UNION PACIFIC RAILROAD COMPANY

PERLITE RESOURCES

Meadow Valley Wash Area

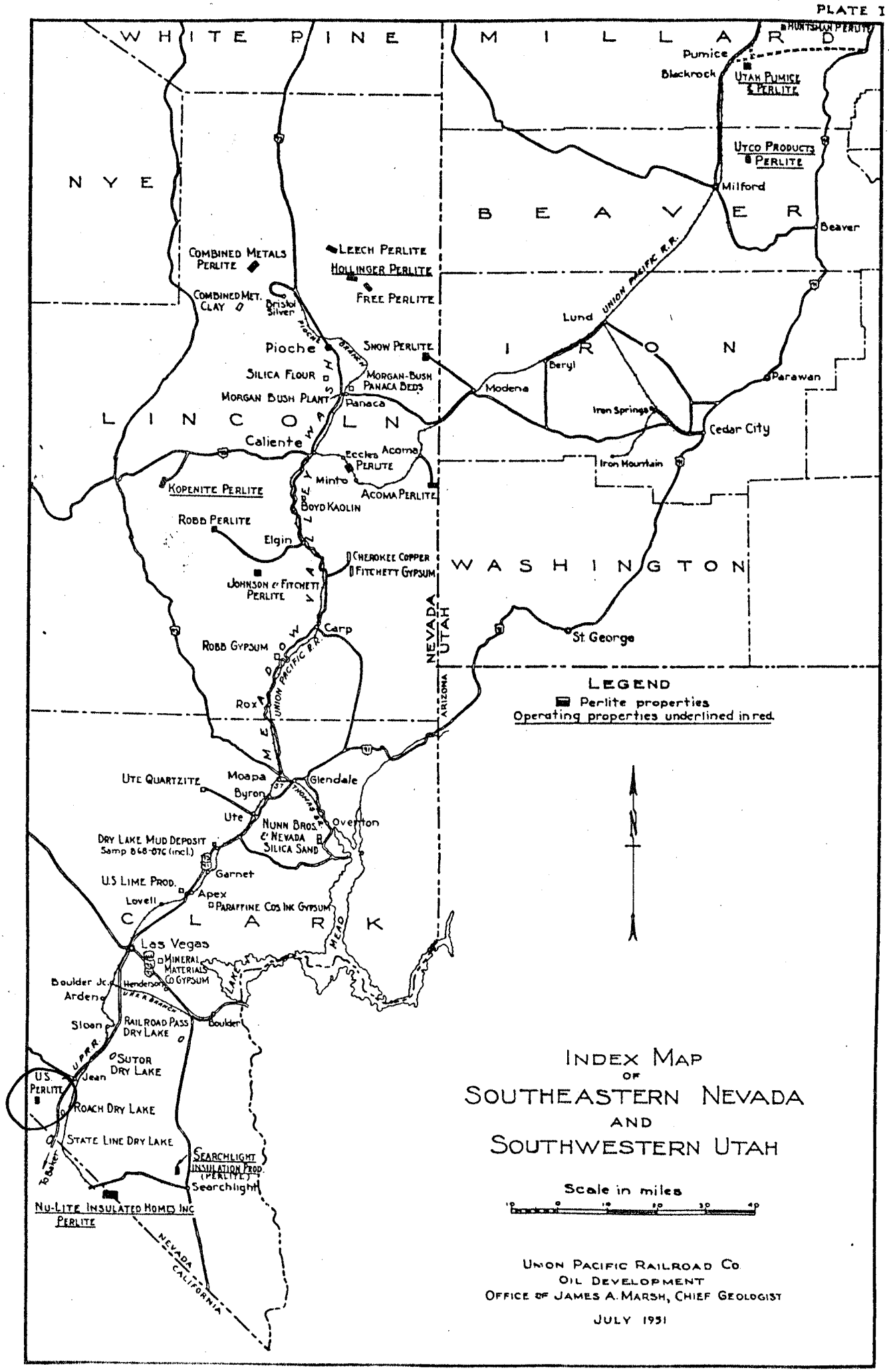
Clark and Lincoln Counties, Nevada

Beaver and Millard Counties, Utah

By K. L. Cochran, Geologist

August 17, 1951

PLATE I



INDEX MAP OF SOUTHEASTERN NEVADA AND SOUTHWESTERN UTAH

UNION PACIFIC RAILROAD CO.
OIL DEVELOPMENT
OFFICE OF JAMES A. MARSH, CHIEF GEOLOGIST

JULY 1951

The bulk of the company's crude production is for the manufacture of light-weight plaster aggregate. The Metropolitan Housing Project in Los Angeles and the North Long Beach Development at North Long Beach, California, have been plastered with perlite aggregate from this source. It is also being shipped to Cleveland and Akron, Ohio; Carnegie, Pennsylvania; Nashville, Tennessee; Sausalito, California; Houston and Dallas, Texas; Grand Rapids, Michigan and St. Louis, Missouri.

Some of the production is used for light-weight concrete aggregate, pre-cast roofing slabs and prefabricated housing. Recently considerable demand has arisen for expanded perlite as a light-weight aggregate in oil well drilling both as an aggregate in cementing and as a medium to aid in restoring lost circulation. The Panacalite-Pacific Company, Inc., of Los Angeles produces two speciality products known to the trade as "Pana Seal" and "Pana Crete". Since perlite is chemically inert, it can be combined with any drilling fluid mix without fear of causing flocculation of the mud.

The brand name is "Panacalite" and it is packaged in standard four cubic foot bags at the expanding plant to facilitate distribution. Retail prices of the crude ore, f.o.b. Pioche, Nevada, start at $6.50 per ton and the expanded product price varies according to the locality. (See Plate XX)

U. S. Perlite Manufacturing Company's Deposit - Goodsprings, Nev.

This perlite deposit is located in the Goodsprings Mining District about 20 miles southerly from the town of Goodsprings, Nevada. It consists of 10 placer mining claims which were located in 1945 and only discovery and annual assessment work have been performed to develop the deposit. The United States Perlite Manufacturing Company is under the direction of Messrs. Harris Hammond and A. R. Chandler of 609 South Grand Avenue, Los Angeles, California.

