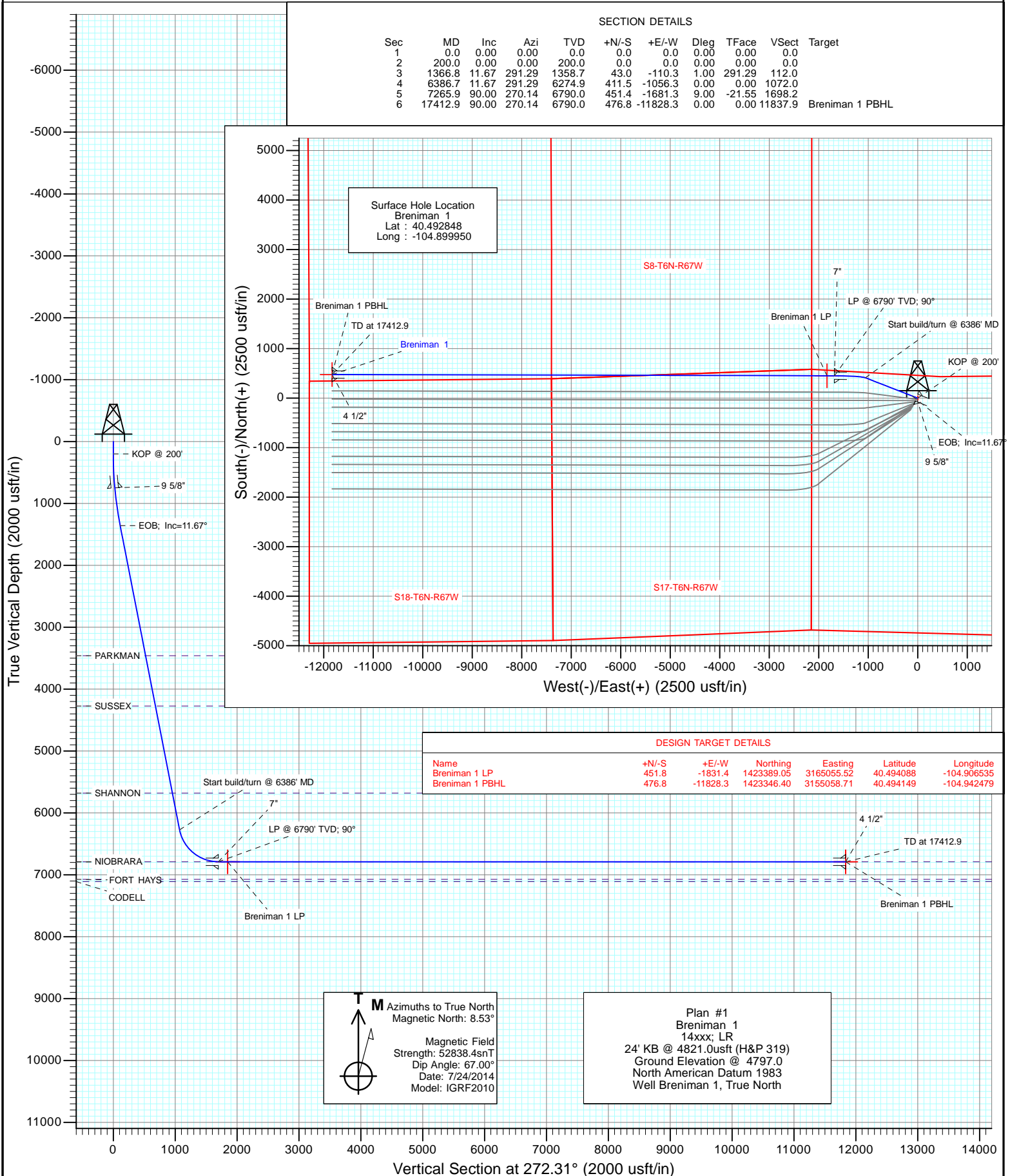




Project: WELD COUNTY, CO  
Site: S16-T6N-R67W  
Well: Breniman 1  
Wellbore: Hz  
Design: Plan #1



## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Company:</b>	Extraction Oil & Gas	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Project:</b>	WELD COUNTY, CO	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site:</b>	S16-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #1		

<b>Project</b>	WELD COUNTY, CO		
<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		S16-T6N-R67W			
Site Position:		Northing:	1,422,877.59 usft	Latitude:	40.492651
From:	Lat/Long	Easting:	3,166,847.63 usft	Longitude:	-104.900104
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.39 °

Well	Breniman 1					
Well Position	+N/-S	0.0 usft	Northing:	1,422,949.64 usft	Latitude:	40.492848
	+E/-W	0.0 usft	Easting:	3,166,889.98 usft	Longitude:	-104.899950
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	4,797.0 usft

<b>Wellbore</b>	Hz				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	7/24/2014	8.53	67.00	52,838

<b>Design</b>	Plan #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	272.31

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,366.8	11.67	291.29	1,358.7	43.0	-110.3	1.00	1.00	0.00	291.29	
6,386.7	11.67	291.29	6,274.9	411.5	-1,056.3	0.00	0.00	0.00	0.00	
7,265.9	90.00	270.14	6,790.0	451.4	-1,681.3	9.00	8.91	-2.40	-21.55	
17,412.9	90.00	270.14	6,790.0	476.8	-11,828.3	0.00	0.00	0.00	0.00	Breniman 1 PBHL

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Company:</b>	Extraction Oil & Gas	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Project:</b>	WELD COUNTY, CO	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site:</b>	S16-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #1		

## Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	KOP @ 200'
300.0	1.00	291.29	300.0	0.3	-0.8	0.8	1.00	1.00	
400.0	2.00	291.29	400.0	1.3	-3.3	3.3	1.00	1.00	
500.0	3.00	291.29	499.9	2.9	-7.3	7.4	1.00	1.00	
600.0	4.00	291.29	599.7	5.1	-13.0	13.2	1.00	1.00	
700.0	5.00	291.29	699.4	7.9	-20.3	20.6	1.00	1.00	
750.0	5.50	291.29	749.2	9.6	-24.6	24.9	1.00	1.00	9 5/8"
800.0	6.00	291.29	798.9	11.4	-29.2	29.7	1.00	1.00	
900.0	7.00	291.29	898.3	15.5	-39.8	40.4	1.00	1.00	
1,000.0	8.00	291.29	997.4	20.2	-52.0	52.7	1.00	1.00	
1,100.0	9.00	291.29	1,096.3	25.6	-65.7	66.7	1.00	1.00	
1,200.0	10.00	291.29	1,194.9	31.6	-81.1	82.3	1.00	1.00	
1,300.0	11.00	291.29	1,293.3	38.2	-98.1	99.5	1.00	1.00	
1,366.8	11.67	291.29	1,358.7	43.0	-110.3	112.0	1.00	1.00	EOB; Inc=11.67°
1,400.0	11.67	291.29	1,391.3	45.4	-116.6	118.3	0.00	0.00	
1,500.0	11.67	291.29	1,489.2	52.8	-135.4	137.4	0.00	0.00	
1,600.0	11.67	291.29	1,587.1	60.1	-154.3	156.6	0.00	0.00	
1,700.0	11.67	291.29	1,685.1	67.4	-173.1	175.7	0.00	0.00	
1,800.0	11.67	291.29	1,783.0	74.8	-192.0	194.8	0.00	0.00	
1,900.0	11.67	291.29	1,880.9	82.1	-210.8	213.9	0.00	0.00	
2,000.0	11.67	291.29	1,978.9	89.5	-229.6	233.1	0.00	0.00	
2,100.0	11.67	291.29	2,076.8	96.8	-248.5	252.2	0.00	0.00	
2,200.0	11.67	291.29	2,174.7	104.1	-267.3	271.3	0.00	0.00	
2,300.0	11.67	291.29	2,272.7	111.5	-286.2	290.4	0.00	0.00	
2,400.0	11.67	291.29	2,370.6	118.8	-305.0	309.6	0.00	0.00	
2,500.0	11.67	291.29	2,468.5	126.2	-323.9	328.7	0.00	0.00	
2,600.0	11.67	291.29	2,566.5	133.5	-342.7	347.8	0.00	0.00	
2,700.0	11.67	291.29	2,664.4	140.9	-361.5	366.9	0.00	0.00	
2,800.0	11.67	291.29	2,762.3	148.2	-380.4	386.0	0.00	0.00	
2,900.0	11.67	291.29	2,860.3	155.5	-399.2	405.2	0.00	0.00	
3,000.0	11.67	291.29	2,958.2	162.9	-418.1	424.3	0.00	0.00	
3,100.0	11.67	291.29	3,056.1	170.2	-436.9	443.4	0.00	0.00	
3,200.0	11.67	291.29	3,154.1	177.6	-455.8	462.5	0.00	0.00	
3,300.0	11.67	291.29	3,252.0	184.9	-474.6	481.7	0.00	0.00	
3,400.0	11.67	291.29	3,349.9	192.2	-493.5	500.8	0.00	0.00	
3,500.0	11.67	291.29	3,447.9	199.6	-512.3	519.9	0.00	0.00	
3,512.4	11.67	291.29	3,460.0	200.5	-514.6	522.3	0.00	0.00	PARKMAN
3,600.0	11.67	291.29	3,545.8	206.9	-531.1	539.0	0.00	0.00	
3,700.0	11.67	291.29	3,643.7	214.3	-550.0	558.2	0.00	0.00	
3,800.0	11.67	291.29	3,741.7	221.6	-568.8	577.3	0.00	0.00	
3,900.0	11.67	291.29	3,839.6	229.0	-587.7	596.4	0.00	0.00	
4,000.0	11.67	291.29	3,937.5	236.3	-606.5	615.5	0.00	0.00	
4,100.0	11.67	291.29	4,035.5	243.6	-625.4	634.7	0.00	0.00	
4,200.0	11.67	291.29	4,133.4	251.0	-644.2	653.8	0.00	0.00	
4,300.0	11.67	291.29	4,231.3	258.3	-663.0	672.9	0.00	0.00	
4,344.6	11.67	291.29	4,275.0	261.6	-671.4	681.4	0.00	0.00	SUSSEX
4,400.0	11.67	291.29	4,329.3	265.7	-681.9	692.0	0.00	0.00	
4,500.0	11.67	291.29	4,427.2	273.0	-700.7	711.2	0.00	0.00	
4,600.0	11.67	291.29	4,525.1	280.3	-719.6	730.3	0.00	0.00	
4,700.0	11.67	291.29	4,623.1	287.7	-738.4	749.4	0.00	0.00	

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Company:</b>	Extraction Oil & Gas	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Project:</b>	WELD COUNTY, CO	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site:</b>	S16-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
4,800.0	11.67	291.29	4,721.0	295.0	-757.3	768.5	0.00	0.00	
4,900.0	11.67	291.29	4,818.9	302.4	-776.1	787.7	0.00	0.00	
5,000.0	11.67	291.29	4,916.9	309.7	-795.0	806.8	0.00	0.00	
5,100.0	11.67	291.29	5,014.8	317.0	-813.8	825.9	0.00	0.00	
5,200.0	11.67	291.29	5,112.7	324.4	-832.6	845.0	0.00	0.00	
5,300.0	11.67	291.29	5,210.7	331.7	-851.5	864.2	0.00	0.00	
5,400.0	11.67	291.29	5,308.6	339.1	-870.3	883.3	0.00	0.00	
5,500.0	11.67	291.29	5,406.5	346.4	-889.2	902.4	0.00	0.00	
5,600.0	11.67	291.29	5,504.5	353.8	-908.0	921.5	0.00	0.00	
5,700.0	11.67	291.29	5,602.4	361.1	-926.9	940.7	0.00	0.00	
5,779.2	11.67	291.29	5,680.0	366.9	-941.8	955.8	0.00	0.00	SHANNON
5,800.0	11.67	291.29	5,700.3	368.4	-945.7	959.8	0.00	0.00	
5,900.0	11.67	291.29	5,798.3	375.8	-964.5	978.9	0.00	0.00	
6,000.0	11.67	291.29	5,896.2	383.1	-983.4	998.0	0.00	0.00	
6,100.0	11.67	291.29	5,994.1	390.5	-1,002.2	1,017.1	0.00	0.00	
6,200.0	11.67	291.29	6,092.1	397.8	-1,021.1	1,036.3	0.00	0.00	
6,300.0	11.67	291.29	6,190.0	405.1	-1,039.9	1,055.4	0.00	0.00	
6,386.7	11.67	291.29	6,274.9	411.5	-1,056.3	1,072.0	0.00	0.00	Start build/turn @ 6386' MD
6,400.0	12.79	289.30	6,287.9	412.5	-1,058.9	1,074.7	9.00	8.43	
6,500.0	21.48	281.05	6,383.4	419.7	-1,087.4	1,103.4	9.00	8.69	
6,600.0	30.34	277.45	6,473.3	426.5	-1,130.5	1,146.7	9.00	8.87	
6,700.0	39.27	275.37	6,555.3	432.7	-1,187.1	1,203.6	9.00	8.92	
6,800.0	48.21	273.96	6,627.5	438.3	-1,256.0	1,272.6	9.00	8.95	
6,900.0	57.17	272.90	6,688.0	443.0	-1,335.3	1,352.1	9.00	8.96	
7,000.0	66.14	272.03	6,735.4	446.7	-1,423.2	1,440.0	9.00	8.97	
7,100.0	75.11	271.28	6,768.6	449.4	-1,517.4	1,534.2	9.00	8.97	
7,200.0	84.09	270.59	6,786.6	451.0	-1,615.6	1,632.5	9.00	8.97	
7,265.9	90.00	270.14	6,790.0	451.4	-1,681.4	1,698.2	8.99	8.97	LP @ 6790' TVD; 90° - NIOBRARA - 7"
7,300.0	90.00	270.14	6,790.0	451.5	-1,715.5	1,732.3	0.00	0.00	
7,400.0	90.00	270.14	6,790.0	451.8	-1,815.5	1,832.2	0.00	0.00	
7,500.0	90.00	270.14	6,790.0	452.0	-1,915.5	1,932.1	0.00	0.00	
7,600.0	90.00	270.14	6,790.0	452.3	-2,015.5	2,032.1	0.00	0.00	
7,700.0	90.00	270.14	6,790.0	452.5	-2,115.5	2,132.0	0.00	0.00	
7,800.0	90.00	270.14	6,790.0	452.8	-2,215.5	2,231.9	0.00	0.00	
7,900.0	90.00	270.14	6,790.0	453.0	-2,315.5	2,331.8	0.00	0.00	
8,000.0	90.00	270.14	6,790.0	453.3	-2,415.5	2,431.8	0.00	0.00	
8,100.0	90.00	270.14	6,790.0	453.5	-2,515.5	2,531.7	0.00	0.00	
8,200.0	90.00	270.14	6,790.0	453.8	-2,615.5	2,631.6	0.00	0.00	
8,300.0	90.00	270.14	6,790.0	454.0	-2,715.5	2,731.6	0.00	0.00	
8,400.0	90.00	270.14	6,790.0	454.3	-2,815.5	2,831.5	0.00	0.00	
8,500.0	90.00	270.14	6,790.0	454.5	-2,915.5	2,931.4	0.00	0.00	
8,600.0	90.00	270.14	6,790.0	454.8	-3,015.5	3,031.3	0.00	0.00	
8,700.0	90.00	270.14	6,790.0	455.0	-3,115.5	3,131.3	0.00	0.00	
8,800.0	90.00	270.14	6,790.0	455.3	-3,215.5	3,231.2	0.00	0.00	
8,900.0	90.00	270.14	6,790.0	455.5	-3,315.5	3,331.1	0.00	0.00	
9,000.0	90.00	270.14	6,790.0	455.8	-3,415.5	3,431.1	0.00	0.00	
9,100.0	90.00	270.14	6,790.0	456.0	-3,515.5	3,531.0	0.00	0.00	
9,200.0	90.00	270.14	6,790.0	456.3	-3,615.5	3,630.9	0.00	0.00	
9,300.0	90.00	270.14	6,790.0	456.5	-3,715.5	3,730.8	0.00	0.00	
9,400.0	90.00	270.14	6,790.0	456.8	-3,815.5	3,830.8	0.00	0.00	
9,500.0	90.00	270.14	6,790.0	457.0	-3,915.5	3,930.7	0.00	0.00	
9,600.0	90.00	270.14	6,790.0	457.3	-4,015.5	4,030.6	0.00	0.00	

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Company:</b>	Extraction Oil & Gas	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Project:</b>	WELD COUNTY, CO	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site:</b>	S16-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
9,700.0	90.00	270.14	6,790.0	457.5	-4,115.5	4,130.6	0.00	0.00	
9,800.0	90.00	270.14	6,790.0	457.8	-4,215.5	4,230.5	0.00	0.00	
9,900.0	90.00	270.14	6,790.0	458.0	-4,315.5	4,330.4	0.00	0.00	
10,000.0	90.00	270.14	6,790.0	458.3	-4,415.5	4,430.3	0.00	0.00	
10,100.0	90.00	270.14	6,790.0	458.5	-4,515.5	4,530.3	0.00	0.00	
10,200.0	90.00	270.14	6,790.0	458.8	-4,615.5	4,630.2	0.00	0.00	
10,300.0	90.00	270.14	6,790.0	459.0	-4,715.5	4,730.1	0.00	0.00	
10,400.0	90.00	270.14	6,790.0	459.3	-4,815.5	4,830.1	0.00	0.00	
10,500.0	90.00	270.14	6,790.0	459.5	-4,915.5	4,930.0	0.00	0.00	
10,600.0	90.00	270.14	6,790.0	459.8	-5,015.5	5,029.9	0.00	0.00	
10,700.0	90.00	270.14	6,790.0	460.0	-5,115.5	5,129.8	0.00	0.00	
10,800.0	90.00	270.14	6,790.0	460.3	-5,215.5	5,229.8	0.00	0.00	
10,900.0	90.00	270.14	6,790.0	460.5	-5,315.5	5,329.7	0.00	0.00	
11,000.0	90.00	270.14	6,790.0	460.8	-5,415.5	5,429.6	0.00	0.00	
11,100.0	90.00	270.14	6,790.0	461.0	-5,515.5	5,529.6	0.00	0.00	
11,200.0	90.00	270.14	6,790.0	461.3	-5,615.5	5,629.5	0.00	0.00	
11,300.0	90.00	270.14	6,790.0	461.5	-5,715.5	5,729.4	0.00	0.00	
11,400.0	90.00	270.14	6,790.0	461.8	-5,815.5	5,829.3	0.00	0.00	
11,500.0	90.00	270.14	6,790.0	462.0	-5,915.5	5,929.3	0.00	0.00	
11,600.0	90.00	270.14	6,790.0	462.3	-6,015.5	6,029.2	0.00	0.00	
11,700.0	90.00	270.14	6,790.0	462.5	-6,115.5	6,129.1	0.00	0.00	
11,800.0	90.00	270.14	6,790.0	462.8	-6,215.5	6,229.1	0.00	0.00	
11,900.0	90.00	270.14	6,790.0	463.0	-6,315.5	6,329.0	0.00	0.00	
12,000.0	90.00	270.14	6,790.0	463.3	-6,415.5	6,428.9	0.00	0.00	
12,100.0	90.00	270.14	6,790.0	463.5	-6,515.5	6,528.8	0.00	0.00	
12,200.0	90.00	270.14	6,790.0	463.8	-6,615.5	6,628.8	0.00	0.00	
12,300.0	90.00	270.14	6,790.0	464.0	-6,715.5	6,728.7	0.00	0.00	
12,400.0	90.00	270.14	6,790.0	464.3	-6,815.5	6,828.6	0.00	0.00	
12,500.0	90.00	270.14	6,790.0	464.5	-6,915.5	6,928.5	0.00	0.00	
12,600.0	90.00	270.14	6,790.0	464.8	-7,015.5	7,028.5	0.00	0.00	
12,700.0	90.00	270.14	6,790.0	465.0	-7,115.5	7,128.4	0.00	0.00	
12,800.0	90.00	270.14	6,790.0	465.3	-7,215.4	7,228.3	0.00	0.00	
12,900.0	90.00	270.14	6,790.0	465.5	-7,315.4	7,328.3	0.00	0.00	
13,000.0	90.00	270.14	6,790.0	465.8	-7,415.4	7,428.2	0.00	0.00	
13,100.0	90.00	270.14	6,790.0	466.0	-7,515.4	7,528.1	0.00	0.00	
13,200.0	90.00	270.14	6,790.0	466.3	-7,615.4	7,628.0	0.00	0.00	
13,300.0	90.00	270.14	6,790.0	466.5	-7,715.4	7,728.0	0.00	0.00	
13,400.0	90.00	270.14	6,790.0	466.8	-7,815.4	7,827.9	0.00	0.00	
13,500.0	90.00	270.14	6,790.0	467.0	-7,915.4	7,927.8	0.00	0.00	
13,600.0	90.00	270.14	6,790.0	467.3	-8,015.4	8,027.8	0.00	0.00	
13,700.0	90.00	270.14	6,790.0	467.5	-8,115.4	8,127.7	0.00	0.00	
13,800.0	90.00	270.14	6,790.0	467.8	-8,215.4	8,227.6	0.00	0.00	
13,900.0	90.00	270.14	6,790.0	468.0	-8,315.4	8,327.5	0.00	0.00	
14,000.0	90.00	270.14	6,790.0	468.3	-8,415.4	8,427.5	0.00	0.00	
14,100.0	90.00	270.14	6,790.0	468.5	-8,515.4	8,527.4	0.00	0.00	
14,200.0	90.00	270.14	6,790.0	468.8	-8,615.4	8,627.3	0.00	0.00	
14,300.0	90.00	270.14	6,790.0	469.0	-8,715.4	8,727.3	0.00	0.00	
14,400.0	90.00	270.14	6,790.0	469.3	-8,815.4	8,827.2	0.00	0.00	
14,500.0	90.00	270.14	6,790.0	469.5	-8,915.4	8,927.1	0.00	0.00	
14,600.0	90.00	270.14	6,790.0	469.8	-9,015.4	9,027.0	0.00	0.00	
14,700.0	90.00	270.14	6,790.0	470.0	-9,115.4	9,127.0	0.00	0.00	
14,800.0	90.00	270.14	6,790.0	470.3	-9,215.4	9,226.9	0.00	0.00	

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Company:</b>	Extraction Oil & Gas	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Project:</b>	WELD COUNTY, CO	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site:</b>	S16-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #1		

### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
14,900.0	90.00	270.14	6,790.0	470.5	-9,315.4	9,326.8	0.00	0.00	
15,000.0	90.00	270.14	6,790.0	470.8	-9,415.4	9,426.8	0.00	0.00	
15,100.0	90.00	270.14	6,790.0	471.0	-9,515.4	9,526.7	0.00	0.00	
15,200.0	90.00	270.14	6,790.0	471.3	-9,615.4	9,626.6	0.00	0.00	
15,300.0	90.00	270.14	6,790.0	471.5	-9,715.4	9,726.5	0.00	0.00	
15,400.0	90.00	270.14	6,790.0	471.8	-9,815.4	9,826.5	0.00	0.00	
15,500.0	90.00	270.14	6,790.0	472.0	-9,915.4	9,926.4	0.00	0.00	
15,600.0	90.00	270.14	6,790.0	472.3	-10,015.4	10,026.3	0.00	0.00	
15,700.0	90.00	270.14	6,790.0	472.5	-10,115.4	10,126.3	0.00	0.00	
15,800.0	90.00	270.14	6,790.0	472.8	-10,215.4	10,226.2	0.00	0.00	
15,900.0	90.00	270.14	6,790.0	473.0	-10,315.4	10,326.1	0.00	0.00	
16,000.0	90.00	270.14	6,790.0	473.3	-10,415.4	10,426.0	0.00	0.00	
16,100.0	90.00	270.14	6,790.0	473.5	-10,515.4	10,526.0	0.00	0.00	
16,200.0	90.00	270.14	6,790.0	473.8	-10,615.4	10,625.9	0.00	0.00	
16,300.0	90.00	270.14	6,790.0	474.0	-10,715.4	10,725.8	0.00	0.00	
16,400.0	90.00	270.14	6,790.0	474.3	-10,815.4	10,825.8	0.00	0.00	
16,500.0	90.00	270.14	6,790.0	474.5	-10,915.4	10,925.7	0.00	0.00	
16,600.0	90.00	270.14	6,790.0	474.8	-11,015.4	11,025.6	0.00	0.00	
16,700.0	90.00	270.14	6,790.0	475.0	-11,115.4	11,125.5	0.00	0.00	
16,800.0	90.00	270.14	6,790.0	475.3	-11,215.4	11,225.5	0.00	0.00	
16,900.0	90.00	270.14	6,790.0	475.5	-11,315.4	11,325.4	0.00	0.00	
17,000.0	90.00	270.14	6,790.0	475.8	-11,415.4	11,425.3	0.00	0.00	
17,100.0	90.00	270.14	6,790.0	476.0	-11,515.4	11,525.3	0.00	0.00	
17,200.0	90.00	270.14	6,790.0	476.3	-11,615.4	11,625.2	0.00	0.00	
17,300.0	90.00	270.14	6,790.0	476.5	-11,715.4	11,725.1	0.00	0.00	
17,400.0	90.00	270.14	6,790.0	476.8	-11,815.4	11,825.0	0.00	0.00	
17,412.9	90.00	270.14	6,790.0	476.8	-11,828.3	11,837.9	0.00	0.00	TD at 17412.9

### Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Breniman 1 LP	0.00	0.00	6,790.0	451.8	-1,831.4	1,423,389.05	3,165,055.52	40.494088	-104.906535
- plan hits target center									
- Point									
Breniman 1 PBHL	0.00	0.00	6,790.0	476.8	-11,828.3	1,423,346.40	3,155,058.71	40.494149	-104.942479
- plan hits target center									
- Point									

### Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
7,265.9	6,790.0	7"	0	0
17,412.9	6,790.0	4 1/2"	0	0
750.0	749.2	9 5/8"	0	0

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Company:</b>	Extraction Oil & Gas	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Project:</b>	WELD COUNTY, CO	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site:</b>	S16-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,512.4	3,460.0	PARKMAN				
4,344.6	4,275.0	SUSSEX				
5,779.2	5,680.0	SHANNON				
7,265.9	6,790.0	NIOBRARA				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
200.0	200.0	0.0	0.0	KOP @ 200'	
1,366.8	1,358.7	43.0	-110.3	EOB; Inc=11.67°	
6,386.7	6,274.9	411.5	-1,056.3	Start build/turn @ 6386' MD	
7,265.9	6,790.0	451.4	-1,681.3	LP @ 6790' TVD; 90°	
17,412.9	6,790.0	476.8	-11,828.3	TD at 17412.9	

# **Extraction Oil & Gas**

**WELD COUNTY, CO**

**S16-T6N-R67W**

**Breniman 1**

**Hz**

**Plan #1**

## **Anticollision Report**

**28 July, 2014**



# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,000.0usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	7/28/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	17,412.9	Plan #1 (Hz)	Geolink MWD	Geolink MWD	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S16-T6N-R67W						
Breniman 10 - Hz - Plan #1	200.0	200.0	251.8	251.5	819.143	CC, ES
Breniman 10 - Hz - Plan #1	2,600.0	2,440.5	630.2	622.2	78.308	SF
Breniman 11 - Hz - Plan #1	200.0	200.0	279.8	279.5	910.427	CC, ES
Breniman 11 - Hz - Plan #1	2,700.0	2,500.0	716.6	708.1	85.056	SF
Breniman 2 - Hz - Plan #1	200.0	200.0	27.9	27.6	90.821	CC, ES
Breniman 2 - Hz - Plan #1	17,412.9	17,274.9	330.1	47.7	1.169	Level 2, SF
Breniman 3 - Hz - Plan #1	200.0	200.0	56.0	55.7	182.103	CC, ES
Breniman 3 - Hz - Plan #1	17,412.9	17,588.3	592.2	355.6	2.503	SF
Breniman 4 - Hz - Plan #1	200.0	199.0	83.6	83.3	271.894	CC, ES
Breniman 4 - Hz - Plan #1	17,412.9	17,268.6	660.1	377.8	2.338	SF
Breniman 5 - Hz - Plan #1	200.0	200.0	111.8	111.5	363.654	CC, ES
Breniman 5 - Hz - Plan #1	17,412.9	17,280.0	990.2	707.9	3.507	SF
Breniman 6 - Hz - Plan #1	200.0	200.0	139.7	139.4	454.472	CC, ES
Breniman 6 - Hz - Plan #1	6,100.0	6,003.7	989.1	967.8	46.353	SF
Breniman 7 - Hz - Plan #1	200.0	200.0	168.1	167.8	546.773	CC, ES
Breniman 7 - Hz - Plan #1	5,200.0	5,083.1	986.5	968.5	54.732	SF
Breniman 8 - Hz - Plan #1	200.0	200.0	195.7	195.4	636.575	CC, ES
Breniman 8 - Hz - Plan #1	2,400.0	2,293.2	490.8	483.5	67.558	SF
Breniman 9 - Hz - Plan #1	200.0	200.0	224.0	223.7	728.876	CC, ES
Breniman 9 - Hz - Plan #1	2,600.0	2,460.7	589.7	581.6	73.225	SF

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 10 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	-149.09	-216.0	-129.3	251.8					
100.0	100.0	100.0	100.0	0.1	0.0	-149.09	-216.0	-129.3	251.8	0.13	1,895.339			
200.0	200.0	200.0	200.0	0.3	0.0	-149.09	-216.0	-129.3	251.8	0.31	819.143 CC, ES			
300.0	300.0	296.2	296.2	0.5	0.0	-80.48	-216.5	-130.0	252.4	0.48	522.722			
400.0	400.0	392.4	392.3	0.7	0.0	-80.78	-217.8	-132.0	254.2	0.66	383.666			
500.0	499.9	488.5	488.3	0.9	0.0	-81.27	-220.0	-135.4	257.3	0.85	302.546			
600.0	599.7	584.5	584.2	1.1	0.0	-81.93	-223.0	-140.2	261.6	1.05	249.189			
700.0	699.4	680.3	679.8	1.3	0.0	-82.75	-227.0	-146.2	267.2	1.26	211.357			
800.0	798.9	776.0	775.1	1.5	0.0	-83.70	-231.7	-153.6	274.1	1.50	183.153			
900.0	898.3	871.5	870.0	1.8	0.0	-84.76	-237.4	-162.3	282.4	1.75	161.387			
1,000.0	997.4	966.8	964.5	2.0	0.0	-85.90	-243.8	-172.4	292.1	2.03	144.172			
1,100.0	1,096.3	1,061.8	1,058.5	2.3	0.0	-87.10	-251.1	-183.7	303.2	2.33	130.314			
1,200.0	1,194.9	1,156.5	1,152.0	2.7	0.0	-88.33	-259.3	-196.2	315.7	2.65	119.010			
1,300.0	1,293.3	1,250.9	1,245.0	3.0	0.0	-89.57	-268.2	-210.0	329.8	3.01	109.693			
1,400.0	1,391.3	1,344.9	1,337.3	3.4	0.0	-90.84	-277.9	-225.1	345.3	3.38	102.171			
1,500.0	1,489.2	1,438.6	1,429.0	3.8	0.0	-92.00	-288.4	-241.3	362.3	3.76	96.419			
1,600.0	1,587.1	1,532.1	1,520.1	4.1	0.0	-92.91	-299.7	-258.8	380.6	4.14	91.979			
1,700.0	1,685.1	1,625.2	1,610.5	4.5	0.0	-93.59	-311.7	-277.4	400.3	4.52	88.526			
1,800.0	1,783.0	1,717.9	1,700.2	4.9	0.0	-94.06	-324.5	-297.2	421.2	4.91	85.830			
1,900.0	1,880.9	1,810.2	1,789.1	5.3	0.0	-94.36	-338.0	-318.1	443.2	5.29	83.723			
2,000.0	1,978.9	1,900.0	1,875.2	5.7	0.0	-94.51	-351.9	-339.6	466.5	5.68	82.086			
2,100.0	2,076.8	1,993.3	1,964.2	6.1	0.0	-94.53	-367.1	-363.1	491.0	6.07	80.826			
2,200.0	2,174.7	2,084.0	2,050.3	6.5	0.0	-94.43	-382.6	-387.2	516.5	6.47	79.877			
2,300.0	2,272.7	2,174.1	2,135.3	6.9	0.0	-94.24	-398.8	-412.2	543.2	6.86	79.186			
2,400.0	2,370.6	2,263.6	2,219.3	7.3	0.0	-93.97	-415.5	-438.1	571.1	7.26	78.715			
2,500.0	2,468.5	2,352.4	2,302.1	7.7	0.0	-93.64	-432.9	-464.9	600.1	7.65	78.430			
2,600.0	2,566.5	2,440.5	2,383.8	8.1	0.0	-93.25	-450.7	-492.6	630.2	8.05	78.308 SF			
2,700.0	2,664.4	2,527.8	2,464.3	8.5	0.0	-92.82	-469.1	-521.1	661.5	8.45	78.326			
2,800.0	2,762.3	2,614.4	2,543.6	8.8	0.0	-92.35	-488.0	-550.3	693.9	8.84	78.468			
2,900.0	2,860.3	2,707.3	2,628.3	9.2	0.0	-91.85	-508.8	-582.4	727.1	9.24	78.678			
3,000.0	2,958.2	2,801.5	2,714.1	9.6	0.0	-91.38	-529.8	-614.9	760.3	9.64	78.878			
3,100.0	3,056.1	2,895.6	2,799.9	10.0	0.0	-90.95	-550.8	-647.4	793.6	10.04	79.068			
3,200.0	3,154.1	2,989.7	2,885.7	10.4	0.0	-90.56	-571.8	-679.9	826.9	10.43	79.247			
3,300.0	3,252.0	3,083.9	2,971.5	10.8	0.0	-90.19	-592.8	-712.5	860.2	10.83	79.418			
3,400.0	3,349.9	3,178.0	3,057.4	11.2	0.0	-89.86	-613.8	-745.0	893.6	11.23	79.580			
3,500.0	3,447.9	3,272.2	3,143.2	11.6	0.0	-89.54	-634.8	-777.5	927.0	11.63	79.734			
3,600.0	3,545.8	3,366.3	3,229.0	12.0	0.0	-89.25	-655.8	-810.0	960.4	12.02	79.881			
3,700.0	3,643.7	3,460.5	3,314.8	12.4	0.0	-88.98	-676.8	-842.5	993.9	12.42	80.020			

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 11 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	-149.08	-240.1	-143.8	279.8					
100.0	100.0	100.0	100.0	0.1	0.0	-149.08	-240.1	-143.8	279.8	0.13	2,106.552			
200.0	200.0	200.0	200.0	0.3	0.0	-149.08	-240.1	-143.8	279.8	0.31	910.427 CC, ES			
300.0	300.0	295.6	295.6	0.5	0.0	-80.47	-240.6	-144.4	280.5	0.48	580.894			
400.0	400.0	391.2	391.2	0.7	0.0	-80.78	-242.1	-146.3	282.4	0.66	426.190			
500.0	499.9	486.7	486.6	0.9	0.0	-81.29	-244.6	-149.4	285.6	0.85	335.857			
600.0	599.7	582.0	581.8	1.1	0.0	-81.99	-248.0	-153.7	290.2	1.05	276.380			
700.0	699.4	677.3	676.7	1.3	0.0	-82.85	-252.5	-159.3	296.1	1.26	234.165			
800.0	798.9	772.3	771.3	1.5	0.0	-83.84	-258.0	-166.1	303.4	1.50	202.667			
900.0	898.3	867.0	865.5	1.8	0.0	-84.96	-264.4	-174.0	312.1	1.75	178.342			
1,000.0	997.4	961.5	959.3	2.0	0.0	-86.16	-271.7	-183.2	322.4	2.03	159.097			
1,100.0	1,096.3	1,055.7	1,052.5	2.3	0.0	-87.43	-280.0	-193.5	334.1	2.33	143.603			
1,200.0	1,194.9	1,149.5	1,145.2	2.7	0.0	-88.73	-289.2	-205.0	347.5	2.65	130.969			
1,300.0	1,293.3	1,243.0	1,237.2	3.0	0.0	-90.04	-299.3	-217.6	362.4	3.01	120.563			
1,400.0	1,391.3	1,336.0	1,328.5	3.4	0.0	-91.39	-310.3	-231.3	379.0	3.38	112.166			
1,500.0	1,489.2	1,428.7	1,419.3	3.8	0.0	-92.67	-322.2	-246.1	397.2	3.76	105.742			
1,600.0	1,587.1	1,521.0	1,509.4	4.1	0.0	-93.71	-335.0	-262.0	416.8	4.14	100.779			
1,700.0	1,685.1	1,613.0	1,598.7	4.5	0.0	-94.54	-348.6	-279.0	437.9	4.52	96.916			
1,800.0	1,783.0	1,704.6	1,687.3	4.9	0.0	-95.18	-363.0	-297.0	460.3	4.90	93.894			
1,900.0	1,880.9	1,795.6	1,775.1	5.3	0.0	-95.66	-378.3	-315.9	484.0	5.29	91.526			
2,000.0	1,978.9	1,886.2	1,862.0	5.7	0.0	-95.99	-394.3	-335.9	508.9	5.67	89.675			
2,100.0	2,076.8	1,976.2	1,947.9	6.1	0.0	-96.20	-411.1	-356.8	535.0	6.06	88.239			
2,200.0	2,174.7	2,065.6	2,032.9	6.5	0.0	-96.29	-428.5	-378.6	562.4	6.45	87.141			
2,300.0	2,272.7	2,154.4	2,116.8	6.9	0.0	-96.29	-446.7	-401.2	590.9	6.85	86.321			
2,400.0	2,370.6	2,242.6	2,199.6	7.3	0.0	-96.21	-465.6	-424.7	620.6	7.24	85.736			
2,500.0	2,468.5	2,330.0	2,281.3	7.7	0.0	-96.06	-485.1	-449.0	651.4	7.63	85.347			
2,600.0	2,566.5	2,416.7	2,361.8	8.1	0.0	-95.85	-505.2	-474.0	683.4	8.03	85.128			
2,700.0	2,664.4	2,500.0	2,438.7	8.5	0.0	-95.60	-525.2	-499.0	716.6	8.42	85.056 SF			
2,800.0	2,762.3	2,587.8	2,519.3	8.8	0.0	-95.30	-547.1	-526.2	750.8	8.82	85.107			
2,900.0	2,860.3	2,672.2	2,596.2	9.2	0.0	-94.97	-568.8	-553.3	786.2	9.22	85.272			
3,000.0	2,958.2	2,755.7	2,671.8	9.6	0.0	-94.61	-591.0	-581.0	822.8	9.62	85.534			
3,100.0	3,056.1	2,841.0	2,748.5	10.0	0.0	-94.23	-614.4	-610.1	860.4	10.02	85.879			
3,200.0	3,154.1	2,933.3	2,831.4	10.4	0.0	-93.83	-639.9	-641.8	898.3	10.42	86.226			
3,300.0	3,252.0	3,025.7	2,914.2	10.8	0.0	-93.47	-665.4	-673.6	936.3	10.82	86.552			
3,400.0	3,349.9	3,118.0	2,997.1	11.2	0.0	-93.13	-690.9	-705.3	974.3	11.22	86.859			

