

Devon Energy, Taylor Draw 7 Fed Com 2Y

30-025-42693

1. Geologic Formations

TVD of target	9,237'	Pilot hole depth	N/A
MD at TD:	13896	Deepest expected fresh water:	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Rustler	830	Water	
Top Salt	935	Salt	
Base Salt	2461	Salt	
Capitan	2970	Water	
Queen	3650	Oil/Gas	
Delaware	5360	Oil/Gas	
1st BSPG Lime	6980	Oil/Gas	
1st BSPG Sand	8280	Oil/Gas	
2nd BSPG Lime	8575	Oil/Gas	
2nd BSPG Sand	9010	Oil/Gas	
2nd BSPG Sand U	9110	Oil/Gas	
2nd BSPG Sand M	9230	Oil/Gas	
3rd BSPG Lime	9430	Oil/Gas	

*H2S, water flows, loss of circulation, abnormal pressures, etc

Devon Energy, Taylor Draw 7 Fed Com 2Y

See COA 2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn	SF Collapse	SF Burst	SF Tension
	From	To							
17.5"	0	900' 930'	13.375"	48	H-40	STC	1.83	4.11	7.45
12.25"	0	4,525'	9.625"	40	HCK-55	BTC	1.62	1.29	2.49
8.75"	0	13896'	5.5"	17	P-110	BTC	1.73	1.11	2.32
BLM Minimum Safety Factor							1.125	1.00	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Must have table for contingency casing.

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Table

Devon Energy, Taylor Draw 7 Fed Com 2Y

String	Number of sx	Weight lbs/gal	Water Volume g/sx	Yield cf/sx	Stage; Lead/Tail	Slurry Description
Surface	500	13.5	9.13	1.73	Lead	Premium Plus C Cement + 0.005 lbs/sack Static Free + 1% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 0.005 gps FP-6L + 4% bwoc Bentonite + 81% Fresh Water
	200	14.8	6.34	1.35	Tail	Premium Plus C Cement + 0.005 lbs/sack Static Free + 2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 0.005 gps FP-6L + 56.3% Fresh Water
Intermediate	915	12.6	8.81	1.73	Lead	(60:40) Poz (Fly Ash):Premium Plus C Cement + 0.005 lbs/sack Static Free + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 3 lbs/sack LCM-1 + 0.2% bwoc FL-52 + 0.005 gps FP-6L + 1% bwoc Sodium Metasilicate + 89.6% Fresh Water
	350	13.8	6.41	1.38	Tail	(60:40) Poz (Fly Ash):Premium Plus C Cement + 0.005 lbs/sack Static Free + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.005 gps FP-6L + 0.25% bwoc Sodium Metasilicate + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 65.2% Fresh Water
Intermediate 2 Stage	295	12.8	8.01	1.66	1 st Lead	(60:40) Poz (Fly Ash):Premium Plus C Cement + 0.005 lbs/sack Static Free + 5% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.25 lbs/sack Cello Flake + 5 lbs/sack LCM-1 + 0.25% bwoc FL-52 + 0.005 gps FP-6L + 1.5% bwoc Sodium Metasilicate + 81.5% Fresh Water
	350	13.8	6.40	1.38	1 st Tail	(60:40) Poz (Fly Ash):Premium Plus C Cement + 0.005 lbs/sack Static Free + 5% bwow Sodium Chloride + 0.25 lbs/sack Cello Flake + 0.005 gps FP-6L + 0.1% bwoc Sodium Metasilicate + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 65.1% Fresh Water
	DVT @ 2500'					
	535	12.8	8.01	1.66	2 nd Lead	(60:40) Poz (Fly Ash):Premium Plus C Cement + 0.005 lbs/sack Static Free + 5% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.25 lbs/sack Cello Flake + 5 lbs/sack LCM-1 + 0.25% bwoc FL-52 + 0.005 gps FP-6L + 1.5% bwoc Sodium Metasilicate + 81.5% Fresh Water
	150	13.8	6.41	1.38	2 nd Tail	(60:40) Poz (Fly Ash):Premium Plus C Cement + 0.005 lbs/sack Static Free + 5% bwow Sodium Chloride + 0.25 lbs/sack Cello Flake + 0.005 gps FP-6L + 0.5% bwoc Sodium Metasilicate + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 65.2% Fresh Water
Production (5 1/2") <i>See COA</i>	250	11.8	13.15	2.3	1 st Lead	(50:50) Poz (Fly Ash):Premium Plus H Cement + 0.005 lbs/sack Static Free + 0.5% bwoc FL-52 + 0.3% bwoc ASA-301 + 0.005 gps FP-6L + 10% bwoc Bentonite + 0.35% bwoc R-21 + 130.6% Fresh Water
	505	12.5	11.00	2.01	2 nd Lead	(35:65) Poz (Fly Ash):Premium Plus H Cement + 0.005 lbs/sack Static Free + 3% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125 lbs/sack Cello Flake + 0.7% bwoc FL-52 + 0.3% bwoc ASA-301 + 0.005 gps FP-6L + 6% bwoc Bentonite + 105.5% Fresh Water
	1410	14.2	5.76	1.28	Tail	(50:50) Poz (Fly Ash):Premium Plus H Cement + 0.005 lbs/sack Static Free + 5% bwow Sodium Chloride + 0.3% bwoc CD-32 + 0.5% bwoc FL-25 + 0.4% bwoc FL-52 + 0.005 gps FP-6L + 0.5% bwoc Sodium Metasilicate + 57.2% Fresh Water