The deposit is unique in its occurrence in that it is surrounded by limestone and dolomitic limestone sedimentary deposits. It appears that a fissure or vent has opened in the limestone to allow a mass of perlite and dacite to flow out and down an erosional gully in the limestone. (See Plates XVIII and XIX). The front of the flow is characterized by a mixture of both igneous and sedimentary debris and the flow limits are clearly recognizable and defined.

The type of perlite varies from "onion skin" to an intimate mixture of glossy granular black perlite and reddish dacite. There are numerous inclusions of dacite and obsidian within the flow which may cause objectionable amounts of contamination in mining.

It is not possible to estimate the exact tonnage of the deposit but it is safe to say, conservatively, that there are in excess of one million tons. Minimum thickness of the flow is observed to be 15 feet and it is not exposed sufficiently to obtain the maximum thickness which might exceed 200 feet in the thickest place.

The property has not been developed except for discovery and assessment work. A small shaft (See Plate XIX) has been sunk to a depth of 15 feet at the western extremity of the deposit and shows very good quality perlite throughout its depth. In the immediate vicinity of the shaft a small area has been stripped of a very thin layer of overburden and shows a very good quality of perlite over a length of 150 feet and a width of approximately 60 feet.

The deposit is about 12 miles from Roach Station on the main line of the Union Pacific but it will be necessary to construct a road over State Line Pass in order to move the material from the mine to the rails. Most of the 12 miles distance is in loose, unconsolidated material wherein road construction and maintenance would not be particularly expensive. It would not be feasible to attempt to haul the material to the rails via Goodsprings because of steep grades and the distance involved. The deposit is well located with respect to west coast markets.

Mining operations could follow a quarry system although numerous inclusions of waste (dacitic material) might cause some difficulty in large scale operations.

The company has spent considerable time and money towards the development of an expansion plant and has now patented a furnace which seems to be highly efficient not only for perlite from this particular deposit but from other sources as well. An expanding plant is in operation at 6483 Stanford Avenue in Los Angeles and production of plaster aggregate is at the rate of from 1,000 to 1,500 bags per day. The brand name is "Perlight".