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 2 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	-149.46	-24.0	-14.2	27.9					
100.0	100.0	100.0	100.0	0.1	0.0	-149.46	-24.0	-14.2	27.9	27.8	0.13	210.142		
200.0	200.0	200.0	200.0	0.3	0.0	-149.46	-24.0	-14.2	27.9	27.6	0.31	90.821 CC, ES		
300.0	300.0	299.8	299.8	0.5	0.0	-80.88	-23.9	-15.0	28.1	27.7	0.48	58.265		
400.0	400.0	399.6	399.6	0.7	0.0	-81.27	-23.7	-17.6	28.8	28.1	0.66	43.441		
500.0	499.9	499.4	499.3	0.9	0.0	-81.88	-23.2	-22.0	29.9	29.0	0.85	35.127		
600.0	599.7	599.2	598.8	1.1	0.0	-82.67	-22.5	-28.0	31.4	30.4	1.05	29.910		
700.0	699.4	698.9	698.3	1.3	0.0	-83.57	-21.7	-35.8	33.4	32.1	1.26	26.395		
800.0	798.9	798.7	797.6	1.5	0.0	-84.53	-20.6	-45.2	35.8	34.3	1.50	23.911		
900.0	898.3	898.4	896.7	1.8	0.0	-85.51	-19.4	-56.4	38.7	36.9	1.75	22.092		
1,000.0	897.4	898.1	895.6	2.0	0.0	-86.47	-17.9	-69.3	42.0	40.0	2.03	20.723		
1,100.0	1,096.3	1,097.8	1,094.2	2.3	0.0	-87.39	-16.3	-84.0	45.8	43.4	2.33	19.670		
1,200.0	1,194.9	1,197.5	1,192.5	2.7	0.0	-88.25	-14.5	-100.3	50.0	47.3	2.65	18.845		
1,300.0	1,293.3	1,297.1	1,290.4	3.0	0.0	-89.04	-12.5	-118.3	54.7	51.7	3.01	18.187		
1,400.0	1,391.3	1,396.7	1,388.1	3.4	0.0	-89.68	-10.3	-138.0	59.8	56.4	3.38	17.694		
1,500.0	1,489.2	1,496.5	1,485.5	3.8	0.0	-89.34	-8.0	-159.1	65.3	61.6	3.76	17.378		
1,600.0	1,587.1	1,596.3	1,583.0	4.1	0.0	-88.92	-5.6	-180.4	70.9	66.7	4.14	17.116		
1,700.0	1,685.1	1,696.2	1,680.5	4.5	0.0	-88.56	-3.3	-201.7	76.4	71.9	4.53	16.888		
1,800.0	1,783.0	1,796.0	1,778.0	4.9	0.0	-88.25	-0.9	-223.1	82.0	77.1	4.91	16.690		
1,900.0	1,880.9	1,895.8	1,875.5	5.3	0.0	-87.98	1.4	-244.4	87.6	82.3	5.30	16.516		
2,000.0	1,978.9	1,995.7	1,973.0	5.7	0.0	-87.74	3.8	-265.7	93.1	87.4	5.69	16.363		
2,100.0	2,076.8	2,095.5	2,070.6	6.1	0.0	-87.53	6.2	-287.1	98.7	92.6	6.08	16.226		
2,200.0	2,174.7	2,195.4	2,168.1	6.5	0.0	-87.34	8.5	-308.4	104.3	97.8	6.47	16.105		
2,300.0	2,272.7	2,295.2	2,265.6	6.9	0.0	-87.17	10.9	-329.7	109.8	103.0	6.87	15.996		
2,400.0	2,370.6	2,395.1	2,363.1	7.3	0.0	-87.02	13.3	-351.0	115.4	108.2	7.26	15.897		
2,500.0	2,468.5	2,494.9	2,460.6	7.7	0.0	-86.88	15.6	-372.4	121.0	113.3	7.65	15.808		
2,600.0	2,566.5	2,594.8	2,558.1	8.1	0.0	-86.75	18.0	-393.7	126.6	118.5	8.05	15.726		
2,700.0	2,664.4	2,694.6	2,655.6	8.5	0.0	-86.64	20.3	-415.0	132.1	123.7	8.44	15.652		
2,800.0	2,762.3	2,794.4	2,753.1	8.8	0.0	-86.53	22.7	-436.4	137.7	128.9	8.84	15.584		
2,900.0	2,860.3	2,894.3	2,850.6	9.2	0.0	-86.43	25.1	-457.7	143.3	134.1	9.23	15.521		
3,000.0	2,958.2	2,994.1	2,948.2	9.6	0.0	-86.34	27.4	-479.0	148.9	139.2	9.63	15.463		
3,100.0	3,056.1	3,094.0	3,045.7	10.0	0.0	-86.26	29.8	-500.3	154.4	144.4	10.02	15.410		
3,200.0	3,154.1	3,193.8	3,143.2	10.4	0.0	-86.18	32.1	-521.7	160.0	149.6	10.42	15.360		
3,300.0	3,252.0	3,293.7	3,240.7	10.8	0.0	-86.11	34.5	-543.0	165.6	154.8	10.81	15.314		
3,400.0	3,349.9	3,393.5	3,338.2	11.2	0.0	-86.04	36.9	-564.3	171.2	160.0	11.21	15.271		
3,500.0	3,447.9	3,493.4	3,435.7	11.6	0.0	-85.97	39.2	-585.7	176.8	165.1	11.61	15.230		
3,600.0	3,545.8	3,593.2	3,533.2	12.0	0.0	-85.91	41.6	-607.0	182.3	170.3	12.00	15.192		
3,700.0	3,643.7	3,693.0	3,630.7	12.4	0.0	-85.86	44.0	-628.3	187.9	175.5	12.40	15.157		
3,800.0	3,741.7	3,792.9	3,728.2	12.8	0.0	-85.80	46.3	-649.6	193.5	180.7	12.79	15.123		
3,900.0	3,839.6	3,892.7	3,825.8	13.2	0.0	-85.75	48.7	-671.0	199.1	185.9	13.19	15.092		
4,000.0	3,937.5	3,992.6	3,923.3	13.6	0.0	-85.70	51.0	-692.3	204.6	191.1	13.59	15.062		
4,100.0	4,035.5	4,092.4	4,020.8	14.0	0.0	-85.66	53.4	-713.6	210.2	196.2	13.98	15.034		
4,200.0	4,133.4	4,192.3	4,118.3	14.4	0.0	-85.62	55.8	-735.0	215.8	201.4	14.38	15.007		
4,300.0	4,231.3	4,292.1	4,215.8	14.8	0.0	-85.58	58.1	-756.3	221.4	206.6	14.78	14.982		
4,400.0	4,329.3	4,391.9	4,313.3	15.2	0.0	-85.54	60.5	-777.6	227.0	211.8	15.17	14.958		
4,500.0	4,427.2	4,491.8	4,410.8	15.6	0.0	-85.50	62.9	-798.9	232.5	217.0	15.57	14.935		
4,600.0	4,525.1	4,591.6	4,508.3	16.0	0.0	-85.47	65.2	-820.3	238.1	222.2	15.97	14.914		
4,700.0	4,623.1	4,691.5	4,605.8	16.4	0.0	-85.43	67.6	-841.6	243.7	227.3	16.36	14.893		
4,800.0	4,721.0	4,791.3	4,703.4	16.8	0.0	-85.40	69.9	-862.9	249.3	232.5	16.76	14.873		
4,900.0	4,818.9	4,891.2	4,800.9	17.2	0.0	-85.37	72.3	-884.2	254.9	237.7	17.16	14.855		
5,000.0	4,916.9	4,991.0	4,898.4	17.6	0.0	-85.34	74.7	-905.6	260.4	242.9	17.55	14.837		
5,100.0	5,014.8	5,090.9	4,995.9	18.0	0.0	-85.31	77.0	-926.9	266.0	248.1	17.95	14.819		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 2 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)				Between Centres (usft)	Between Ellipses (usft)	
5,200.0	5,112.7	5,190.7	5,093.4	18.4	0.0	-85.29	79.4	-948.2	271.6	253.3	18.35	14.803		
5,300.0	5,210.7	5,290.5	5,190.9	18.8	0.0	-85.26	81.7	-969.6	277.2	258.4	18.74	14.787		
5,400.0	5,308.6	5,390.4	5,288.4	19.2	0.0	-85.23	84.1	-990.9	282.8	263.6	19.14	14.772		
5,500.0	5,406.5	5,490.2	5,385.9	19.6	0.0	-85.21	86.5	-1,012.2	288.3	268.8	19.54	14.757		
5,600.0	5,504.5	5,590.1	5,483.4	20.0	0.0	-85.19	88.8	-1,033.5	293.9	274.0	19.94	14.743		
5,700.0	5,602.4	5,689.9	5,581.0	20.4	0.0	-85.17	91.2	-1,054.9	299.5	279.2	20.33	14.730		
5,800.0	5,700.3	5,789.8	5,678.5	20.8	0.0	-85.14	93.6	-1,076.2	305.1	284.3	20.73	14.717		
5,900.0	5,798.3	5,889.6	5,776.0	21.2	0.0	-85.12	95.9	-1,097.5	310.7	289.5	21.13	14.704		
6,000.0	5,896.2	5,989.5	5,873.5	21.6	0.0	-85.10	98.3	-1,118.9	316.2	294.7	21.52	14.692		
6,100.0	5,994.2	6,089.3	5,971.0	22.0	0.0	-85.09	100.6	-1,140.2	321.8	299.9	21.92	14.681		
6,200.0	6,092.1	6,189.1	6,068.5	22.4	0.0	-85.07	103.0	-1,161.5	327.4	305.1	22.32	14.669		
6,300.0	6,190.0	6,289.0	6,166.0	22.8	0.0	-85.05	105.4	-1,182.8	333.0	310.3	22.72	14.658		
6,400.0	6,287.9	6,388.8	6,263.5	23.2	0.0	-83.05	107.7	-1,204.2	338.5	315.4	23.12	14.644		
6,500.0	6,383.4	6,475.0	6,347.0	23.8	0.0	-75.75	109.8	-1,225.3	341.2	317.5	23.67	14.412		
6,600.0	6,473.3	6,566.6	6,422.9	24.6	0.0	-73.59	111.6	-1,255.0	342.3	317.9	24.39	14.032		
6,700.0	6,555.3	6,639.0	6,495.1	25.7	0.0	-73.40	113.4	-1,294.6	342.2	316.9	25.30	13.526		
6,800.0	6,627.5	6,722.3	6,562.3	27.0	0.0	-74.34	115.1	-1,343.8	341.1	314.7	26.42	12.909		
6,900.0	6,688.0	6,807.0	6,623.4	28.5	0.0	-76.07	116.7	-1,402.3	339.3	311.5	27.79	12.209		
7,000.0	6,735.4	6,893.3	6,677.1	30.3	0.0	-78.44	118.2	-1,469.7	336.9	307.5	29.40	11.459		
7,100.0	6,768.6	6,981.5	6,722.1	32.2	0.0	-81.35	119.4	-1,545.5	334.5	303.2	31.25	10.701		
7,200.0	6,786.6	7,072.1	6,756.9	34.3	0.0	-84.71	120.5	-1,629.0	332.2	298.9	33.29	9.976		
7,300.0	6,790.0	7,165.6	6,780.0	36.4	0.0	-88.27	121.2	-1,719.5	330.5	295.0	35.49	9.313		
7,400.0	6,790.0	7,263.1	6,789.8	38.5	0.0	-89.97	121.7	-1,816.5	330.1	292.3	37.73	8.749		
7,439.3	6,790.0	7,302.3	6,790.0	39.4	0.0	-90.00	121.8	-1,855.7	330.1	291.4	38.61	8.548		
7,500.0	6,790.0	7,363.0	6,790.0	40.7	0.0	-90.00	122.0	-1,916.3	330.1	290.1	39.98	8.256		
7,600.0	6,790.0	7,463.0	6,790.0	43.0	0.0	-90.00	122.2	-2,016.3	330.1	287.8	42.25	7.812		
7,700.0	6,790.0	7,563.0	6,790.0	45.2	0.0	-90.00	122.5	-2,116.3	330.1	285.5	44.55	7.409		
7,800.0	6,790.0	7,663.0	6,790.0	47.5	0.0	-90.00	122.7	-2,216.3	330.1	283.2	46.86	7.043		
7,900.0	6,790.0	7,763.0	6,790.0	49.8	0.0	-90.00	123.0	-2,316.3	330.1	280.9	49.19	6.709		
8,000.0	6,790.0	7,863.0	6,790.0	52.1	0.0	-90.00	123.2	-2,416.3	330.1	278.5	51.54	6.404		
8,100.0	6,790.0	7,963.0	6,790.0	54.4	0.0	-90.00	123.5	-2,516.3	330.1	276.2	53.89	6.124		
8,200.0	6,790.0	8,063.0	6,790.0	56.8	0.0	-90.00	123.7	-2,616.3	330.1	273.8	56.26	5.867		
8,300.0	6,790.0	8,163.0	6,790.0	59.1	0.0	-90.00	124.0	-2,716.3	330.1	271.4	58.63	5.629		
8,400.0	6,790.0	8,263.0	6,790.0	61.5	0.0	-90.00	124.2	-2,816.3	330.1	269.0	61.02	5.409		
8,500.0	6,790.0	8,363.0	6,790.0	63.8	0.0	-90.00	124.5	-2,916.3	330.1	266.7	63.41	5.205		
8,600.0	6,790.0	8,463.0	6,790.0	66.2	0.0	-90.00	124.7	-3,016.3	330.1	264.3	65.80	5.016		
8,700.0	6,790.0	8,563.0	6,790.0	68.6	0.0	-90.00	125.0	-3,116.3	330.1	261.9	68.20	4.839		
8,800.0	6,790.0	8,663.0	6,790.0	71.0	0.0	-90.00	125.2	-3,216.3	330.1	259.4	70.61	4.674		
8,900.0	6,790.0	8,763.0	6,790.0	73.4	0.0	-90.00	125.5	-3,316.3	330.1	257.0	73.02	4.520		
9,000.0	6,790.0	8,863.0	6,790.0	75.8	0.0	-90.00	125.7	-3,416.3	330.1	254.6	75.44	4.375		
9,100.0	6,790.0	8,963.0	6,790.0	78.2	0.0	-90.00	126.0	-3,516.3	330.1	252.2	77.86	4.239		
9,200.0	6,790.0	9,063.0	6,790.0	80.6	0.0	-90.00	126.2	-3,616.3	330.1	249.8	80.28	4.111		
9,300.0	6,790.0	9,163.0	6,790.0	83.0	0.0	-90.00	126.5	-3,716.3	330.1	247.4	82.70	3.991		
9,400.0	6,790.0	9,263.0	6,790.0	85.4	0.0	-90.00	126.7	-3,816.3	330.1	244.9	85.13	3.877		
9,500.0	6,790.0	9,363.0	6,790.0	87.9	0.0	-90.00	127.0	-3,916.3	330.1	242.5	87.56	3.769		
9,600.0	6,790.0	9,463.0	6,790.0	90.3	0.0	-90.00	127.2	-4,016.3	330.1	240.1	90.00	3.668		
9,700.0	6,790.0	9,563.0	6,790.0	92.7	0.0	-90.00	127.5	-4,116.3	330.1	237.6	92.43	3.571		
9,800.0	6,790.0	9,663.0	6,790.0	95.1	0.0	-90.00	127.7	-4,216.3	330.1	235.2	94.87	3.479		
9,900.0	6,790.0	9,763.0	6,790.0	97.6	0.0	-90.00	128.0	-4,316.3	330.1	232.8	97.31	3.392		
10,000.0	6,790.0	9,863.0	6,790.0	100.0	0.0	-90.00	128.2	-4,416.3	330.1	230.3	99.75	3.309		
10,100.0	6,790.0	9,963.0	6,790.0	102.4	0.0	-90.00	128.5	-4,516.3	330.1	227.9	102.19	3.230		
10,200.0	6,790.0	10,063.0	6,790.0	104.9	0.0	-90.00	128.7	-4,616.3	330.1	225.4	104.63	3.154		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 2 - Hz - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis		
10,300.0	6,790.0	10,163.0	6,790.0	107.3	0.0	-90.00	129.0	-4,716.3	330.1	223.0	107.08	3.082	
10,400.0	6,790.0	10,263.0	6,790.0	109.8	0.0	-90.00	129.2	-4,816.3	330.1	220.5	109.53	3.013	
10,500.0	6,790.0	10,363.0	6,790.0	112.2	0.0	-90.00	129.5	-4,916.3	330.1	218.1	111.98	2.948	
10,600.0	6,790.0	10,463.0	6,790.0	114.7	0.0	-90.00	129.7	-5,016.3	330.1	215.6	114.42	2.885	
10,700.0	6,790.0	10,563.0	6,790.0	117.1	0.0	-90.00	130.0	-5,116.3	330.1	213.2	116.87	2.824	
10,800.0	6,790.0	10,663.0	6,790.0	119.5	0.0	-90.00	130.2	-5,216.3	330.1	210.7	119.33	2.766	
10,900.0	6,790.0	10,763.0	6,790.0	122.0	0.0	-90.00	130.5	-5,316.3	330.1	208.3	121.78	2.710	
11,000.0	6,790.0	10,863.0	6,790.0	124.4	0.0	-90.00	130.7	-5,416.3	330.1	205.8	124.23	2.657	
11,100.0	6,790.0	10,963.0	6,790.0	126.9	0.0	-90.00	131.0	-5,516.3	330.1	203.4	126.68	2.605	
11,200.0	6,790.0	11,063.0	6,790.0	129.3	0.0	-90.00	131.2	-5,616.3	330.1	200.9	129.14	2.556	
11,300.0	6,790.0	11,163.0	6,790.0	131.8	0.0	-90.00	131.5	-5,716.3	330.1	198.5	131.59	2.508	
11,400.0	6,790.0	11,263.0	6,790.0	134.2	0.0	-90.00	131.7	-5,816.3	330.1	196.0	134.05	2.462	
11,500.0	6,790.0	11,363.0	6,790.0	136.7	0.0	-90.00	132.0	-5,916.3	330.1	193.6	136.51	2.418	
11,600.0	6,790.0	11,463.0	6,790.0	139.1	0.0	-90.00	132.2	-6,016.3	330.1	191.1	138.96	2.375	
11,700.0	6,790.0	11,563.0	6,790.0	141.6	0.0	-90.00	132.5	-6,116.3	330.1	188.6	141.42	2.334	
11,800.0	6,790.0	11,663.0	6,790.0	144.1	0.0	-90.00	132.7	-6,216.3	330.1	186.2	143.88	2.294	
11,900.0	6,790.0	11,763.0	6,790.0	146.5	0.0	-90.00	133.0	-6,316.3	330.1	183.7	146.34	2.255	
12,000.0	6,790.0	11,863.0	6,790.0	149.0	0.0	-90.00	133.2	-6,416.3	330.1	181.3	148.80	2.218	
12,100.0	6,790.0	11,963.0	6,790.0	151.4	0.0	-90.00	133.5	-6,516.3	330.1	178.8	151.26	2.182	
12,200.0	6,790.0	12,063.0	6,790.0	153.9	0.0	-90.00	133.7	-6,616.3	330.1	176.3	153.72	2.147	
12,300.0	6,790.0	12,163.0	6,790.0	156.3	0.0	-90.00	134.0	-6,716.3	330.1	173.9	156.18	2.113	
12,400.0	6,790.0	12,263.0	6,790.0	158.8	0.0	-90.00	134.2	-6,816.3	330.1	171.4	158.64	2.081	
12,500.0	6,790.0	12,363.0	6,790.0	161.3	0.0	-90.00	134.5	-6,916.3	330.1	169.0	161.10	2.049	
12,600.0	6,790.0	12,463.0	6,790.0	163.7	0.0	-90.00	134.7	-7,016.3	330.1	166.5	163.57	2.018	
12,700.0	6,790.0	12,563.0	6,790.0	166.2	0.0	-90.00	135.0	-7,116.3	330.1	164.0	166.03	1.988	
12,800.0	6,790.0	12,663.0	6,790.0	168.6	0.0	-90.00	135.2	-7,216.3	330.1	161.6	168.49	1.959	
12,900.0	6,790.0	12,763.0	6,790.0	171.1	0.0	-90.00	135.5	-7,316.3	330.1	159.1	170.96	1.931	
13,000.0	6,790.0	12,863.0	6,790.0	173.6	0.0	-90.00	135.7	-7,416.3	330.1	156.6	173.42	1.903	
13,100.0	6,790.0	12,963.0	6,790.0	176.0	0.0	-90.00	136.0	-7,516.3	330.1	154.2	175.88	1.877	
13,200.0	6,790.0	13,063.0	6,790.0	178.5	0.0	-90.00	136.2	-7,616.3	330.1	151.7	178.35	1.851	
13,300.0	6,790.0	13,163.0	6,790.0	180.9	0.0	-90.00	136.5	-7,716.3	330.1	149.2	180.81	1.825	
13,400.0	6,790.0	13,263.0	6,790.0	183.4	0.0	-90.00	136.7	-7,816.3	330.1	146.8	183.28	1.801	
13,500.0	6,790.0	13,363.0	6,790.0	185.9	0.0	-90.00	137.0	-7,916.3	330.1	144.3	185.74	1.777	
13,600.0	6,790.0	13,463.0	6,790.0	188.3	0.0	-90.00	137.2	-8,016.3	330.1	141.9	188.21	1.754	
13,700.0	6,790.0	13,563.0	6,790.0	190.8	0.0	-90.00	137.5	-8,116.3	330.1	139.4	190.67	1.731	
13,800.0	6,790.0	13,663.0	6,790.0	193.3	0.0	-90.00	137.7	-8,216.3	330.1	136.9	193.14	1.709	
13,900.0	6,790.0	13,763.0	6,790.0	195.7	0.0	-90.00	138.0	-8,316.3	330.1	134.5	195.60	1.687	
14,000.0	6,790.0	13,863.0	6,790.0	198.2	0.0	-90.00	138.2	-8,416.3	330.1	132.0	198.07	1.666	
14,100.0	6,790.0	13,963.0	6,790.0	200.7	0.0	-90.00	138.5	-8,516.3	330.1	129.5	200.54	1.646	
14,200.0	6,790.0	14,063.0	6,790.0	203.1	0.0	-90.00	138.7	-8,616.3	330.1	127.1	203.00	1.626	
14,300.0	6,790.0	14,163.0	6,790.0	205.6	0.0	-90.00	139.0	-8,716.3	330.1	124.6	205.47	1.606	
14,400.0	6,790.0	14,263.0	6,790.0	208.1	0.0	-90.00	139.2	-8,816.3	330.1	122.1	207.94	1.587	
14,500.0	6,790.0	14,363.0	6,790.0	210.5	0.0	-90.00	139.5	-8,916.3	330.1	119.7	210.40	1.569	
14,600.0	6,790.0	14,463.0	6,790.0	213.0	0.0	-90.00	139.7	-9,016.3	330.1	117.2	212.87	1.551	
14,700.0	6,790.0	14,563.0	6,790.0	215.5	0.0	-90.00	140.0	-9,116.3	330.1	114.7	215.34	1.533	
14,800.0	6,790.0	14,663.0	6,790.0	217.9	0.0	-90.00	140.2	-9,216.3	330.1	112.3	217.80	1.515	
14,900.0	6,790.0	14,763.0	6,790.0	220.4	0.0	-90.00	140.5	-9,316.3	330.1	109.8	220.27	1.498 Level 3	
15,000.0	6,790.0	14,863.0	6,790.0	222.8	0.0	-90.00	140.7	-9,416.3	330.1	107.3	222.74	1.482 Level 3	
15,100.0	6,790.0	14,963.0	6,790.0	225.3	0.0	-90.00	141.0	-9,516.3	330.1	104.9	225.21	1.466 Level 3	
15,200.0	6,790.0	15,063.0	6,790.0	227.8	0.0	-90.00	141.2	-9,616.3	330.1	102.4	227.68	1.450 Level 3	
15,300.0	6,790.0	15,163.0	6,790.0	230.3	0.0	-90.00	141.5	-9,716.3	330.1	99.9	230.14	1.434 Level 3	
15,400.0	6,790.0	15,263.0	6,790.0	232.7	0.0	-90.00	141.7	-9,816.3	330.1	97.4	232.61	1.419 Level 3	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 2 - Hz - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
15,500.0	6,790.0	15,363.0	6,790.0	235.2	0.0	-90.00	142.0	-9,916.3	330.1	95.0	235.08	1.404	Level 3
15,600.0	6,790.0	15,463.0	6,790.0	237.7	0.0	-90.00	142.2	-10,016.3	330.1	92.5	237.55	1.389	Level 3
15,700.0	6,790.0	15,563.0	6,790.0	240.1	0.0	-90.00	142.5	-10,116.3	330.1	90.0	240.02	1.375	Level 3
15,800.0	6,790.0	15,663.0	6,790.0	242.6	0.0	-90.00	142.7	-10,216.3	330.1	87.6	242.49	1.361	Level 3
15,900.0	6,790.0	15,763.0	6,790.0	245.1	0.0	-90.00	143.0	-10,316.3	330.1	85.1	244.96	1.347	Level 3
16,000.0	6,790.0	15,863.0	6,790.0	247.5	0.0	-90.00	143.2	-10,416.3	330.1	82.6	247.43	1.334	Level 3
16,100.0	6,790.0	15,963.0	6,790.0	250.0	0.0	-90.00	143.5	-10,516.3	330.1	80.2	249.90	1.321	Level 3
16,200.0	6,790.0	16,063.0	6,790.0	252.5	0.0	-90.00	143.7	-10,616.3	330.1	77.7	252.36	1.308	Level 3
16,300.0	6,790.0	16,163.0	6,790.0	254.9	0.0	-90.00	144.0	-10,716.3	330.1	75.2	254.83	1.295	Level 3
16,400.0	6,790.0	16,263.0	6,790.0	257.4	0.0	-90.00	144.2	-10,816.3	330.1	72.8	257.30	1.283	Level 3
16,500.0	6,790.0	16,363.0	6,790.0	259.9	0.0	-90.00	144.5	-10,916.3	330.1	70.3	259.77	1.271	Level 3
16,600.0	6,790.0	16,463.0	6,790.0	262.3	0.0	-90.00	144.7	-11,016.3	330.1	67.8	262.24	1.259	Level 3
16,700.0	6,790.0	16,563.0	6,790.0	264.8	0.0	-90.00	145.0	-11,116.3	330.1	65.3	264.71	1.247	Level 2
16,800.0	6,790.0	16,663.0	6,790.0	267.3	0.0	-90.00	145.2	-11,216.3	330.1	62.9	267.18	1.235	Level 2
16,900.0	6,790.0	16,763.0	6,790.0	269.7	0.0	-90.00	145.5	-11,316.3	330.1	60.4	269.65	1.224	Level 2
17,000.0	6,790.0	16,863.0	6,790.0	272.2	0.0	-90.00	145.7	-11,416.3	330.1	57.9	272.12	1.213	Level 2
17,100.0	6,790.0	16,963.0	6,790.0	274.7	0.0	-90.00	146.0	-11,516.3	330.1	55.5	274.59	1.202	Level 2
17,200.0	6,790.0	17,063.0	6,790.0	277.1	0.0	-90.00	146.2	-11,616.3	330.1	53.0	277.06	1.191	Level 2
17,300.0	6,790.0	17,163.0	6,790.0	279.6	0.0	-90.00	146.5	-11,716.3	330.1	50.5	279.53	1.181	Level 2
17,400.0	6,790.0	17,263.0	6,790.0	282.1	0.0	-90.00	146.7	-11,816.3	330.1	48.1	282.00	1.170	Level 2
17,411.7	6,790.0	17,274.7	6,790.0	282.4	0.0	-90.00	146.7	-11,828.0	330.1	47.8	282.29	1.169	Level 2
17,412.9	6,790.0	17,274.9	6,790.0	282.4	0.0	-90.00	146.7	-11,828.2	330.1	47.7	282.32	1.169	Level 2, SF

