0.48	343.05	5,499.42	-1.13	-32.98	30.03	0.16	0.04	-19.06
5,524.88	0.46	339.37	5,524.58	-0.94	-33.05	30.17	0.14	-0.08	-14.63
5,549.18	0.43	338.57	5,548.88	-0.76	-33.11	30.30	0.13	-0.12	-3.29
5,573.76	0.34	343.34	5,573.46	-0.61	-33.17	30.41	0.39	-0.37	19.41
5,598.79	0.45	349.19	5,598.49	-0.44	-33.21	30.51	0.47	0.44	23.37
5,624.20	0.47	351.60	5,623.90	-0.24	-33.24	30.62	0.11	0.08	9.48
5,648.94	0.44	349.40	5,648.64	-0.04	-33.28	30.72	0.14	-0.12	-8.89
5,674.63	0.43	351.93	5,674.32	0.15	-33.31	30.82	0.08	-0.04	9.85
5,698.87	0.44	339.47	5,698.56	0.33	-33.35	30.93	0.39	0.04	-51.40

Scientific Drilling International

Survey Report

Company:	KP Kauffman Co, Inc.	Local Co-ordinate Reference:	Well Rocky Mountain Fuel C-11
Project:	Weld County, CO	TVD Reference:	GL 5002' @ 5002.00ft (Ground Level)
Site:	Rocky Mountain Fuel	MD Reference:	GL 5002' @ 5002.00ft (Ground Level)
Well:	Rocky Mountain Fuel C-11	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