52
(5A)

not
proper

Casing/String	TOC	% Excess
13-3/8" Surface	0'	75%
9-5/8" Intermediate	0'	50%
9-5/8" Intermediate Two Stage	1 st Stage = 2500' / 2 nd Stage = 0'	50%
5-1/2" Production Casing Longstring Single Stage	2920' (50' above top of Capitan Reef)	25%
5-1/2" Production Casing Longstring Two Stage	1 st Stage = 4575' / 2 nd Stage = 2920'	25%
7" x 5-1/2" Production Combo Single Stage	2920' (50' above top of Capitan Reef)	25%

Devon Energy, Taylor Draw 7 Fed Com 2Y

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
---	--

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12-1/4"	13-5/8"	3M	Annular	x	50% testing pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	x	
			Other*		
8-3/4"	13-5/8"	3M	Annular	x	50% testing pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	x	
			Other*		

*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

The BOP system used to drill the 17-1/2" hole will consist of a 20" 2M Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order 2 as a 2M system prior to drilling out the casing shoe.

A 3M 13-5/8" BOP system (Double Ram and Annular preventer) will be installed and tested prior to drilling out the first and second intermediate hole sections. The BOP system will be tested as a 3M system per BLM Onshore Oil and Gas Order 2 prior to drilling out of the casing shoes.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.

Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Devon Energy, Taylor Draw 7 Fed Com 2Y

Y	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
Y	Are anchors required by manufacturer?

See
COA

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	900' 930'	FW Gel	8.6-8.8	28-34	N/C
9000'	4,525'	Saturated Brine	10.0-10.2	28-34	N/C
4,525'		FW Gel	8.4-9.0	28-34	N/C

See
COA

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
---	-----------------------------

6. Logging and Testing Procedures

Logging, Coring and Testing	
x	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No Logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain
	Coring? If yes, explain

Additional logs planned	Interval
Resistivity	Int. shoe to KOP
Density	Int. shoe to KOP
X CBL	Production casing
X Mud log	Intermediate shoe to TD
PEX	

Devon Energy, Taylor Draw 7 Fed Com 2Y

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	3837 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions: Lost circulation material/sweeps/mud scavengers.

Hydrogen Sulfide (H₂S) monitors will be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

N	H2S is present
Y	H2S Plan attached

8. Other facets of operation

Is this a walking operation? No.

Will be pre-setting casing? No.