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 3 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	-149.22	-48.1	-28.6	56.0					
100.0	100.0	100.0	100.0	0.1	0.0	-149.22	-48.1	-28.6	56.0	55.8	0.13	421.351		
200.0	200.0	200.0	200.0	0.3	0.0	-149.22	-48.1	-28.6	56.0	55.7	0.31	182.103 CC, ES		
300.0	300.0	299.5	299.5	0.5	0.0	-80.61	-48.1	-29.5	56.3	55.8	0.48	116.544		
400.0	400.0	399.0	399.0	0.7	0.0	-80.94	-48.1	-32.1	57.2	56.5	0.66	86.278		
500.0	499.9	498.5	498.4	0.9	0.0	-81.47	-48.1	-36.4	58.7	57.8	0.85	68.987		
600.0	599.7	598.0	597.6	1.1	0.0	-82.16	-48.1	-42.5	60.8	59.7	1.05	57.886		
700.0	699.4	697.4	696.8	1.3	0.0	-82.98	-48.0	-50.2	63.5	62.2	1.26	50.215		
800.0	798.9	796.8	795.7	1.5	0.0	-83.89	-48.0	-59.7	66.8	65.3	1.50	44.644		
900.0	898.3	896.2	894.5	1.8	0.0	-84.85	-48.0	-70.9	70.8	69.0	1.75	40.449		
1,000.0	897.4	895.5	893.0	2.0	0.0	-85.83	-47.9	-83.8	75.4	73.3	2.03	37.204		
1,100.0	1,096.3	1,094.8	1,091.2	2.3	0.0	-86.80	-47.9	-98.4	80.6	78.3	2.33	34.643		
1,200.0	1,194.9	1,194.1	1,189.1	2.7	0.0	-87.74	-47.9	-114.7	86.4	83.8	2.65	32.588		
1,300.0	1,293.3	1,293.2	1,286.6	3.0	0.0	-88.64	-47.8	-132.6	92.9	89.9	3.01	30.916		
1,400.0	1,391.3	1,392.7	1,384.1	3.4	0.0	-89.56	-47.8	-152.1	100.0	96.6	3.38	29.581		
1,500.0	1,489.2	1,492.4	1,481.9	3.8	0.0	-90.51	-47.7	-171.9	107.1	103.4	3.76	28.502		
1,600.0	1,587.1	1,592.1	1,579.6	4.1	0.0	-91.34	-47.6	-191.7	114.3	110.2	4.14	27.604		
1,700.0	1,685.1	1,691.9	1,677.4	4.5	0.0	-92.07	-47.6	-211.4	121.5	117.0	4.52	26.849		
1,800.0	1,783.0	1,791.6	1,775.1	4.9	0.0	-92.72	-47.5	-231.2	128.7	123.8	4.91	26.206		
1,900.0	1,880.9	1,891.3	1,872.9	5.3	0.0	-93.30	-47.5	-251.0	135.9	130.6	5.30	25.654		
2,000.0	1,978.9	1,991.1	1,970.6	5.7	0.0	-93.82	-47.4	-270.7	143.2	137.5	5.69	25.176		
2,100.0	2,076.8	2,090.8	2,068.4	6.1	0.0	-94.29	-47.4	-290.5	150.4	144.3	6.08	24.757		
2,200.0	2,174.7	2,190.5	2,166.1	6.5	0.0	-94.72	-47.3	-310.3	157.7	151.2	6.46	24.388		
2,300.0	2,272.7	2,290.2	2,263.9	6.9	0.0	-95.11	-47.3	-330.0	164.9	158.1	6.85	24.061		
2,400.0	2,370.6	2,390.0	2,361.6	7.3	0.0	-95.46	-47.2	-349.8	172.2	165.0	7.24	23.770		
2,500.0	2,468.5	2,489.7	2,459.4	7.7	0.0	-95.79	-47.2	-369.6	179.5	171.8	7.64	23.508		
2,600.0	2,566.5	2,589.4	2,557.1	8.1	0.0	-96.10	-47.1	-389.3	186.8	178.7	8.03	23.271		
2,700.0	2,664.4	2,689.2	2,654.9	8.5	0.0	-96.38	-47.0	-409.1	194.1	185.6	8.42	23.057		
2,800.0	2,762.3	2,788.9	2,752.6	8.8	0.0	-96.63	-47.0	-428.9	201.4	192.5	8.81	22.862		
2,900.0	2,860.3	2,888.6	2,850.4	9.2	0.0	-96.88	-46.9	-448.6	208.6	199.5	9.20	22.684		
3,000.0	2,958.2	2,988.4	2,948.1	9.6	0.0	-97.10	-46.9	-468.4	215.9	206.4	9.59	22.521		
3,100.0	3,056.1	3,088.1	3,045.9	10.0	0.0	-97.31	-46.8	-488.2	223.3	213.3	9.98	22.371		
3,200.0	3,154.1	3,187.8	3,143.6	10.4	0.0	-97.51	-46.8	-507.9	230.6	220.2	10.37	22.232		
3,300.0	3,252.0	3,287.5	3,241.4	10.8	0.0	-97.69	-46.7	-527.7	237.9	227.1	10.76	22.103		
3,400.0	3,349.9	3,387.3	3,339.2	11.2	0.0	-97.87	-46.7	-547.5	245.2	234.0	11.15	21.984		
3,500.0	3,447.9	3,487.0	3,436.9	11.6	0.0	-98.03	-46.6	-567.2	252.5	240.9	11.54	21.873		
3,600.0	3,545.8	3,586.7	3,534.7	12.0	0.0	-98.19	-46.6	-587.0	259.8	247.9	11.93	21.769		
3,700.0	3,643.7	3,686.5	3,632.4	12.4	0.0	-98.33	-46.5	-606.8	267.1	254.8	12.33	21.672		
3,800.0	3,741.7	3,786.2	3,730.2	12.8	0.0	-98.47	-46.5	-626.5	274.4	261.7	12.72	21.581		
3,900.0	3,839.6	3,885.9	3,827.9	13.2	0.0	-98.60	-46.4	-646.3	281.8	268.7	13.11	21.496		
4,000.0	3,937.5	3,985.7	3,925.7	13.6	0.0	-98.73	-46.3	-666.1	289.1	275.6	13.50	21.416		
4,100.0	4,035.5	4,085.4	4,023.4	14.0	0.0	-98.85	-46.3	-685.8	296.4	282.5	13.89	21.340		
4,200.0	4,133.4	4,185.1	4,121.2	14.4	0.0	-98.96	-46.2	-705.6	303.7	289.5	14.28	21.269		
4,300.0	4,231.3	4,284.8	4,218.9	14.8	0.0	-99.07	-46.2	-725.4	311.1	296.4	14.67	21.201		
4,400.0	4,329.3	4,384.6	4,316.7	15.2	0.0	-99.17	-46.1	-745.1	318.4	303.3	15.06	21.137		
4,500.0	4,427.2	4,484.3	4,414.4	15.6	0.0	-99.27	-46.1	-764.9	325.7	310.3	15.45	21.077		
4,600.0	4,525.1	4,584.0	4,512.2	16.0	0.0	-99.36	-46.0	-784.7	333.0	317.2	15.84	21.019		
4,700.0	4,623.1	4,683.8	4,609.9	16.4	0.0	-99.45	-46.0	-804.4	340.4	324.1	16.24	20.964		
4,800.0	4,721.0	4,783.5	4,707.7	16.8	0.0	-99.53	-45.9	-824.2	347.7	331.1	16.63	20.912		
4,900.0	4,818.9	4,883.2	4,805.4	17.2	0.0	-99.62	-45.9	-844.0	355.0	338.0	17.02	20.863		
5,000.0	4,916.9	4,982.9	4,903.2	17.6	0.0	-99.70	-45.8	-863.7	362.4	345.0	17.41	20.815		
5,100.0	5,014.8	5,082.7	5,000.9	18.0	0.0	-99.77	-45.7	-883.5	369.7	351.9	17.80	20.770		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 3 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis			
5,200.0	5,112.7	5,182.4	5,098.7	18.4	0.0	-99.84	-45.7	-903.3	377.0	358.8	18.19	20.727		
5,300.0	5,210.7	5,282.1	5,196.4	18.8	0.0	-99.91	-45.6	-923.0	384.4	365.8	18.58	20.685		
5,400.0	5,308.6	5,381.9	5,294.2	19.2	0.0	-99.98	-45.6	-942.8	391.7	372.7	18.97	20.646		
5,500.0	5,406.5	5,481.6	5,391.9	19.6	0.0	-100.05	-45.5	-962.6	399.0	379.7	19.36	20.608		
5,600.0	5,504.5	5,581.3	5,489.7	20.0	0.0	-100.11	-45.5	-982.3	406.4	386.6	19.75	20.571		
5,700.0	5,602.4	5,681.1	5,587.4	20.4	0.0	-100.17	-45.4	-1,002.1	413.7	393.6	20.14	20.536		
5,800.0	5,700.3	5,780.8	5,685.2	20.8	0.0	-100.23	-45.4	-1,021.9	421.0	400.5	20.54	20.503		
5,900.0	5,798.3	5,880.5	5,782.9	21.2	0.0	-100.28	-45.3	-1,041.6	428.4	407.4	20.93	20.470		
6,000.0	5,896.2	5,980.2	5,880.7	21.6	0.0	-100.34	-45.3	-1,061.4	435.7	414.4	21.32	20.439		
6,100.0	5,994.2	6,080.0	5,978.4	22.0	0.0	-100.39	-45.2	-1,081.2	443.0	421.3	21.71	20.409		
6,200.0	6,092.1	6,179.7	6,076.2	22.4	0.0	-100.44	-45.2	-1,100.9	450.4	428.3	22.10	20.380		
6,300.0	6,190.0	6,279.4	6,173.9	22.8	0.0	-100.49	-45.1	-1,120.7	457.7	435.2	22.49	20.353		
6,400.0	6,287.9	6,379.2	6,271.7	23.2	0.0	-98.52	-45.0	-1,140.5	465.0	442.1	22.89	20.317		
6,500.0	6,383.4	6,478.4	6,369.0	23.8	0.0	-91.36	-45.0	-1,160.1	470.5	447.1	23.43	20.079		
6,600.0	6,473.3	6,575.0	6,463.7	24.6	0.0	-90.75	-44.9	-1,179.3	474.0	449.9	24.08	19.686		
6,700.0	6,555.3	6,666.7	6,553.5	25.7	0.0	-93.07	-44.9	-1,197.4	477.7	452.9	24.83	19.241		
6,800.0	6,627.5	6,753.4	6,638.3	27.0	0.0	-96.81	-44.8	-1,215.6	484.9	459.2	25.70	18.872		
6,900.0	6,688.0	6,846.7	6,726.6	28.5	0.0	-101.07	-44.8	-1,245.5	497.4	470.7	26.71	18.627		
7,000.0	6,735.4	6,950.1	6,818.1	30.3	0.0	-105.52	-44.6	-1,293.4	514.9	487.1	27.84	18.493		
7,100.0	6,768.6	7,067.6	6,911.1	32.2	0.0	-110.13	-44.5	-1,364.8	536.2	507.1	29.05	18.456		
7,200.0	6,786.6	7,204.2	7,000.6	34.3	0.0	-114.85	-44.2	-1,467.7	559.4	529.1	30.26	18.487		
7,300.0	6,790.0	7,366.6	7,075.6	36.4	0.0	-119.98	-43.8	-1,611.3	581.2	550.1	31.12	18.677		
7,400.0	6,790.0	7,561.1	7,114.3	38.5	0.0	-123.22	-43.4	-1,801.1	592.0	560.0	31.99	18.504		
7,500.0	6,790.0	7,676.7	7,115.0	40.7	0.0	-123.28	-43.1	-1,916.7	592.2	558.4	33.85	17.494		
7,600.0	6,790.0	7,776.7	7,115.0	43.0	0.0	-123.28	-42.8	-2,016.7	592.2	556.5	35.75	16.565		
7,700.0	6,790.0	7,876.7	7,115.0	45.2	0.0	-123.28	-42.6	-2,116.7	592.2	554.6	37.67	15.721		
7,800.0	6,790.0	7,976.7	7,115.0	47.5	0.0	-123.28	-42.3	-2,216.7	592.2	552.6	39.60	14.954		
7,900.0	6,790.0	8,076.7	7,115.0	49.8	0.0	-123.28	-42.1	-2,316.7	592.2	550.7	41.55	14.253		
8,000.0	6,790.0	8,176.7	7,115.0	52.1	0.0	-123.28	-41.8	-2,416.7	592.2	548.7	43.51	13.612		
8,100.0	6,790.0	8,276.7	7,115.0	54.4	0.0	-123.28	-41.6	-2,516.7	592.2	546.8	45.48	13.023		
8,200.0	6,790.0	8,376.7	7,115.0	56.8	0.0	-123.28	-41.3	-2,616.7	592.2	544.8	47.45	12.480		
8,300.0	6,790.0	8,476.7	7,115.0	59.1	0.0	-123.28	-41.1	-2,716.7	592.2	542.8	49.44	11.979		
8,400.0	6,790.0	8,576.7	7,115.0	61.5	0.0	-123.28	-40.8	-2,816.7	592.2	540.8	51.43	11.516		
8,500.0	6,790.0	8,676.7	7,115.0	63.8	0.0	-123.28	-40.6	-2,916.7	592.2	538.8	53.43	11.085		
8,600.0	6,790.0	8,776.7	7,115.0	66.2	0.0	-123.28	-40.3	-3,016.7	592.2	536.8	55.43	10.684		
8,700.0	6,790.0	8,876.7	7,115.0	68.6	0.0	-123.28	-40.1	-3,116.7	592.2	534.8	57.44	10.311		
8,800.0	6,790.0	8,976.7	7,115.0	71.0	0.0	-123.28	-39.8	-3,216.7	592.2	532.8	59.45	9.962		
8,900.0	6,790.0	9,076.7	7,115.0	73.4	0.0	-123.28	-39.6	-3,316.7	592.2	530.8	61.47	9.635		
9,000.0	6,790.0	9,176.7	7,115.0	75.8	0.0	-123.28	-39.3	-3,416.7	592.2	528.7	63.49	9.329		
9,100.0	6,790.0	9,276.7	7,115.0	78.2	0.0	-123.28	-39.1	-3,516.7	592.2	526.7	65.51	9.041		
9,200.0	6,790.0	9,376.7	7,115.0	80.6	0.0	-123.28	-38.8	-3,616.7	592.2	524.7	67.53	8.769		
9,300.0	6,790.0	9,476.7	7,115.0	83.0	0.0	-123.28	-38.6	-3,716.7	592.2	522.7	69.56	8.514		
9,400.0	6,790.0	9,576.7	7,115.0	85.4	0.0	-123.28	-38.3	-3,816.7	592.2	520.6	71.59	8.272		
9,500.0	6,790.0	9,676.7	7,115.0	87.9	0.0	-123.28	-38.1	-3,916.7	592.2	518.6	73.63	8.044		
9,600.0	6,790.0	9,776.7	7,115.0	90.3	0.0	-123.28	-37.8	-4,016.7	592.2	516.6	75.66	7.827		
9,700.0	6,790.0	9,876.7	7,115.0	92.7	0.0	-123.28	-37.6	-4,116.7	592.2	514.5	77.70	7.622		
9,800.0	6,790.0	9,976.7	7,115.0	95.1	0.0	-123.28	-37.3	-4,216.7	592.2	512.5	79.74	7.427		
9,900.0	6,790.0	10,076.7	7,115.0	97.6	0.0	-123.28	-37.1	-4,316.7	592.2	510.5	81.78	7.242		
10,000.0	6,790.0	10,176.7	7,115.0	100.0	0.0	-123.28	-36.8	-4,416.7	592.2	508.4	83.82	7.066		
10,100.0	6,790.0	10,276.7	7,115.0	102.4	0.0	-123.28	-36.6	-4,516.7	592.2	506.4	85.86	6.897		
10,200.0	6,790.0	10,376.7	7,115.0	104.9	0.0	-123.28	-36.3	-4,616.7	592.2	504.3	87.91	6.737		
10,300.0	6,790.0	10,476.7	7,115.0	107.3	0.0	-123.28	-36.1	-4,716.7	592.2	502.3	89.95	6.584		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 3 - Hz - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
10,400.0	6,790.0	10,576.7	7,115.0	109.8	0.0	-123.28	-35.8	-4,816.7	592.2	500.2	92.00	6.437	
10,500.0	6,790.0	10,676.7	7,115.0	112.2	0.0	-123.28	-35.6	-4,916.7	592.2	498.2	94.05	6.297	
10,600.0	6,790.0	10,776.7	7,115.0	114.7	0.0	-123.28	-35.3	-5,016.7	592.2	496.1	96.10	6.163	
10,700.0	6,790.0	10,876.7	7,115.0	117.1	0.0	-123.28	-35.1	-5,116.7	592.2	494.1	98.15	6.034	
10,800.0	6,790.0	10,976.7	7,115.0	119.5	0.0	-123.28	-34.8	-5,216.7	592.2	492.0	100.20	5.911	
10,900.0	6,790.0	11,076.7	7,115.0	122.0	0.0	-123.28	-34.6	-5,316.7	592.2	490.0	102.25	5.792	
11,000.0	6,790.0	11,176.7	7,115.0	124.4	0.0	-123.28	-34.3	-5,416.7	592.2	487.9	104.30	5.678	
11,100.0	6,790.0	11,276.7	7,115.0	126.9	0.0	-123.28	-34.1	-5,516.7	592.2	485.9	106.36	5.568	
11,200.0	6,790.0	11,376.7	7,115.0	129.3	0.0	-123.28	-33.8	-5,616.7	592.2	483.8	108.41	5.463	
11,300.0	6,790.0	11,476.7	7,115.0	131.8	0.0	-123.28	-33.6	-5,716.7	592.2	481.8	110.47	5.361	
11,400.0	6,790.0	11,576.7	7,115.0	134.2	0.0	-123.28	-33.3	-5,816.7	592.2	479.7	112.52	5.263	
11,500.0	6,790.0	11,676.7	7,115.0	136.7	0.0	-123.28	-33.1	-5,916.7	592.2	477.7	114.58	5.169	
11,600.0	6,790.0	11,776.7	7,115.0	139.1	0.0	-123.28	-32.8	-6,016.7	592.2	475.6	116.63	5.078	
11,700.0	6,790.0	11,876.7	7,115.0	141.6	0.0	-123.28	-32.6	-6,116.7	592.2	473.5	118.69	4.990	
11,800.0	6,790.0	11,976.7	7,115.0	144.1	0.0	-123.28	-32.3	-6,216.7	592.2	471.5	120.75	4.905	
11,900.0	6,790.0	12,076.7	7,115.0	146.5	0.0	-123.28	-32.1	-6,316.7	592.2	469.4	122.81	4.823	
12,000.0	6,790.0	12,176.7	7,115.0	149.0	0.0	-123.28	-31.8	-6,416.7	592.2	467.4	124.86	4.743	
12,100.0	6,790.0	12,276.7	7,115.0	151.4	0.0	-123.28	-31.6	-6,516.7	592.2	465.3	126.92	4.666	
12,200.0	6,790.0	12,376.7	7,115.0	153.9	0.0	-123.28	-31.3	-6,616.7	592.2	463.2	128.98	4.592	
12,300.0	6,790.0	12,476.7	7,115.0	156.3	0.0	-123.28	-31.1	-6,716.7	592.2	461.2	131.04	4.519	
12,400.0	6,790.0	12,576.7	7,115.0	158.8	0.0	-123.28	-30.8	-6,816.7	592.2	459.1	133.10	4.449	
12,500.0	6,790.0	12,676.7	7,115.0	161.3	0.0	-123.28	-30.6	-6,916.7	592.2	457.1	135.16	4.382	
12,600.0	6,790.0	12,776.7	7,115.0	163.7	0.0	-123.28	-30.3	-7,016.7	592.2	455.0	137.22	4.316	
12,700.0	6,790.0	12,876.7	7,115.0	166.2	0.0	-123.28	-30.1	-7,116.7	592.2	452.9	139.28	4.252	
12,800.0	6,790.0	12,976.7	7,115.0	168.6	0.0	-123.28	-29.8	-7,216.7	592.2	450.9	141.34	4.190	
12,900.0	6,790.0	13,076.7	7,115.0	171.1	0.0	-123.28	-29.6	-7,316.7	592.2	448.8	143.41	4.130	
13,000.0	6,790.0	13,176.7	7,115.0	173.6	0.0	-123.28	-29.3	-7,416.7	592.2	446.8	145.47	4.071	
13,100.0	6,790.0	13,276.7	7,115.0	176.0	0.0	-123.28	-29.1	-7,516.7	592.2	444.7	147.53	4.014	
13,200.0	6,790.0	13,376.7	7,115.0	178.5	0.0	-123.28	-28.8	-7,616.7	592.2	442.6	149.59	3.959	
13,300.0	6,790.0	13,476.7	7,115.0	180.9	0.0	-123.28	-28.6	-7,716.7	592.2	440.6	151.65	3.905	
13,400.0	6,790.0	13,576.7	7,115.0	183.4	0.0	-123.28	-28.3	-7,816.7	592.2	438.5	153.72	3.853	
13,500.0	6,790.0	13,676.7	7,115.0	185.9	0.0	-123.28	-28.1	-7,916.7	592.2	436.5	155.78	3.802	
13,600.0	6,790.0	13,776.7	7,115.0	188.3	0.0	-123.28	-27.8	-8,016.7	592.2	434.4	157.84	3.752	
13,700.0	6,790.0	13,876.7	7,115.0	190.8	0.0	-123.28	-27.6	-8,116.7	592.2	432.3	159.91	3.704	
13,800.0	6,790.0	13,976.7	7,115.0	193.3	0.0	-123.28	-27.3	-8,216.7	592.2	430.3	161.97	3.656	
13,900.0	6,790.0	14,076.7	7,115.0	195.7	0.0	-123.28	-27.1	-8,316.7	592.2	428.2	164.03	3.610	
14,000.0	6,790.0	14,176.7	7,115.0	198.2	0.0	-123.28	-26.8	-8,416.7	592.2	426.1	166.10	3.566	
14,100.0	6,790.0	14,276.7	7,115.0	200.7	0.0	-123.28	-26.6	-8,516.7	592.2	424.1	168.16	3.522	
14,200.0	6,790.0	14,376.7	7,115.0	203.1	0.0	-123.28	-26.3	-8,616.7	592.2	422.0	170.23	3.479	
14,300.0	6,790.0	14,476.7	7,115.0	205.6	0.0	-123.28	-26.1	-8,716.7	592.2	419.9	172.29	3.437	
14,400.0	6,790.0	14,576.7	7,115.0	208.1	0.0	-123.28	-25.8	-8,816.7	592.2	417.9	174.36	3.397	
14,500.0	6,790.0	14,676.7	7,115.0	210.5	0.0	-123.28	-25.6	-8,916.7	592.2	415.8	176.42	3.357	
14,600.0	6,790.0	14,776.7	7,115.0	213.0	0.0	-123.28	-25.3	-9,016.7	592.2	413.7	178.49	3.318	
14,700.0	6,790.0	14,876.7	7,115.0	215.5	0.0	-123.28	-25.1	-9,116.7	592.2	411.7	180.55	3.280	
14,800.0	6,790.0	14,976.7	7,115.0	217.9	0.0	-123.28	-24.8	-9,216.7	592.2	409.6	182.62	3.243	
14,900.0	6,790.0	15,076.7	7,115.0	220.4	0.0	-123.28	-24.6	-9,316.7	592.2	407.6	184.68	3.207	
15,000.0	6,790.0	15,176.7	7,115.0	222.8	0.0	-123.28	-24.3	-9,416.7	592.2	405.5	186.75	3.171	
15,100.0	6,790.0	15,276.7	7,115.0	225.3	0.0	-123.28	-24.1	-9,516.7	592.2	403.4	188.81	3.137	
15,200.0	6,790.0	15,376.7	7,115.0	227.8	0.0	-123.28	-23.8	-9,616.7	592.2	401.4	190.88	3.103	
15,300.0	6,790.0	15,476.7	7,115.0	230.3	0.0	-123.28	-23.6	-9,716.7	592.2	399.3	192.94	3.069	
15,400.0	6,790.0	15,576.7	7,115.0	232.7	0.0	-123.28	-23.3	-9,816.7	592.2	397.2	195.01	3.037	
15,500.0	6,790.0	15,676.7	7,115.0	235.2	0.0	-123.28	-23.1	-9,916.7	592.2	395.2	197.08	3.005	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 3 - Hz - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
15,600.0	6,790.0	15,776.7	7,115.0	237.7	0.0	-123.28	-22.8	-10,016.7	592.2	393.1	199.14	2.974	
15,700.0	6,790.0	15,876.7	7,115.0	240.1	0.0	-123.28	-22.6	-10,116.7	592.2	391.0	201.21	2.943	
15,800.0	6,790.0	15,976.7	7,115.0	242.6	0.0	-123.28	-22.3	-10,216.7	592.2	389.0	203.28	2.913	
15,900.0	6,790.0	16,076.7	7,115.0	245.1	0.0	-123.28	-22.1	-10,316.7	592.2	386.9	205.34	2.884	
16,000.0	6,790.0	16,176.7	7,115.0	247.5	0.0	-123.28	-21.8	-10,416.7	592.2	384.8	207.41	2.855	
16,100.0	6,790.0	16,276.7	7,115.0	250.0	0.0	-123.28	-21.6	-10,516.7	592.2	382.8	209.48	2.827	
16,200.0	6,790.0	16,376.7	7,115.0	252.5	0.0	-123.28	-21.3	-10,616.7	592.2	380.7	211.54	2.800	
16,300.0	6,790.0	16,476.7	7,115.0	254.9	0.0	-123.28	-21.1	-10,716.7	592.2	378.6	213.61	2.773	
16,400.0	6,790.0	16,576.7	7,115.0	257.4	0.0	-123.28	-20.8	-10,816.7	592.2	376.6	215.68	2.746	
16,500.0	6,790.0	16,676.7	7,115.0	259.9	0.0	-123.28	-20.6	-10,916.7	592.2	374.5	217.74	2.720	
16,600.0	6,790.0	16,776.7	7,115.0	262.3	0.0	-123.28	-20.3	-11,016.7	592.2	372.4	219.81	2.694	
16,700.0	6,790.0	16,876.7	7,115.0	264.8	0.0	-123.28	-20.1	-11,116.7	592.2	370.4	221.88	2.669	
16,800.0	6,790.0	16,976.7	7,115.0	267.3	0.0	-123.28	-19.8	-11,216.7	592.2	368.3	223.94	2.645	
16,900.0	6,790.0	17,076.7	7,115.0	269.7	0.0	-123.28	-19.6	-11,316.7	592.2	366.2	226.01	2.620	
17,000.0	6,790.0	17,176.7	7,115.0	272.2	0.0	-123.28	-19.3	-11,416.7	592.2	364.2	228.08	2.597	
17,100.0	6,790.0	17,276.7	7,115.0	274.7	0.0	-123.28	-19.1	-11,516.7	592.2	362.1	230.15	2.573	
17,200.0	6,790.0	17,376.7	7,115.0	277.1	0.0	-123.28	-18.8	-11,616.7	592.2	360.0	232.21	2.550	
17,300.0	6,790.0	17,476.7	7,115.0	279.6	0.0	-123.28	-18.6	-11,716.7	592.2	357.9	234.28	2.528	
17,400.0	6,790.0	17,576.7	7,115.0	282.1	0.0	-123.28	-18.3	-11,816.7	592.2	355.9	236.35	2.506	
17,411.5	6,790.0	17,588.3	7,115.0	282.4	0.0	-123.28	-18.3	-11,828.2	592.2	355.6	236.59	2.503	
17,412.9	6,790.0	17,588.3	7,115.0	282.4	0.0	-123.28	-18.3	-11,828.3	592.2	355.6	236.62	2.503 SF	

