

Project: Weld County, CO  
Site: Sec. 19-T11N-R61W  
Well: Shable PC GK19-99HZ  
Wellbore: Plan #1  
Design: Plan #1 Proposal

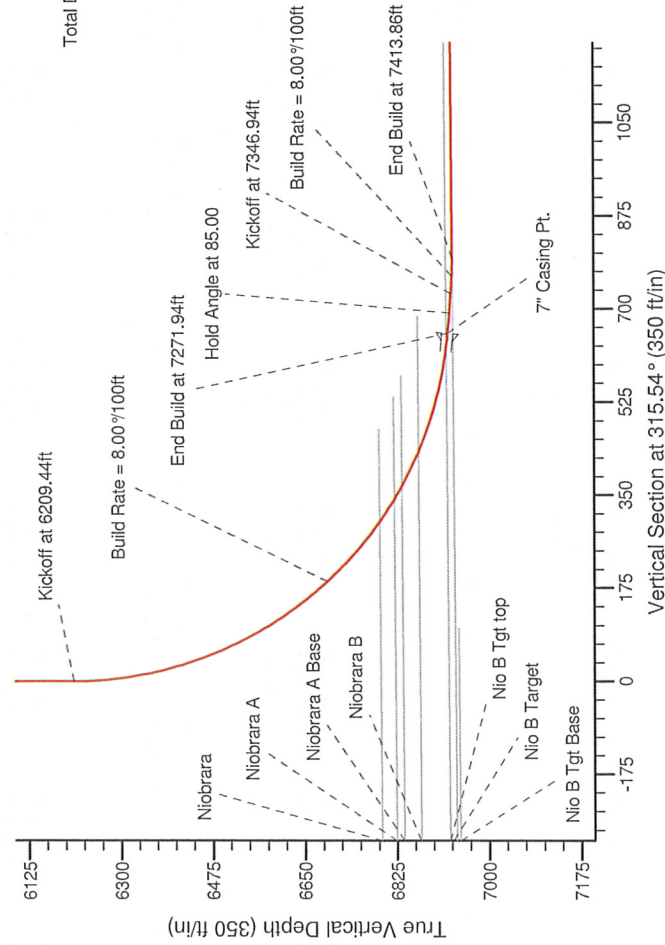
# Noble Energy

HALLIBURTON  
Sperry Drilling

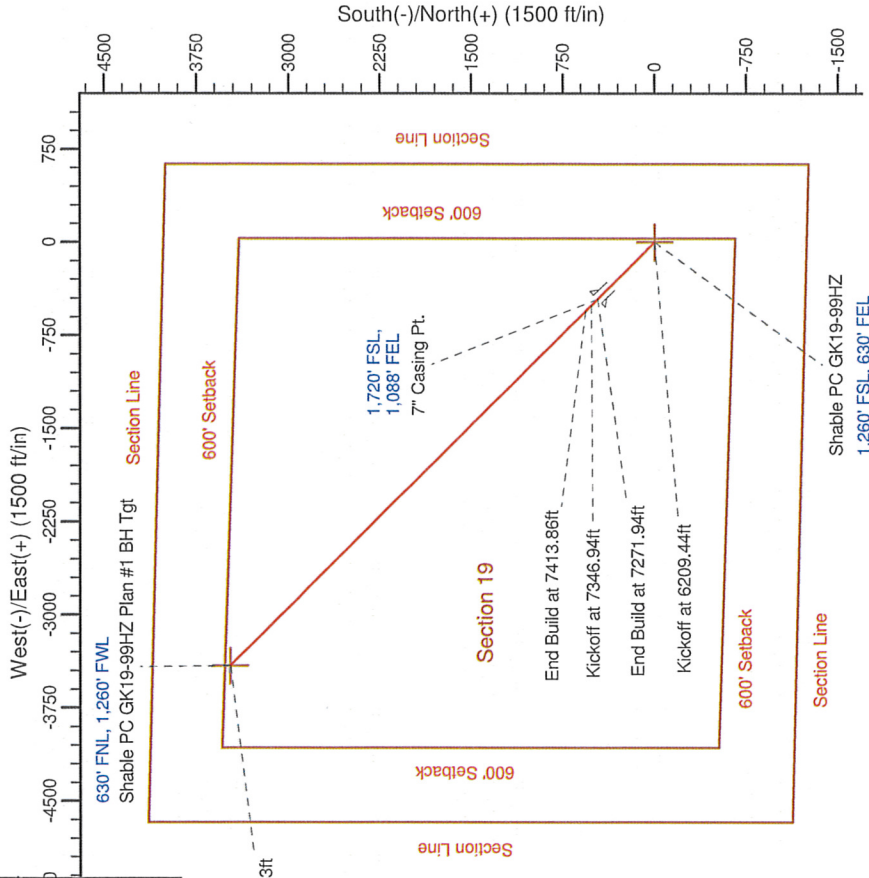
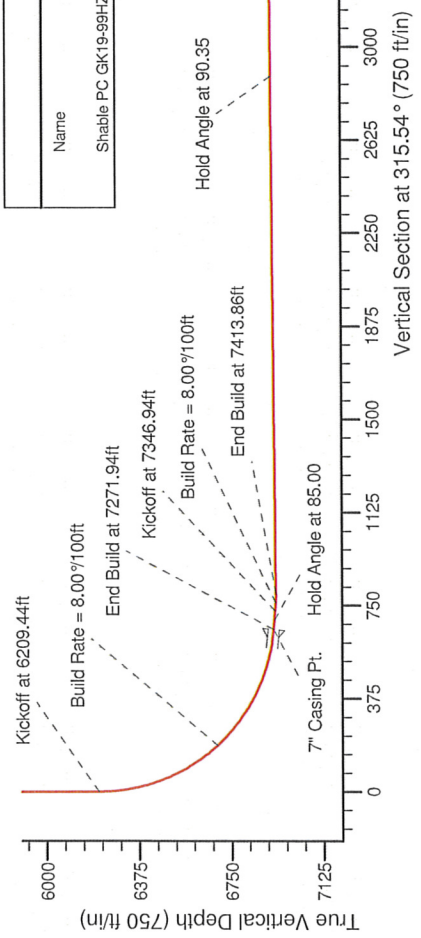
## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	6209.44	0.00	0.00	6209.44	0.00	0.00	0.00	0.00	0.00	0.00
3	7271.94	85.00	315.54	6922.91	466.86	-457.88	8.00	315.54	653.78	653.78
4	7346.94	85.00	315.54	6929.45	519.99	-510.21	0.00	0.00	728.49	728.49
5	7409.44	90.00	315.54	6932.17	564.54	-553.93	8.00	0.00	790.91	790.91
6	7413.86	90.35	315.54	6932.16	567.70	-557.02	8.00	0.00	795.33	795.33
7	11488.53	90.35	315.54	6907.00	3476.08	-3410.72	0.00	0.00	4869.92	4869.92

Shable PC GK19-99HZ Plan #1 BH Tgt



Vertical Section at 315.54° (350 ft/in)



## WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Shable PC GK19-99HZ Plan #1 BH Tgt	6907.00	3476.08	-3410.72	1577956.34	3344307.90	40.913220	-104.254280	Point

Shable PC GK19-99HZ Plan #1 BH Tgt

WELL DETAILS: Shable PC GK19-99HZ

Ground Level:	5125.00	Longitude
Northing	1574528.92	Latitude
Easting	3347767.67	Longitude
Latitude	40.903880	Latitude
Longitude	-104.241940	Longitude

Plan: Plan #1 Proposal (Shable PC GK19-99HZ Plan #1)

Created By: Paul A. Bitzan	Date: 13-08, March 26 2010
Checked:	Date:
Reviewed:	Date:
Approved:	Date:

APPROVED BY DRILLING & GEOLOGY 3/29/10

Have reviewed this plan and it fits our template for horizontal wells, please refer to Tim Anderson's comments below.

Regards,

**Doug Sproul**

**Drilling Engineer - DJ Basin**

**804 Grand Ave**

**Platteville, CO 80651**

**303.653.3518 Cell**

**970.785.5048 Direct**

I have reviewed this horizontal well directional plan and give Drilling Dep't Approval for permitting based on your assurance that there are no offset wells nearby or collision issues to be concerned about.

Let me know if you have any questions.