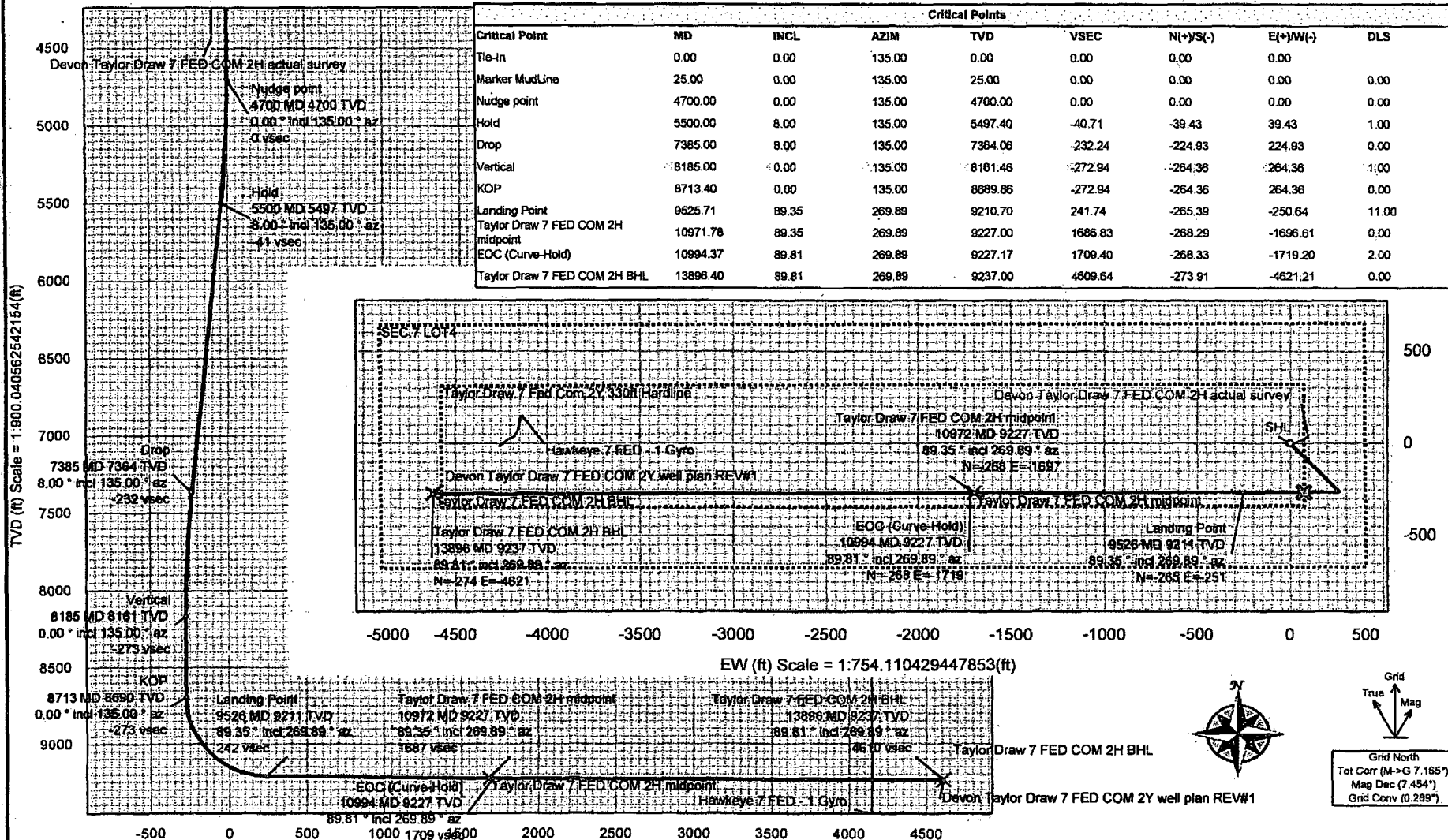
Attachments

☒ Directional Plan

☐ Other, describe

Borehole:	Well:	Field:	Structure:
Original Hole	Devon Taylor Draw 7 FED COM 2Y	Lea County (NAD83)	Devon Taylor Draw 7 FED COM 2Y

Gravity & Magnetic Parameters	Surface Location	Miscellaneous
Model: HDGM 2015 Dip: 60.686° Date: 16-Jul-2015	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Slot: 2Y TVD Ref: RKB(3637.1ft above Mean Sea Level)
MagDec: 7.454° FS: 49632.058nT Gravity FS: 998.507mgn (9.80665 Based)	Lat: N 32 40 10.44 Northing: 807734.758US Gnd Conv: 0.2888°	Plan: Devon Taylor Draw 7 FED COM 2Y well plan REV#1
	Lon: W 103 47 53.91 Easting: 705973.588US Scale Fact: 0.99994013	



NS (ft) Scale = 1:754.110429447853(ft)



Grid North
Tot Corr (M->G 7.165°)
Mag Dec (7.454°)
Grid Conv (0.289°)

Devon Taylor Draw 7 FED COM 2Y well plan REV#1 Proposal Geodetic Report

(Def Plan)



