

DGU Federal 1289 18-43 CS2 R2 mdv 29Aug17 Anti-Collision Summary Report

Analysis Date-24hr Time: August 29, 2017 - 08:29
Client: Gunnison Energy Corporation
Field: CO, Gunnison County (NAD 27 CZ)
 Gunnison 18-12S-89W (DGU Federal 1289 18-43 CS2) - H&P 215
Structure: DGU Federal 1289 18-43 CS2
Slot: DGU Federal 1289 18-43 CS2
Well: Original Hole
Borehole: Original Hole
Scan MD Range: 0.00ft ~ 5169.00ft

Analysis Method: 3D Least Distance
Reference Trajectory: DGU Federal 1289 18-43 CS2 R2 mdv 29Aug17 (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: 2.10.544.0
Database \ Project: localhost\drilling-Gunnison 2.10

Trajectory Error Model: ISCWSA0 3-D 95.000% Confidence 2.7955 sigma, for subject well. For offset wells, error model version is specified with each well respectively.

Offset Trajectories Summary

Offset Selection Criteria

Wellhead distance scan: Restricted within 46179.5 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 Dev. (ft)	Sep. Fact.	Controlling Rule	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 <= 0.00 ft

Hotchkiss Federal 12-89 18-43
 INC_ONLY 0' to 3600' - PR
 (Def Survey)

93.31	32.81	91.55	60.50	N/A	MAS = 10.00 (m)	0.00	0.00					Pass	Surface
85.95	32.81	82.97	53.14	69.33	MAS = 10.00 (m)	20.00	20.00					MinPt-O-SF	
82.87	32.81	80.94	50.06	477.91	MAS = 10.00 (m)	40.00	40.00					MINPT-O-EQU	
77.32	32.81	73.17	44.51	31.58	MAS = 10.00 (m)	600.00	600.00					MinPt-O-SF	
64.84	32.81	61.64	32.03	43.74	MAS = 10.00 (m)	880.00	875.94					MINPT-O-EQU	
64.83	32.81	61.65	32.03	44.42	MAS = 10.00 (m)	890.00	885.49					MinPts	
82.97	32.81	79.30	50.17	39.49	MAS = 10.00 (m)	1030.00	1015.70					MinPt-O-SF	
2010.23	32.81	1991.08	1977.42	114.59	MAS = 10.00 (m)	3440.00	2362.68					MinPt-O-SF	
3323.01	44.47	3292.83	3278.54	116.26	OSF1.50	4950.00	3117.68					MinPt-O-SF	
3506.11	46.32	3474.69	3459.79	117.58	OSF1.50	5169.00	3227.18					TD	

DGU Hotchkiss Federal 1289
 #18-H2 GYRO-MWD 0' to
 12768' - PR (Def Survey)

2990.85	32.81	2989.07	2958.04	149491.96	MAS = 10.00 (m)	0.00	0.00					Pass	MinPts
2990.87	32.81	2989.03	2958.06	40916.06	MAS = 10.00 (m)	20.00	20.00					WRP	
2990.98	32.81	2988.96	2958.17	11450.83	MAS = 10.00 (m)	80.00	80.00					MINPT-O-EQU	
2983.62	32.81	2978.71	2950.81	947.34	MAS = 10.00 (m)	600.00	600.00					MinPt-O-SF	
2983.14	32.81	2978.34	2950.33	982.00	MAS = 10.00 (m)	640.00	639.99					MinPts	
5448.93	55.54	5411.36	5393.39	151.52	OSF1.50	5169.00	3227.18					MinPt-O-SF	

DGU Hotchkiss Federal 1289
 #18-H4 R1 mdv 09Nov16 (Def Plan)

2993.93	32.81	2992.15	2961.13	125753.66	MAS = 10.00 (m)	0.00	0.00					Pass	Surface
2993.93	32.81	2992.11	2961.13	43856.13	MAS = 10.00 (m)	20.00	20.00					WRP	
2993.93	32.81	2988.69	2961.13	859.44	MAS = 10.00 (m)	598.48	598.48					MinPts	
2993.93	32.81	2988.69	2961.13	858.19	MAS = 10.00 (m)	600.00	600.00					MINPT-O-EQU	
4740.12	134.41	4649.97	4605.71	53.52	OSF1.50	4810.00	3047.68					MinPt-CtCt	
4740.77	136.26	4649.33	4604.51	52.80	OSF1.50	4890.00	3087.68					MINPT-O-EQU	
4741.35	136.95	4649.51	4604.40	52.53	OSF1.50	4920.00	3102.68					MinPt-O-ADP	
4753.10	142.64	4657.47	4610.46	50.54	OSF1.50	5169.00	3227.18					MinPt-O-SF	

DGU Hotchkiss Federal 1289
 #18-H5 R0 mdv 18Oct16 (Def Plan)

2996.73	32.81	2994.95	2963.92	125871.26	MAS = 10.00 (m)	0.00	0.00					Pass	Surface
2996.73	32.81	2994.90	2963.92	43897.14	MAS = 10.00 (m)	20.00	20.00					WRP	
2996.73	32.81	2991.49	2963.92	860.24	MAS = 10.00 (m)	598.48	598.48					MinPts	
2996.73	32.81	2991.49	2963.92	858.99	MAS = 10.00 (m)	600.00	600.00					MINPT-O-EQU	
3033.21	32.81	3027.06	3000.40	668.42	MAS = 10.00 (m)	1020.00	1006.56					MinPt-O-SF	
4210.99	131.76	4122.62	4079.24	48.52	OSF1.50	5169.00	3227.18					MinPts	

DGU Hotchkiss Federal 1289
 #18-H3 R1 mdv 09Nov16 (Def Plan)

3013.78	32.81	3012.00	2980.97	126587.74	MAS = 10.00 (m)	0.00	0.00					Pass	Surface
3013.78	32.81	3011.95	2980.97	44147.01	MAS = 10.00 (m)	20.00	20.00					WRP	
3013.78	32.81	3008.54	2980.97	865.14	MAS = 10.00 (m)	598.48	598.48					MinPts	
3013.78	32.81	3008.53	2980.97	863.88	MAS = 10.00 (m)	600.00	600.00					MINPT-O-EQU	
5697.27	49.13	5663.98	5648.14	179.79	OSF1.50	5169.00	3227.18					MinPt-O-SF	