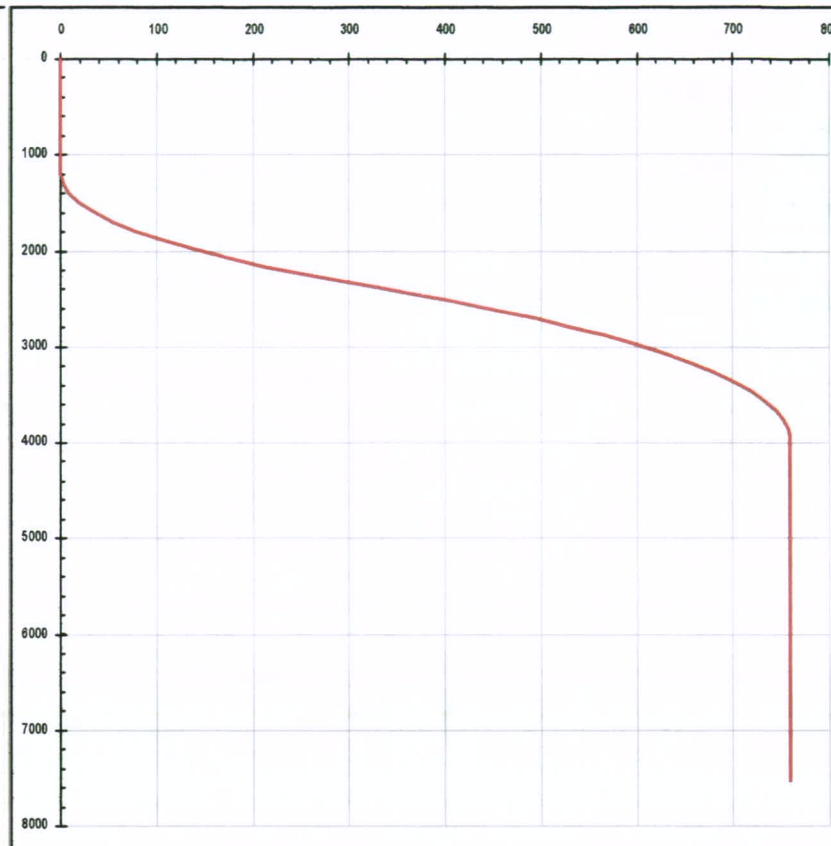
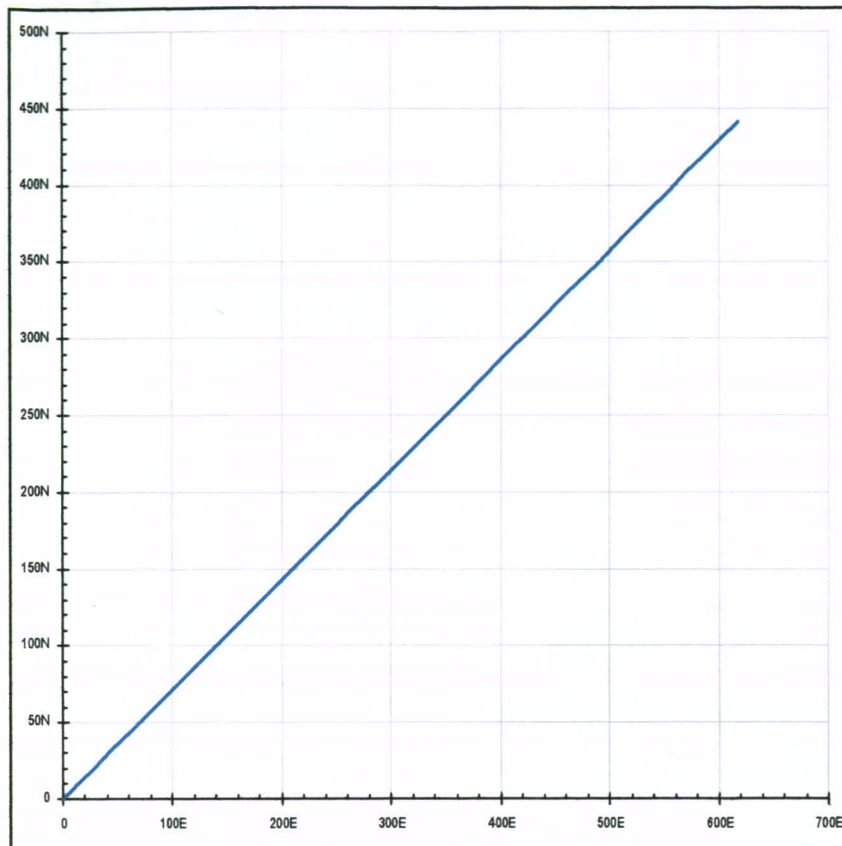


