

State Department of Geology and Mineral Industries

702 Woodlark Building
Portland, Oregon

LOG OF SAMPLES FROM SUNNYVALE OIL CO. WELL

Location: SE $\frac{1}{4}$ of Sec. 14, T. 16 S., R. 29 E. (Grant County)
Samples submitted by Roy Coleman
(Site not visited by petrographer)

<u>Type</u>	<u>Depth</u>	<u>Description</u>
Cuttings	80 Ft.	<p><u>Megascopeic:</u> Fine-grained dark gray rock with lime on fractures.</p> <p><u>Microscopic:</u> (Thin section made of small fragment) Mostly feldspar with some pyrite, calcite, quartz, magnetite, etc. Is a fine-grained graywacke. Particles show poor degree of rounding and partial alteration to clay. Little or no porosity.</p>
Cuttings	147 - 152'	<p><u>Megascopeic:</u> Same as 80' darker color.</p> <p><u>Microscopic:</u> Same as 80'</p>
Cuttings	230'	<p><u>Megascopeic:</u> Fine-grained greenish-gray in part limey.</p> <p><u>Microscopic:</u> Similar to 80', slightly coarser-grained, more pyrite, more chloritic alteration, and no clay alteration.</p>
Cuttings	300'	<p><u>Megascopeic:</u> Dark gray fine-grained rock, like gray siltstone. Has fracture fillings of limey quartz veinlets.</p> <p><u>Microscopic:</u> Graywacke with abundant pyrite.</p>
Core	449 - 455'	<p><u>Megascopeic:</u> Fine-grained dark gray limey shale.</p> <p><u>Microscopic:</u> (Thin section) Fine-grained graywacke with considerable calcite, pyrite, feldspar, & mica (brown). Cataclastic texture in angular poorly rounded and poorly sorted grains. Some magnetite. No porosity.</p>
Core	455 - 461'	<p><u>Megascopeic:</u> Very fine-grained limey graywacke like above. Some coarse-grained graywacke with some rock fragments and chert grains. Fractures filled with calcite veinlets.</p>
Core	461 - 471'	<p><u>Megascopeic:</u> Mainly like above with one small chunk of light gray sandstone unlike the rest appears more porous and has possible micro fossils(?). May be concretion.</p>

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<u>Type</u>	<u>Depth</u>	<u>Description</u>
Core	471 - 476'	<u>Megascopeic</u> : Very fine-grained dark gray graywacke grading to dark gray to black shale with calcite veinlets on fractures.
Cuttings	750'	<u>Megascopeic</u> : Fine-grained dark gray to black graywacke with few white fragments of calcite probably from veinlets.
Cuttings	755 - 770'	<u>Megascopeic</u> : Dark-gray fine-grained limey graywacke.
Cuttings	952'	<u>Megascopeic</u> : Much increase of lime. Lighter gray color.
Core	978 - 983'	<u>Megascopeic</u> : Medium-gray medium-grained graywacke with quartz-calcite veinlets.
Cuttings	1000'	<u>Megascopeic</u> : Same.
Core	1019 - 1023'	<u>Megascopeic</u> : Fine to coarse-grained graywacke with calcite veinlets. Large rock fragments up to $\frac{1}{2}$ " in length in coarse-grained rock. Fine-grained shows thin bedding.
Cuttings	1060'	<u>Megascopeic</u> : Fine-grained, dark gray limey graywacke or shale.
Cuttings	1115'	<u>Megascopeic</u> : Same with more lime.
Cuttings	1130'	<u>Megascopeic</u> : Same quite limey dark gray shale.
Cuttings	1140'	<u>Megascopeic</u> : Same.
Cuttings	1150'	<u>Megascopeic</u> : Medium to dark gray fine-grained graywacke with calcite veinlets.
Core	1155 - 1160'	<u>Megascopeic</u> : Very fine-grained dark gray graywacke some limey. Some shows shearing with pyrite on shears and faint green chloritic alteration.
Core	1160 - 1168'	<u>Megascopeic</u> : Highly sheared limey dark gray shale.
Core	1168'	<u>Megascopeic</u> : Very fine-grained dark gray graywacke with calcite veinlets to limey dark gray shale. Some of the fragments show shearing and other brecciation.

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Summary:

Rocks of the entire hole are similar and probably of marine origin. They are typical of eugeosynclinal environment where rapid deposition of poorly sorted sediments has taken place in a rapidly sinking trough of the sea.

Bedding is generally absent to poorly defined in the coarser-grained material.

The pyrite is authigenic. There is a very slight metamorphism. The lime has become crystallized and migrated into fractures in the form of veinlets. Some of the rocks also show slight chloritic alteration typical of a low grade dynamothermal metamorphism.

Report by: Len Ramp 6/24/58.

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