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 4 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	-149.17	-71.8	-42.8	83.6					
100.0	100.0	99.0	99.0	0.1	0.0	-149.17	-71.8	-42.8	83.6	83.4	0.13	629.119		
200.0	200.0	199.0	199.0	0.3	0.0	-149.17	-71.8	-42.8	83.6	83.3	0.31	271.894	CC, ES	
300.0	300.0	298.1	298.1	0.5	0.0	-80.58	-71.9	-43.7	83.9	83.5	0.48	173.844		
400.0	400.0	397.3	397.2	0.7	0.0	-80.91	-72.1	-46.2	85.1	84.4	0.66	128.370		
500.0	499.9	496.4	496.2	0.9	0.0	-81.45	-72.6	-50.5	86.9	86.1	0.85	102.232		
600.0	599.7	595.4	595.1	1.1	0.0	-82.15	-73.2	-56.4	89.6	88.5	1.05	85.331		
700.0	699.4	694.5	693.8	1.3	0.0	-83.00	-74.1	-64.0	93.0	91.7	1.26	73.564		
800.0	798.9	793.4	792.4	1.5	0.0	-83.95	-75.1	-73.4	97.2	95.7	1.50	64.949		
900.0	898.3	892.4	890.7	1.8	0.0	-84.96	-76.3	-84.4	102.2	100.5	1.75	58.414		
1,000.0	997.4	991.2	988.7	2.0	0.0	-86.01	-77.6	-97.1	108.0	106.0	2.03	53.325		
1,100.0	1,096.3	1,090.0	1,086.4	2.3	0.0	-87.06	-79.2	-111.4	114.7	112.3	2.33	49.284		
1,200.0	1,194.9	1,188.7	1,183.8	2.7	0.0	-88.10	-80.9	-127.4	122.1	119.4	2.65	46.025		
1,300.0	1,293.3	1,287.3	1,280.8	3.0	0.0	-89.10	-82.8	-145.1	130.4	127.3	3.01	43.364		
1,400.0	1,391.3	1,385.8	1,377.3	3.4	0.0	-90.04	-84.9	-164.4	139.4	136.0	3.38	41.255		
1,500.0	1,489.2	1,485.1	1,474.4	3.8	0.0	-90.66	-87.1	-185.0	149.1	145.3	3.76	39.665		
1,600.0	1,587.1	1,584.6	1,571.7	4.1	0.0	-91.19	-89.4	-205.7	158.8	154.6	4.14	38.341		
1,700.0	1,685.1	1,684.1	1,669.0	4.5	0.0	-91.66	-91.6	-226.4	168.4	163.9	4.53	37.222		
1,800.0	1,783.0	1,783.6	1,766.4	4.9	0.0	-92.07	-93.9	-247.2	178.2	173.2	4.91	36.266		
1,900.0	1,880.9	1,883.1	1,863.7	5.3	0.0	-92.45	-96.1	-267.9	187.9	182.6	5.30	35.441		
2,000.0	1,978.9	1,982.7	1,961.0	5.7	0.0	-92.79	-98.4	-288.6	197.6	191.9	5.69	34.723		
2,100.0	2,076.8	2,082.2	2,058.3	6.1	0.0	-93.09	-100.6	-309.3	207.3	201.2	6.08	34.092		
2,200.0	2,174.7	2,181.7	2,155.6	6.5	0.0	-93.37	-102.8	-330.0	217.0	210.6	6.47	33.535		
2,300.0	2,272.7	2,281.2	2,252.9	6.9	0.0	-93.63	-105.1	-350.7	226.8	219.9	6.86	33.039		
2,400.0	2,370.6	2,380.7	2,350.2	7.3	0.0	-93.86	-107.3	-371.5	236.5	229.3	7.26	32.595		
2,500.0	2,468.5	2,480.3	2,447.6	7.7	0.0	-94.08	-109.6	-392.2	246.3	238.6	7.65	32.196		
2,600.0	2,566.5	2,579.8	2,544.9	8.1	0.0	-94.28	-111.8	-412.9	256.0	248.0	8.04	31.834		
2,700.0	2,664.4	2,679.3	2,642.2	8.5	0.0	-94.46	-114.0	-433.6	265.7	257.3	8.43	31.506		
2,800.0	2,762.3	2,778.8	2,739.5	8.8	0.0	-94.63	-116.3	-454.3	275.5	266.7	8.83	31.206		
2,900.0	2,860.3	2,878.3	2,836.8	9.2	0.0	-94.79	-118.5	-475.0	285.2	276.0	9.22	30.931		
3,000.0	2,958.2	2,977.9	2,934.1	9.6	0.0	-94.94	-120.8	-495.8	295.0	285.4	9.62	30.679		
3,100.0	3,056.1	3,077.4	3,031.4	10.0	0.0	-95.08	-123.0	-516.5	304.8	294.8	10.01	30.446		
3,200.0	3,154.1	3,176.9	3,128.8	10.4	0.0	-95.21	-125.3	-537.2	314.5	304.1	10.40	30.231		
3,300.0	3,252.0	3,276.4	3,226.1	10.8	0.0	-95.33	-127.5	-557.9	324.3	313.5	10.80	30.031		
3,400.0	3,349.9	3,375.9	3,323.4	11.2	0.0	-95.45	-129.7	-578.6	334.0	322.8	11.19	29.845		
3,500.0	3,447.9	3,475.5	3,420.7	11.6	0.0	-95.56	-132.0	-599.4	343.8	332.2	11.59	29.672		
3,600.0	3,545.8	3,575.0	3,518.0	12.0	0.0	-95.66	-134.2	-620.1	353.6	341.6	11.98	29.510		
3,700.0	3,643.7	3,674.5	3,615.3	12.4	0.0	-95.76	-136.5	-640.8	363.3	351.0	12.38	29.359		
3,800.0	3,741.7	3,774.0	3,712.6	12.8	0.0	-95.85	-138.7	-661.5	373.1	360.3	12.77	29.216		
3,900.0	3,839.6	3,873.5	3,810.0	13.2	0.0	-95.94	-140.9	-682.2	382.9	369.7	13.16	29.082		
4,000.0	3,937.5	3,973.1	3,907.3	13.6	0.0	-96.02	-143.2	-702.9	392.6	379.1	13.56	28.956		
4,100.0	4,035.5	4,072.6	4,004.6	14.0	0.0	-96.10	-145.4	-723.7	402.4	388.4	13.95	28.837		
4,200.0	4,133.4	4,172.1	4,101.9	14.4	0.0	-96.18	-147.7	-744.4	412.2	397.8	14.35	28.725		
4,300.0	4,231.3	4,271.6	4,199.2	14.8	0.0	-96.25	-149.9	-765.1	421.9	407.2	14.74	28.618		
4,400.0	4,329.3	4,371.1	4,296.5	15.2	0.0	-96.32	-152.2	-785.8	431.7	416.6	15.14	28.517		
4,500.0	4,427.2	4,470.7	4,393.8	15.6	0.0	-96.39	-154.4	-806.5	441.5	426.0	15.53	28.422		
4,600.0	4,525.1	4,570.2	4,491.2	16.0	0.0	-96.45	-156.6	-827.2	451.3	435.3	15.93	28.331		
4,700.0	4,623.1	4,669.7	4,588.5	16.4	0.0	-96.51	-158.9	-848.0	461.0	444.7	16.32	28.244		
4,800.0	4,721.0	4,769.2	4,685.8	16.8	0.0	-96.57	-161.1	-868.7	470.8	454.1	16.72	28.161		
4,900.0	4,818.9	4,868.7	4,783.1	17.2	0.0	-96.62	-163.4	-889.4	480.6	463.5	17.11	28.083		
5,000.0	4,916.9	4,968.3	4,880.4	17.6	0.0	-96.68	-165.6	-910.1	490.3	472.8	17.51	28.007		
5,100.0	5,014.8	5,067.8	4,977.7	18.0	0.0	-96.73	-167.8	-930.8	500.1	482.2	17.90	27.936		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 4 - Hz - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis		
5,200.0	5,112.7	5,167.3	5,075.0	18.4	0.0	-96.78	-170.1	-951.5	509.9	491.6	18.30	27.867	
5,300.0	5,210.7	5,266.8	5,172.4	18.8	0.0	-96.82	-172.3	-972.3	519.7	501.0	18.69	27.801	
5,400.0	5,308.6	5,366.3	5,269.7	19.2	0.0	-96.87	-174.6	-993.0	529.4	510.4	19.09	27.738	
5,500.0	5,406.5	5,465.9	5,367.0	19.6	0.0	-96.91	-176.8	-1,013.7	539.2	519.7	19.48	27.677	
5,600.0	5,504.5	5,565.4	5,464.3	20.0	0.0	-96.96	-179.1	-1,034.4	549.0	529.1	19.88	27.619	
5,700.0	5,602.4	5,664.9	5,561.6	20.4	0.0	-97.00	-181.3	-1,055.1	558.8	538.5	20.27	27.563	
5,800.0	5,700.3	5,764.4	5,658.9	20.8	0.0	-97.04	-183.5	-1,075.8	568.6	547.9	20.67	27.509	
5,900.0	5,798.3	5,863.9	5,756.2	21.2	0.0	-97.07	-185.8	-1,096.6	578.3	557.3	21.06	27.458	
6,000.0	5,896.2	5,963.5	5,853.6	21.6	0.0	-97.11	-188.0	-1,117.3	588.1	566.6	21.46	27.408	
6,100.0	5,994.2	6,063.0	5,950.9	22.0	0.0	-97.15	-190.3	-1,138.0	597.9	576.0	21.85	27.360	
6,200.0	6,092.1	6,162.5	6,048.2	22.4	0.0	-97.18	-192.5	-1,158.7	607.7	585.4	22.25	27.313	
6,300.0	6,190.0	6,262.0	6,145.5	22.8	0.0	-97.21	-194.7	-1,179.4	617.4	594.8	22.64	27.269	
6,400.0	6,287.9	6,361.5	6,242.8	23.2	0.0	-95.20	-197.0	-1,200.1	627.2	604.1	23.05	27.215	
6,500.0	6,383.4	6,450.0	6,329.0	23.8	0.0	-87.25	-199.0	-1,220.1	635.0	611.3	23.63	26.872	
6,600.0	6,473.3	6,533.1	6,407.1	24.6	0.0	-84.32	-200.7	-1,248.1	641.5	617.1	24.40	26.290	
6,700.0	6,555.3	6,616.2	6,480.9	25.7	0.0	-83.18	-202.4	-1,286.1	646.9	621.6	25.37	25.500	
6,800.0	6,627.5	6,700.0	6,549.7	27.0	0.0	-82.99	-203.9	-1,333.8	651.4	624.8	26.55	24.535	
6,900.0	6,688.0	6,786.8	6,613.8	28.5	0.0	-83.45	-205.3	-1,392.3	654.8	626.9	27.95	23.431	
7,000.0	6,735.4	6,875.0	6,670.1	30.3	0.0	-84.37	-206.4	-1,460.1	657.3	627.8	29.56	22.234	
7,100.0	6,768.6	6,965.5	6,717.6	32.2	0.0	-85.68	-207.3	-1,537.1	659.0	627.6	31.38	20.997	
7,200.0	6,786.6	7,058.9	6,754.6	34.3	0.0	-87.32	-208.0	-1,622.7	659.8	626.4	33.37	19.772	
7,300.0	6,790.0	7,155.6	6,779.3	36.4	0.0	-89.16	-208.3	-1,716.0	659.9	624.4	35.50	18.590	
7,400.0	6,790.0	7,257.0	6,789.8	38.5	0.0	-90.07	-208.3	-1,816.7	660.1	622.4	37.73	17.497	
7,500.0	6,790.0	7,357.3	6,790.0	40.7	0.0	-90.09	-208.1	-1,917.1	660.1	620.1	39.98	16.512	
7,600.0	6,790.0	7,457.3	6,790.0	43.0	0.0	-90.09	-207.8	-2,017.1	660.1	617.9	42.25	15.623	
7,700.0	6,790.0	7,557.3	6,790.0	45.2	0.0	-90.09	-207.6	-2,117.1	660.1	615.6	44.55	14.818	
7,800.0	6,790.0	7,657.3	6,790.0	47.5	0.0	-90.09	-207.3	-2,217.1	660.1	613.3	46.86	14.086	
7,900.0	6,790.0	7,757.3	6,790.0	49.8	0.0	-90.09	-207.1	-2,317.1	660.1	610.9	49.19	13.419	
8,000.0	6,790.0	7,857.3	6,790.0	52.1	0.0	-90.09	-206.8	-2,417.1	660.1	608.6	51.54	12.808	
8,100.0	6,790.0	7,957.3	6,790.0	54.4	0.0	-90.09	-206.6	-2,517.1	660.1	606.2	53.89	12.249	
8,200.0	6,790.0	8,057.3	6,790.0	56.8	0.0	-90.09	-206.3	-2,617.1	660.1	603.9	56.26	11.733	
8,300.0	6,790.0	8,157.3	6,790.0	59.1	0.0	-90.09	-206.1	-2,717.1	660.1	601.5	58.63	11.258	
8,400.0	6,790.0	8,257.3	6,790.0	61.5	0.0	-90.09	-205.8	-2,817.1	660.1	599.1	61.02	10.819	
8,500.0	6,790.0	8,357.3	6,790.0	63.8	0.0	-90.09	-205.6	-2,917.1	660.1	596.7	63.41	10.411	
8,600.0	6,790.0	8,457.3	6,790.0	66.2	0.0	-90.09	-205.3	-3,017.1	660.1	594.3	65.80	10.032	
8,700.0	6,790.0	8,557.3	6,790.0	68.6	0.0	-90.09	-205.1	-3,117.1	660.1	591.9	68.20	9.679	
8,800.0	6,790.0	8,657.3	6,790.0	71.0	0.0	-90.09	-204.8	-3,217.1	660.1	589.5	70.61	9.349	
8,900.0	6,790.0	8,757.3	6,790.0	73.4	0.0	-90.09	-204.6	-3,317.1	660.1	587.1	73.02	9.040	
9,000.0	6,790.0	8,857.3	6,790.0	75.8	0.0	-90.09	-204.3	-3,417.1	660.1	584.7	75.44	8.751	
9,100.0	6,790.0	8,957.3	6,790.0	78.2	0.0	-90.09	-204.1	-3,517.1	660.1	582.3	77.86	8.479	
9,200.0	6,790.0	9,057.3	6,790.0	80.6	0.0	-90.09	-203.8	-3,617.1	660.1	579.8	80.28	8.223	
9,300.0	6,790.0	9,157.3	6,790.0	83.0	0.0	-90.09	-203.6	-3,717.1	660.1	577.4	82.70	7.982	
9,400.0	6,790.0	9,257.3	6,790.0	85.4	0.0	-90.09	-203.3	-3,817.1	660.1	575.0	85.13	7.754	
9,500.0	6,790.0	9,357.3	6,790.0	87.9	0.0	-90.09	-203.1	-3,917.1	660.1	572.6	87.56	7.539	
9,600.0	6,790.0	9,457.3	6,790.0	90.3	0.0	-90.09	-202.8	-4,017.1	660.1	570.1	90.00	7.335	
9,700.0	6,790.0	9,557.3	6,790.0	92.7	0.0	-90.09	-202.6	-4,117.1	660.1	567.7	92.43	7.142	
9,800.0	6,790.0	9,657.3	6,790.0	95.1	0.0	-90.09	-202.3	-4,217.1	660.1	565.3	94.87	6.958	
9,900.0	6,790.0	9,757.3	6,790.0	97.6	0.0	-90.09	-202.1	-4,317.1	660.1	562.8	97.31	6.784	
10,000.0	6,790.0	9,857.3	6,790.0	100.0	0.0	-90.09	-201.8	-4,417.1	660.1	560.4	99.75	6.618	
10,100.0	6,790.0	9,957.3	6,790.0	102.4	0.0	-90.09	-201.6	-4,517.1	660.1	557.9	102.19	6.460	
10,200.0	6,790.0	10,057.3	6,790.0	104.9	0.0	-90.09	-201.3	-4,617.1	660.1	555.5	104.63	6.309	
10,300.0	6,790.0	10,157.3	6,790.0	107.3	0.0	-90.09	-201.1	-4,717.1	660.1	553.0	107.08	6.165	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 4 - Hz - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis		
10,400.0	6,790.0	10,257.3	6,790.0	109.8	0.0	-90.09	-200.8	-4,817.1	660.1	550.6	109.53	6.027	
10,500.0	6,790.0	10,357.3	6,790.0	112.2	0.0	-90.09	-200.6	-4,917.1	660.1	548.1	111.98	5.895	
10,600.0	6,790.0	10,457.3	6,790.0	114.7	0.0	-90.09	-200.3	-5,017.1	660.1	545.7	114.42	5.769	
10,700.0	6,790.0	10,557.3	6,790.0	117.1	0.0	-90.09	-200.1	-5,117.1	660.1	543.2	116.87	5.648	
10,800.0	6,790.0	10,657.3	6,790.0	119.5	0.0	-90.09	-199.8	-5,217.1	660.1	540.8	119.33	5.532	
10,900.0	6,790.0	10,757.3	6,790.0	122.0	0.0	-90.09	-199.6	-5,317.1	660.1	538.3	121.78	5.421	
11,000.0	6,790.0	10,857.3	6,790.0	124.4	0.0	-90.09	-199.3	-5,417.1	660.1	535.9	124.23	5.314	
11,100.0	6,790.0	10,957.3	6,790.0	126.9	0.0	-90.09	-199.1	-5,517.1	660.1	533.4	126.68	5.211	
11,200.0	6,790.0	11,057.3	6,790.0	129.3	0.0	-90.09	-198.8	-5,617.1	660.1	531.0	129.14	5.112	
11,300.0	6,790.0	11,157.3	6,790.0	131.8	0.0	-90.09	-198.6	-5,717.1	660.1	528.5	131.59	5.016	
11,400.0	6,790.0	11,257.3	6,790.0	134.2	0.0	-90.09	-198.3	-5,817.1	660.1	526.1	134.05	4.924	
11,500.0	6,790.0	11,357.3	6,790.0	136.7	0.0	-90.09	-198.1	-5,917.1	660.1	523.6	136.51	4.836	
11,600.0	6,790.0	11,457.3	6,790.0	139.1	0.0	-90.09	-197.8	-6,017.1	660.1	521.2	138.96	4.750	
11,700.0	6,790.0	11,557.3	6,790.0	141.6	0.0	-90.09	-197.6	-6,117.1	660.1	518.7	141.42	4.668	
11,800.0	6,790.0	11,657.3	6,790.0	144.1	0.0	-90.09	-197.3	-6,217.1	660.1	516.2	143.88	4.588	
11,900.0	6,790.0	11,757.3	6,790.0	146.5	0.0	-90.09	-197.1	-6,317.1	660.1	513.8	146.34	4.511	
12,000.0	6,790.0	11,857.3	6,790.0	149.0	0.0	-90.09	-196.8	-6,417.1	660.1	511.3	148.80	4.436	
12,100.0	6,790.0	11,957.3	6,790.0	151.4	0.0	-90.09	-196.6	-6,517.1	660.1	508.9	151.26	4.364	
12,200.0	6,790.0	12,057.3	6,790.0	153.9	0.0	-90.09	-196.3	-6,617.1	660.1	506.4	153.72	4.294	
12,300.0	6,790.0	12,157.3	6,790.0	156.3	0.0	-90.09	-196.1	-6,717.1	660.1	503.9	156.18	4.227	
12,400.0	6,790.0	12,257.3	6,790.0	158.8	0.0	-90.09	-195.8	-6,817.1	660.1	501.5	158.64	4.161	
12,500.0	6,790.0	12,357.3	6,790.0	161.3	0.0	-90.09	-195.6	-6,917.1	660.1	499.0	161.10	4.097	
12,600.0	6,790.0	12,457.3	6,790.0	163.7	0.0	-90.09	-195.3	-7,017.1	660.1	496.6	163.57	4.036	
12,700.0	6,790.0	12,557.3	6,790.0	166.2	0.0	-90.09	-195.1	-7,117.1	660.1	494.1	166.03	3.976	
12,800.0	6,790.0	12,657.3	6,790.0	168.6	0.0	-90.09	-194.8	-7,217.1	660.1	491.6	168.49	3.918	
12,900.0	6,790.0	12,757.3	6,790.0	171.1	0.0	-90.09	-194.6	-7,317.1	660.1	489.2	170.96	3.861	
13,000.0	6,790.0	12,857.3	6,790.0	173.6	0.0	-90.09	-194.3	-7,417.1	660.1	486.7	173.42	3.807	
13,100.0	6,790.0	12,957.3	6,790.0	176.0	0.0	-90.09	-194.1	-7,517.1	660.1	484.2	175.88	3.753	
13,200.0	6,790.0	13,057.3	6,790.0	178.5	0.0	-90.09	-193.8	-7,617.1	660.1	481.8	178.35	3.701	
13,300.0	6,790.0	13,157.3	6,790.0	180.9	0.0	-90.09	-193.6	-7,717.1	660.1	479.3	180.81	3.651	
13,400.0	6,790.0	13,257.3	6,790.0	183.4	0.0	-90.09	-193.3	-7,817.1	660.1	476.8	183.28	3.602	
13,500.0	6,790.0	13,357.3	6,790.0	185.9	0.0	-90.09	-193.1	-7,917.1	660.1	474.4	185.74	3.554	
13,600.0	6,790.0	13,457.3	6,790.0	188.3	0.0	-90.09	-192.8	-8,017.1	660.1	471.9	188.21	3.507	
13,700.0	6,790.0	13,557.3	6,790.0	190.8	0.0	-90.09	-192.6	-8,117.1	660.1	469.4	190.67	3.462	
13,800.0	6,790.0	13,657.3	6,790.0	193.3	0.0	-90.09	-192.3	-8,217.1	660.1	467.0	193.14	3.418	
13,900.0	6,790.0	13,757.3	6,790.0	195.7	0.0	-90.09	-192.1	-8,317.1	660.1	464.5	195.60	3.375	
14,000.0	6,790.0	13,857.3	6,790.0	198.2	0.0	-90.09	-191.8	-8,417.1	660.1	462.1	198.07	3.333	
14,100.0	6,790.0	13,957.3	6,790.0	200.7	0.0	-90.09	-191.6	-8,517.1	660.1	459.6	200.54	3.292	
14,200.0	6,790.0	14,057.3	6,790.0	203.1	0.0	-90.09	-191.3	-8,617.1	660.1	457.1	203.00	3.252	
14,300.0	6,790.0	14,157.3	6,790.0	205.6	0.0	-90.09	-191.1	-8,717.1	660.1	454.7	205.47	3.213	
14,400.0	6,790.0	14,257.3	6,790.0	208.1	0.0	-90.09	-190.8	-8,817.1	660.1	452.2	207.94	3.175	
14,500.0	6,790.0	14,357.3	6,790.0	210.5	0.0	-90.09	-190.6	-8,917.1	660.1	449.7	210.40	3.137	
14,600.0	6,790.0	14,457.3	6,790.0	213.0	0.0	-90.09	-190.3	-9,017.1	660.1	447.2	212.87	3.101	
14,700.0	6,790.0	14,557.3	6,790.0	215.5	0.0	-90.09	-190.1	-9,117.1	660.1	444.8	215.34	3.066	
14,800.0	6,790.0	14,657.3	6,790.0	217.9	0.0	-90.09	-189.8	-9,217.1	660.1	442.3	217.80	3.031	
14,900.0	6,790.0	14,757.3	6,790.0	220.4	0.0	-90.09	-189.6	-9,317.1	660.1	439.8	220.27	2.997	
15,000.0	6,790.0	14,857.3	6,790.0	222.8	0.0	-90.09	-189.3	-9,417.1	660.1	437.4	222.74	2.964	
15,100.0	6,790.0	14,957.3	6,790.0	225.3	0.0	-90.09	-189.1	-9,517.1	660.1	434.9	225.21	2.931	
15,200.0	6,790.0	15,057.3	6,790.0	227.8	0.0	-90.09	-188.8	-9,617.1	660.1	432.4	227.68	2.899	
15,300.0	6,790.0	15,157.3	6,790.0	230.3	0.0	-90.09	-188.6	-9,717.1	660.1	430.0	230.14	2.868	
15,400.0	6,790.0	15,257.3	6,790.0	232.7	0.0	-90.09	-188.3	-9,817.1	660.1	427.5	232.61	2.838	
15,500.0	6,790.0	15,357.3	6,790.0	235.2	0.0	-90.09	-188.1	-9,917.1	660.1	425.0	235.08	2.808	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 4 - Hz - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
15,600.0	6,790.0	15,457.3	6,790.0	237.7	0.0	-90.09	-187.8	-10,017.1	660.1	422.6	237.55	2.779	
15,700.0	6,790.0	15,557.3	6,790.0	240.1	0.0	-90.09	-187.6	-10,117.1	660.1	420.1	240.02	2.750	
15,800.0	6,790.0	15,657.3	6,790.0	242.6	0.0	-90.09	-187.3	-10,217.1	660.1	417.6	242.49	2.722	
15,900.0	6,790.0	15,757.3	6,790.0	245.1	0.0	-90.09	-187.1	-10,317.1	660.1	415.2	244.96	2.695	
16,000.0	6,790.0	15,857.3	6,790.0	247.5	0.0	-90.09	-186.8	-10,417.1	660.1	412.7	247.43	2.668	
16,100.0	6,790.0	15,957.3	6,790.0	250.0	0.0	-90.09	-186.6	-10,517.1	660.1	410.2	249.89	2.642	
16,200.0	6,790.0	16,057.3	6,790.0	252.5	0.0	-90.09	-186.3	-10,617.1	660.1	407.8	252.36	2.616	
16,300.0	6,790.0	16,157.3	6,790.0	254.9	0.0	-90.09	-186.1	-10,717.1	660.1	405.3	254.83	2.590	
16,400.0	6,790.0	16,257.3	6,790.0	257.4	0.0	-90.09	-185.8	-10,817.1	660.1	402.8	257.30	2.566	
16,500.0	6,790.0	16,357.3	6,790.0	259.9	0.0	-90.09	-185.6	-10,917.1	660.1	400.3	259.77	2.541	
16,600.0	6,790.0	16,457.3	6,790.0	262.3	0.0	-90.09	-185.3	-11,017.1	660.1	397.9	262.24	2.517	
16,700.0	6,790.0	16,557.3	6,790.0	264.8	0.0	-90.09	-185.1	-11,117.1	660.1	395.4	264.71	2.494	
16,800.0	6,790.0	16,657.3	6,790.0	267.3	0.0	-90.09	-184.8	-11,217.1	660.1	392.9	267.18	2.471	
16,900.0	6,790.0	16,757.3	6,790.0	269.7	0.0	-90.09	-184.6	-11,317.1	660.1	390.5	269.65	2.448	
17,000.0	6,790.0	16,857.3	6,790.0	272.2	0.0	-90.09	-184.3	-11,417.1	660.1	388.0	272.12	2.426	
17,100.0	6,790.0	16,957.3	6,790.0	274.7	0.0	-90.09	-184.1	-11,517.1	660.1	385.5	274.59	2.404	
17,200.0	6,790.0	17,057.3	6,790.0	277.1	0.0	-90.09	-183.8	-11,617.1	660.1	383.1	277.06	2.383	
17,300.0	6,790.0	17,157.3	6,790.0	279.6	0.0	-90.09	-183.6	-11,717.1	660.1	380.6	279.53	2.362	
17,400.0	6,790.0	17,257.3	6,790.0	282.1	0.0	-90.09	-183.3	-11,817.1	660.1	378.1	282.00	2.341	
17,411.2	6,790.0	17,268.6	6,790.0	282.4	0.0	-90.09	-183.3	-11,828.3	660.1	377.8	282.28	2.339	
17,412.9	6,790.0	17,268.6	6,790.0	282.4	0.0	-90.09	-183.3	-11,828.4	660.1	377.8	282.32	2.338 SF	

