State Department of Geology and Mineral Industries

702 Woodlark Building
Portland 5, Oregon

KLAMATH FALLS BRICK AND TILE CO.

Unclassified District
Klamath County

Owner: Mr. Ralph W. Smith
P. O. Box 573, Klamth Falls, Oregon.

Operators: Mr. Wndell A. Smith - Business manager
P. O. Box 573, Klamath Falls, Oregon

Mr. William R. Smith - plant superintendent
P. O. Box 573, Klamath Falls, Oregon

Location: Montelius St., Buena Vista Addition, Klamath Falls, Oregon.
SW ¼ Sec. 19, T.38 S., R. 9 E.

Area: 40 acres of deeded land.

History: The plant was constructed approximately 25 years ago and has been an active producer since that time.

Development: Numerous shallow clay pits have been developed in the area adjacent to the plant.

Geology: The are in which the plant is located has been mapped by Moore (U.S.G.S. bulletin # 875) as diatomite with associated tuffs and clays. This formation was questionably assigned to the Pliocene age.

Numerous shallow pits have been developed adjacent to the plant. The "clay" thus exposed is very silty and contains some sizeable pieces of float. Most of these are conglomerates and tuffs.

Equipment: Clay is mined by P &. H shovel and trucked to a large storage shed at the plant. Plant equipment includes:

1 scoopmobile
1 granulator pugmill
belt conveyors
rolls
1 dry pan
screens
1 pug mill & auger press
1 automatic brick cutter
1 auctomatic tile cutter
1 forked truck
2 air dry sheds (utilizing waste heat)
1 rectangular downdraft kiln - estimated 67,000 brick capacity, oil fired.
1 circular downdraft kiln - estimated 77,000 brick capacity, oil fired.

Equipment, cont.: All plant machinery is electrically powered. Production is restricted to common brick and building tile.

Clay processed at the plant is composed of a mixture of approximately 75 percent clay mined locally and 25 percent "Lincoln Clay," which is shipped in by rail from Lincoln, California. The latter is high quality clay which, when combined with the local clay, produces good red brick and tile. See attached analyses of the Lincoln clay.

Report by: H. D. Wolfe
Date visited: 12-2-47
Date of report: 1-27-48
Informant: Mr. Wendell A. Smith, Mgr.

We have the analyses

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Economics: This plant appears to be efficiently operated and well established. Future success of the operation is largely dependent upon continued procurement of the "Lincoln Clay" or a similar clay at moderate expense. Mr. W. A. Smith estimated that 17 gondolas of Lincoln Clay were shipped in during 1946. The price of the clay is said to be moderate but the freight costs involved are excessive.

Future plans call for the construction of an additional kiln and general improvement of the plant. At present 13 men are employed.

Attached are shipping and production figures for 1946 and the first 10 months of 1947.

Report by: H. D. Wolfe
Date visited: Dec. 2, 1947
Date of Report: Jan. 27, 1948
Informant: Mr. Wendell A. Smith, Mgr.

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SHIPPING AND PRODUCTION FIGURES FOR 1946

Brick

Month	Shipments	Net Production
January	73,394	80,000
February	86,011	80,000
March	82,379	80,000
April	69,950	80,000
May	116,861	90,000
June	175,684	212,000
July	220,000	252,086
August	216,201	146,575
September	85,385	125,620
October	121,561	103,200
November	164,225	206,200
December	138,327	142,000
Totals	1,549,978	1,597,681

Tile

Month	Shipments in Short Tons	Net Production in Short Tons
January	186	100
February	114	180
March	138	140
April	63	-
May	113	-
June	-	-
July	-	-
August	-	144
September	358	319
October	175	313
November	14	8
December	26	-
Totals	1,026	1,204

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SHIPPING AND PRODUCTION FIGURES FOR 1947*

Brick

Month	Shipments	Net Production
January	145,527	142,000
February	60,606	-
March	35,875	99,000
April	127,301	99,000
May	68,266	98,000
June	73,304	80,000
July	167,583	135,000
August	145,057	147,000
September	176,323	179,000
October	114,456	116,000
Totals	1,114,898	1,095,000

Tile

Month	Shipments in Short Tons	Net Production in Short Tons
January	[illegible]	-
February	40	136
March	37	70
April	252	70
May	71	71
June	152	200
July	206	240
August	194	200
September	169	175
October	154	160
Totals	1,434	1,322

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*At the date visited, shipping and production figures for 1947 were available for the first 10 months of the year only.

