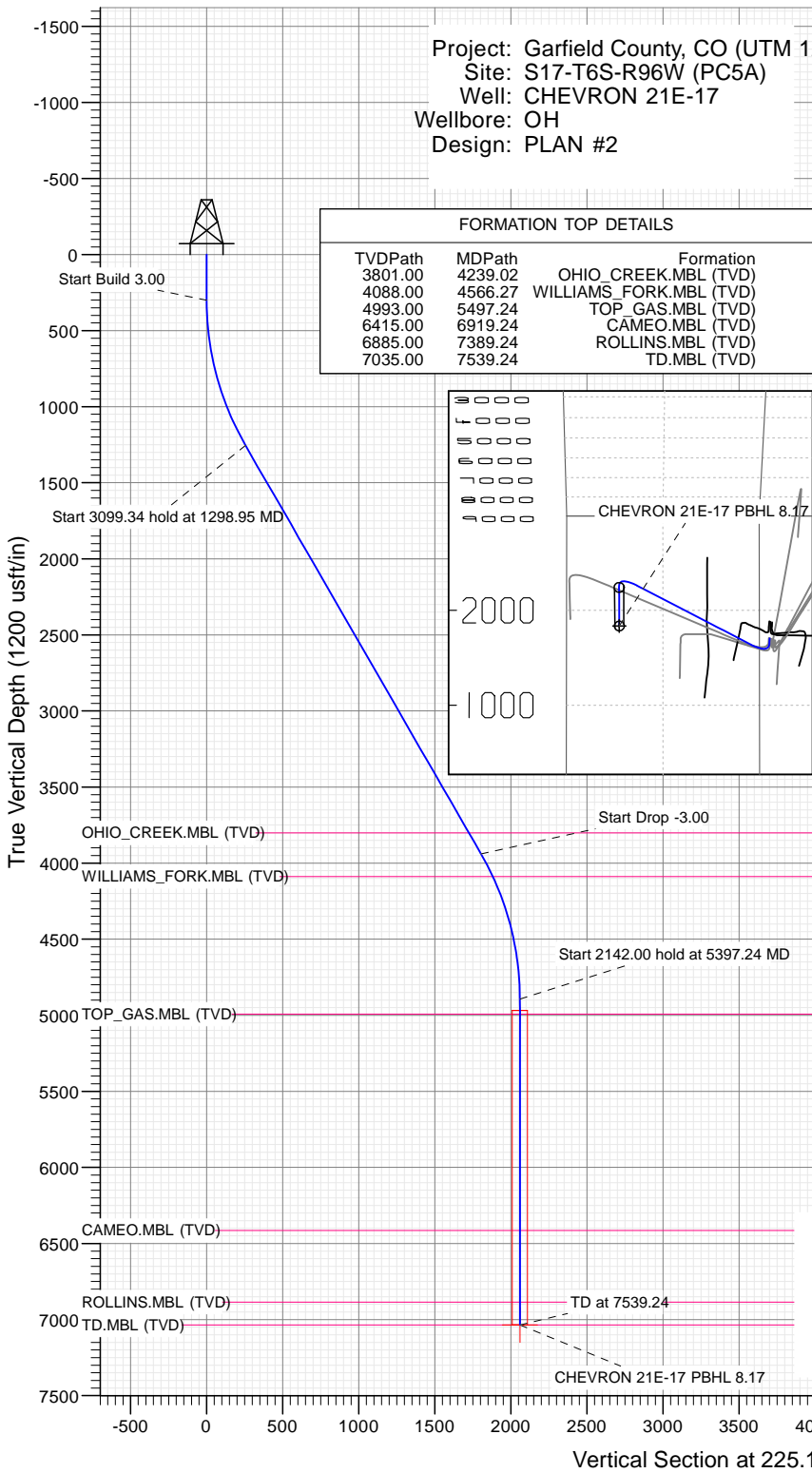




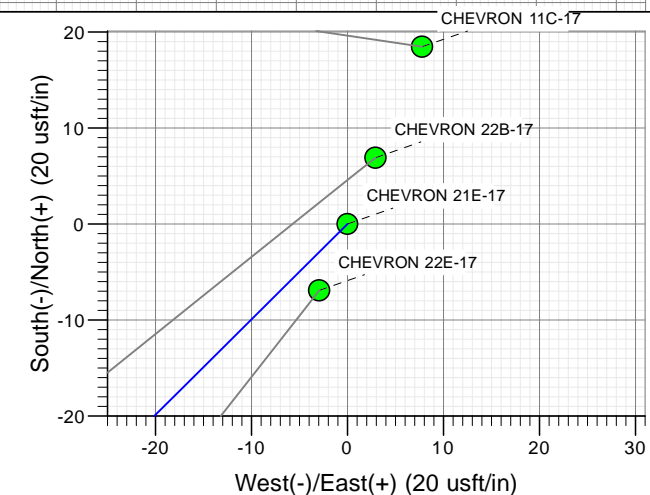
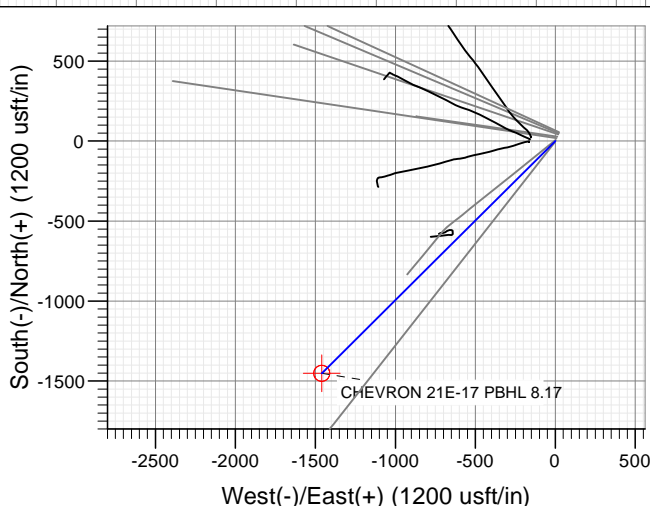
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1298.95	29.97	225.17	1254.02	-180.03	-181.09	3.00	225.17	255.35	
4	4398.29	29.97	225.17	3938.98	-1271.53	-1279.06	0.00	0.001803.55		
5	5397.24	0.00	0.00	4893.00	-1451.55	-1460.15	3.00	180.002058.90		
6	7539.24	0.00	0.00	7035.00	-1451.55	-1460.15	0.00	0.002058.90		CHEVRON 21E-17 PBHL 8.17



PLAN #2
CHEVRON 21E-17
15X00C LR
30' KB @ 5613.00usft
Ground Level @ 5583.00
NAD 1927 - Western US
Well CHEVRON 21E-17, True North

Type	Target	No Target (Freehand)	Azimuth	Origin Type	N/S	E/W	From TVD
TD			225.17	Spot	0.00	0.00	0.00
Name							
CHEVRON 21E-17 PBHL 8.17			7035.00		-1451.55	-1460.15	39.524208
CHEVRON 21E-17 PBHL			7108.00		-119.98	-707.79	39.527863
							-108.131549



Azimuths to True North
Magnetic North: 9.82°

Magnetic Field
Strength: 51888.8snT
Dip Angle: 65.93°
Date: 11/10/2015
Model: HDGM

CASING DETAILS

No casing data is available



WELL DETAILS: CHEVRON 21E-17

+N/-S	+E/-W	Northing	Ground Level:	5583.00	Latitude	Longitude
0.00	0.00	14367165.90	Easting	2450023.60	39.528192	-108.129041



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well CHEVRON 21E-17
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 5613.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 5613.00usft
Site:	S17-T6S-R96W (PC5A)	North Reference:	True
Well:	CHEVRON 21E-17	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

Project	Garfield County, CO (UTM 12N)		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	S17-T6S-R96W (PC5A)		
Site Position:		Northing:	14,367,212.50 usft
From:	Map	Easting:	2,450,041.70 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"
		Latitude:	39.528318
		Longitude:	-108.128972
		Grid Convergence:	1.83 °

Well	CHEVRON 21E-17		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	39.528192
		Longitude:	-108.129041
		Ground Level:	5,583.00 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	HDGM	11/10/2015	9.82
			Dip Angle (°)
			65.93
			Field Strength (nT)
			51,889