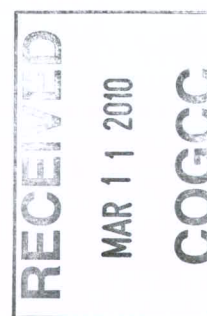
Deviated Drilling Plan
2: 2881130



02581136



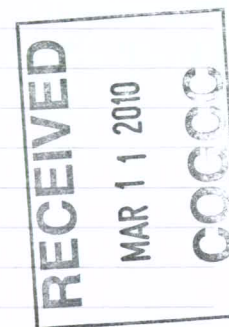
K. P. Kauffman Company, Inc.
Kammerzell #8-7-41
SENE section 7-T4N-R66W
Weld Co., Colorado
Directional plot



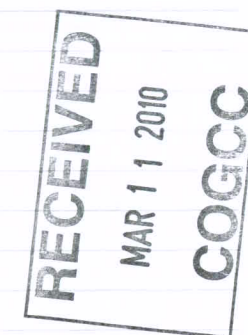
Well PlanWell Name
Kammerzell #8-7-41Vertical Section Azimuth
54.44Units
ft,°/100ft

www.makinhole.com

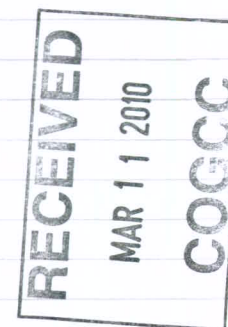
MD*	INC*	AZI*	TVD*	N*	E*	DLS*	Vert. Sec.*	Description	Reference Note
0.00	0.00	0.0	0.00	0.00	0.00		0.00	tie point RKB	
100.00	0.00	0.0	100.00	0.00	0.00	0.00	0.00	vertical	
200.00	0.00	0.0	200.00	0.00	0.00	0.00	0.00	vertical	
300.00	0.00	0.0	300.00	0.00	0.00	0.00	0.00	vertical	
400.00	0.00	0.0	400.00	0.00	0.00	0.00	0.00	vertical	
500.00	0.00	0.0	500.00	0.00	0.00	0.00	0.00	vertical	
600.00	0.00	0.0	600.00	0.00	0.00	0.00	0.00	vertical	
700.00	0.00	0.0	700.00	0.00	0.00	0.00	0.00	vertical	
800.00	0.00	0.0	800.00	0.00	0.00	0.00	0.00	vertical	
900.00	0.00	0.0	900.00	0.00	0.00	0.00	0.00	vertical	
1000.00	0.00	0.0	1000.00	0.00	0.00	0.00	0.00	vertical	
1100.00	0.00	0.0	1100.00	0.00	0.00	0.00	0.00	vertical	
1200.00	0.00	0.0	1200.00	0.00	0.00	0.00	0.00	End vertical KOP	
1300.00	2.50	54.4	1299.97	1.27	1.77	2.50	2.18	build	
1400.00	5.00	54.4	1399.75	5.07	7.10	2.50	8.72	build	
1500.00	7.50	54.4	1499.14	11.40	15.95	2.50	19.61	build	
1600.00	10.00	54.4	1597.97	20.25	28.33	2.50	34.82	build	
1700.00	12.50	54.4	1696.04	31.59	44.20	2.50	54.33	build	
1800.00	15.00	54.4	1793.17	45.41	63.53	2.50	78.09	build	
1900.00	17.50	54.4	1889.17	61.68	86.30	2.50	106.07	build	
2000.00	20.00	54.4	1983.85	80.37	112.45	2.50	138.21	build	
2100.00	22.50	54.4	2077.05	101.44	141.93	2.50	174.46	build	
2200.00	25.00	54.4	2168.57	124.86	174.69	2.50	214.73	build	
2300.00	27.50	54.4	2258.25	150.58	210.67	2.50	258.95	build	
2400.00	30.00	54.4	2345.92	178.54	249.80	2.50	307.05	build	
2430.00	30.75	54.4	2371.80	187.36	262.14	2.50	322.22	End build TOP OF BUILD	
2500.00	29.46	54.4	2432.35	207.78	290.70	1.85	357.33	drop	
2600.00	27.61	54.4	2520.20	235.56	329.57	1.85	405.09	drop	
2700.00	25.77	54.4	2609.55	261.67	366.10	1.85	450.00	drop	