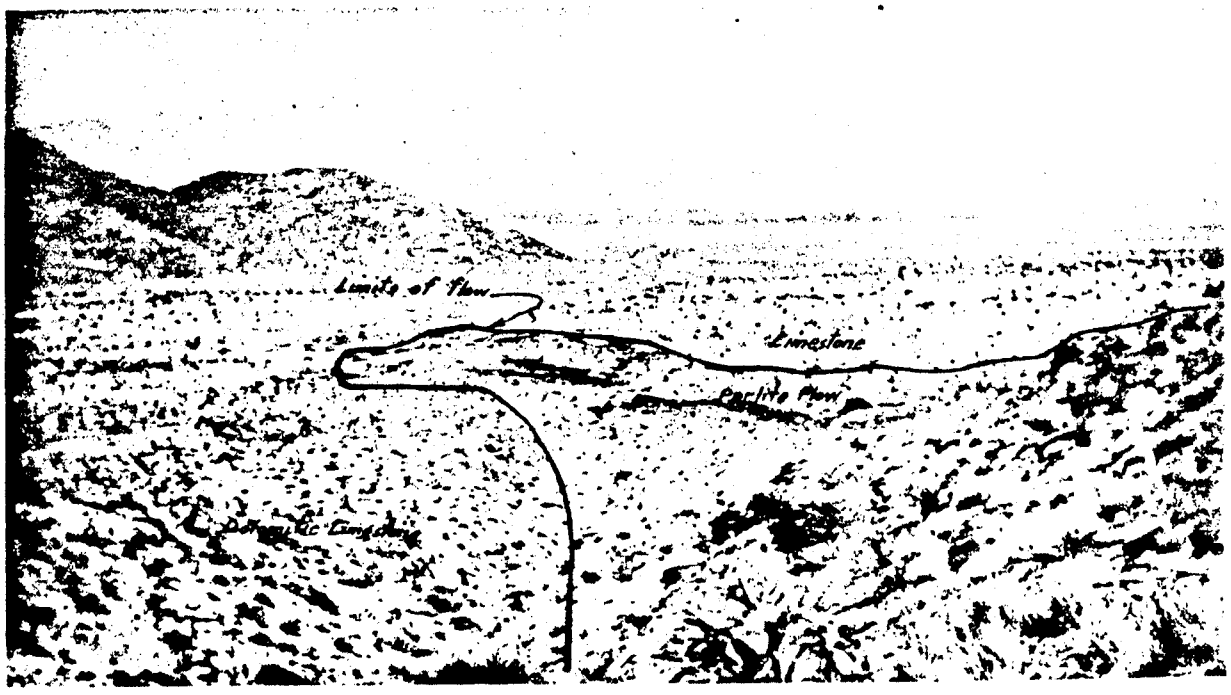
Nu-Lite Insulated Homes, Inc., Perlite Deposit - Searchlight, Nev.

This perlite deposit is an enormous occurrence lying partly in Nevada and partly in California. It is owned by Nu-Lite Insulated Homes, Inc., Box 216, Fontana, California. Specifically it is 12 miles by poor to fair road west of the town of Searchlight, Nevada, and 21 miles by very poor mountain road east of Ivanpah, California, a section station on the main line of the Union Pacific.

The property consists of 14 placer claims (280 acres) located in an unorganized mining district in Clark County, Nevada, and San Bernardino County, California. Messrs. A. C. Emery and J. R. Henry of Searchlight were the original locators of the deposit but the property has since been purchased by the present owners.

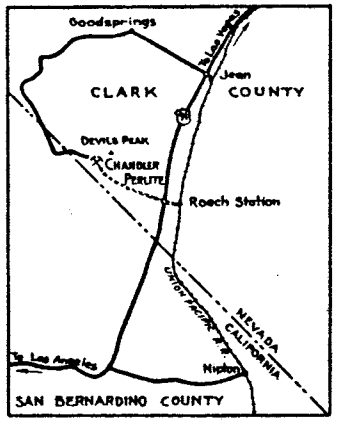
The deposit is exposed in an area two miles long by one mile wide and, in most exposures, the average thickness will be approximately 50 feet. Both "onion skin" and "sugar loaf" grades of perlite are exposed and development to date has indicated a good grade of each. It is flat-lying and very easily accessible for mining. Annual assessment and discovery work has been done in such a manner as to expose the deposit to a good advantage.