Thanks,  
Tim

## Noble Energy

Weld County, CO

Sec. 19-T11N-R61W

Shable PC GK19-99HZ

Plan #1

Plan: Plan #1 Proposal

## Sperry Drilling Services

### Proposal Report

26 March, 2010

Well Coordinates: 1,574,528.92 N, 3,347,767.67 E (40° 54' 13.25" N, 104° 14' 30.98" W)

Ground Level: 5,126.00 ft

Local Coordinate Origin:

Viewing Datum:

TVDs to System:

North Reference:

Unit System:

Geodetic Scale Factor Applied

Version: 2003.16 Build: 431

Centered on Well Shable PC GK19-99HZ

RKB 16' @ 5142.00ft (Original Well Elev)

N

True

API - US Survey Feet - Custom

**HALLIBURTON**

## Plan Report for Shable PC GK19-99HZ - Plan #1 Proposal

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)	Toolface Azimuth (°)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



## Plan Report for Shable PC GK19-99HZ - Plan #1 Proposal

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)	Toolface Azimuth (°)
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,209.44	0.00	0.00	6,209.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Kickoff at 6209.44ft										
6,300.00	7.24	315.54	6,299.76	4.08	-4.00	5.72	8.00	8.00	0.00	315.54
6,400.00	15.24	315.54	6,397.76	17.99	-17.65	25.20	8.00	8.00	0.00	0.00
6,500.00	23.24	315.54	6,492.09	41.50	-40.72	58.14	8.00	8.00	0.00	0.00
6,600.00	31.24	315.54	6,580.93	74.15	-72.75	103.88	8.00	8.00	0.00	0.00
6,700.00	39.24	315.54	6,662.53	115.30	-113.14	161.54	8.00	8.00	0.00	0.00
6,740.00	42.44	315.54	6,692.79	133.97	-131.46	187.70	8.00	8.00	0.00	0.00
Build Rate = 8.00°/100ft										
6,800.00	47.24	315.54	6,735.32	164.17	-161.08	229.99	8.00	8.00	0.00	0.00
6,890.11	54.45	315.54	6,792.17	214.01	-209.99	299.82	8.00	8.00	0.00	0.00
Niobrara										
6,900.00	55.24	315.54	6,797.86	219.78	-215.65	307.91	8.00	8.00	0.00	0.00
6,940.33	58.47	315.54	6,819.91	243.89	-239.30	341.68	8.00	8.00	0.00	0.00
Niobrara A										
6,969.71	60.82	315.54	6,834.76	261.98	-257.06	367.03	8.00	8.00	0.00	0.00
Niobrara A Base										
7,000.00	63.24	315.54	6,848.96	281.07	-275.79	393.78	8.00	8.00	0.00	0.00
7,041.02	66.53	315.54	6,866.37	307.58	-301.80	430.92	8.00	8.00	0.00	0.00
Niobrara B										
7,100.00	71.24	315.54	6,887.61	346.84	-340.32	485.92	8.00	8.00	0.00	0.00
7,200.00	79.24	315.54	6,913.06	415.81	-407.99	582.55	8.00	8.00	0.00	0.00
7,245.85	82.91	315.54	6,920.16	448.14	-439.71	627.83	8.00	8.00	0.00	0.00
Nio B Tgt top										
7,271.94	85.00	315.54	6,922.91	466.66	-457.88	653.78	8.00	8.00	0.00	0.00
End Build at 7271.94ft - 7" Casing Pt.										
7,300.00	85.00	315.54	6,925.36	486.61	-477.46	681.73	0.00	0.00	0.00	0.00
7,310.00	85.00	315.54	6,926.23	493.72	-484.44	691.69	0.00	0.00	0.00	0.00
Hold Angle at 85.00										
7,346.94	85.00	315.54	6,929.45	519.99	-510.21	728.49	0.00	0.00	0.00	0.00
Kickoff at 7346.94ft										
7,380.00	87.64	315.54	6,931.57	543.53	-533.31	761.48	8.00	8.00	0.00	0.00
Build Rate = 8.00°/100ft										
7,400.00	89.24	315.54	6,932.11	557.80	-547.32	781.47	8.00	8.00	0.00	0.00
7,408.63	89.94	315.54	6,932.17	563.96	-553.36	790.10	8.00	8.00	0.00	0.00
Nio B Target										
7,409.44	90.00	315.54	6,932.17	564.54	-553.93	790.91	8.00	8.00	0.00	0.00
7,413.86	90.35	315.54	6,932.16	567.70	-557.02	795.33	8.00	8.00	0.00	0.00
End Build at 7413.86ft										
7,500.00	90.35	315.54	6,931.63	629.18	-617.35	881.47	0.00	0.00	0.00	0.00
7,600.00	90.35	315.54	6,931.01	700.56	-687.39	981.47	0.00	0.00	0.00	0.00
7,700.00	90.35	315.54	6,930.39	771.93	-757.42	1,081.47	0.00	0.00	0.00	0.00
7,800.00	90.35	315.54	6,929.78	843.31	-827.46	1,181.46	0.00	0.00	0.00	0.00
7,900.00	90.35	315.54	6,929.16	914.69	-897.49	1,281.46	0.00	0.00	0.00	0.00
8,000.00	90.35	315.54	6,928.54	986.07	-967.53	1,381.46	0.00	0.00	0.00	0.00
8,100.00	90.35	315.54	6,927.92	1,057.44	-1,037.56	1,481.46	0.00	0.00	0.00	0.00
8,200.00	90.35	315.54	6,927.31	1,128.82	-1,107.60	1,581.46	0.00	0.00	0.00	0.00
8,300.00	90.35	315.54	6,926.69	1,200.20	-1,177.63	1,681.45	0.00	0.00	0.00	0.00
8,400.00	90.35	315.54	6,926.07	1,271.57	-1,247.67	1,781.45	0.00	0.00	0.00	0.00
8,500.00	90.35	315.54	6,925.45	1,342.95	-1,317.70	1,881.45	0.00	0.00	0.00	0.00
8,600.00	90.35	315.54	6,924.84	1,414.33	-1,387.74	1,981.45	0.00	0.00	0.00	0.00
8,700.00	90.35	315.54	6,924.22	1,485.71	-1,457.77	2,081.45	0.00	0.00	0.00	0.00
8,800.00	90.35	315.54	6,923.60	1,557.08	-1,527.81	2,181.45	0.00	0.00	0.00	0.00
8,900.00	90.35	315.54	6,922.98	1,628.46	-1,597.84	2,281.44	0.00	0.00	0.00	0.00