Report Date: July 16, 2015 - 01:19 PM
 Client: Lea County (NAD83)
 Structure / Slot: Devon Taylor Draw 7 FED COM 2Y / 2Y
 Well: Devon Taylor Draw 7 FED COM 2Y
 Borehole: Original Hole
 UWI / API#: Unknown / Unknown
 Survey Name: Devon Taylor Draw 7 FED COM 2Y well plan REV#1
 Survey Date: July 16, 2015
 Tort / AHD / DDI / ERD Ratio: 105.806° / 5259.436 ft / 5.923 / 0.569
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 40' 10.44387", W 103° 47' 53.90679"
 Location Grid N/E Y/X: N 607734.750 ftUS, E 705973.580 ftUS
 CRS Grid Convergence Angle: 0.2888°
 Grid Scale Factor: 0.99994013
 Version / Patch: 2.8.572.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 271.892° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB
 TVD Reference Elevation: 3637.100 ft above Mean Sea Level
 Seabed / Ground Elevation: 3612.100 ft above Mean Sea Level
 Magnetic Declination: 7.454°
 Total Gravity Field Strength: 998.5069mgn (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 48632.058 nT
 Magnetic Dip Angle: 60.686°
 Declination Date: July 16, 2015
 Magnetic Declination Model: HDGM 2015
 North Reference: Grid North
 Grid Convergence Used: 0.2888°
 Total Corr Mag North->Grid North: 7.1653°
 Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
Tie-In	0.00	0.00	135.00	0.00	0.00	0.00	0.00	N/A	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
Marker MudLine	25.00	0.00	135.00	25.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	100.00	0.00	135.00	100.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	200.00	0.00	135.00	200.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	300.00	0.00	135.00	300.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	400.00	0.00	135.00	400.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	500.00	0.00	135.00	500.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	600.00	0.00	135.00	600.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	700.00	0.00	135.00	700.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	800.00	0.00	135.00	800.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	900.00	0.00	135.00	900.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	1000.00	0.00	135.00	1000.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	1100.00	0.00	135.00	1100.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	1200.00	0.00	135.00	1200.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	1300.00	0.00	135.00	1300.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	1400.00	0.00	135.00	1400.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	1500.00	0.00	135.00	1500.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	1600.00	0.00	135.00	1600.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	1700.00	0.00	135.00	1700.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	1800.00	0.00	135.00	1800.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	1900.00	0.00	135.00	1900.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	2000.00	0.00	135.00	2000.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	2100.00	0.00	135.00	2100.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	2200.00	0.00	135.00	2200.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	2300.00	0.00	135.00	2300.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	2400.00	0.00	135.00	2400.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	2500.00	0.00	135.00	2500.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	2600.00	0.00	135.00	2600.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	2700.00	0.00	135.00	2700.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	2800.00	0.00	135.00	2800.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	2900.00	0.00	135.00	2900.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	3000.00	0.00	135.00	3000.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	3100.00	0.00	135.00	3100.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	3200.00	0.00	135.00	3200.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	3300.00	0.00	135.00	3300.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	3400.00	0.00	135.00	3400.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	3500.00	0.00	135.00	3500.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	3600.00	0.00	135.00	3600.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	3700.00	0.00	135.00	3700.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	3800.00	0.00	135.00	3800.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	3900.00	0.00	135.00	3900.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	4000.00	0.00	135.00	4000.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	4100.00	0.00	135.00	4100.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	4200.00	0.00	135.00	4200.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	4300.00	0.00	135.00	4300.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	4400.00	0.00	135.00	4400.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	4500.00	0.00	135.00	4500.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	4600.00	0.00	135.00	4600.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
KOP	4700.00	0.00	135.00	4700.00	0.00	0.00	0.00	0.00	607734.75	705973.58	N 32 40 10.44	W 103 47 53.91
	4800.00	1.00	135.00	4799.99	-0.84	-0.62	0.62	1.00	607734.13	705974.20	N 32 40 10.44	W 103 47 53.90
	4900.00	2.00	135.00	4899.96	-2.55	-2.47	2.47	1.00	607732.28	705976.05	N 32 40 10.42	W 103 47 53.88
	5000.00	3.00	135.00	4999.86	-5.73	-5.55	5.55	1.00	607729.20	705979.13	N 32 40 10.39	W 103 47 53.84
	5100.00	4.00	135.00	5099.68	-10.19	-9.87	9.87	1.00	607724.88	705983.45	N 32 40 10.35	W 103 47 53.79
	5200.00	5.00	135.00	5199.37	-15.92	-15.42	15.42	1.00	607719.33	705989.00	N 32 40 10.29	W 103 47 53.73
	5300.00	6.00	135.00	5298.90	-22.91	-22.19	22.19	1.00	607712.56	705995.77	N 32 40 10.22	W 103 47 53.65
EOC	5400.00	7.00	135.00	5398.26	-31.18	-30.20	30.20	1.00	607704.55	706003.78	N 32 40 10.14	W 103 47 53.56
	5500.00	8.00	135.00	5497.40	-40.71	-39.43	39.43	1.00	607695.32	706013.01	N 32 40 10.05	W 103 47 53.45
	5600.00	8.00	135.00	5596.43	-50.87	-49.27	49.27	0.00	607685.48	706022.85	N 32 40 9.95	W 103 47 53.33
	5700.00	8.00	135.00	5695.46	-61.03	-59.11	59.11	0.00	607675.64	706032.69	N 32 40 9.86	W 103 47 53.22
	5800.00	8.00	135.00	5794.48	-71.19	-68.95	68.95	0.00	607665.80	706042.53	N 32 40 9.76	W 103 47 53.10
	5900.00	8.00	135.00	5893.51	-81.35	-78.79	78.79	0.00	607655.96	706052.37	N 32 40 9.66	W 103 47 52.99
	6000.00	8.00	135.00	5992.54	-91.51	-88.63	88.63	0.00	607646.12	706062.21	N 32 40 9.56	W 103 47 52.88
	6100.00	8.00	135.00	6091.56	-101.67	-98.47	98.47	0.00	607636.28	706072.05	N 32 40 9.46	W 103 47 52.76
	6200.00	8.00	135.00	6190.59	-111.83	-108.32	108.32	0.00	607626.44	706081.89	N 32 40 9.37	W 103 47 52.65
	6300.00	8.00	135.00	6289.62	-121.99	-118.16	118.16	0.00	607616.60	706091.73	N 32 40 9.27	W 103 47 52.53
	6400.00	8.00	135.00	6388.64	-132.15	-128.00	128.00	0.00	607606.76	706101.57	N 32 40 9.17	W 103 47 52.42
	6500.00	8.00	135.00	6487.67	-142.31	-137.84	137.84	0.00	607596.92	706111.41	N 32 40 9.07	W 103 47 52.30
	6600.00	8.00	135.00	6586.70	-152.47	-147.68	147.68	0.00	607587.08	706121.25	N 32 40 8.98	W 103 47 52.19
	6700.00	8.00	135.00	6685.72	-162.64	-157.52	157.52	0.00	607577.24	706131.09	N 32 40 8.88	W 103 47 52.07
	6800.00	8.00	135.00	6784.75	-172.80	-167.36	167.36	0.00	607567.40	706140.93	N 32 40 8.78	W 103 47 51.96
	6900.00	8.00	135.00	6883.78	-182.96	-177.20	177.20	0.00	607557.56	706150.77	N 32 40 8.68	W 103 47 51.84
	7000.00	8.00	135.00	6982.81	-193.12	-187.04	187.04	0.00	607547.72	706160.61	N 32 40 8.58	W 103 47 51.73
	7100.00	8.00	135.00	7081.83	-203.28	-196.88	196.88	0.00	607537.88	706170.45	N 32 40 8.49	W 103 47 51.62
	7200.00	8.00	135.00	7180.86	-213.44	-206.73	206.73	0.00	607528.04	706180.29	N 32 40 8.39	W 103 47 51.50
	7300.00	8.00	135.00	7279.89	-223.60	-216.57	216.57	0.00	607518.20	706190.13	N 32 40 8.29	W 103 47 51.39
KOP	7385.00	8.00	135.00	7364.06	-224.93	-224.93	224.93	0.00	607508.83	706198.50	N 32 40 8.21	W 103 47 51.29
	7400.00	7.85	135.00	7378.92	-233.75	-226.39	226.39	1.00	607508.37	706199.96	N 32 40 8.19	W 103 47 51.27
	7500.00	6.85	135.00	7478.09	-243.08	-235.44	235.44	1.00	607499.32	706209.01	N 32 40 8.10	W 103 47 51.17
	7600.00	5.85	135.00	7577.48	-251.16	-243.26	243.26	1.00	607491.50	706216.83	N 32 40 8.02	W 103 47 51.08
	7700.00	4.85	135.00	7677.04	-257.97	-249.85	249.85	1.00	607484.91	706223.42	N 32 40 7.96	W 103 47 51.00
	7800.00	3.85	135.00	7776.75	-263.50	-255.22	255.22	1.00	607479.55	706228.78	N 32 40 7.91	W 103 47 50.94
	7900.00	2.85	135.00	7876.58	-267.77	-259.35	259.35	1.00	607475.42	706232.91	N 32 40 7.86	W 103 47 50.89
	8000.00	1.85	135.00	7976.49	-270.76	-262.25	262.25	1.00	607472.52	706235.81	N 32 40 7.84	W 103 47 50.85
	8100.00	0.85	135.00	8076.46	-272.48	-263.91	263.91	1.00	607470.85	706237.48	N 32 40 7.82	W 103 47 50.84
EOC	8185.00	0.00	135.00	8161.46	-272.94	-264.36	264.36	1.00	607470.41	706237.92	N 32 40 7.82	W 103 47 50.83

