

Results of Directional Survey

API number:	30-025-39960		
OGRID:		Operator:	COG OPERATING LLC
		Property:	CITATION X FEDERAL COM # 1H

surface	ULSTR:	O	08	T	19S	R	32E
				990	FSL	1980	FEL

BH Loc	ULSTR:	J	17	T	19S	R	32E
12983	MD	8520.0	TVD	3629	FNL	2003	FEL
(1651 FSL)							

Top Perf/OH	ULSTR:	O	08	T	19S	R	32E
9274	MD	8511.0	TVD	79	FSL	2002	FEL

Bot Perf/OH	ULSTR:	J	17	T	19S	R	32E
12835	MD	8519.2	TVD	3481	FNL	1998	FEL
(1799 FSL)							

	MD	N/S	E/W	VD
	9272	-908.93	-22.03	8511
TOP PERFS/OH	9274	-910.93	-22.07	8511.00
	9335	-971.91	-23.44	8511.00
	12821	-4456.90	-17.97	8519.00
BOT PERFS/OH	12835	-4470.89	-18.40	8519.23
	12883	-4518.87	-19.88	8520.00

NEXT TO LAST	12914	-4549.85	-20.89	8520.00
LAST READING	12929	-4564.84	-21.33	8520.00
TD	12983	-4618.80	-22.91	8520.00

Surface Location	990	FS	1980	FE
Projected BHL	3629	FN	2003	FE
Location of				
Top Perfs/OH	79	FS	2002	FE
Bottom Perfs/OH	3481	FN	1998	FE

SUMMARY of Subsurface Locations

Surface Location	O-08-19S-32E	990	FS	1980	FE	Vert. Depth
Top Perfs/OH	O-08-19S-32E	79	FS	2002	FE	8511.00
Bottom Perfs/OH	J-17-19S-32E	3481	FN	1998	FE	8519.23
Projected TD	J-17-19S-32E	3629	FN	2003	FE	8520.00