MD*	INC*	AZI*	TVD*	N*	E*	DLS*	Vert. Sec.*	Description	Reference Note
2800.00	23.92	54.4	2700.29	286.10	400.28	1.85	492.01	drop	
2900.00	22.07	54.4	2792.34	308.82	432.06	1.85	531.08	drop	
3000.00	20.23	54.4	2885.60	329.79	461.41	1.85	567.16	drop	
3100.00	18.38	54.4	2979.97	349.02	488.31	1.85	600.21	drop	
3200.00	16.53	54.4	3075.36	366.46	512.71	1.85	630.21	drop	
3300.00	14.69	54.4	3171.67	382.11	534.60	1.85	657.12	drop	
3400.00	12.84	54.4	3268.79	395.94	553.96	1.85	680.91	drop	
3500.00	11.00	54.4	3366.63	407.95	570.76	1.85	701.56	drop	
3600.00	9.15	54.4	3465.09	418.12	584.99	1.85	719.05	drop	
3700.00	7.30	54.4	3564.06	426.44	596.63	1.85	733.36	drop	
3800.00	5.46	54.4	3663.43	432.90	605.67	1.85	744.47	drop	
3900.00	3.61	54.4	3763.11	437.50	612.10	1.85	752.37	drop	
4000.00	1.76	54.4	3863.00	440.22	615.91	1.85	757.06	drop	
4067.01	0.00	0.0	3930.00	441.00	617.00	1.85	758.40	End drop TOP OF DROP	
4100.00	0.00	0.0	3962.99	441.00	617.00	0.00	758.40	vertical	
4200.00	0.00	0.0	4062.99	441.00	617.00	0.00	758.40	vertical	
4257.01	0.00	0.0	4120.00	441.00	617.00	0.00	758.40	End vertical TOP OF SUSSEX	
4300.00	0.00	0.0	4162.99	441.00	617.00	0.00	758.40	vertical	
4400.00	0.00	0.0	4262.99	441.00	617.00	0.00	758.40	vertical	
4500.00	0.00	0.0	4362.99	441.00	617.00	0.00	758.40	vertical	
4600.00	0.00	0.0	4462.99	441.00	617.00	0.00	758.40	vertical	
4700.00	0.00	0.0	4562.99	441.00	617.00	0.00	758.40	vertical	
4800.00	0.00	0.0	4662.99	441.00	617.00	0.00	758.40	vertical	
4900.00	0.00	0.0	4762.99	441.00	617.00	0.00	758.40	vertical	
4917.01	0.00	0.0	4780.00	441.00	617.00	0.00	758.40	End vertical TOP OF SHANNON	
5000.00	0.00	0.0	4862.99	441.00	617.00	0.00	758.40	vertical	
5100.00	0.00	0.0	4962.99	441.00	617.00	0.00	758.40	vertical	
5200.00	0.00	0.0	5062.99	441.00	617.00	0.00	758.40	vertical	
5300.00	0.00	0.0	5162.99	441.00	617.00	0.00	758.40	vertical	
5400.00	0.00	0.0	5262.99	441.00	617.00	0.00	758.40	vertical	
5500.00	0.00	0.0	5362.99	441.00	617.00	0.00	758.40	vertical	