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 5 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	-149.00	-95.8	-57.6	111.8					
100.0	100.0	100.0	100.0	0.1	0.0	-149.00	-95.8	-57.6	111.8	111.6	0.13	841.425		
200.0	200.0	200.0	200.0	0.3	0.0	-149.00	-95.8	-57.6	111.8	111.5	0.31	363.654 CC, ES		
300.0	300.0	298.5	298.5	0.5	0.0	-80.44	-96.1	-58.4	112.3	111.8	0.48	232.569		
400.0	400.0	397.0	397.0	0.7	0.0	-80.88	-96.9	-60.8	113.8	113.2	0.66	171.815		
500.0	499.9	495.5	495.3	0.9	0.0	-81.60	-98.3	-64.8	116.4	115.6	0.85	136.930		
600.0	599.7	593.8	593.5	1.1	0.0	-82.55	-100.3	-70.3	120.1	119.1	1.05	114.407		
700.0	699.4	692.2	691.5	1.3	0.0	-83.69	-102.8	-77.5	124.9	123.6	1.26	98.758		
800.0	798.9	790.4	789.3	1.5	0.0	-84.96	-105.9	-86.2	130.8	129.3	1.50	87.336		
900.0	898.3	888.4	886.8	1.8	0.0	-86.32	-109.6	-96.5	137.8	136.1	1.75	78.708		
1,000.0	997.4	986.4	983.9	2.0	0.0	-87.72	-113.7	-108.4	146.0	144.0	2.03	72.026		
1,100.0	1,096.3	1,084.1	1,080.6	2.3	0.0	-89.12	-118.5	-121.8	155.4	153.1	2.33	66.756		
1,200.0	1,194.9	1,181.7	1,176.9	2.7	0.0	-90.48	-123.7	-136.7	165.9	163.3	2.65	62.541		
1,300.0	1,293.3	1,279.1	1,272.7	3.0	0.0	-91.79	-129.5	-153.1	177.7	174.7	3.01	59.129		
1,400.0	1,391.3	1,376.3	1,368.0	3.4	0.0	-93.05	-135.8	-171.0	190.7	187.3	3.38	56.460		
1,500.0	1,489.2	1,473.5	1,463.0	3.8	0.0	-93.95	-142.7	-190.5	204.7	201.0	3.75	54.544		
1,600.0	1,587.1	1,572.4	1,559.5	4.1	0.0	-94.61	-149.9	-210.9	219.2	215.1	4.13	53.036		
1,700.0	1,685.1	1,671.3	1,656.1	4.5	0.0	-95.18	-157.1	-231.3	233.7	229.2	4.52	51.760		
1,800.0	1,783.0	1,770.2	1,752.6	4.9	0.0	-95.69	-164.3	-251.6	248.3	243.4	4.90	50.670		
1,900.0	1,880.9	1,869.1	1,849.1	5.3	0.0	-96.15	-171.5	-272.0	262.8	257.5	5.28	49.730		
2,000.0	1,978.9	1,968.0	1,945.6	5.7	0.0	-96.55	-178.7	-292.4	277.4	271.7	5.67	48.911		
2,100.0	2,076.8	2,067.0	2,042.1	6.1	0.0	-96.92	-185.9	-312.8	292.0	285.9	6.06	48.194		
2,200.0	2,174.7	2,165.9	2,138.7	6.5	0.0	-97.25	-193.0	-333.2	306.5	300.1	6.45	47.559		
2,300.0	2,272.7	2,264.8	2,235.2	6.9	0.0	-97.55	-200.2	-353.6	321.1	314.3	6.83	46.995		
2,400.0	2,370.6	2,363.7	2,331.7	7.3	0.0	-97.82	-207.4	-374.0	335.7	328.5	7.22	46.490		
2,500.0	2,468.5	2,462.6	2,428.2	7.7	0.0	-98.07	-214.6	-394.4	350.3	342.7	7.61	46.036		
2,600.0	2,566.5	2,561.5	2,524.8	8.1	0.0	-98.30	-221.8	-414.8	365.0	357.0	8.00	45.625		
2,700.0	2,664.4	2,660.5	2,621.3	8.5	0.0	-98.52	-229.0	-435.2	379.6	371.2	8.39	45.252		
2,800.0	2,762.3	2,759.4	2,717.8	8.8	0.0	-98.71	-236.2	-455.5	394.2	385.4	8.78	44.912		
2,900.0	2,860.3	2,858.3	2,814.3	9.2	0.0	-98.90	-243.4	-475.9	408.8	399.7	9.17	44.600		
3,000.0	2,958.2	2,957.2	2,910.9	9.6	0.0	-99.07	-250.6	-496.3	423.5	413.9	9.56	44.314		
3,100.0	3,056.1	3,056.1	3,007.4	10.0	0.0	-99.23	-257.8	-516.7	438.1	428.2	9.95	44.050		
3,200.0	3,154.1	3,155.0	3,103.9	10.4	0.0	-99.38	-265.0	-537.1	452.7	442.4	10.34	43.806		
3,300.0	3,252.0	3,253.9	3,200.4	10.8	0.0	-99.51	-272.2	-557.5	467.4	456.7	10.72	43.580		
3,400.0	3,349.9	3,352.9	3,297.0	11.2	0.0	-99.65	-279.4	-577.9	482.0	470.9	11.11	43.369		
3,500.0	3,447.9	3,451.8	3,393.5	11.6	0.0	-99.77	-286.6	-598.3	496.7	485.2	11.50	43.173		
3,600.0	3,545.8	3,550.7	3,490.0	12.0	0.0	-99.89	-293.7	-618.7	511.3	499.4	11.89	42.990		
3,700.0	3,643.7	3,649.6	3,586.5	12.4	0.0	-100.00	-300.9	-639.1	526.0	513.7	12.28	42.818		
3,800.0	3,741.7	3,748.5	3,683.1	12.8	0.0	-100.10	-308.1	-659.4	540.6	528.0	12.67	42.657		
3,900.0	3,839.6	3,847.4	3,779.6	13.2	0.0	-100.20	-315.3	-679.8	555.3	542.2	13.06	42.506		
4,000.0	3,937.5	3,946.4	3,876.1	13.6	0.0	-100.29	-322.5	-700.2	569.9	556.5	13.45	42.363		
4,100.0	4,035.5	4,045.3	3,972.6	14.0	0.0	-100.38	-329.7	-720.6	584.6	570.7	13.84	42.229		
4,200.0	4,133.4	4,144.2	4,069.2	14.4	0.0	-100.46	-336.9	-741.0	599.3	585.0	14.23	42.102		
4,300.0	4,231.3	4,243.1	4,165.7	14.8	0.0	-100.55	-344.1	-761.4	613.9	599.3	14.62	41.981		
4,400.0	4,329.3	4,342.0	4,262.2	15.2	0.0	-100.62	-351.3	-781.8	628.6	613.6	15.01	41.867		
4,500.0	4,427.2	4,440.9	4,358.7	15.6	0.0	-100.69	-358.5	-802.2	643.2	627.8	15.40	41.759		
4,600.0	4,525.1	4,539.9	4,455.2	16.0	0.0	-100.76	-365.7	-822.6	657.9	642.1	15.79	41.656		
4,700.0	4,623.1	4,638.8	4,551.8	16.4	0.0	-100.83	-372.9	-843.0	672.6	656.4	16.18	41.559		
4,800.0	4,721.0	4,737.7	4,648.3	16.8	0.0	-100.90	-380.1	-863.4	687.2	670.7	16.57	41.465		
4,900.0	4,818.9	4,836.6	4,744.8	17.2	0.0	-100.96	-387.3	-883.7	701.9	684.9	16.96	41.376		
5,000.0	4,916.9	4,935.5	4,841.3	17.6	0.0	-101.02	-394.4	-904.1	716.6	699.2	17.35	41.292		
5,100.0	5,014.8	5,034.4	4,937.9	18.0	0.0	-101.07	-401.6	-924.5	731.2	713.5	17.74	41.211		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 5 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)				Between Centres (usft)	Between Ellipses (usft)	
5,200.0	5,112.7	5,133.4	5,034.4	18.4	0.0	-101.13	-408.8	-944.9	745.9	727.8	18.13	41.133		
5,300.0	5,210.7	5,232.3	5,130.9	18.8	0.0	-101.18	-416.0	-965.3	760.6	742.0	18.52	41.059		
5,400.0	5,308.6	5,331.2	5,227.4	19.2	0.0	-101.23	-423.2	-985.7	775.2	756.3	18.91	40.988		
5,500.0	5,406.5	5,430.1	5,324.0	19.6	0.0	-101.28	-430.4	-1,006.1	789.9	770.6	19.30	40.919		
5,600.0	5,504.5	5,529.0	5,420.5	20.0	0.0	-101.32	-437.6	-1,026.5	804.6	784.9	19.69	40.854		
5,700.0	5,602.4	5,627.9	5,517.0	20.4	0.0	-101.37	-444.8	-1,046.9	819.2	799.2	20.08	40.791		
5,800.0	5,700.3	5,726.8	5,613.5	20.8	0.0	-101.41	-452.0	-1,067.3	833.9	813.4	20.47	40.730		
5,900.0	5,798.3	5,825.8	5,710.1	21.2	0.0	-101.45	-459.2	-1,087.6	848.6	827.7	20.86	40.672		
6,000.0	5,896.2	5,924.7	5,806.6	21.6	0.0	-101.49	-466.4	-1,108.0	863.3	842.0	21.25	40.616		
6,100.0	5,994.2	6,023.6	5,903.1	22.0	0.0	-101.53	-473.6	-1,128.4	877.9	856.3	21.64	40.562		
6,200.0	6,092.1	6,122.5	5,999.6	22.4	0.0	-101.57	-480.8	-1,148.8	892.6	870.6	22.03	40.510		
6,300.0	6,190.0	6,221.4	6,096.2	22.8	0.0	-101.61	-488.0	-1,169.2	907.3	884.9	22.42	40.459		
6,400.0	6,287.9	6,320.3	6,192.7	23.2	0.0	-99.53	-495.1	-1,189.6	921.9	899.1	22.83	40.384		
6,500.0	6,383.4	6,415.9	6,285.9	23.8	0.0	-91.08	-502.1	-1,209.3	934.9	911.4	23.45	39.865		
6,600.0	6,473.3	6,500.0	6,366.6	24.6	0.0	-87.80	-508.1	-1,232.0	946.1	921.8	24.26	39.004		
6,700.0	6,555.3	6,585.6	6,445.0	25.7	0.0	-86.27	-513.9	-1,265.9	956.3	931.0	25.27	37.848		
6,800.0	6,627.5	6,672.3	6,519.0	27.0	0.0	-85.64	-519.3	-1,310.6	965.3	938.8	26.49	36.445		
6,900.0	6,688.0	6,761.7	6,588.2	28.5	0.0	-85.60	-524.4	-1,366.8	973.0	945.1	27.92	34.852		
7,000.0	6,735.4	6,854.3	6,650.9	30.3	0.0	-86.01	-528.9	-1,434.6	979.4	949.8	29.56	33.133		
7,100.0	6,768.6	6,950.5	6,704.9	32.2	0.0	-86.79	-532.8	-1,514.0	984.3	952.9	31.39	31.356		
7,200.0	6,786.6	7,050.9	6,748.0	34.3	0.0	-87.90	-535.8	-1,604.5	987.6	954.2	33.38	29.590		
7,300.0	6,790.0	7,156.1	6,777.3	36.4	0.0	-89.26	-537.7	-1,705.5	989.4	953.9	35.50	27.869		
7,400.0	6,790.0	7,267.6	6,789.8	38.5	0.0	-89.99	-538.4	-1,816.1	990.2	952.4	37.73	26.246		
7,500.0	6,790.0	7,369.4	6,790.0	40.7	0.0	-90.00	-538.2	-1,918.0	990.2	950.2	39.98	24.769		
7,600.0	6,790.0	7,469.4	6,790.0	43.0	0.0	-90.00	-537.9	-2,018.0	990.2	947.9	42.25	23.435		
7,700.0	6,790.0	7,569.4	6,790.0	45.2	0.0	-90.00	-537.7	-2,118.0	990.2	945.6	44.55	22.227		
7,800.0	6,790.0	7,669.4	6,790.0	47.5	0.0	-90.00	-537.4	-2,218.0	990.2	943.3	46.86	21.129		
7,900.0	6,790.0	7,769.4	6,790.0	49.8	0.0	-90.00	-537.2	-2,318.0	990.2	941.0	49.19	20.128		
8,000.0	6,790.0	7,869.4	6,790.0	52.1	0.0	-90.00	-536.9	-2,418.0	990.2	938.6	51.54	19.213		
8,100.0	6,790.0	7,969.4	6,790.0	54.4	0.0	-90.00	-536.7	-2,518.0	990.2	936.3	53.89	18.373		
8,200.0	6,790.0	8,069.4	6,790.0	56.8	0.0	-90.00	-536.4	-2,618.0	990.2	933.9	56.26	17.600		
8,300.0	6,790.0	8,169.4	6,790.0	59.1	0.0	-90.00	-536.2	-2,718.0	990.2	931.5	58.63	16.887		
8,400.0	6,790.0	8,269.4	6,790.0	61.5	0.0	-90.00	-535.9	-2,818.0	990.2	929.2	61.02	16.228		
8,500.0	6,790.0	8,369.4	6,790.0	63.8	0.0	-90.00	-535.7	-2,918.0	990.2	926.8	63.41	15.616		
8,600.0	6,790.0	8,469.4	6,790.0	66.2	0.0	-90.00	-535.4	-3,018.0	990.2	924.4	65.80	15.048		
8,700.0	6,790.0	8,569.4	6,790.0	68.6	0.0	-90.00	-535.2	-3,118.0	990.2	922.0	68.20	14.518		
8,800.0	6,790.0	8,669.4	6,790.0	71.0	0.0	-90.00	-534.9	-3,218.0	990.2	919.6	70.61	14.023		
8,900.0	6,790.0	8,769.4	6,790.0	73.4	0.0	-90.00	-534.7	-3,318.0	990.2	917.2	73.02	13.560		
9,000.0	6,790.0	8,869.4	6,790.0	75.8	0.0	-90.00	-534.4	-3,418.0	990.2	914.7	75.44	13.126		
9,100.0	6,790.0	8,969.4	6,790.0	78.2	0.0	-90.00	-534.2	-3,518.0	990.2	912.3	77.86	12.718		
9,200.0	6,790.0	9,069.4	6,790.0	80.6	0.0	-90.00	-533.9	-3,618.0	990.2	909.9	80.28	12.334		
9,300.0	6,790.0	9,169.4	6,790.0	83.0	0.0	-90.00	-533.7	-3,718.0	990.2	907.5	82.70	11.973		
9,400.0	6,790.0	9,269.4	6,790.0	85.4	0.0	-90.00	-533.4	-3,818.0	990.2	905.0	85.13	11.631		
9,500.0	6,790.0	9,369.4	6,790.0	87.9	0.0	-90.00	-533.2	-3,918.0	990.2	902.6	87.56	11.308		
9,600.0	6,790.0	9,469.4	6,790.0	90.3	0.0	-90.00	-532.9	-4,018.0	990.2	900.2	90.00	11.003		
9,700.0	6,790.0	9,569.4	6,790.0	92.7	0.0	-90.00	-532.7	-4,118.0	990.2	897.7	92.43	10.713		
9,800.0	6,790.0	9,669.4	6,790.0	95.1	0.0	-90.00	-532.4	-4,218.0	990.2	895.3	94.87	10.437		
9,900.0	6,790.0	9,769.4	6,790.0	97.6	0.0	-90.00	-532.2	-4,318.0	990.2	892.9	97.31	10.176		
10,000.0	6,790.0	9,869.4	6,790.0	100.0	0.0	-90.00	-531.9	-4,418.0	990.2	890.4	99.75	9.927		
10,100.0	6,790.0	9,969.4	6,790.0	102.4	0.0	-90.00	-531.7	-4,518.0	990.2	888.0	102.19	9.690		
10,200.0	6,790.0	10,069.4	6,790.0	104.9	0.0	-90.00	-531.4	-4,618.0	990.2	885.5	104.63	9.463		
10,300.0	6,790.0	10,169.4	6,790.0	107.3	0.0	-90.00	-531.2	-4,718.0	990.2	883.1	107.08	9.247		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 5 - Hz - Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
10,400.0	6,790.0	10,269.4	6,790.0	109.8	0.0	-90.00	-530.9	-4,818.0	990.2	880.7	109.53	9.040	
10,500.0	6,790.0	10,369.4	6,790.0	112.2	0.0	-90.00	-530.7	-4,918.0	990.2	878.2	111.98	8.843	
10,600.0	6,790.0	10,469.4	6,790.0	114.7	0.0	-90.00	-530.4	-5,018.0	990.2	875.8	114.42	8.654	
10,700.0	6,790.0	10,569.4	6,790.0	117.1	0.0	-90.00	-530.2	-5,118.0	990.2	873.3	116.87	8.472	
10,800.0	6,790.0	10,669.4	6,790.0	119.5	0.0	-90.00	-529.9	-5,218.0	990.2	870.9	119.33	8.298	
10,900.0	6,790.0	10,769.4	6,790.0	122.0	0.0	-90.00	-529.7	-5,318.0	990.2	868.4	121.78	8.131	
11,000.0	6,790.0	10,869.4	6,790.0	124.4	0.0	-90.00	-529.4	-5,418.0	990.2	865.9	124.23	7.970	
11,100.0	6,790.0	10,969.4	6,790.0	126.9	0.0	-90.00	-529.2	-5,518.0	990.2	863.5	126.68	7.816	
11,200.0	6,790.0	11,069.4	6,790.0	129.3	0.0	-90.00	-528.9	-5,618.0	990.2	861.0	129.14	7.668	
11,300.0	6,790.0	11,169.4	6,790.0	131.8	0.0	-90.00	-528.7	-5,718.0	990.2	858.6	131.59	7.524	
11,400.0	6,790.0	11,269.4	6,790.0	134.2	0.0	-90.00	-528.4	-5,818.0	990.2	856.1	134.05	7.387	
11,500.0	6,790.0	11,369.4	6,790.0	136.7	0.0	-90.00	-528.2	-5,918.0	990.2	853.7	136.51	7.254	
11,600.0	6,790.0	11,469.4	6,790.0	139.1	0.0	-90.00	-527.9	-6,018.0	990.2	851.2	138.96	7.125	
11,700.0	6,790.0	11,569.4	6,790.0	141.6	0.0	-90.00	-527.7	-6,118.0	990.2	848.8	141.42	7.002	
11,800.0	6,790.0	11,669.4	6,790.0	144.1	0.0	-90.00	-527.4	-6,218.0	990.2	846.3	143.88	6.882	
11,900.0	6,790.0	11,769.4	6,790.0	146.5	0.0	-90.00	-527.2	-6,318.0	990.2	843.8	146.34	6.766	
12,000.0	6,790.0	11,869.4	6,790.0	149.0	0.0	-90.00	-526.9	-6,418.0	990.2	841.4	148.80	6.654	
12,100.0	6,790.0	11,969.4	6,790.0	151.4	0.0	-90.00	-526.7	-6,518.0	990.2	838.9	151.26	6.546	
12,200.0	6,790.0	12,069.4	6,790.0	153.9	0.0	-90.00	-526.4	-6,618.0	990.2	836.5	153.72	6.441	
12,300.0	6,790.0	12,169.4	6,790.0	156.3	0.0	-90.00	-526.2	-6,718.0	990.2	834.0	156.18	6.340	
12,400.0	6,790.0	12,269.4	6,790.0	158.8	0.0	-90.00	-525.9	-6,818.0	990.2	831.5	158.64	6.242	
12,500.0	6,790.0	12,369.4	6,790.0	161.3	0.0	-90.00	-525.7	-6,918.0	990.2	829.1	161.10	6.146	
12,600.0	6,790.0	12,469.4	6,790.0	163.7	0.0	-90.00	-525.4	-7,018.0	990.2	826.6	163.57	6.054	
12,700.0	6,790.0	12,569.4	6,790.0	166.2	0.0	-90.00	-525.2	-7,118.0	990.2	824.1	166.03	5.964	
12,800.0	6,790.0	12,669.4	6,790.0	168.6	0.0	-90.00	-524.9	-7,218.0	990.2	821.7	168.49	5.877	
12,900.0	6,790.0	12,769.4	6,790.0	171.1	0.0	-90.00	-524.7	-7,318.0	990.2	819.2	170.96	5.792	
13,000.0	6,790.0	12,869.4	6,790.0	173.6	0.0	-90.00	-524.4	-7,418.0	990.2	816.8	173.42	5.710	
13,100.0	6,790.0	12,969.4	6,790.0	176.0	0.0	-90.00	-524.2	-7,517.9	990.2	814.3	175.88	5.630	
13,200.0	6,790.0	13,069.4	6,790.0	178.5	0.0	-90.00	-523.9	-7,617.9	990.2	811.8	178.35	5.552	
13,300.0	6,790.0	13,169.4	6,790.0	180.9	0.0	-90.00	-523.7	-7,717.9	990.2	809.4	180.81	5.476	
13,400.0	6,790.0	13,269.4	6,790.0	183.4	0.0	-90.00	-523.4	-7,817.9	990.2	806.9	183.28	5.403	
13,500.0	6,790.0	13,369.4	6,790.0	185.9	0.0	-90.00	-523.2	-7,917.9	990.2	804.4	185.74	5.331	
13,600.0	6,790.0	13,469.4	6,790.0	188.3	0.0	-90.00	-522.9	-8,017.9	990.2	802.0	188.21	5.261	
13,700.0	6,790.0	13,569.4	6,790.0	190.8	0.0	-90.00	-522.7	-8,117.9	990.2	799.5	190.67	5.193	
13,800.0	6,790.0	13,669.4	6,790.0	193.3	0.0	-90.00	-522.4	-8,217.9	990.2	797.0	193.14	5.127	
13,900.0	6,790.0	13,769.4	6,790.0	195.7	0.0	-90.00	-522.2	-8,317.9	990.2	794.6	195.60	5.062	
14,000.0	6,790.0	13,869.4	6,790.0	198.2	0.0	-90.00	-521.9	-8,417.9	990.2	792.1	198.07	4.999	
14,100.0	6,790.0	13,969.4	6,790.0	200.7	0.0	-90.00	-521.7	-8,517.9	990.2	789.6	200.54	4.938	
14,200.0	6,790.0	14,069.4	6,790.0	203.1	0.0	-90.00	-521.4	-8,617.9	990.2	787.2	203.00	4.878	
14,300.0	6,790.0	14,169.4	6,790.0	205.6	0.0	-90.00	-521.2	-8,717.9	990.2	784.7	205.47	4.819	
14,400.0	6,790.0	14,269.4	6,790.0	208.1	0.0	-90.00	-520.9	-8,817.9	990.2	782.2	207.94	4.762	
14,500.0	6,790.0	14,369.4	6,790.0	210.5	0.0	-90.00	-520.7	-8,917.9	990.2	779.8	210.40	4.706	
14,600.0	6,790.0	14,469.4	6,790.0	213.0	0.0	-90.00	-520.4	-9,017.9	990.2	777.3	212.87	4.652	
14,700.0	6,790.0	14,569.4	6,790.0	215.5	0.0	-90.00	-520.2	-9,117.9	990.2	774.8	215.34	4.598	
14,800.0	6,790.0	14,669.4	6,790.0	217.9	0.0	-90.00	-519.9	-9,217.9	990.2	772.4	217.80	4.546	
14,900.0	6,790.0	14,769.4	6,790.0	220.4	0.0	-90.00	-519.7	-9,317.9	990.2	769.9	220.27	4.495	
15,000.0	6,790.0	14,869.4	6,790.0	222.8	0.0	-90.00	-519.4	-9,417.9	990.2	767.4	222.74	4.445	
15,100.0	6,790.0	14,969.4	6,790.0	225.3	0.0	-90.00	-519.2	-9,517.9	990.2	765.0	225.21	4.397	
15,200.0	6,790.0	15,069.4	6,790.0	227.8	0.0	-90.00	-518.9	-9,617.9	990.2	762.5	227.68	4.349	
15,300.0	6,790.0	15,169.4	6,790.0	230.3	0.0	-90.00	-518.7	-9,717.9	990.2	760.0	230.14	4.302	
15,400.0	6,790.0	15,269.4	6,790.0	232.7	0.0	-90.00	-518.4	-9,817.9	990.2	757.6	232.61	4.257	
15,500.0	6,790.0	15,369.4	6,790.0	235.2	0.0	-90.00	-518.2	-9,917.9	990.2	755.1	235.08	4.212	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 5 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
15,600.0	6,790.0	15,469.4	6,790.0	237.7	0.0	-90.00	-517.9	-10,017.9	990.2	752.6	237.55	4.168		
15,700.0	6,790.0	15,569.4	6,790.0	240.1	0.0	-90.00	-517.7	-10,117.9	990.2	750.2	240.02	4.125		
15,800.0	6,790.0	15,669.4	6,790.0	242.6	0.0	-90.00	-517.4	-10,217.9	990.2	747.7	242.49	4.083		
15,900.0	6,790.0	15,769.4	6,790.0	245.1	0.0	-90.00	-517.2	-10,317.9	990.2	745.2	244.96	4.042		
16,000.0	6,790.0	15,869.4	6,790.0	247.5	0.0	-90.00	-516.9	-10,417.9	990.2	742.8	247.43	4.002		
16,100.0	6,790.0	15,969.4	6,790.0	250.0	0.0	-90.00	-516.7	-10,517.9	990.2	740.3	249.90	3.962		
16,200.0	6,790.0	16,069.4	6,790.0	252.5	0.0	-90.00	-516.4	-10,617.9	990.2	737.8	252.36	3.924		
16,300.0	6,790.0	16,169.4	6,790.0	254.9	0.0	-90.00	-516.2	-10,717.9	990.2	735.3	254.83	3.886		
16,400.0	6,790.0	16,269.4	6,790.0	257.4	0.0	-90.00	-515.9	-10,817.9	990.2	732.9	257.30	3.848		
16,500.0	6,790.0	16,369.4	6,790.0	259.9	0.0	-90.00	-515.7	-10,917.9	990.2	730.4	259.77	3.812		
16,600.0	6,790.0	16,469.4	6,790.0	262.3	0.0	-90.00	-515.4	-11,017.9	990.2	727.9	262.24	3.776		
16,700.0	6,790.0	16,569.4	6,790.0	264.8	0.0	-90.00	-515.2	-11,117.9	990.2	725.5	264.71	3.741		
16,800.0	6,790.0	16,669.4	6,790.0	267.3	0.0	-90.00	-514.9	-11,217.9	990.2	723.0	267.18	3.706		
16,900.0	6,790.0	16,769.4	6,790.0	269.7	0.0	-90.00	-514.7	-11,317.9	990.2	720.5	269.65	3.672		
17,000.0	6,790.0	16,869.4	6,790.0	272.2	0.0	-90.00	-514.4	-11,417.9	990.2	718.1	272.12	3.639		
17,100.0	6,790.0	16,969.4	6,790.0	274.7	0.0	-90.00	-514.2	-11,517.9	990.2	715.6	274.59	3.606		
17,200.0	6,790.0	17,069.4	6,790.0	277.1	0.0	-90.00	-513.9	-11,617.9	990.2	713.1	277.06	3.574		
17,300.0	6,790.0	17,169.4	6,790.0	279.6	0.0	-90.00	-513.7	-11,717.9	990.2	710.6	279.53	3.542		
17,400.0	6,790.0	17,269.4	6,790.0	282.1	0.0	-90.00	-513.4	-11,817.9	990.2	708.2	282.00	3.511		
17,410.2	6,790.0	17,279.6	6,790.0	282.3	0.0	-90.00	-513.4	-11,828.1	990.2	707.9	282.25	3.508		
17,412.9	6,790.0	17,280.0	6,790.0	282.4	0.0	-90.00	-513.4	-11,828.5	990.2	707.9	282.32	3.507 SF		