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COPY

Dec. 5, 1947

LINCOLN CLAY PRODUCTS COMPANY, INC.
P. O. BOX 367
LINCOLN, CALIFORNIA.

Table K. Chemical Analyses, Lincoln Clays, Per cent Moisture Free Basis

	(2)* No. 7	(2)* No. 8	(2)* No. 9	(1)* No. 10	(1)* No. 4-6	(2)* No. 4-6
SiO_2 (Silica)	52.85	46.80	57.28	52.40	50.60	50.11
Al_2O_3 (Alumina)	33.50	26.02	31.10	30.70	31.49	34.20
TiO_2 (Titania)		2.21				1.61
Fe_2O_3 (Ferric oxide)	2.46		2.14	2.26	2.11	2.70
CaO (Lime)	0.55	0.91	0.54	0.88	0.98	0.23
MgO (Magnesia)	0.33	0.49	0.08	0.84	1.16	0.85
K_2O (Potash)	0.20	0.25	0.1[illegible]			0.21
Na_2O	0.49	0.33	0.[illegible]	0.97	0.93	0.78
Ignition Loss	10.03	11.47	8.63	10.59	11.43	10.26
Total	100.41	9[illegible].99	100.31	98.74	98.70	100.95

*(2) Analyzed under supervision of W.F. Dietrich, Associate Professor of Mining Engineering, Stanford University and by G.B. Richardson, Mining Engineer, Graduate Ceramist, Washington University, Seattle, Washington.

*(1) Analyzed by Abbot A. Hanks Inc., Engineers and Chemists. San Francisco, California.

DEC -5 1947

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TiO_2 (Titania)						1.61
Fe_2O_3 (Ferric Oxide)	2.46	~~13.78~~ 2.21	2.14	2.26	2.11	2.70
CaO (Lime)	0.55	0.91	0.54	0.88	0.98	0.23
MgO (Magnesia)	0.33	0.49	0.08	0.94	1.16	0.85
K_2O (Potash)	0.20	0.25	0.16			0.21
Na_2O	0.49	0.33	0.38	0.97	0.93	0.78
Ignition Loss	10.03	11.47	8.63	10.59	11.43	10.26
Total	100.41	99.99	100.31	98.74	98.70	100.95

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March 22nd, 1941

State Department of Geology and Mineral Industries

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KLAMATH BRICK & TILE COMPANY — Klamath County.

(This report is listed as CONFIDENTIAL as there is considerable rivalry between this plant, the Silica Brick at Chemult and the Concrete Pipe Co. at K. F., -- report for a mines catalog will be made when such a report is needed, and approved by them).

Owners: Same; Ralph Smith, manager; Wendell Smith, office manager; "Bill" Smith in charge of the plant.

Location: North city limits of Klamath Falls.

Area: Not given

Equipment: Not gotten in detail. Plant is equpped to turn out common and building brick, building tile, and drain tile.

Source of Material: Material comes from pits on the property. It is stock piled and protected from the weather. It produces a not too hot grade of brick, usuable only for the rougher ceramic brick needs.

The plant is experimenting with various clays. They are interested in a volcanic ash or tuff on their property that has considerable plasticity and shows some possibilities. Clay from Lakeview, probably an altered tuff, is being tried. Clay from a cinnabar property near Brownsboro, Jackson County, has been tried. Clay from Evans Creek, Jackson County, has been tried, but it is very poor. The Company is trying to locate clay that will permit them to enter the face brick and refractory brick field. They have also tried some of the siliceous material from the Dead Indian deposit, Jackson County. (See clay bulletin for further details of these Jackson Co. deposits)

The tuff on their Klamath Falls property has been used to make some tile which is lighter in weight than regular ceramic tile and has some good possibilities. The Evans Cr. clay produces a brick that goes to pieces when exposed to the weather.

They realize that brick and ceramic products are highly competitive and are rather critical of all "interlopers". They are convinced that the pumice brick are unsatisfactory, and argue against its use.

They fire their brick, partly in regular kilns, and partly in kilns built out of green brick. They seem to know their business and are trying to improve the quality of their product. I believe that we would be justified in helping them locate deposits and they are willing to cooperate with us in burning clays similar to our arrangement with Columbia Brick and Pacific Stoneware in Portland.

Ray C. Treasher,
Field Geologist,
March 22nd, 1941.