## Plan Report for Shable PC GK19-99HZ - Plan #1 Proposal

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)	Toolface Azimuth (°)
9,000.00	90.35	315.54	6,922.37	1,699.84	-1,667.88	2,381.44	0.00	0.00	0.00	0.00
9,100.00	90.35	315.54	6,921.75	1,771.21	-1,737.91	2,481.44	0.00	0.00	0.00	0.00
9,200.00	90.35	315.54	6,921.13	1,842.59	-1,807.95	2,581.44	0.00	0.00	0.00	0.00
9,300.00	90.35	315.54	6,920.51	1,913.97	-1,877.98	2,681.44	0.00	0.00	0.00	0.00
9,400.00	90.35	315.54	6,919.90	1,985.35	-1,948.02	2,781.43	0.00	0.00	0.00	0.00
9,500.00	90.35	315.54	6,919.28	2,056.72	-2,018.05	2,881.43	0.00	0.00	0.00	0.00
Hold Angle at 90.35										
9,600.00	90.35	315.54	6,918.66	2,128.10	-2,088.09	2,981.43	0.00	0.00	0.00	0.00
9,700.00	90.35	315.54	6,918.04	2,199.48	-2,158.12	3,081.43	0.00	0.00	0.00	0.00
9,800.00	90.35	315.54	6,917.43	2,270.85	-2,228.16	3,181.43	0.00	0.00	0.00	0.00
9,900.00	90.35	315.54	6,916.81	2,342.23	-2,298.19	3,281.42	0.00	0.00	0.00	0.00
10,000.00	90.35	315.54	6,916.19	2,413.61	-2,368.23	3,381.42	0.00	0.00	0.00	0.00
10,100.00	90.35	315.54	6,915.57	2,484.99	-2,438.26	3,481.42	0.00	0.00	0.00	0.00
10,200.00	90.35	315.54	6,914.96	2,556.36	-2,508.30	3,581.42	0.00	0.00	0.00	0.00
10,300.00	90.35	315.54	6,914.34	2,627.74	-2,578.34	3,681.42	0.00	0.00	0.00	0.00
10,400.00	90.35	315.54	6,913.72	2,699.12	-2,648.37	3,781.41	0.00	0.00	0.00	0.00
10,500.00	90.35	315.54	6,913.10	2,770.49	-2,718.41	3,881.41	0.00	0.00	0.00	0.00
10,600.00	90.35	315.54	6,912.49	2,841.87	-2,788.44	3,981.41	0.00	0.00	0.00	0.00
10,700.00	90.35	315.54	6,911.87	2,913.25	-2,858.48	4,081.41	0.00	0.00	0.00	0.00
10,800.00	90.35	315.54	6,911.25	2,984.63	-2,928.51	4,181.41	0.00	0.00	0.00	0.00
10,900.00	90.35	315.54	6,910.63	3,056.00	-2,998.55	4,281.41	0.00	0.00	0.00	0.00
11,000.00	90.35	315.54	6,910.02	3,127.38	-3,068.58	4,381.40	0.00	0.00	0.00	0.00
11,100.00	90.35	315.54	6,909.40	3,198.76	-3,138.62	4,481.40	0.00	0.00	0.00	0.00
11,200.00	90.35	315.54	6,908.78	3,270.13	-3,208.65	4,581.40	0.00	0.00	0.00	0.00
11,300.00	90.35	315.54	6,908.16	3,341.51	-3,278.69	4,681.40	0.00	0.00	0.00	0.00
11,400.00	90.35	315.54	6,907.55	3,412.89	-3,348.72	4,781.40	0.00	0.00	0.00	0.00
11,488.53	90.35	315.54	6,907.00	3,476.08	-3,410.72	4,869.92	0.00	0.00	0.00	0.00

