

Results of Directional Survey

30-025-37351

**CHESAPEAKE OPERATING INC
NEUHAUS 14 FEDERAL # 5**

	MD	N/S	E/W	VD
	12532	0.00	-355.00	12500
TOP PERFS/OH	12932	0.00	-355.00	12899.73
	13000	0.00	-355.00	12967.68
	13000	0.00	-355.00	12967.68
BOT PERFS/OH	13144	0.00	-355.00	13111.68
	13332.32	0.00	-355.00	13300.00

NEXT TO LAST	13000	0.00	-355.00	12967.68
LAST READING	13332.32	0.00	-355.00	13300.00
TD	13332.32	0.00	-355.00	13300.00

Surface Location	1090	FN	330	FE
Projected BHL	1090	FN	685	FE
Location of				
Top Perfs/OH	1090	FN	685	FE
Bottom Perfs/OH	1090	FN	685	FE

SUMMARY of Subsurface Locations

Surface Location	A-14-20S-35E	1090	FN	330	FE	Vert. Depth
Top Perfs/OH	A-14-20S-35E	1090	FN	685	FE	12899.73
Bottom Perfs/OH	A-14-20S-35E	1090	FN	685	FE	13111.68
Projected TD	A-14-20S-35E	1090	FN	685	FE	13300.00