



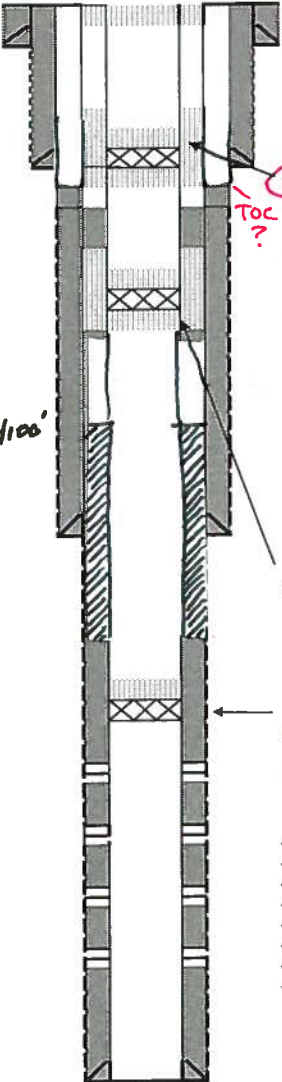
PLANNED



WELL NAME: K-Diamond Federal 21-21  
 FIELD: WILDCAT  
 PROJECT AREA: Sec 21-T8N-R92W  
 COUNTY/STATE: Moffat County, CO  
 RIG: \_\_\_\_\_

SPUD DATE: 7/8/2011 API# 05-081-07658-00  
 COMP DATE: \_\_\_\_\_ AFE# 2011054018  
 ID DATE: \_\_\_\_\_ WELL CODE \_\_\_\_\_  
 QRI WI \_\_\_\_\_ %  
 QRI NRI \_\_\_\_\_ %

KB: 10' GL: 6,320'



Conductor Casing: 20" casing set @ 40' & cemented

**SURFACE CASING:**  
 DEPTH: 1,217' SIZE: 8 5/8" WT: 38 lb/ft GRADE: J-55 BIT SIZE: 12 1/4"  
 CEMENT: Lead: 200 sks VeriCem (12.3 lb/gal, 2.24 ft<sup>3</sup>/sk)  
Tail: 195 sks VeriCem (13.5 lb/gal, 1.72 ft<sup>3</sup>/sk)  
Top out with 24 sks 1.2 yield 15.8 lb/gal

**INTERMEDIATE CASING:**  
 DEPTH: 5,186' SIZE: 7" WT: 28 lb/ft GRADE: N-80 BIT SIZE: 8 3/4"  
 STAGE 1 CEMENT: Lead: 215 sks EconoCem (12.2 lb/gal, 2.22 ft<sup>3</sup>/sk)  
Tail: 70 sks ExtendaCem (14.2 lb/gal, 1.28 ft<sup>3</sup>/sk)  
 STAGE 2 CEMENT: Lead: 120 sks EconoCem (12.2 lb/gal, 2.22 ft<sup>3</sup>/sk)  
Tail: 70 sks ExtendaCem (14.2 lb/gal, 1.28 ft<sup>3</sup>/sk)  
 DV TOOL: 1,908'-12'

**PRODUCTION CASING:**  
 DEPTH: 6,689' SIZE: 4 1/2" WT: 13.5 lb/ft GRADE: L-80 BIT SIZE: 8 1/8"  
 CEMENT: 220 sks LifeCem (13.5 lb/gal, 1.73 ft<sup>3</sup>/sk) TOC Approx. 4,100' from CBL  
 DV TOOL: N/A

Perforate @ 1,267'. Set CIGR @ 1217' w/30 sks cmt below inside 4 1/2 and between 4 1/2 X 7" (TOC 1010.7). TOC above CIGR @ 1079.8' \*

Perforate @ 2,650'. Set CIGR @ 2,600' w/30 sks cmt below inside 4 1/2 and between 4 1/2 X 7" (TOC 2393.7). TOC above CIGR @ 2462.8'. Note: In the event we cannot pressure up after perforation we will squeeze at 1,000 PSI and pull out dumping the remaining cement on top of the retainer.

CIBP @ 5100' w/10 sks cmt on top. TOC @ 4962.8'

EXPECTED TOC IN CASING

STAGE	PERFS SPF/SHOTS	HOLES	MAX RATE BPM	Frac Grad. (psi/ft)	Total Fluid Vol (gal)	20/40 White (lb)	20/40 CRC (lb)	Fluid Type
1	8,550'-85', 8,435'-45', 8,370'-80', 8,320'-30' (2 spf, 90 deg, 0.42" dia.)	90	50.1	0.73	84,598	21,500	46,200	X-Linked Oil
2	6,140'-60', 6,040'-55', 6,000'-15' (3 spf, 120 deg, 0.42" dia.)	120	52.6	0.65	77,448	77,500	36,750	X-Linked Oil
3	5,720'-30', 5,680'-70', 5,595'-805', 5,535'-45' (2 spf, 120 deg, 0.42" dia.)	80	54.4	0.65	80,262	45,760	85,060	X-Linked Oil
4	5,385'-95', 5,315'-25', 5,285'-95', 5,200'-10' (3 spf, 120 deg, 0.42" dia.)	120	51.1	0.63	83,708	88,000	16,000	X-Linked Oil
Totals					306,012	232,760	186,010	
Total Sand Volume						418,770		

Prepared by: J. Segars  
Date: 7/29/2011

\* Given uncertainty of intermediate casing TOC (now suspected to be below surface casing shoe), plan revised to cut and pull 4 1/2" casing above 2650' squeeze and run CBL to determine 7" casing TOC before developing a plan for surface casing shoe plug.

David And  
7/31/2013