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)	
5,724.28	0.49	338.73	5,723.97	0.52	-33.43	31.08	0.20	0.20	-2.91	
5,749.50	0.44	337.37	5,749.19	0.71	-33.50	31.22	0.20	-0.20	-5.39	
5,774.83	0.36	331.30	5,774.52	0.87	-33.58	31.35	0.36	-0.32	-23.96	
5,798.69	0.39	333.20	5,798.38	1.01	-33.65	31.47	0.14	0.13	7.96	
5,824.52	0.39	334.83	5,824.21	1.17	-33.73	31.60	0.04	0.00	6.31	
5,849.42	0.40	338.53	5,849.11	1.32	-33.80	31.73	0.11	0.04	14.86	
5,874.68	0.41	342.71	5,874.37	1.49	-33.85	31.84	0.12	0.04	16.55	
5,899.56	0.41	343.82	5,899.25	1.66	-33.91	31.96	0.03	0.00	4.46	
5,924.84	0.50	345.67	5,924.53	1.86	-33.96	32.08	0.36	0.36	7.32	
5,949.67	0.51	337.71	5,949.36	2.06	-34.03	32.22	0.29	0.04	-32.06	
5,973.69	0.60	338.05	5,973.38	2.28	-34.11	32.39	0.37	0.37	1.42	
5,999.21	0.49	330.58	5,998.89	2.50	-34.22	32.57	0.51	-0.43	-29.27	
6,024.88	0.39	318.71	6,024.56	2.66	-34.33	32.73	0.53	-0.39	-46.24	
6,049.15	0.56	326.12	6,048.83	2.82	-34.45	32.90	0.74	0.70	30.53	
6,074.83	0.37	342.57	6,074.51	3.00	-34.55	33.06	0.90	-0.74	64.06	
6,099.00	0.40	330.38	6,098.68	3.15	-34.61	33.18	0.36	0.12	-50.43	
6,124.29	0.46	341.03	6,123.97	3.32	-34.69	33.31	0.39	0.24	42.11	
6,149.94	0.54	344.41	6,149.62	3.54	-34.75	33.46	0.33	0.31	13.18	
6,174.85	0.45	337.80	6,174.53	3.74	-34.82	33.60	0.43	-0.36	-26.54	
6,198.70	0.51	348.65	6,198.38	3.93	-34.88	33.72	0.46	0.25	45.49	
6,223.57	0.59	345.25	6,223.25	4.16	-34.93	33.86	0.35	0.32	-13.67	
6,249.56	0.50	336.42	6,249.24	4.40	-35.01	34.03	0.47	-0.35	-33.97	
6,273.76	0.63	348.64	6,273.43	4.62	-35.08	34.18	0.73	0.54	50.50	
6,299.35	0.45	330.51	6,299.02	4.85	-35.16	34.33	0.96	-0.70	-70.85	
6,324.56	0.51	344.65	6,324.23	5.04	-35.24	34.48	0.52	0.24	56.09	
6,349.78	0.49	327.96	6,349.45	5.24	-35.32	34.64	0.58	-0.08	-66.18	
6,374.93	0.58	345.00	6,374.60	5.46	-35.41	34.80	0.72	0.36	67.75	
6,399.02	0.48	326.81	6,398.69	5.66	-35.50	34.96	0.81	-0.42	-75.51	
6,424.29	0.76	334.12	6,423.96	5.90	-35.63	35.17	1.15	1.11	28.93	
6,449.54	0.53	275.00	6,449.21	6.06	-35.82	35.41	2.64	-0.91	-234.14	
6,474.74	1.25	35.05	6,474.40	6.30	-35.78	35.46	6.28	2.86	476.39	
6,498.83	0.18	161.59	6,498.49	6.47	-35.62	35.38	5.67	-4.44	525.28	
6,524.16	1.11	313.88	6,523.82	6.61	-35.78	35.58	5.02	3.67	601.22	
6,549.59	1.01	40.20	6,549.25	6.95	-35.81	35.74	5.71	-0.39	339.44	
6,574.90	0.17	164.01	6,574.56	7.08	-35.66	35.65	4.40	-3.32	489.17	
6,598.98	1.32	6.48	6,598.64	7.32	-35.62	35.71	6.14	4.78	-654.19	
6,623.93	0.37	280.95	6,623.58	7.62	-35.66	35.86	5.38	-3.81	-342.81	
6,649.06	0.74	84.25	6,648.71	7.66	-35.58	35.80	4.38	1.47	649.82	
6,674.54	1.33	346.73	6,674.19	7.96	-35.49	35.83	6.30	2.32	-382.73	
6,699.34	0.32	239.33	6,698.99	8.21	-35.61	36.04	5.88	-4.07	-433.06	
6,724.44	0.61	36.80	6,724.09	8.28	-35.59	36.05	3.64	1.16	627.37	
6,749.17	0.30	341.16	6,748.82	8.44	-35.53	36.06	2.04	-1.25	-224.99	
6,774.96	0.44	17.03	6,774.61	8.60	-35.53	36.11	1.02	0.54	139.08	
6,798.94	0.27	32.22	6,798.59	8.74	-35.47	36.11	0.80	-0.71	63.34	

Scientific Drilling International

Survey Report

Company:	KP Kauffman Co, Inc.	Local Co-ordinate Reference:	Well Rocky Mountain Fuel C-11
Project:	Weld County, CO	TVD Reference:	GL 5002' @ 5002.00ft (Ground Level)
Site:	Rocky Mountain Fuel	MD Reference:	GL 5002' @ 5002.00ft (Ground Level)
Well:	Rocky Mountain Fuel C-11	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

