1870 0032

(167)
Item #10.

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

Mining operations are being carried on by an open cut system. The perlite is drilled with pneumatic drills, blasted and loaded into trucks by a power shovel of 3/8 cubic yard capacity.

Production was started on a small scale from this deposit in February, 1948, by the original locators and about 300 tons of good quality material were mined and trucked to the Basic Materials Company in Las Vegas, Nevada. Nu-Lite Insulated Homes, Inc., plans to install mining machinery and grinding plant equipment at the property having a capacity of 200 tons daily which will greatly facilitate and increase production from this large deposit.

In conjunction with production of crude perlite from the mine, the company is operating an expanding plant at Fontana, California. The plant consists of three furnaces with a capacity of 6,000 cubic feet per day of plaster aggregate size. The company specializes in pre-cast roofing slabs and prefabricated housing units using perlite aggregate. The brand name is Nu-Lite.

Fairview Perlite Deposit - Pioche, Nevada

This perlite deposit lies in the comparatively low foothills of the Ely Range in the SW¼ of Section 28, T. 4 N., R. 69 E., Lincoln County, Nevada, some 26 miles northerly from the town of Pioche. It is reached via 13 miles of oiled highway and approximately the same amount of improved mountain and desert road.

There are no facilities at the property and all supplies must be trucked from Pioche.

Detailed exploration and development of the deposit indicates a reserve in excess of one million tons of commercial material. There are other deposits within adjacent areas but the Fairview is of the best grade and most accessible. The estimated total reserve tonnage contained in the deposit is 6,038,400 tons. (See Plate VI)

Approximately 5,000 tons of crude were mined and shipped to the grinding plant at Caselton, Nevada; the bulk of the product was minus 1/8 inch which was shipped to an expanding plant at Bauer, Utah, and the plus 1/8 inch and larger was stockpiled to be used later as concrete aggregate after expansion. Operations at this property were suspended upon full development of the Hollinger deposit where the quality of the material was better and operations were more economical.

Kopenite, Inc. - Lincoln County, Nevada

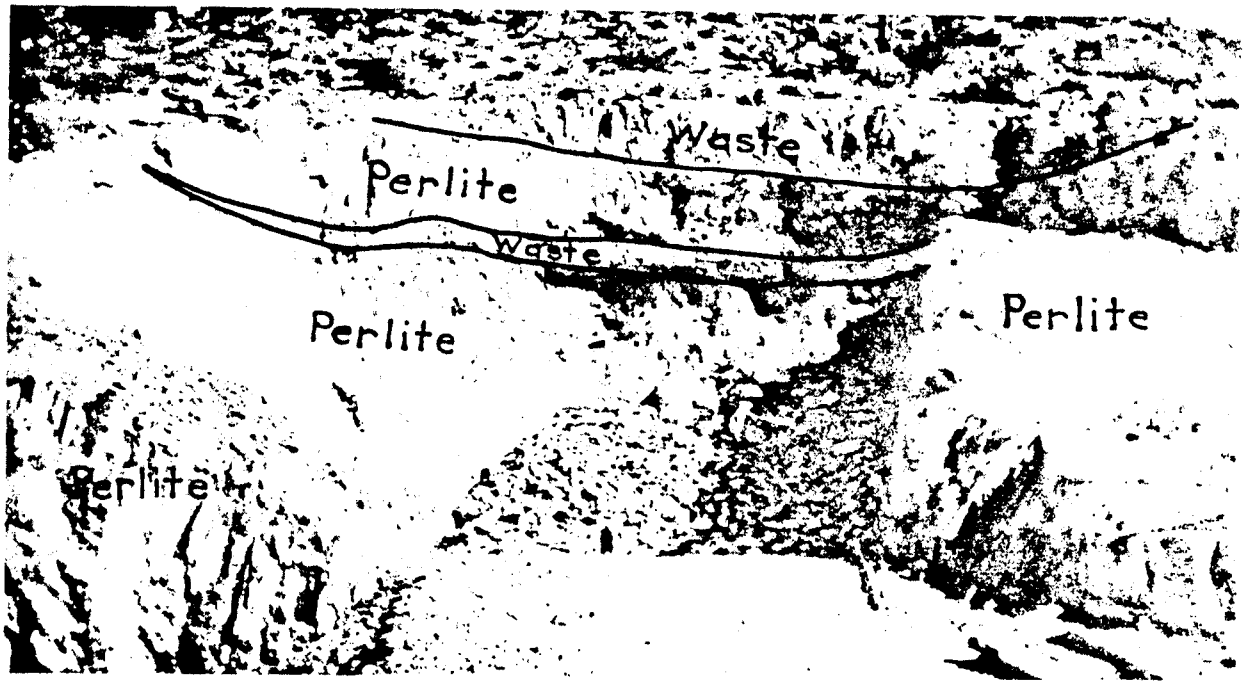
The Kopenite deposit is located in an unsurveyed and unorganized mining district, 35 miles southwest of Caliente in Lincoln County, Nevada. It is reached via 28.5 miles of oiled highway #93, thence 6.5 miles east over fair desert road, approximately in T. 4 S., R. 63 E.