Shable PC GK19-99HZ Plan #1 BH Tgt

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
6,209.44	6,209.44	0.00	0.00	Kickoff at 6209.44ft
6,740.00	6,692.79	133.97	-131.46	Build Rate = 8.00°/100ft
7,271.94	6,922.91	466.66	-457.88	End Build at 7271.94ft
7,310.00	6,926.23	493.72	-484.44	Hold Angle at 85.00
7,346.94	6,929.45	519.99	-510.21	Kickoff at 7346.94ft
7,380.00	6,931.57	543.53	-533.31	Build Rate = 8.00°/100ft
7,413.86	6,932.16	567.70	-557.02	End Build at 7413.86ft
9,500.00	6,919.28	2,056.72	-2,018.05	Hold Angle at 90.35
11,488.53	6,907.00	3,476.08	-3,410.72	Total Depth = 11488.53ft

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (ft)
				+N/-S (ft)	+E/-W (ft)	
Target	Shable PC GK19-99HZ Plan #1 BH Tgt	315.54	Slot	0.00	0.00	0.00

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
0.00	11,488.50	Plan #1 Proposal	MWD

## Plan Report for Shable PC GK19-99HZ - Plan #1 Proposal

### Casing Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,271.94	6,922.91	7" Casing Pt.	7	8-3/4

### Formation Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	6,944.00	Nio B Tgt Base		-0.35	315.54
6,890.11	6,794.00	Niobrara		-0.35	315.54
6,940.33	6,822.00	Niobrara A		-0.35	315.54
6,969.71	6,837.00	Niobrara A Base		-0.35	315.54
7,041.02	6,869.00	Niobrara B		-0.35	315.54
7,245.85	6,924.00	Nio B Tgt top		-0.35	315.54
7,408.63	6,937.00	Nio B Target		-0.35	315.54

### *Targets associated with this wellbore*

Target Name	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Shape
Shable PC GK19-99HZ S. 600' Setback	0.00	0.00	0.00	Polygon
Shable PC GK19-99HZ S. Section Line	0.00	0.00	0.00	Polygon
Shable PC GK19-99HZ W. 600' Setback	0.00	0.00	0.00	Polygon
Shable PC GK19-99HZ E. 600' Setback	0.00	0.00	0.00	Polygon
Shable PC GK19-99HZ E. Section Line	0.00	0.00	0.00	Polygon
Shable PC GK19-99HZ W. Section Line	0.00	0.00	0.00	Polygon
Shable PC GK19-99HZ N. 600' Setback	0.00	0.00	0.00	Polygon
Shable PC GK19-99HZ Plan #1 BH Tgt	6,907.00	3,476.08	-3,410.72	Point
Shable PC GK19-99HZ N. Section Line	0.00	0.00	0.00	Polygon



**North Reference Sheet for Sec. 19-T11N-R61W - Shable PC GK19-99HZ - Plan #1**

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to True North Reference.

Vertical Depths are relative to RKB 16' @ 5142.00ft (Original Well Elev). Northing and Easting are relative to Shable PC GK19-99HZ

Coordinate System is US State Plane 1983, Colorado Northern Zone using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Lambert Conformal Conic (2 parallel)

Central Meridian is -105.50°, Longitude Origin:0.000000°, Latitude Origin:40.783333°

False Easting: 3,000,000.00ft, False Northing: 1,000,000.00ft, Scale Reduction: 1.00002175

Grid Coordinates of Well: 1,574,528.92 ft N, 3,347,767.67 ft E

Geographical Coordinates of Well: 40° 54' 13.25" N, 104° 14' 30.98" W

Grid Convergence at Surface is: 0.81°

Based upon Minimum Curvature type calculations, at a Measured Depth of 11,488.53ft  
the Bottom Hole Displacement is 4,869.92ft in the Direction of 315.54° (True).

Magnetic Convergence at surface is: -7.89° (20 May 2010, , BGGM2009)