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 6 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	-149.09	-119.9	-71.8	139.7					
100.0	100.0	100.0	100.0	0.1	0.0	-149.09	-119.9	-71.8	139.7	139.6	0.13	1,051.561		
200.0	200.0	200.0	200.0	0.3	0.0	-149.09	-119.9	-71.8	139.7	139.4	0.31	454.472 CC, ES		
300.0	300.0	298.0	298.0	0.5	0.0	-80.53	-120.2	-72.5	140.3	139.8	0.48	290.487		
400.0	400.0	396.0	396.0	0.7	0.0	-80.96	-121.3	-74.8	142.0	141.3	0.66	214.245		
500.0	499.9	493.9	493.8	0.9	0.0	-81.67	-123.1	-78.6	144.8	144.0	0.85	170.286		
600.0	599.7	591.8	591.5	1.1	0.0	-82.61	-125.6	-83.9	148.9	147.8	1.05	141.768		
700.0	699.4	689.5	688.9	1.3	0.0	-83.75	-128.8	-90.6	154.1	152.8	1.26	121.851		
800.0	798.9	787.1	786.1	1.5	0.0	-85.03	-132.7	-98.9	160.6	159.1	1.50	107.237		
900.0	898.3	884.6	882.9	1.8	0.0	-86.41	-137.3	-108.7	168.3	166.6	1.75	96.142		
1,000.0	997.4	981.8	979.4	2.0	0.0	-87.84	-142.6	-119.9	177.4	175.4	2.03	87.510		
1,100.0	1,096.3	1,078.9	1,075.4	2.3	0.0	-89.29	-148.6	-132.6	187.8	185.4	2.33	80.674		
1,200.0	1,194.9	1,175.7	1,171.0	2.7	0.0	-90.72	-155.3	-146.7	199.5	196.8	2.65	75.186		
1,300.0	1,293.3	1,272.3	1,266.0	3.0	0.0	-92.11	-162.6	-162.2	212.6	209.6	3.01	70.734		
1,400.0	1,391.3	1,368.6	1,360.5	3.4	0.0	-93.45	-170.6	-179.1	227.0	223.6	3.38	67.231		
1,500.0	1,489.2	1,465.7	1,455.5	3.8	0.0	-94.56	-179.3	-197.5	242.6	238.8	3.75	64.657		
1,600.0	1,587.1	1,564.4	1,551.9	4.1	0.0	-95.50	-188.3	-216.4	258.5	254.3	4.13	62.573		
1,700.0	1,685.1	1,663.0	1,648.3	4.5	0.0	-96.33	-197.2	-235.3	274.4	269.9	4.51	60.828		
1,800.0	1,783.0	1,761.7	1,744.7	4.9	0.0	-97.07	-206.2	-254.3	290.3	285.4	4.89	59.349		
1,900.0	1,880.9	1,860.3	1,841.1	5.3	0.0	-97.73	-215.1	-273.2	306.3	301.1	5.27	58.084		
2,000.0	1,978.9	1,959.0	1,937.5	5.7	0.0	-98.33	-224.1	-292.1	322.4	316.7	5.66	56.990		
2,100.0	2,076.8	2,057.6	2,033.9	6.1	0.0	-98.87	-233.0	-311.0	338.4	332.4	6.04	56.037		
2,200.0	2,174.7	2,156.3	2,130.3	6.5	0.0	-99.36	-242.0	-329.9	354.5	348.1	6.42	55.200		
2,300.0	2,272.7	2,254.9	2,226.7	6.9	0.0	-99.81	-250.9	-348.9	370.7	363.9	6.81	54.459		
2,400.0	2,370.6	2,353.6	2,323.1	7.3	0.0	-100.22	-259.9	-367.8	386.8	379.6	7.19	53.800		
2,500.0	2,468.5	2,452.2	2,419.5	7.7	0.0	-100.60	-268.8	-386.7	403.0	395.4	7.57	53.210		
2,600.0	2,566.5	2,550.9	2,515.9	8.1	0.0	-100.95	-277.8	-405.6	419.1	411.2	7.96	52.679		
2,700.0	2,664.4	2,649.5	2,612.3	8.5	0.0	-101.27	-286.7	-424.6	435.3	427.0	8.34	52.198		
2,800.0	2,762.3	2,748.2	2,708.8	8.8	0.0	-101.58	-295.7	-443.5	451.5	442.8	8.72	51.762		
2,900.0	2,860.3	2,846.8	2,805.2	9.2	0.0	-101.85	-304.6	-462.4	467.7	458.6	9.11	51.364		
3,000.0	2,958.2	2,945.5	2,901.6	9.6	0.0	-102.12	-313.6	-481.3	484.0	474.5	9.49	50.999		
3,100.0	3,056.1	3,044.1	2,998.0	10.0	0.0	-102.36	-322.5	-500.2	500.2	490.3	9.87	50.664		
3,200.0	3,154.1	3,142.8	3,094.4	10.4	0.0	-102.59	-331.5	-519.2	516.4	506.2	10.26	50.355		
3,300.0	3,252.0	3,241.5	3,190.8	10.8	0.0	-102.80	-340.4	-538.1	532.7	522.0	10.64	50.070		
3,400.0	3,349.9	3,340.1	3,287.2	11.2	0.0	-103.00	-349.4	-557.0	548.9	537.9	11.02	49.805		
3,500.0	3,447.9	3,438.8	3,383.6	11.6	0.0	-103.19	-358.3	-575.9	565.2	553.8	11.40	49.559		
3,600.0	3,545.8	3,537.4	3,480.0	12.0	0.0	-103.37	-367.3	-594.8	581.5	569.7	11.79	49.330		
3,700.0	3,643.7	3,636.1	3,576.4	12.4	0.0	-103.54	-376.2	-613.8	597.7	585.6	12.17	49.116		
3,800.0	3,741.7	3,734.7	3,672.8	12.8	0.0	-103.70	-385.2	-632.7	614.0	601.4	12.55	48.915		
3,900.0	3,839.6	3,833.4	3,769.2	13.2	0.0	-103.86	-394.1	-651.6	630.3	617.3	12.93	48.727		
4,000.0	3,937.5	3,932.0	3,865.6	13.6	0.0	-104.00	-403.1	-670.5	646.6	633.3	13.32	48.550		
4,100.0	4,035.5	4,030.7	3,962.0	14.0	0.0	-104.14	-412.0	-689.4	662.9	649.2	13.70	48.384		
4,200.0	4,133.4	4,129.3	4,058.4	14.4	0.0	-104.27	-421.0	-708.4	679.1	665.1	14.08	48.227		
4,300.0	4,231.3	4,228.0	4,154.8	14.8	0.0	-104.40	-429.9	-727.3	695.4	681.0	14.46	48.079		
4,400.0	4,329.3	4,326.6	4,251.3	15.2	0.0	-104.51	-438.9	-746.2	711.7	696.9	14.85	47.939		
4,500.0	4,427.2	4,425.3	4,347.7	15.6	0.0	-104.63	-447.8	-765.1	728.0	712.8	15.23	47.806		
4,600.0	4,525.1	4,523.9	4,444.1	16.0	0.0	-104.74	-456.8	-784.1	744.3	728.7	15.61	47.680		
4,700.0	4,623.1	4,622.6	4,540.5	16.4	0.0	-104.84	-465.7	-803.0	760.7	744.7	15.99	47.561		
4,800.0	4,721.0	4,721.2	4,636.9	16.8	0.0	-104.94	-474.7	-821.9	777.0	760.6	16.38	47.447		
4,900.0	4,818.9	4,819.9	4,733.3	17.2	0.0	-105.04	-483.6	-840.8	793.3	776.5	16.76	47.339		
5,000.0	4,916.9	4,918.5	4,829.7	17.6	0.0	-105.13	-492.6	-859.7	809.6	792.4	17.14	47.235		
5,100.0	5,014.8	5,017.2	4,926.1	18.0	0.0	-105.22	-501.5	-878.7	825.9	808.4	17.52	47.137		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 6 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
5,200.0	5,112.7	5,115.8	5,022.5	18.4	0.0	-105.30	-510.5	-897.6	842.2	824.3	17.90	47.043		
5,300.0	5,210.7	5,214.5	5,118.9	18.8	0.0	-105.38	-519.4	-916.5	858.5	840.3	18.29	46.953		
5,400.0	5,308.6	5,313.1	5,215.3	19.2	0.0	-105.46	-528.4	-935.4	874.9	856.2	18.67	46.867		
5,500.0	5,406.5	5,411.8	5,311.7	19.6	0.0	-105.54	-537.3	-954.3	891.2	872.1	19.05	46.784		
5,600.0	5,504.5	5,510.5	5,408.1	20.0	0.0	-105.61	-546.3	-973.3	907.5	888.1	19.43	46.705		
5,700.0	5,602.4	5,609.1	5,504.5	20.4	0.0	-105.68	-555.2	-992.2	923.8	904.0	19.81	46.629		
5,800.0	5,700.3	5,707.8	5,600.9	20.8	0.0	-105.75	-564.2	-1,011.1	940.2	920.0	20.19	46.556		
5,900.0	5,798.3	5,806.4	5,697.3	21.2	0.0	-105.81	-573.1	-1,030.0	956.5	935.9	20.58	46.486		
6,000.0	5,896.2	5,905.1	5,793.8	21.6	0.0	-105.88	-582.1	-1,049.0	972.8	951.9	20.96	46.418		
6,100.0	5,994.2	6,003.7	5,890.2	22.0	0.0	-105.94	-591.0	-1,067.9	989.1	967.8	21.34	46.353 SF		