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
KOP	8200.00	0.00	135.00	8176.46	-272.94	-264.36	264.36	0.00	607470.41	706237.92	N 32 40 7.82	W 103 47 50.83
	8300.00	0.00	135.00	8276.46	-272.94	-264.36	264.36	0.00	607470.41	706237.92	N 32 40 7.82	W 103 47 50.83
	8400.00	0.00	135.00	8376.46	-272.94	-264.36	264.36	0.00	607470.41	706237.92	N 32 40 7.82	W 103 47 50.83
	8500.00	0.00	135.00	8476.46	-272.94	-264.36	264.36	0.00	607470.41	706237.92	N 32 40 7.82	W 103 47 50.83
	8600.00	0.00	135.00	8576.46	-272.94	-264.36	264.36	0.00	607470.41	706237.92	N 32 40 7.82	W 103 47 50.83
	8700.00	0.00	135.00	8676.46	-272.94	-264.36	264.36	0.00	607470.41	706237.92	N 32 40 7.82	W 103 47 50.83
	8713.40	0.00	135.00	8689.86	-272.94	-264.36	264.36	0.00	607470.41	706237.92	N 32 40 7.82	W 103 47 50.83
	8800.00	9.53	269.89	8776.06	-265.77	-264.37	264.36	11.00	607470.39	706237.92	N 32 40 7.82	W 103 47 50.83
	8900.00	20.53	269.89	8872.50	-239.90	-264.43	231.29	11.00	607470.34	706204.86	N 32 40 7.82	W 103 47 51.22
	9000.00	31.53	269.89	8962.22	-196.11	-264.51	187.48	11.00	607470.25	706161.05	N 32 40 7.82	W 103 47 51.73
	9100.00	42.53	269.89	9041.93	-136.02	-264.63	127.36	11.00	607470.13	706100.93	N 32 40 7.82	W 103 47 52.43
	9200.00	53.53	269.89	9108.71	-61.84	-264.78	53.13	11.00	607469.98	706026.70	N 32 40 7.82	W 103 47 53.30
	9300.00	64.53	269.89	9160.09	23.72	-264.95	-32.48	11.00	607469.81	705941.10	N 32 40 7.82	W 103 47 54.30
	9400.00	75.53	269.89	9194.20	117.50	-265.14	-126.32	11.00	607469.62	705847.26	N 32 40 7.83	W 103 47 55.40
	9500.00	86.53	269.89	9209.78	216.06	-265.34	-224.95	11.00	607469.43	705748.65	N 32 40 7.83	W 103 47 56.55
EOC (Curve-Hold)	9525.71	89.35	269.89	9210.70	241.74	-265.39	-250.64	11.00	607469.38	705722.96	N 32 40 7.83	W 103 47 56.85
	9600.00	89.35	269.89	9211.54	315.98	-265.54	-324.92	0.00	607469.23	705648.68	N 32 40 7.83	W 103 47 57.72
	9700.00	89.35	269.89	9212.66	415.91	-265.74	-424.92	0.00	607469.03	705548.69	N 32 40 7.84	W 103 47 58.89
	9800.00	89.35	269.89	9213.79	515.84	-265.94	-524.91	0.00	607468.83	705448.70	N 32 40 7.84	W 103 48 0.06
	9900.00	89.35	269.89	9214.92	615.78	-266.14	-624.90	0.00	607468.63	705348.71	N 32 40 7.84	W 103 48 1.23
	10000.00	89.35	269.89	9216.05	715.71	-266.34	-724.90	0.00	607468.43	705248.73	N 32 40 7.84	W 103 48 2.40
	10100.00	89.35	269.89	9217.17	815.64	-266.54	-824.89	0.00	607468.23	705148.74	N 32 40 7.85	W 103 48 3.57
	10200.00	89.35	269.89	9218.30	915.57	-266.74	-924.88	0.00	607468.03	705048.75	N 32 40 7.85	W 103 48 4.74
	10300.00	89.35	269.89	9219.43	1015.51	-266.94	-1024.88	0.00	607467.83	704948.77	N 32 40 7.85	W 103 48 5.91
	10400.00	89.35	269.89	9220.55	1115.44	-267.14	-1124.87	0.00	607467.62	704848.78	N 32 40 7.86	W 103 48 7.08
	10500.00	89.35	269.89	9221.68	1215.37	-267.34	-1224.86	0.00	607467.42	704748.79	N 32 40 7.86	W 103 48 8.25
	10600.00	89.35	269.89	9222.81	1315.30	-267.54	-1324.86	0.00	607467.22	704648.80	N 32 40 7.86	W 103 48 9.42
	10700.00	89.35	269.89	9223.94	1415.23	-267.74	-1424.85	0.00	607467.02	704548.82	N 32 40 7.87	W 103 48 10.59
	10800.00	89.35	269.89	9225.06	1515.17	-267.94	-1524.84	0.00	607466.82	704448.83	N 32 40 7.87	W 103 48 11.76
	10900.00	89.35	269.89	9226.19	1615.10	-268.14	-1624.84	0.00	607466.62	704348.84	N 32 40 7.87	W 103 48 12.93
Taylor Draw 7 FED COM 2H midpoint EOC (Curve-Hold)	10971.78	89.35	269.89	9227.00	1686.83	-268.29	-1696.61	0.00	607466.48	704277.07	N 32 40 7.87	W 103 48 13.77
	10994.37	89.81	269.89	9227.17	1709.40	-268.33	-1719.20	2.00	607466.44	704254.49	N 32 40 7.87	W 103 48 14.03
	11000.00	89.81	269.89	9227.18	1715.03	-268.34	-1724.83	0.00	607466.42	704248.85	N 32 40 7.87	W 103 48 14.10
	11100.00	89.81	269.89	9227.52	1814.97	-268.53	-1824.83	0.00	607466.23	704148.86	N 32 40 7.88	W 103 48 15.27
	11200.00	89.81	269.89	9227.86	1914.91	-268.73	-1924.83	0.00	607466.04	704048.87	N 32 40 7.88	W 103 48 16.44
	11300.00	89.81	269.89	9228.20	2014.85	-268.92	-2024.83	0.00	607465.85	703948.87	N 32 40 7.88	W 103 48 17.61
	11400.00	89.81	269.89	9228.54	2114.79	-269.11	-2124.83	0.00	607465.66	703848.88	N 32 40 7.89	W 103 48 18.78
	11500.00	89.81	269.89	9228.88	2214.72	-269.30	-2224.83	0.00	607465.46	703748.89	N 32 40 7.89	W 103 48 19.95
	11600.00	89.81	269.89	9229.22	2314.66	-269.49	-2324.83	0.00	607465.27	703648.90	N 32 40 7.89	W 103 48 21.12
	11700.00	89.81	269.89	9229.56	2414.60	-269.69	-2424.83	0.00	607465.08	703548.90	N 32 40 7.90	W 103 48 22.29
	11800.00	89.81	269.89	9229.90	2514.54	-269.88	-2524.83	0.00	607464.89	703448.91	N 32 40 7.90	W 103 48 23.46
	11900.00	89.81	269.89	9230.23	2614.48	-270.07	-2624.83	0.00	607464.70	703348.92	N 32 40 7.90	W 103 48 24.63
	12000.00	89.81	269.89	9230.57	2714.42	-270.26	-2724.83	0.00	607464.50	703248.92	N 32 40 7.90	W 103 48 25.80
	12100.00	89.81	269.89	9230.91	2814.36	-270.46	-2824.82	0.00	607464.31	703148.93	N 32 40 7.91	W 103 48 26.97
	12200.00	89.81	269.89	9231.25	2914.29	-270.65	-2924.82	0.00	607464.12	703048.94	N 32 40 7.91	W 103 48 28.14
	12300.00	89.81	269.89	9231.59	3014.23	-270.84	-3024.82	0.00	607463.93	702948.94	N 32 40 7.91	W 103 48 29.31
	12400.00	89.81	269.89	9231.93	3114.17	-271.03	-3124.82	0.00	607463.74	702848.95	N 32 40 7.92	W 103 48 30.48
	12500.00	89.81	269.89	9232.27	3214.11	-271.22	-3224.82	0.00	607463.54	702748.96	N 32 40 7.92	W 103 48 31.65
	12600.00	89.81	269.89	9232.61	3314.05	-271.42	-3324.82	0.00	607463.35	702648.97	N 32 40 7.92	W 103 48 32.82
	12700.00	89.81	269.89	9232.95	3413.99	-271.61	-3424.82	0.00	607463.16	702548.97	N 32 40 7.93	W 103 48 33.99
	12800.00	89.81	269.89	9233.28	3513.92	-271.80	-3524.82	0.00	607462.97	702448.98	N 32 40 7.93	W 103 48 35.16
	12900.00	89.81	269.89	9233.62	3613.86	-271.99	-3624.82	0.00	607462.77	702348.99	N 32 40 7.93	W 103 48 36.33
	13000.00	89.81	269.89	9233.96	3713.80	-272.18	-3724.82	0.00	607462.58	702248.99	N 32 40 7.93	W 103 48 37.50
	13100.00	89.81	269.89	9234.30	3813.74	-272.38	-3824.82	0.00	607462.39	702149.00	N 32 40 7.94	W 103 48 38.66