It was originally located by A. J. Mackie of Caliente. The property consists of eight placer claims held by location and

PLATE VII

KOPENITE, INCORPORATED

Los Angeles, California



View showing perlite and overburden in quarry,
Lincoln County, Nevada

development.

The deposit is a large flow of "onion skin" type perlite lying on an andesite flow. It is partially capped by a similar flow and has numerous ribbons or seams of porphyritic material contaminating the material. There are also prominent pellets of obsidian included in the mass but this material has no deleterious effect upon the expanded product. The deposit is flat lying and relatively free of overburden. It is 8500 feet long by 800 feet wide by 20 feet thick or an estimated available reserve tonnage of 15,460,000 tons. (See Plate VII)

The property is now in operation and several hundred tons of crude perlite have been mined and shipped to Los Angeles.

Robb Perlite - Kane Springs Wash, Nevada

The Robb Perlite Property lies approximately 14 miles southwest of Elgin, a station on the main line of the Union Pacific Railroad between Las Vegas and Caliente, Nevada. It is reached by poor desert road from Elgin or by 25 miles of wash road after leaving U.S. Highway No. 93 at Kane Springs Wash, some 35 miles north of Moapa, Nevada. (See Plate XI)

The property is made up of ten unpatented mining claims in an unorganized mining district, Lincoln County, Nevada. To date, only discovery work has been done but the nature of the deposit is such that numerous exposures can be observed.

