

RESERVE OIL & GAS CO.
Bruer No. 1

Section 31, T. 6 S., R. 4 W., Polk County, Oregon

Composite Sample Descriptions

0- 360'	<u>Siltstone</u> ; light gray, firm, some bentonite, slightly tuffaceous, scattered pieces of white volcanic ash and interbedded light gray, very fine grained, firm to very firm, arkosic, somewhat tuffaceous sandstone. Scattered subrounded fragments of basalt. Occasional small fragments of shells.
360- 510'	<u>Sandstone</u> ; light gray, very firm, very fine grained, arkosic with scattered pieces of subrounded basalt, occasional mica flakes, portions more tuffaceous than others. Few small fragments of shells and microfossils.
510- 620'	<u>Siltstone</u> ; light gray, somewhat tuffaceous, firm, some limy layers. Some interbedded fine silty, arkosic sandstone, portions quite tuffaceous. <u>Eponites?</u>
620- 805'	<u>Shale</u> ; medium gray, firm, silty and some greenish gray sandy shale, tuffaceous.
805- 885'	<u>Sand</u> ; whitish, loose to firm, fine grained, feldspathic, very micaceous, uniform, portions tuffaceous.
885- 893'	<u>Limestone</u> ; light gray, hard, fine sandy, some mica, somewhat tuffaceous.
893- 910'	<u>Sand</u> ; whitish, loose to friable, fine, subangular feldspathic, micaceous.
910-1040'	<u>Shale</u> ; light to medium gray, somewhat tuffaceous, firm, silty, some sandy shale.
1040-1320'	<u>Siltstone and fine sandstone</u> ; light to medium gray, firm, somewhat tuffaceous, a few fine, scattered mica flakes. Some streaks of medium, silty, micaceous sand.
1320-1360'	<u>Sandstone</u> ; light gray, medium grained, arkosic, somewhat tuffaceous, partially cemented with lime, friable to firm.
1360-1480'	<u>Sandstone</u> ; medium gray, firm to hard, tuffaceous, arkosic, micaceous, and pieces of altered basalt. Some layers of whitish friable feldspathic sand.
1480-1548'	<u>Siltstone</u> ; fine sandy, light gray, hard, with interbedded fine, firm, quartz sandstone with pyroxene and occasional magnetite particles, limy layers.
1548-1560'	<u>Limestone</u> ; fine sandy, grayish white, hard.
1560-1600'	<u>Siltstone</u> ; medium gray, firm, some fine mica, occasional carbonaceous material.
1600-3530'	<u>Shale</u> ; medium to dark grayish black, firm, few microfossils: (1720-1740) <u>Dentalium</u> fragments? (1980-2000) <u>Globobulimina pacifica</u> (2160-2180) <u>Robulus inornatus?</u> (2540-2560) <u>Cyclammina pacifica?</u> (3380-3400) <u>Glandulina</u> sp.?
3530-3630'	<u>Basalt</u> ; grayish black, vitreous, aphanitic, hard. Some interbedded dark grayish-black shale.
3630-3815'	<u>Shale</u> ; medium gray and grayish black, firm to brittle, some fine, sandy shale.
3815-3835'	<u>Sandstone</u> ; light gray, friable, shaly, very fine grained, with medium-sized pieces of dark shale and basalt.
3835-4440'	<u>Shale</u> ; dark gray to grayish black, firm, some silty sections, few microfossils; (4060-4080') <u>Robulus inornatus?</u>
4440-4550'	<u>Shale and marl</u> ; some sandy portions.
4550-4690'	<u>Volcanic agglomerate</u> ; zeolitized altered flow rock, shale, volcanic debris, calcite veining.
4690-4765'	<u>Basalt</u> ; dull black, crumbly, weathered.
4765-4840'	<u>Shale</u> ; medium to dark gray, hard, silty.
4840-4860'	<u>Sandstone</u> ; rusty-gray, silty, containing subrounded shale fragments and partly cemented with limonite.
4860-4905'	<u>Tuff</u> ; hard to firm, red and green with quartz and calcite, sandy.
4905-4965'	<u>Basalt</u> ; dull black, crumbly, weathered with chlorite, zeolite and calcite.
4965-5380'	<u>Volcanic agglomerate</u> , tuff, and some interbedded dark-gray shale. Volcanics are cut by calcite veins and pockets of zeolite. Numerous pieces of altered basalt containing chlorite and zeolite.
5380-5485'	<u>Basalt</u> ; dull black, partly weathered, contained some olivine and pyroxene crystals. Also small miarolitic structures filled with zeolite. Zones of hard, unweathered microcrystalline basalt containing small miarolitic cavities filled with zeolite.
5485-5529'	<u>Basalt</u> ; dull black, altered zeolitic basalt.
5529-5549'	<u>Basalt</u> ; black, hard, microcrystalline only slightly altered, contained olivine and numerous small miarolitic cavities filled with zeolite and calcite.