Comments	MD (ft)	Incl (°)	Azlm Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	13200.00	89.81	269.89	9234.64	3913.68	-272.57	-3924.82	0.00	607462.20	702049.01	N 32 40 7.94	W 103 48 39.83
	13300.00	89.81	269.89	9234.98	4013.62	-272.76	-4024.82	0.00	607462.01	701949.01	N 32 40 7.94	W 103 48 41.00
	13400.00	89.81	269.89	9235.32	4113.55	-272.95	-4124.81	0.00	607461.81	701849.02	N 32 40 7.95	W 103 48 42.17
	13500.00	89.81	269.89	9235.66	4213.49	-273.15	-4224.81	0.00	607461.62	701749.03	N 32 40 7.95	W 103 48 43.34
	13600.00	89.81	269.89	9236.00	4313.43	-273.34	-4324.81	0.00	607461.43	701649.03	N 32 40 7.95	W 103 48 44.51
	13700.00	89.81	269.89	9236.33	4413.37	-273.53	-4424.81	0.00	607461.24	701549.04	N 32 40 7.96	W 103 48 45.68
	13800.00	89.81	269.89	9236.67	4513.31	-273.72	-4524.81	0.00	607461.05	701449.05	N 32 40 7.96	W 103 48 46.85
Taylor Draw 7 FED COM 2H BHL	13896.40	89.81	269.89	9237.00	4609.64	-273.91	-4621.21	0.00	607460.86	701352.66	N 32 40 7.96	W 103 48 47.98