PLATE XVIII



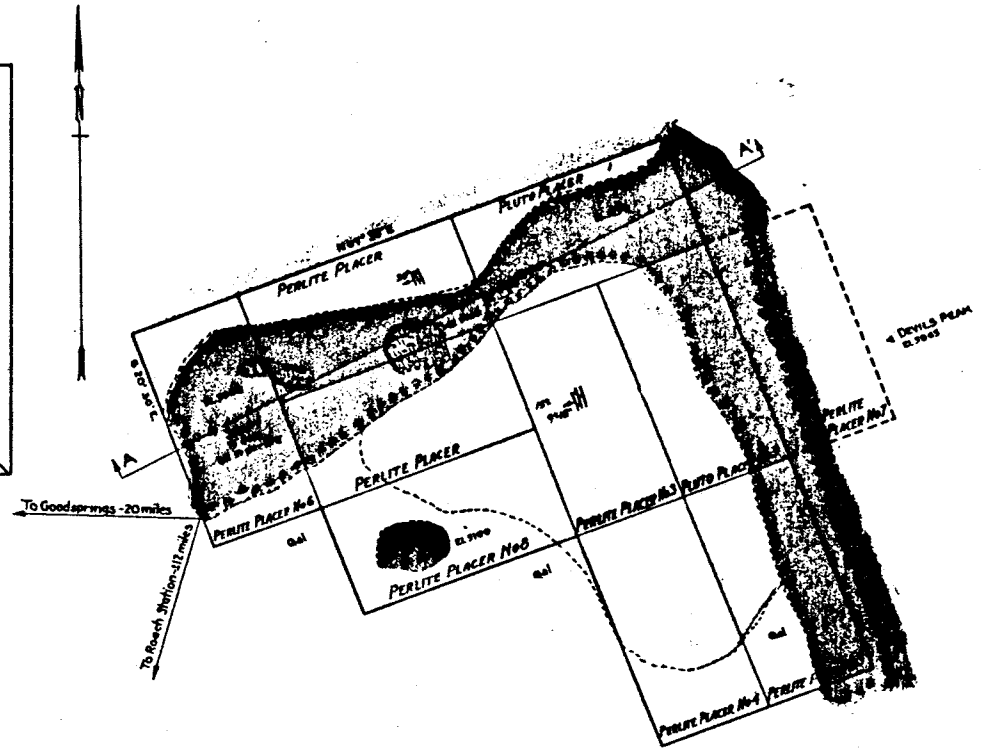
U. S. PERLITE MANUFACTURING COMPANY
Clark County, Nevada

SHOWING OCCURRENCE OF PERLITE FLOW
OVERLYING LIMESTONE AND DOLOMITIC
LIMESTONE

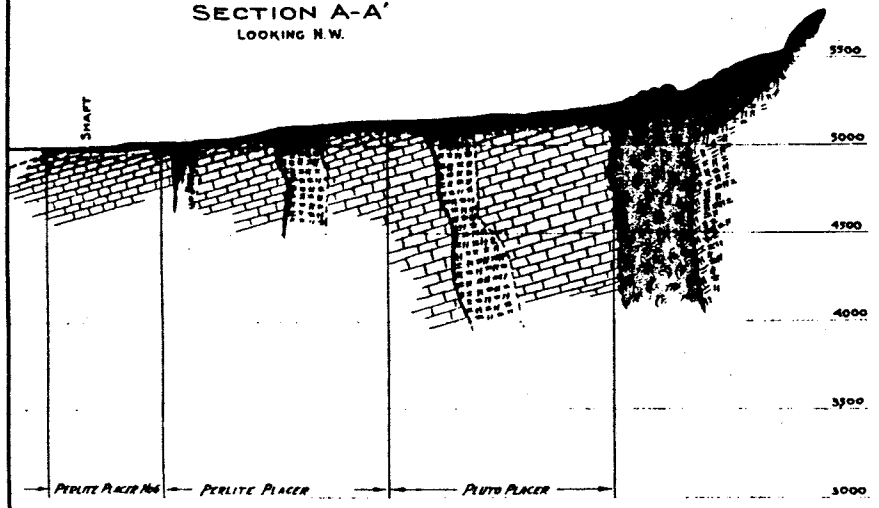


INDEX MAP

SCALE
STATUTE MILES



DIAGRAMATIC SKETCH
SECTION A-A'
LOOKING N.W.