Design	PLAN #2		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			225.17

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,298.95	29.97	225.17	1,254.02	-180.03	-181.09	3.00	3.00	0.00	225.17	
4,398.29	29.97	225.17	3,938.98	-1,271.53	-1,279.06	0.00	0.00	0.00	0.00	
5,397.24	0.00	0.00	4,893.00	-1,451.55	-1,460.15	3.00	-3.00	0.00	180.00	
7,539.24	0.00	0.00	7,035.00	-1,451.55	-1,460.15	0.00	0.00	0.00	0.00	CHEVRON 21E-17 PI

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well CHEVRON 21E-17
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 5613.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 5613.00usft
Site:	S17-T6S-R96W (PC5A)	North Reference:	True
Well:	CHEVRON 21E-17	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	Start Build 3.00
400.00	3.00	225.17	399.95	-1.85	-1.86	2.62	3.00	3.00	
500.00	6.00	225.17	499.63	-7.38	-7.42	10.46	3.00	3.00	
600.00	9.00	225.17	598.77	-16.58	-16.68	23.51	3.00	3.00	
700.00	12.00	225.17	697.08	-29.42	-29.60	41.74	3.00	3.00	
800.00	15.00	225.17	794.31	-45.88	-46.15	65.08	3.00	3.00	
900.00	18.00	225.17	890.18	-65.90	-66.29	93.48	3.00	3.00	
1,000.00	21.00	225.17	984.43	-89.43	-89.96	126.85	3.00	3.00	
1,100.00	24.00	225.17	1,076.81	-116.41	-117.10	165.12	3.00	3.00	
1,200.00	27.00	225.17	1,167.06	-146.76	-147.63	208.16	3.00	3.00	
1,298.95	29.97	225.17	1,254.02	-180.03	-181.09	255.35	3.00	3.00	Start 3099.34 hold at 1298.95 MD
1,300.00	29.97	225.17	1,254.93	-180.39	-181.46	255.87	0.00	0.00	
1,400.00	29.97	225.17	1,341.56	-215.61	-216.89	305.82	0.00	0.00	
1,500.00	29.97	225.17	1,428.19	-250.83	-252.31	355.78	0.00	0.00	
1,600.00	29.97	225.17	1,514.82	-286.05	-287.74	405.73	0.00	0.00	
1,700.00	29.97	225.17	1,601.45	-321.26	-323.17	455.68	0.00	0.00	
1,800.00	29.97	225.17	1,688.08	-356.48	-358.59	505.64	0.00	0.00	
1,900.00	29.97	225.17	1,774.71	-391.70	-394.02	555.59	0.00	0.00	
2,000.00	29.97	225.17	1,861.34	-426.92	-429.44	605.54	0.00	0.00	
2,100.00	29.97	225.17	1,947.97	-462.13	-464.87	655.49	0.00	0.00	
2,200.00	29.97	225.17	2,034.60	-497.35	-500.30	705.45	0.00	0.00	
2,300.00	29.97	225.17	2,121.23	-532.57	-535.72	755.40	0.00	0.00	
2,400.00	29.97	225.17	2,207.86	-567.78	-571.15	805.35	0.00	0.00	
2,500.00	29.97	225.17	2,294.49	-603.00	-606.57	855.30	0.00	0.00	
2,600.00	29.97	225.17	2,381.12	-638.22	-642.00	905.26	0.00	0.00	
2,700.00	29.97	225.17	2,467.75	-673.44	-677.43	955.21	0.00	0.00	
2,800.00	29.97	225.17	2,554.38	-708.65	-712.85	1,005.16	0.00	0.00	
2,900.00	29.97	225.17	2,641.01	-743.87	-748.28	1,055.11	0.00	0.00	
3,000.00	29.97	225.17	2,727.64	-779.09	-783.70	1,105.07	0.00	0.00	
3,100.00	29.97	225.17	2,814.27	-814.31	-819.13	1,155.02	0.00	0.00	
3,200.00	29.97	225.17	2,900.90	-849.52	-854.56	1,204.97	0.00	0.00	
3,300.00	29.97	225.17	2,987.53	-884.74	-889.98	1,254.92	0.00	0.00	
3,400.00	29.97	225.17	3,074.16	-919.96	-925.41	1,304.88	0.00	0.00	
3,500.00	29.97	225.17	3,160.79	-955.17	-960.83	1,354.83	0.00	0.00	
3,600.00	29.97	225.17	3,247.42	-990.39	-996.26	1,404.78	0.00	0.00	
3,700.00	29.97	225.17	3,334.05	-1,025.61	-1,031.69	1,454.73	0.00	0.00	
3,800.00	29.97	225.17	3,420.68	-1,060.83	-1,067.11	1,504.69	0.00	0.00	
3,900.00	29.97	225.17	3,507.31	-1,096.04	-1,102.54	1,554.64	0.00	0.00	
4,000.00	29.97	225.17	3,593.94	-1,131.26	-1,137.96	1,604.59	0.00	0.00	
4,100.00	29.97	225.17	3,680.57	-1,166.48	-1,173.39	1,654.54	0.00	0.00	
4,200.00	29.97	225.17	3,767.20	-1,201.70	-1,208.82	1,704.50	0.00	0.00	
4,239.02	29.97	225.17	3,801.00	-1,215.44	-1,222.64	1,723.99	0.00	0.00	OHIO_CREEK.MBL (TVD)
4,300.00	29.97	225.17	3,853.83	-1,236.91	-1,244.24	1,754.45	0.00	0.00	
4,398.29	29.97	225.17	3,938.98	-1,271.53	-1,279.06	1,803.55	0.00	0.00	Start Drop -3.00
4,400.00	29.92	225.17	3,940.46	-1,272.13	-1,279.67	1,804.40	3.00	-3.00	
4,500.00	26.92	225.17	4,028.40	-1,305.68	-1,313.41	1,851.98	3.00	-3.00	
4,566.27	24.93	225.17	4,088.00	-1,326.10	-1,333.96	1,880.96	3.00	-3.00	WILLIAMS_FORK.MBL (TVD)
4,600.00	23.92	225.17	4,118.71	-1,335.93	-1,343.85	1,894.90	3.00	-3.00	
4,700.00	20.92	225.17	4,211.14	-1,362.82	-1,370.89	1,933.03	3.00	-3.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well CHEVRON 21E-17
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 5613.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 5613.00usft
Site:	S17-T6S-R96W (PC5A)	North Reference:	True
Well:	CHEVRON 21E-17	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

