

Mike Patonuk — graphite

near Union Leader Mine

SE $\frac{1}{4}$  Sec 36 T32S R5W  
12 east Glendale

370-3805

Parks & Swartley 10:226

S $\frac{1}{2}$  SE $\frac{1}{4}$  Sec 36, T32S, R5W

v1 no 5 — graphite

report from hillside east of Sterling p129

near Buncum in Upper Applegate district

graphitic schist at Blue Ledge mine in U. Applegate

" " " May Flower & Golden Wedge in Galice district

Winchell, A.M. 1914. Petrology and mineral resources of Jackson  
and Josephine Counties, Oregon: Oregon Bureau of Mines & Geology,  
The mineral resources of Oregon Vol 1, p. 115



*Department of Geology and Mineral Industries*  
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April 6, 1988

Dr. Suzzette Rochatte  
Africa America Consultant  
1574 Wagare Avenue  
Lakewood, OH 44107-3641

Dear Dr. Rochatte:

The claims that are staked for graphite are located in Township 41 South and Range 3 West in Jackson County, just north of the California line. According to Russ Mitchell, Star Ranger Station, Rogue River National Forest, (503) 899-1812, the claims were staked by Richard Foster and others. The graphite occurs in pods and lenses and would appear to contain as much as 25 to 30% graphite.

Sincerely,

Jerry J. Gray  
Economic Geologist

JJG: ch

Enclosures

# Toyo Tanso plans Portland graphite plant

By JUDY ROOKS and HOLLEY GILBERT  
of The Oregonian staff

A Japanese manufacturer of graphite, Toyo Tanso Co. Ltd. of Osaka, plans to establish a plant in Portland before the end of the year.

The company will begin operations in leased space but hopes to expand within a couple of years to its own building at a different location, said Ken Takagi, general manager for the overseas department of the company.

Toyo Tanso will lease light manufacturing buildings between Marine Drive and Sandy Boulevard at about 138th Avenue, said J. Clayton Hering, vice president and regional manager for Norris, Beggs & Simpson Realtors, which has been assisting the company in selecting lease and purchase sites.

The initial investment by Toyo Tanso could be \$3 million to \$4 million, and the total investment eventually could reach nearly \$6 million, said one source familiar with the project, who spoke on condition he not be identified.

Toyo Tanso will be "manufacturing graphite parts," Takagi said, declining to elaborate. The company plans to supply several industries with graphite from Portland.

He said he could not give an estimate of how many jobs the new operation will generate.

However, the unidentified source said Toyo Tanso initially could employ between 50 and 175 workers, but the figure could drop as the plant becomes more automated.

Start-up is anticipated by September, Takagi said.

The Toyo Tanso announcement marks the

Graphite, such as that manufactured by Toyo Tanso of Osaka, Japan, is used by three industries prominent in the Northwest — silicon wafers, aluminum and aviation.

Thus, the company should have a good regional market for its product. Three silicon manufacturers are in Oregon and South West Washington: Wacker Siltronic in Portland, SEH America Inc. in Clark County and Siltec Inc. in Salem.

Ten aluminum smelters are in the region, and the Boeing Co., a major manufacturer of commercial aircraft, is based in Seattle.

Graphite is produced from various

ninth Japanese manufacturing company to announce plans for a branch operation in Oregon or Southwest Washington in recent years.

Toyo Tanso was founded in February 1941 and first made electric carbon brushes. Presently, the company produces carbon in various forms for electric, mechanical, metallurgical and special applications.

One reason Oregon was chosen for the plant is its "reasonable power costs," Takagi said, adding that his company is negotiating for discounted industrial rates.

Cheap power would be a big incentive to a graphite maker because production of the material involves "enormous" furnaces, said Timothy A. Brown, executive vice president of Vector Technology of Santa Clara,

forms of raw carbon, such as coke, tar or soot.

Application of high heat and several gases turns it into purified graphite, noted Timothy A. Brown, executive vice president of Vector Technology of Santa Clara, a representative for German and Japanese graphite manufacturers.

Toyo Tanso is one of half a dozen companies worldwide making graphite, Brown said.

Uses for graphite are increasing and so is demand, said Brown.

In silicon-making, a graphite outer bowl surrounds the quartz pot in which a silicon crystal is grown.

Calif., a representative for two other graphite companies.

"We're talking lots of kilowatt-hours," Brown said.

Portland General Electric Co. provides electric power to the lease site.

According to a source who declined to be identified, PGE cut its power rates 48 percent as an incentive to Toyo Tanso. PGE apparently will give the company free use of a substation and provide installation of the company's power equipment.

Takagi also cited Oregon's comparatively well-educated population, the good work force in the state and good weather as reasons for the site selection.

Company officials also had considered six sites in Washington, including three in the

## Graphite uses prominent in NW

The high temperatures used for growing silicon causes the quartz bowls to soften, but the heat-resistant graphite ensures they hold their shape, noted Dave Buck, engineering manager for Siltec, a Salem silicon manufacturer owned by Mitsubishi Metal Corp. of Tokyo.

The graphite bowls have to be replaced several times a year, he said.

Graphite also is used to line walls of furnaces in which the silicon crystals are grown. Graphite also lines furnaces used to manufacture aluminum and steel, as a heat containing measure.

In the aviation industry, graphite is used in jet engines and to make wings.

Vancouver area, according to Dan Cudaback, managing director of domestic and international investment for the Washington State Department of Trade and Economic Development.

Joe Tanner, president of the Columbia River Economic Development Council in Vancouver, said he was aware that Toyo Tanso officials made four trips to Clark County during the last few months.

He said local development officials had "some serious concerns about environmental consequences" of the plant's emissions and had asked for clarifying information from the company. The council was analyzing some data and waiting for other information when the company apparently decided to locate in Portland, Tanner said.

SOURCE: THE (PORTLAND) OREGONIAN

DATE: MAY 8, 1987

COMMODITY SECTION:

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OREGON

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