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 7 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	-149.14	-144.3	-86.2	168.1					
100.0	100.0	100.0	100.0	0.1	0.0	-149.14	-144.3	-86.2	168.1	167.9	0.13	1,265.128		
200.0	200.0	200.0	200.0	0.3	0.0	-149.14	-144.3	-86.2	168.1	167.8	0.31	546.773 CC, ES		
300.0	300.0	297.5	297.5	0.5	0.0	-80.57	-144.7	-86.9	168.7	168.2	0.48	349.322		
400.0	400.0	394.9	394.9	0.7	0.0	-80.99	-146.0	-89.1	170.5	169.8	0.66	257.286		
500.0	499.9	492.3	492.2	0.9	0.0	-81.68	-148.1	-92.6	173.5	172.7	0.85	204.045		
600.0	599.7	589.6	589.3	1.1	0.0	-82.61	-151.0	-97.6	177.8	176.8	1.05	169.370		
700.0	699.4	686.8	686.2	1.3	0.0	-83.73	-154.8	-104.0	183.4	182.2	1.26	145.052		
800.0	798.9	783.8	782.8	1.5	0.0	-85.00	-159.4	-111.8	190.4	188.9	1.50	127.135		
900.0	898.3	880.6	879.0	1.8	0.0	-86.39	-164.8	-121.0	198.7	196.9	1.75	113.475		
1,000.0	997.4	977.2	974.8	2.0	0.0	-87.84	-171.0	-131.5	208.4	206.4	2.03	102.809		
1,100.0	1,096.3	1,073.5	1,070.1	2.3	0.0	-89.32	-178.1	-143.4	219.6	217.2	2.33	94.333		
1,200.0	1,194.9	1,169.5	1,164.9	2.7	0.0	-90.80	-185.9	-156.7	232.2	229.5	2.65	87.511		
1,300.0	1,293.3	1,265.3	1,259.1	3.0	0.0	-92.24	-194.5	-171.2	246.3	243.3	3.01	81.962		
1,400.0	1,391.3	1,360.7	1,352.7	3.4	0.0	-93.66	-203.9	-187.1	261.9	258.5	3.38	77.576		
1,500.0	1,489.2	1,455.8	1,445.8	3.8	0.0	-94.86	-214.0	-204.2	278.9	275.1	3.75	74.347		
1,600.0	1,587.1	1,550.6	1,538.2	4.1	0.0	-95.71	-224.9	-222.6	297.1	293.0	4.13	71.953		
1,700.0	1,685.1	1,648.5	1,633.3	4.5	0.0	-96.36	-236.6	-242.4	316.1	311.6	4.51	70.077		
1,800.0	1,783.0	1,746.7	1,728.7	4.9	0.0	-96.94	-248.3	-262.2	335.0	330.2	4.89	68.480		
1,900.0	1,880.9	1,844.8	1,824.1	5.3	0.0	-97.46	-260.0	-282.0	354.0	348.8	5.28	67.105		
2,000.0	1,978.9	1,942.9	1,919.5	5.7	0.0	-97.92	-271.7	-301.9	373.1	367.4	5.66	65.912		
2,100.0	2,076.8	2,041.1	2,014.9	6.1	0.0	-98.34	-283.4	-321.7	392.1	386.1	6.04	64.868		
2,200.0	2,174.7	2,139.2	2,110.3	6.5	0.0	-98.73	-295.1	-341.5	411.2	404.8	6.43	63.947		
2,300.0	2,272.7	2,237.3	2,205.7	6.9	0.0	-99.07	-306.8	-361.3	430.3	423.5	6.82	63.130		
2,400.0	2,370.6	2,335.5	2,301.1	7.3	0.0	-99.39	-318.6	-381.1	449.4	442.2	7.20	62.399		
2,500.0	2,468.5	2,433.6	2,396.5	7.7	0.0	-99.68	-330.3	-401.0	468.5	460.9	7.59	61.743		
2,600.0	2,566.5	2,531.7	2,491.9	8.1	0.0	-99.95	-342.0	-420.8	487.6	479.6	7.97	61.151		
2,700.0	2,664.4	2,629.8	2,587.3	8.5	0.0	-100.20	-353.7	-440.6	506.7	498.4	8.36	60.614		
2,800.0	2,762.3	2,728.0	2,682.6	8.8	0.0	-100.43	-365.4	-460.4	525.9	517.1	8.75	60.124		
2,900.0	2,860.3	2,826.1	2,778.0	9.2	0.0	-100.65	-377.1	-480.2	545.0	535.9	9.13	59.676		
3,000.0	2,958.2	2,924.2	2,873.4	9.6	0.0	-100.85	-388.8	-500.1	564.2	554.7	9.52	59.266		
3,100.0	3,056.1	3,022.4	2,968.8	10.0	0.0	-101.03	-400.5	-519.9	583.3	573.4	9.91	58.887		
3,200.0	3,154.1	3,120.5	3,064.2	10.4	0.0	-101.21	-412.3	-539.7	602.5	592.2	10.29	58.537		
3,300.0	3,252.0	3,218.6	3,159.6	10.8	0.0	-101.37	-424.0	-559.5	621.7	611.0	10.68	58.214		
3,400.0	3,349.9	3,316.8	3,255.0	11.2	0.0	-101.53	-435.7	-579.3	640.8	629.8	11.07	57.913		
3,500.0	3,447.9	3,414.9	3,350.4	11.6	0.0	-101.67	-447.4	-599.1	660.0	648.6	11.45	57.632		
3,600.0	3,545.8	3,513.0	3,445.8	12.0	0.0	-101.81	-459.1	-619.0	679.2	667.4	11.84	57.371		
3,700.0	3,643.7	3,611.2	3,541.2	12.4	0.0	-101.94	-470.8	-638.8	698.4	686.2	12.23	57.126		
3,800.0	3,741.7	3,709.3	3,636.6	12.8	0.0	-102.06	-482.5	-658.6	717.6	705.0	12.61	56.896		
3,900.0	3,839.6	3,807.4	3,732.0	13.2	0.0	-102.18	-494.2	-678.4	736.8	723.8	13.00	56.681		
4,000.0	3,937.5	3,905.5	3,827.3	13.6	0.0	-102.29	-506.0	-698.2	756.0	742.6	13.39	56.478		
4,100.0	4,035.5	4,003.7	3,922.7	14.0	0.0	-102.39	-517.7	-718.1	775.2	761.4	13.77	56.286		
4,200.0	4,133.4	4,101.8	4,018.1	14.4	0.0	-102.49	-529.4	-737.9	794.4	780.2	14.16	56.106		
4,300.0	4,231.3	4,199.9	4,113.5	14.8	0.0	-102.59	-541.1	-757.7	813.6	799.0	14.55	55.935		
4,400.0	4,329.3	4,298.1	4,208.9	15.2	0.0	-102.68	-552.8	-777.5	832.8	817.8	14.93	55.773		
4,500.0	4,427.2	4,396.2	4,304.3	15.6	0.0	-102.77	-564.5	-797.3	852.0	836.7	15.32	55.619		
4,600.0	4,525.1	4,494.3	4,399.7	16.0	0.0	-102.85	-576.2	-817.1	871.2	855.5	15.70	55.473		
4,700.0	4,623.1	4,592.5	4,495.1	16.4	0.0	-102.93	-587.9	-837.0	890.4	874.3	16.09	55.335		
4,800.0	4,721.0	4,690.6	4,590.5	16.8	0.0	-103.00	-599.7	-856.8	909.6	893.1	16.48	55.202		
4,900.0	4,818.9	4,788.7	4,685.9	17.2	0.0	-103.08	-611.4	-876.6	928.8	912.0	16.86	55.077		
5,000.0	4,916.9	4,886.8	4,781.3	17.6	0.0	-103.15	-623.1	-896.4	948.0	930.8	17.25	54.956		
5,100.0	5,014.8	4,985.0	4,876.7	18.0	0.0	-103.21	-634.8	-916.2	967.3	949.6	17.64	54.842		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

## Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S16-T6N-R67W - Breniman 7 - Hz - Plan #1													<b>Offset Site Error:</b> 0.0 usft
Survey Program:    0-													<b>Offset Well Error:</b> 0.0 usft
Reference		Offset		Semi Major Axis				Distance					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,200.0	5,112.7	5,083.1	4,972.0	18.4	0.0	-103.28	-646.5	-936.1	986.5	968.5	18.02	54.732 SF	

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 8 - Hz - Plan #1													Offset Site Error:	0.0 usft
Survey Program: 0-													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	-149.13	-167.9	-100.4	195.7					
100.0	100.0	100.0	100.0	0.1	0.0	-149.13	-167.9	-100.4	195.7	195.5	0.13	1,472.912		
200.0	200.0	200.0	200.0	0.3	0.0	-149.13	-167.9	-100.4	195.7	195.4	0.31	636.575 CC, ES		
300.0	300.0	297.2	297.2	0.5	0.0	-80.52	-168.3	-101.1	196.2	195.8	0.48	406.421		
400.0	400.0	394.4	394.3	0.7	0.0	-80.84	-169.4	-103.4	198.0	197.3	0.66	298.745		
500.0	499.9	491.5	491.4	0.9	0.0	-81.37	-171.3	-107.0	200.8	200.0	0.85	236.148		
600.0	599.7	588.5	588.2	1.1	0.0	-82.08	-173.8	-112.2	204.9	203.8	1.05	195.141		
700.0	699.4	685.4	684.9	1.3	0.0	-82.95	-177.1	-118.8	210.1	208.9	1.26	166.187		
800.0	798.9	782.2	781.2	1.5	0.0	-83.95	-181.2	-126.8	216.6	215.1	1.50	144.696		
900.0	898.3	878.9	877.3	1.8	0.0	-85.05	-185.9	-136.3	224.3	222.6	1.75	128.178		
1,000.0	997.4	975.3	972.9	2.0	0.0	-86.23	-191.3	-147.3	233.4	231.3	2.03	115.166		
1,100.0	1,096.3	1,071.5	1,068.1	2.3	0.0	-87.45	-197.5	-159.6	243.7	241.4	2.33	104.728		
1,200.0	1,194.9	1,167.5	1,162.9	2.7	0.0	-88.69	-204.4	-173.3	255.4	252.7	2.65	96.242		
1,300.0	1,293.3	1,263.2	1,257.1	3.0	0.0	-89.92	-211.9	-188.4	268.4	265.4	3.01	89.269		
1,400.0	1,391.3	1,358.6	1,350.7	3.4	0.0	-91.16	-220.1	-204.8	282.7	279.4	3.38	83.667		
1,500.0	1,489.2	1,453.8	1,443.8	3.8	0.0	-92.22	-229.0	-222.6	298.4	294.7	3.76	79.433		
1,600.0	1,587.1	1,548.8	1,536.3	4.1	0.0	-92.96	-238.6	-241.8	315.3	311.2	4.14	76.205		
1,700.0	1,685.1	1,643.4	1,628.2	4.5	0.0	-93.43	-248.8	-262.2	333.4	328.9	4.52	73.732		
1,800.0	1,783.0	1,737.7	1,719.3	4.9	0.0	-93.67	-259.6	-283.9	352.6	347.7	4.91	71.838		
1,900.0	1,880.9	1,831.6	1,809.6	5.3	0.0	-93.70	-271.1	-306.8	372.9	367.6	5.30	70.398		
2,000.0	1,978.9	1,925.0	1,899.0	5.7	0.0	-93.56	-283.1	-330.9	394.3	388.6	5.69	69.322		
2,100.0	2,076.8	2,017.9	1,987.5	6.1	0.0	-93.28	-295.7	-356.2	416.7	410.7	6.08	68.543		
2,200.0	2,174.7	2,110.3	2,075.1	6.5	0.0	-92.88	-308.9	-382.7	440.3	433.8	6.47	68.014		
2,300.0	2,272.7	2,200.0	2,159.6	6.9	0.0	-92.40	-322.4	-409.5	465.0	458.1	6.87	67.696		
2,400.0	2,370.6	2,293.2	2,247.0	7.3	0.0	-91.82	-336.9	-438.7	490.8	483.5	7.26	67.558 SF		
2,500.0	2,468.5	2,383.7	2,331.2	7.7	0.0	-91.20	-351.7	-468.2	517.7	510.0	7.66	67.580		
2,600.0	2,566.5	2,473.5	2,414.3	8.1	0.0	-90.53	-366.9	-498.7	545.8	537.7	8.06	67.742		
2,700.0	2,664.4	2,567.1	2,500.4	8.5	0.0	-89.82	-383.2	-531.3	574.8	566.3	8.45	67.998		
2,800.0	2,762.3	2,662.5	2,588.3	8.8	0.0	-89.15	-399.9	-564.7	603.9	595.0	8.85	68.250		
2,900.0	2,860.3	2,758.0	2,676.2	9.2	0.0	-88.55	-416.6	-598.1	633.0	623.8	9.24	68.490		
3,000.0	2,958.2	2,853.4	2,764.0	9.6	0.0	-88.00	-433.2	-631.4	662.3	652.6	9.64	68.720		
3,100.0	3,056.1	2,948.8	2,851.9	10.0	0.0	-87.50	-449.9	-664.8	691.5	681.5	10.03	68.940		
3,200.0	3,154.1	3,044.3	2,939.7	10.4	0.0	-87.04	-466.6	-698.2	720.9	710.4	10.42	69.149		
3,300.0	3,252.0	3,139.7	3,027.6	10.8	0.0	-86.61	-483.2	-731.6	750.2	739.4	10.82	69.348		
3,400.0	3,349.9	3,235.2	3,115.4	11.2	0.0	-86.22	-499.9	-765.0	779.6	768.4	11.21	69.538		
3,500.0	3,447.9	3,330.6	3,203.3	11.6	0.0	-85.86	-516.6	-798.3	809.1	797.4	11.60	69.720		
3,600.0	3,545.8	3,426.1	3,291.1	12.0	0.0	-85.52	-533.3	-831.7	838.5	826.5	12.00	69.893		
3,700.0	3,643.7	3,521.5	3,379.0	12.4	0.0	-85.20	-549.9	-865.1	868.0	855.6	12.39	70.058		
3,800.0	3,741.7	3,617.0	3,466.8	12.8	0.0	-84.90	-566.6	-898.5	897.5	884.7	12.78	70.215		
3,900.0	3,839.6	3,712.4	3,554.7	13.2	0.0	-84.63	-583.3	-931.8	927.0	913.9	13.17	70.366		
4,000.0	3,937.5	3,807.9	3,642.5	13.6	0.0	-84.37	-600.0	-965.2	956.6	943.0	13.57	70.510		
4,100.0	4,035.5	3,903.3	3,730.4	14.0	0.0	-84.12	-616.6	-998.6	986.1	972.2	13.96	70.647		



# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S16-T6N-R67W - Breniman 9 - Hz - Plan #1												Offset Site Error: 0.0 usft			
Survey Program: 0-														Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis				Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	-149.16	-192.4	-114.9	224.0						
100.0	100.0	100.0	100.0	0.1	0.0	-149.16	-192.4	-114.9	224.0	223.9	0.13	1,686.479			
200.0	200.0	200.0	200.0	0.3	0.0	-149.16	-192.4	-114.9	224.0	223.7	0.31	728.876	CC, ES		
300.0	300.0	296.7	296.7	0.5	0.0	-80.55	-192.8	-115.6	224.6	224.1	0.48	465.226			
400.0	400.0	393.4	393.3	0.7	0.0	-80.86	-194.0	-117.7	226.4	225.7	0.66	341.695			
500.0	499.9	490.0	489.8	0.9	0.0	-81.36	-196.0	-121.2	229.4	228.5	0.85	269.746			
600.0	599.7	586.5	586.2	1.1	0.0	-82.05	-198.9	-126.2	233.6	232.5	1.05	222.508			
700.0	699.4	682.9	682.3	1.3	0.0	-82.89	-202.5	-132.5	239.1	237.8	1.26	189.078			
800.0	798.9	779.1	778.1	1.5	0.0	-83.87	-206.9	-140.2	245.8	244.3	1.50	164.206			
900.0	898.3	875.1	873.6	1.8	0.0	-84.95	-212.2	-149.3	253.8	252.1	1.75	145.047			
1,000.0	997.4	971.0	968.7	2.0	0.0	-86.11	-218.2	-159.8	263.2	261.2	2.03	129.921			
1,100.0	1,096.3	1,066.6	1,063.3	2.3	0.0	-87.32	-225.0	-171.6	274.0	271.7	2.33	117.765			
1,200.0	1,194.9	1,161.9	1,157.4	2.7	0.0	-88.56	-232.5	-184.7	286.2	283.5	2.65	107.864			
1,300.0	1,293.3	1,256.9	1,250.9	3.0	0.0	-89.80	-240.8	-199.1	299.8	296.8	3.01	99.716			
1,400.0	1,391.3	1,351.6	1,343.9	3.4	0.0	-91.05	-249.9	-214.9	314.8	311.4	3.38	93.153			
1,500.0	1,489.2	1,446.1	1,436.3	3.8	0.0	-92.17	-259.7	-231.9	331.2	327.5	3.76	88.160			
1,600.0	1,587.1	1,540.3	1,528.1	4.1	0.0	-93.01	-270.2	-250.1	348.9	344.8	4.14	84.327			
1,700.0	1,685.1	1,634.1	1,619.2	4.5	0.0	-93.59	-281.4	-269.6	367.9	363.4	4.52	81.366			
1,800.0	1,783.0	1,727.6	1,709.6	4.9	0.0	-93.96	-293.3	-290.3	388.0	383.1	4.91	79.072			
1,900.0	1,880.9	1,820.7	1,799.1	5.3	0.0	-94.14	-305.9	-312.2	409.3	404.0	5.30	77.300			
2,000.0	1,978.9	1,913.3	1,887.8	5.7	0.0	-94.16	-319.1	-335.2	431.7	426.1	5.69	75.943			
2,100.0	2,076.8	2,005.3	1,975.6	6.1	0.0	-94.04	-333.0	-359.4	455.3	449.2	6.08	74.924			
2,200.0	2,174.7	2,096.9	2,062.4	6.5	0.0	-93.81	-347.5	-384.6	480.0	473.5	6.47	74.183			
2,300.0	2,272.7	2,187.8	2,148.1	6.9	0.0	-93.49	-362.6	-410.8	505.7	498.9	6.86	73.677			
2,400.0	2,370.6	2,278.1	2,232.8	7.3	0.0	-93.08	-378.2	-438.0	532.7	525.4	7.26	73.370			
2,500.0	2,468.5	2,367.7	2,316.3	7.7	0.0	-92.62	-394.4	-466.1	560.7	553.1	7.66	73.235			
2,600.0	2,566.5	2,460.7	2,402.6	8.1	0.0	-92.09	-411.8	-496.2	589.7	581.6	8.05	73.225	SF		
2,700.0	2,664.4	2,556.3	2,491.2	8.5	0.0	-91.60	-429.6	-527.3	618.8	610.4	8.45	73.230			
2,800.0	2,762.3	2,651.8	2,579.8	8.8	0.0	-91.15	-447.5	-558.3	648.0	639.1	8.85	73.239			
2,900.0	2,860.3	2,747.3	2,668.3	9.2	0.0	-90.74	-465.4	-589.4	677.1	667.9	9.24	73.251			
3,000.0	2,958.2	2,842.9	2,756.9	9.6	0.0	-90.37	-483.2	-620.5	706.4	696.7	9.64	73.266			
3,100.0	3,056.1	2,938.4	2,845.5	10.0	0.0	-90.02	-501.1	-651.5	735.6	725.6	10.04	73.282			
3,200.0	3,154.1	3,034.0	2,934.0	10.4	0.0	-89.70	-519.0	-682.6	764.9	754.4	10.43	73.300			
3,300.0	3,252.0	3,129.5	3,022.6	10.8	0.0	-89.40	-536.8	-713.6	794.1	783.3	10.83	73.318			
3,400.0	3,349.9	3,225.0	3,111.2	11.2	0.0	-89.13	-554.7	-744.7	823.4	812.2	11.23	73.337			
3,500.0	3,447.9	3,320.6	3,199.7	11.6	0.0	-88.87	-572.6	-775.7	852.8	841.1	11.62	73.356			
3,600.0	3,545.8	3,416.1	3,288.3	12.0	0.0	-88.63	-590.4	-806.8	882.1	870.1	12.02	73.376			
3,700.0	3,643.7	3,511.7	3,376.9	12.4	0.0	-88.41	-608.3	-837.8	911.4	899.0	12.42	73.395			
3,800.0	3,741.7	3,607.2	3,465.4	12.8	0.0	-88.20	-626.2	-868.9	940.8	928.0	12.81	73.415			
3,900.0	3,839.6	3,702.7	3,554.0	13.2	0.0	-88.00	-644.0	-899.9	970.1	956.9	13.21	73.434			
4,000.0	3,937.5	3,798.3	3,642.6	13.6	0.0	-87.81	-661.9	-931.0	999.5	985.9	13.61	73.453			

# Anticollision Report

<b>Company:</b>	Extraction Oil & Gas	<b>Local Co-ordinate Reference:</b>	Well Breniman 1
<b>Project:</b>	WELD COUNTY, CO	<b>TVD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Reference Site:</b>	S16-T6N-R67W	<b>MD Reference:</b>	24' KB @ 4821.0usft (H&P 319)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Breniman 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to 24' KB @ 4821.0usft (H&P 319)

Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: Breniman 1

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.39°