LEGEND

Alluvium	Qal
Perlite	
Dacitic Flow	
Limestone	
Strike and Dip	

UNION PACIFIC RAILROAD CO.
OIL DEVELOPMENT

U.S. PERLITE MANUFACTURING CO.
GOODSPRINGS MINING DISTRICT
CLARK COUNTY NEVADA

CHANDLER PERLITE DEPOSIT

DRAWN BY	DATE May 7, 1950
TRACED BY	SCALE 1 in = 500 ft.
FLD WK. BY	APPROVED BY

PLATE XIX

SUMMARY NEVADA - UTAH PERLITE DEPOSITS

Name of Property	Name and Address of Owner	Estimated Ore Reserves			Tons Present Monthly Production	Distance from Railroad (Miles)
		Indicated	Inferred	Total		
NEVADA DEPOSITS						
Eccles & Minto Deposits	Combined Metals Reduction Co. 218 Felt Building Salt Lake City, Utah	19,281,000	9,640,000	28,921,000	-	1
Acoma Perlite	J. Pulcepher Overton, Nevada J. L. Boykin Little Rock, California	38,700,000	21,850,000	60,550,000	-	6 to 10
Hollinger Perlite	J. Hollinger Pioche, Nevada (Leased to Combined Metals Reduction Company)	6,000,000	3,000,000	9,000,000	4,000	14
Fairview Perlite	Combined Metals Reduction Co. 218 Felt Building Salt Lake City, Utah	4,038,400	2,000,000	6,038,400	-	24
Emery & Henry Perlite	A. C. Emery & J. R. Henry Box 53 Searchlight, Nevada	214,450,000	-	214,450,000	600	21
Kopenite, Inc.	Kopenite, Inc. 169 No. La Brea Los Angeles 36, California	10,460,000	5,000,000	15,460,000	200	35
Robb Perlite	Jay Robb Glendale, Nevada	16,000,000	8,000,000	24,000,000	-	14
Johnston-Fitchett Perlite	S. Fitchett Carp, Nevada	2,680,000	1,000,000	3,680,000	-	13
Free Perlite	Darrel Free Panaca, Nevada	450,000	1,000,000	1,450,000	-	14
Leech Perlite	Paul Leech Pioche, Nevada	1,150,000	575,000	1,725,000	-	23
Searchlight Insulation Products	B. L. Tanner Box 1126 Las Vegas, Nevada	10,581,000	-	10,581,000	-	35
U. S. Perlite Products	A. R. Chandler 609 So. Grand Avenue Los Angeles, California	1,000,000	1,000,000	2,000,000	-	12
Snow Perlite	Wayne Snow St. George, Utah	29,615,000	-	29,615,000	-	13
Total Nevada Deposits		**338,405,400**	**53,065,000**	**391,470,400**	**4,800**	
UTAH DEPOSITS						
Huntsman Perlite	Allonzo Huntsman Fillmore, Utah	500,000	1,000,000	1,500,000	-	5
Utah Pumice and Perlite Co.	Byron A. Ray 409 Ness Building Salt Lake City, Utah	5,000,000	-	5,000,000	3,000*	5
UTCO Products Co. Perlite	H. H. Ellerbeck 1210 Continental Bank Building Salt Lake City, Utah	5,000,000	2,500,000	7,500,000	400	8
Total Utah Deposits		**10,500,000**	**3,500,000**	**14,000,000**	**3,400**	
GRAND TOTALS		**348,905,400**	**56,565,000**	**405,470,400**	**8,200**	