MD*	INC*	AZI*	TVD*	N*	E*	DLS*	Vert. Sec.*	Description	Reference Note
5600.00	0.00	0.0	5462.99	441.00	617.00	0.00	758.40	vertical	
5700.00	0.00	0.0	5562.99	441.00	617.00	0.00	758.40	vertical	
5800.00	0.00	0.0	5662.99	441.00	617.00	0.00	758.40	vertical	
5900.00	0.00	0.0	5762.99	441.00	617.00	0.00	758.40	vertical	
6000.00	0.00	0.0	5862.99	441.00	617.00	0.00	758.40	vertical	
6100.00	0.00	0.0	5962.99	441.00	617.00	0.00	758.40	vertical	
6200.00	0.00	0.0	6062.99	441.00	617.00	0.00	758.40	vertical	
6300.00	0.00	0.0	6162.99	441.00	617.00	0.00	758.40	vertical	
6400.00	0.00	0.0	6262.99	441.00	617.00	0.00	758.40	vertical	
6500.00	0.00	0.0	6362.99	441.00	617.00	0.00	758.40	vertical	
6600.00	0.00	0.0	6462.99	441.00	617.00	0.00	758.40	vertical	
6700.00	0.00	0.0	6562.99	441.00	617.00	0.00	758.40	vertical	
6800.00	0.00	0.0	6662.99	441.00	617.00	0.00	758.40	vertical	
6900.00	0.00	0.0	6762.99	441.00	617.00	0.00	758.40	vertical	
7000.00	0.00	0.0	6862.99	441.00	617.00	0.00	758.40	vertical	
7002.01	0.00	0.0	6865.00	441.00	617.00	0.00	758.40	End vertical TOP OF NIOBRARA	
7100.00	0.00	0.0	6962.99	441.00	617.00	0.00	758.40	vertical	
7200.00	0.00	0.0	7062.99	441.00	617.00	0.00	758.40	vertical	
7300.00	0.00	0.0	7162.99	441.00	617.00	0.00	758.40	vertical	
7400.00	0.00	0.0	7262.99	441.00	617.00	0.00	758.40	vertical	
7482.01	0.00	0.0	7345.00	441.00	617.00	0.00	758.40	End vertical TOP OF FT HAYES	
7500.00	0.00	0.0	7362.99	441.00	617.00	0.00	758.40	vertical	
7502.01	0.00	0.0	7365.00	441.00	617.00	0.00	758.40	End vertical TOP OF CODELL	
7600.00	0.00	0.0	7462.99	441.00	617.00	0.00	758.40	vertical	
7667.01	0.00	0.0	7530.00	441.00	617.00	0.00	758.40	End vertical TD	



DIRECTIONAL PLAN PLAT

R 66 W

CL-CL ROAD
INTERSECTION

N 88°03'00" E 2420.31'

FND: 2½" AC

N 88°30'26" E 2559.76'

CALC'D
CORNER

5306.76'

N 00°29'28" W

LAT = 40.32871°N
LONG = 104.81463°W
PDOP = 2.1
GPS OPERATOR = J. RHOTEN

7

441 NORTH

617 EAST

AZIMUTH

54.44

758' THROW

1969'

1528'

160'

777'

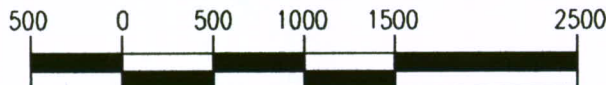
S 01°25'55" E

T
4
N

5477.58'

FND: 2½" AC S 89°40'14" W 2549.14' FND: 2½" AC N 89°12'22" W 2520.31'

CALC'D
CORNER



SCALE 1"=1000'

Power Surveying Co., Inc. of Frederick, Colorado has in accordance
with a request from SHERRY GLASS for KP KAUFFMAN

determined the location of KAMMERZELL 8-7-41

to be 1969' FNL & 777' FEL Section 7, Township 4 NORTH

Range 66 WEST of the Sixth Principal Meridian,
WELD County, Colorado

LOCATION NOTES

LOCATION FALLS IN: PLOWED FIELD

IMPROVEMENTS: EXISTING WELL 50' SW OF LOCATION,

ELEVATION DETERMINED FROM NAVD 1988 DATUM.
GROUND ELEVATION = 4729'

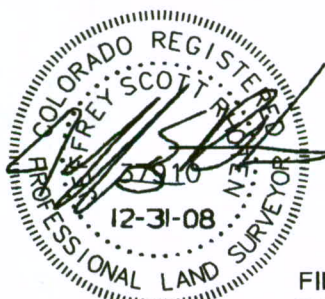
DISTANCES AND BEARINGS ARE FIELD MEASURED
UNLESS OTHERWISE NOTED.

LEGEND

● SECTION CORNER (AS NOTED)

▼ PROPOSED WELL LOCATION

⊗ BOTTOM OF HOLE LOCATION.



POWER
Surveying Company, Inc.
Established 1948

7800 MILLER DRIVE UNIT C
FREDERICK, COLORADO 80504
303-702-1617

Jeffery Scott Rhoten
COLORADO P.L.S. #37910

FIELD DATE: 12-18-06 WO# 501-06-1119A
DATE OF COMPLETION: 12-31-08

RECEIVED

MAR 11 2010

COGCC