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)
6,824.30	0.21	17.07	6,823.94	8.83	-35.42	36.11	0.34	-0.24	-59.74
6,849.10	0.38	355.77	6,848.74	8.96	-35.42	36.15	0.80	0.69	-85.89
6,874.49	0.30	58.72	6,874.13	9.08	-35.37	36.15	1.42	-0.32	247.93
6,899.87	0.33	34.16	6,899.51	9.17	-35.27	36.09	0.54	0.12	-96.77
6,924.17	0.38	84.30	6,923.81	9.24	-35.15	36.01	1.25	0.21	206.34
6,949.79	0.18	40.52	6,949.43	9.28	-35.04	35.92	1.09	-0.78	-170.88
6,974.98	0.35	47.32	6,974.62	9.36	-34.96	35.88	0.69	0.67	26.99
6,999.63	0.26	27.98	6,999.27	9.46	-34.87	35.84	0.55	-0.37	-78.46
7,024.65	0.40	54.65	7,024.29	9.56	-34.78	35.79	0.82	0.56	106.59
7,049.29	0.26	23.63	7,048.93	9.66	-34.68	35.74	0.90	-0.57	-125.89
7,074.28	0.31	25.18	7,073.92	9.77	-34.63	35.74	0.20	0.20	6.20
7,099.56	0.40	30.89	7,099.20	9.91	-34.56	35.72	0.38	0.36	22.59
7,124.60	0.19	43.63	7,124.24	10.02	-34.48	35.69	0.87	-0.84	50.88
7,149.14	0.26	15.27	7,148.78	10.10	-34.44	35.68	0.53	0.29	-115.57
7,174.88	0.35	28.65	7,174.52	10.23	-34.39	35.68	0.44	0.35	51.98
7,199.46	0.18	351.86	7,199.10	10.33	-34.36	35.69	0.95	-0.69	-149.67
7,224.86	0.38	45.89	7,224.50	10.43	-34.30	35.68	1.22	0.79	212.72
7,249.43	0.30	25.70	7,249.07	10.54	-34.22	35.65	0.58	-0.33	-82.17
7,274.36	0.25	26.03	7,274.00	10.65	-34.16	35.64	0.20	-0.20	1.32
7,299.62	0.41	31.51	7,299.26	10.78	-34.09	35.62	0.64	0.63	21.69
7,324.14	0.43	47.72	7,323.78	10.91	-33.98	35.57	0.49	0.08	66.11
7,349.68	0.34	20.37	7,349.32	11.05	-33.88	35.53	0.79	-0.35	-107.09
7,374.89	0.40	40.49	7,374.53	11.19	-33.80	35.51	0.56	0.24	79.81
7,399.12	0.43	48.71	7,398.76	11.31	-33.68	35.44	0.27	0.12	33.92
7,424.86	0.62	46.29	7,424.49	11.47	-33.50	35.34	0.74	0.74	-9.40
7,449.84	0.55	62.51	7,449.47	11.62	-33.30	35.21	0.72	-0.28	64.93
7,474.41	0.55	53.52	7,474.04	11.74	-33.10	35.07	0.35	0.00	-36.59
7,499.65	0.57	75.97	7,499.28	11.85	-32.88	34.91	0.87	0.08	88.95
7,524.16	0.58	68.02	7,523.79	11.92	-32.65	34.72	0.33	0.04	-32.44
7,549.29	0.57	55.57	7,548.92	12.04	-32.43	34.56	0.50	-0.04	-49.54
7,574.90	0.86	80.92	7,574.53	12.14	-32.13	34.33	1.65	1.13	98.98
7,599.35	0.67	70.71	7,598.97	12.22	-31.81	34.07	0.95	-0.78	-41.76
7,624.19	0.58	55.21	7,623.81	12.34	-31.57	33.89	0.77	-0.36	-62.40
7,649.79	0.56	72.04	7,649.41	12.45	-31.35	33.73	0.66	-0.08	65.74
7,674.68	0.67	68.47	7,674.30	12.54	-31.10	33.53	0.47	0.44	-14.34
7,699.86	0.79	79.83	7,699.48	12.63	-30.79	33.28	0.74	0.48	45.12
7,713.69	0.85	67.31	7,713.31	12.68	-30.60	33.13	1.36	0.43	-90.53
Last SDI Gyro Survey									

Scientific Drilling International

Survey Report

Company:	KP Kauffman Co, Inc.	Local Co-ordinate Reference:	Well Rocky Mountain Fuel C-11
Project:	Weld County, CO	TVD Reference:	GL 5002' @ 5002.00ft (Ground Level)
Site:	Rocky Mountain Fuel	MD Reference:	GL 5002' @ 5002.00ft (Ground Level)
Well:	Rocky Mountain Fuel C-11	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
99.17	99.17	0.42	0.53	First SDI Gyro Survey	
7,713.69	7,713.31	12.68	-30.60	Last SDI Gyro Survey	

Checked By: _____ Approved By: _____ Date: _____