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
4,800.00	17.92	225.17	4,305.44	-1,386.25	-1,394.46	1,966.27	3.00	-3.00	
4,900.00	14.92	225.17	4,401.35	-1,406.18	-1,414.51	1,994.53	3.00	-3.00	
5,000.00	11.92	225.17	4,498.61	-1,422.53	-1,430.96	2,017.73	3.00	-3.00	
5,100.00	8.92	225.17	4,596.95	-1,435.28	-1,443.78	2,035.81	3.00	-3.00	
5,200.00	5.92	225.17	4,696.11	-1,444.38	-1,452.94	2,048.72	3.00	-3.00	
5,300.00	2.92	225.17	4,795.80	-1,449.81	-1,458.40	2,056.42	3.00	-3.00	
5,397.24	0.00	0.00	4,893.00	-1,451.55	-1,460.15	2,058.90	3.00	-3.00	Start 2142.00 hold at 5397.24 MD
5,400.00	0.00	0.00	4,895.76	-1,451.55	-1,460.15	2,058.90	0.00	0.00	
5,497.24	0.00	0.00	4,993.00	-1,451.55	-1,460.15	2,058.90	0.00	0.00	TOP_GAS.MBL (TVD)
5,500.00	0.00	0.00	4,995.76	-1,451.55	-1,460.15	2,058.90	0.00	0.00	
5,600.00	0.00	0.00	5,095.76	-1,451.55	-1,460.15	2,058.90	0.00	0.00	
5,700.00	0.00	0.00	5,195.76	-1,451.55	-1,460.15	2,058.90	0.00	0.00	
5,800.00	0.00	0.00	5,295.76	-1,451.55	-1,460.15	2,058.90	0.00	0.00	
5,900.00	0.00	0.00	5,395.76	-1,451.55	-1,460.15	2,058.90	0.00	0.00	
6,000.00	0.00	0.00	5,495.76	-1,451.55	-1,460.15	2,058.90	0.00	0.00	
6,100.00	0.00	0.00	5,595.76	-1,451.55	-1,460.15	2,058.90	0.00	0.00	
6,200.00	0.00	0.00	5,695.76	-1,451.55	-1,460.15	2,058.90	0.00	0.00	
6,300.00	0.00	0.00	5,795.76	-1,451.55	-1,460.15	2,058.90	0.00	0.00	
6,400.00	0.00	0.00	5,895.76	-1,451.55	-1,460.15	2,058.90	0.00	0.00	
6,500.00	0.00	0.00	5,995.76	-1,451.55	-1,460.15	2,058.90	0.00	0.00	
6,600.00	0.00	0.00	6,095.76	-1,451.55	-1,460.15	2,058.90	0.00	0.00	
6,700.00	0.00	0.00	6,195.76	-1,451.55	-1,460.15	2,058.90	0.00	0.00	
6,800.00	0.00	0.00	6,295.76	-1,451.55	-1,460.15	2,058.90	0.00	0.00	
6,900.00	0.00	0.00	6,395.76	-1,451.55	-1,460.15	2,058.90	0.00	0.00	
6,919.24	0.00	0.00	6,415.00	-1,451.55	-1,460.15	2,058.90	0.00	0.00	CAMEO.MBL (TVD)
7,000.00	0.00	0.00	6,495.76	-1,451.55	-1,460.15	2,058.90	0.00	0.00	
7,100.00	0.00	0.00	6,595.76	-1,451.55	-1,460.15	2,058.90	0.00	0.00	
7,200.00	0.00	0.00	6,695.76	-1,451.55	-1,460.15	2,058.90	0.00	0.00	
7,300.00	0.00	0.00	6,795.76	-1,451.55	-1,460.15	2,058.90	0.00	0.00	
7,389.24	0.00	0.00	6,885.00	-1,451.55	-1,460.15	2,058.90	0.00	0.00	ROLLINS.MBL (TVD)
7,400.00	0.00	0.00	6,895.76	-1,451.55	-1,460.15	2,058.90	0.00	0.00	
7,500.00	0.00	0.00	6,995.76	-1,451.55	-1,460.15	2,058.90	0.00	0.00	
7,539.24	0.00	0.00	7,035.00	-1,451.55	-1,460.15	2,058.90	0.00	0.00	TD at 7539.24 - TD.MBL (TVD)