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	25.000	1/100.000	30.000	30.000	SLB_MWD-STD-Depth Only	Original Hole / Devon Taylor Draw 7 FED COM 2Y well plan REV#1
	1	25.000	13896.395	1/100.000	30.000	30.000	SLB_MWD-STD	Original Hole / Devon Taylor Draw 7 FED COM 2Y well plan REV#1



Devon Taylor Draw 7 FED COM 2Y well plan REV#1 Anti-Collision Summary Report



Analysis Date-24hr Time: July 16, 2015 - 13:20

Client:

Field: Lea County (NAD83)

Structure: Devon Taylor Draw 7 FED COM 2Y

Slot: 2Y

Well: Devon Taylor Draw 7 FED COM 2Y

Borehole: Original Hole

Scan MD Range: 0.00ft ~ 13896.40ft

Analysis Method:

3D Least Distance

Reference Trajectory:

Devon Taylor Draw 7 FED COM 2Y well plan REV#1 (Def Plan)

Depth Interval:

Every 10.00 Measured Depth (ft)

Rule Set:

D&M AntiCollision Standard S002 v5.1/5.2

Min Pts:

All local minima indicated.

Version / Patch:

2.8.572.0

Database \ Project:

us1153app185.dir.sib.com\drilling-NM Lea County_2.8

Trajectory Error Model: ISCWSA0 3-D 95.000% Confidence 2.7955 sigma

Offset Trajectories Summary

Offset Selection Criteria

Wellhead distance scan: Restricted within 54906.89 ft

Selection filters: Definitive Surveys - Definitive Plans - Definitive surveys exclude definitive plans

- All Non-Def Surveys when no Def-Survey is set in a borehole - All Non-Def Plans when no Def-Plan is set in a borehole

Offset Trajectory	Separation			Allow	Sep.	Controlling	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		

