

Results of Directional Survey

API number:	30-025-39112		
OGRID:		Operator:	COG OPERATING LLC
		Property:	GC FEDERAL # /6

surface	ULSTR:	M	19	T	17S	R	32E
			615	FSL	990	FWL	

BH Loc	ULSTR:	M	19	T	17S	R	32E
			383	FSL	980	FWL	

Top Perf/OH	ULSTR:	M	19	T	17S	R	32E
		5286	384	FSL	980	FWL	

Bot Perf/OH	ULSTR:	M	19	T	17S	R	32E
		6710	383	FSL	980	FWL	

	MD	N/S	E/W	VD
	5261	-230.98	-9.93	5251.07
TOP PERFS/OH	5286	-231.35	-9.86	5276.07
	5323	-231.89	-9.76	5313.07
	5261	-230.98	-9.93	5251.07
BOT PERFS/OH	6710	-231.89	-9.76	5313.07
	5323	-231.89	-9.76	5313.07

NEXT TO LAST	5261	-230.98	-9.93	5251.07
LAST READING	5323	-231.89	-9.76	5313.07
TD	7106	-231.89	-9.76	7106.07

Surface Location	615	FS	990	FW
Projected BHL	383	FS	980	FW
Location of				
Top Perfs/OH	384	FS	980	FW
Bottom Perfs/OH	383	FS	980	FW

SUMMARY of Subsurface Locations

Surface Location	M-19-17S-32E	615	FS	990	FW	Vert. Depth
Top Perfs/OH	M-19-17S-32E	384	FS	980	FW	5276.07
Bottom Perfs/OH	M-19-17S-32E	383	FS	980	FW	5313.07
Projected TD	M-19-17S-32E	383	FS	980	FW	7106.07