Targets									
Target Name									
- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
CHEVRON 21E-17 PBH	0.00	0.00	7,108.00	-119.98	-707.79	14,367,023.40	2,449,320.00	39.527863	-108.131549
- plan misses target center by 1531.17usft at 7539.24usft MD (7035.00 TVD, -1451.55 N, -1460.15 E)									
- Circle (radius 50.00)									
CHEVRON 21E-17 PBH	0.00	0.00	7,035.00	-1,451.55	-1,460.15	14,365,668.50	2,448,610.50	39.524208	-108.134215
- plan hits target center									
- Circle (radius 50.00)									

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well CHEVRON 21E-17
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 5613.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 5613.00usft
Site:	S17-T6S-R96W (PC5A)	North Reference:	True
Well:	CHEVRON 21E-17	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,239.02	3,801.00	OHIO_CREEK.MBL (TVD)				
4,566.27	4,088.00	WILLIAMS_FORK.MBL (TVD)				
5,497.24	4,993.00	TOP_GAS.MBL (TVD)				
6,919.24	6,415.00	CAMEO.MBL (TVD)				
7,389.24	6,885.00	ROLLINS.MBL (TVD)				
7,539.24	7,035.00	TD.MBL (TVD)				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
300.00	300.00	0.00	0.00	Start Build 3.00	
1,298.95	1,254.02	-180.03	-181.09	Start 3099.34 hold at 1298.95 MD	
4,398.29	3,938.98	-1,271.53	-1,279.06	Start Drop -3.00	
5,397.24	4,893.00	-1,451.55	-1,460.15	Start 2142.00 hold at 5397.24 MD	
7,539.24	7,035.00	-1,451.55	-1,460.15	TD at 7539.24	