Results highlighted: Sep-Factor separation <= 1.50 ft

Devon Taylor Draw 7 FED COM 2Y Final survey (Def Survey)													
24.98	20.45	22.48	4.53	N/A	MAS = 6.23 (m)	0.00	0.00	CtCt<=15m<15.00				Enter Alert	
24.94	20.45	22.43	4.48	1497.68	MAS = 6.23 (m)	25.00	25.00					WRP	
20.45	20.45	14.80	-0.01	5.70	MAS = 6.23 (m)	600.00	600.00				StcRul<6.23	Enter Major	
15.14	20.45	5.70	-5.31	1.82	MAS = 6.23 (m)	1340.00	1340.00					MinPts	
15.18	20.45	5.59	-5.27	1.79	MAS = 6.23 (m)	1380.00	1380.00					MINPT-O-EOU	
15.41	20.45	5.53	-5.04	1.75	MAS = 6.23 (m)	1520.00	1520.00					MINPT-O-EOU	
16.35	20.45	5.73	-4.10	1.71	MAS = 6.23 (m)	1760.00	1760.00					MinPt-O-SF	
20.27	20.45	8.70	-0.18	1.96	MAS = 6.23 (m)	1990.00	1990.00				StcRul>6.23	Exit Major	
83.19	27.23	84.20	55.96	4.89	OSF1.50	3820.00	3820.00					MinPt-O-SF	
89.78	29.43	69.32	60.35	4.86	OSF1.50	3900.00	3900.00					MinPt-O-SF	
95.34	31.04	73.82	64.30	4.88	OSF1.50	4110.00	4110.00					MinPt-O-SF	
102.74	33.23	79.75	69.51	4.89	OSF1.50	4370.00	4370.00					MinPt-O-SF	
104.78	33.71	81.46	71.05	4.92	OSF1.50	4440.00	4440.00	OSF>5.00				Exit Alert	
6659.52	83.11	6603.28	6576.41	123.88	OSF1.50	13780.00	9236.61					MinPt-O-SF	
6740.75	84.07	6683.87	6656.68	123.91	OSF1.50	13896.40	9237.00					TD	

Hawkeye 7 FED COM 2Y 1 Gyr (Def Survey)													
4253.18	32.81	4250.68	4220.37	N/A	MAS = 10.00 (m)	0.00	0.00					Surface	
4253.13	32.81	4250.62	4220.32	521239.04	MAS = 10.00 (m)	10.00	10.00					MinPt-O-SF	
4253.09	32.81	4250.58	4220.28	971265.76	MAS = 10.00 (m)	25.00	25.00					WRP	
4253.08	32.81	4250.57	4220.28	377404.10	MAS = 10.00 (m)	30.00	30.00					MinPts	
4254.05	32.81	4249.89	4221.24	2565.40	MAS = 10.00 (m)	340.00	340.00					MINPT-O-EOU	
4256.53	32.81	4250.11	4223.72	1083.47	MAS = 10.00 (m)	740.00	740.00					MINPT-O-EOU	
4258.68	32.81	4247.90	4226.87	513.98	MAS = 10.00 (m)	1680.00	1680.00					MinPt-O-SF	
4255.21	32.81	4244.31	4222.40	507.00	MAS = 10.00 (m)	1780.00	1780.00					MinPt-O-SF	
4159.87	34.50	4138.02	4125.37	195.18	OSF1.50	4800.00	4799.99					MinPts	
4355.34	32.81	4335.49	4322.53	250.80	MAS = 10.00 (m)	7070.00	7052.12					MinPt-O-SF	
4427.70	32.81	4406.76	4394.88	240.00	MAS = 10.00 (m)	8100.00	8076.46					MinPt-O-SF	

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Alert	Risk Level		Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)		Minor	Major		
4428.58	32.81	4407.68	4395.77	240.57	MAS = 10.00 (m)	8230.00	8206.48					MINPT-O-EOU	
4429.00	32.81	4407.75	4396.20	236.03	MAS = 10.00 (m)	8360.00	8336.48					MINPT-O-EOU	
4429.28	32.81	4407.40	4396.47	228.46	MAS = 10.00 (m)	8550.00	8526.46					MinPts	
4429.29	32.81	4407.16	4396.48	225.46	MAS = 10.00 (m)	8620.00	8596.46					MinPts	
4429.27	32.81	4406.98	4396.46	223.71	MAS = 10.00 (m)	8660.00	8636.46					MinPts	
4422.17	32.81	4399.60	4389.36	220.20	MAS = 10.00 (m)	8800.00	8776.06					MinPt-O-SF	
4406.05	32.81	4383.58	4373.25	220.46	MAS = 10.00 (m)	8870.00	8844.11					MinPt-O-SF	
559.75	174.46	441.58	385.29	4.92	OSF1.50	13020.00	9234.03	OSF<5.00				Enter Alert	
389.14	267.15	210.21	122.00	2.19	OSF1.50	13420.00	9235.39					MinPt-CtCl	
389.21	267.75	209.88	121.46	2.19	OSF1.50	13430.00	9235.42					MINPT-O-EOU	
389.54	268.19	209.91	121.35	2.19	OSF1.50	13440.00	9235.45					MinPts	
813.30	193.23	483.64	420.06	4.80	OSF1.50	13896.40	9237.00					TD	