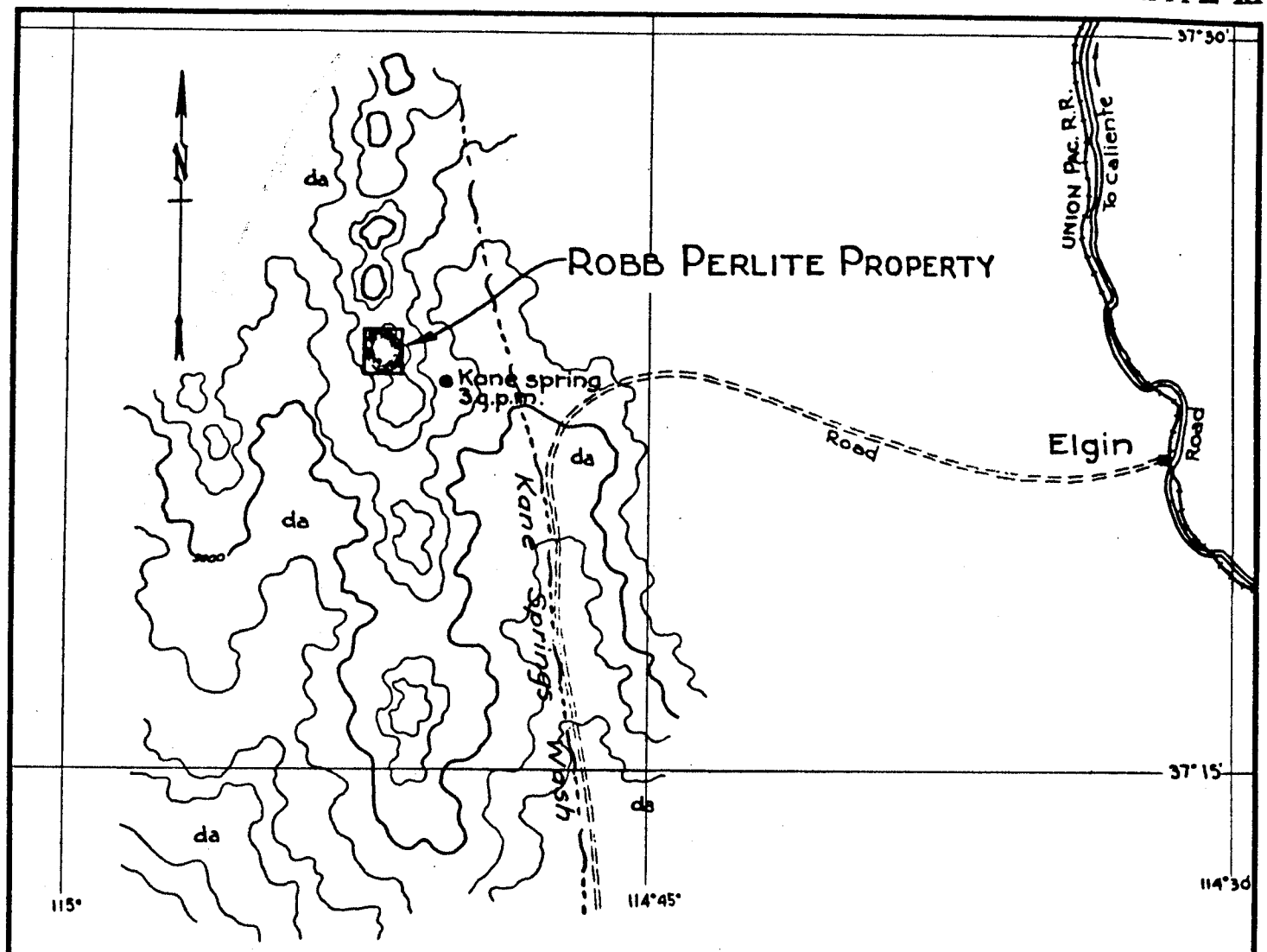
Kane Springs is a perennial spring at the property and has a flow estimated to be three to five gallons per minute. The water is very good for both domestic and industrial uses. No other facilities are available at the site and all supplies and materials would have to be brought in by truck.

The road from the property to the railroad is in a poor condition but proper maintenance will provide an easy all-weather road. A loading ramp would have to be constructed at rail side.

The perlite deposit lies in fairly rugged and well dissected country between two extrusive porphyry flows. The flows are quite flat and can be traced for considerable distance on the slopes.

The porphyry over and underlying the perlite is acidic and soft. Flow lines are evident in a compact dacite while other sections of the flow are characterized by an almost scoriaceous appearance. Due to the flat-lying nature of the deposits, mining

PLATE XI



DACITE FLOW da

PERLITE

ROBB PERLITE PROPERTY
LINCOLN COUNTY, NEVADA

Scale in miles

2 1 0 2 4 6 8

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of the perlite would become more expensive as operations progressed.

Three kinds or types of perlite can be observed. The first is a light gray, firm, good grade of perlite; the second is quite black but appears to be of good quality; the third is a broken mixture of black and gray perlite and expansion tests will have to determine whether or not this third type is commercial.

The perlite flow will average 25 feet in thickness although there are places where it will be more than 75 feet. It is exposed over an area approximately 3000 feet by 3000 feet and it is estimated that there are at least 16 million tons in the deposit.

Mining operations would be from an open cut. Perhaps 15% of the deposit could be cleaned of overburden quite cheaply but continued operations would encounter a heavy overburden of solid porphyry which would have to be drilled, blasted, and hauled away.

Free Perlite Deposit - Pioche, Nevada

The Free Perlite deposit is located 14 miles via fair to poor desert road northeast of Pioche, Nevada. It consists of three lode mining claims, unpatented and unrecorded, in Sections 5 and 6 T.2N., R.69E., Lincoln County, Nevada. Mr. Darrel Free of Panaca, Nevada, is the owner.

This deposit is comparatively small in relation to other observed occurrences but it is fairly well located with respect to rail, labor, and housing facilities. It is a very light gray "onion skin" type perlite lying on and partially capped by dacite flow. There are many seams and ribbons of dacite within the mass but it is, for the most part, relatively free of contaminating materials. It is flat-lying in the low, rolling foothills of the Wilson Range and mining operations would present no particular problem. It is 800 feet long by 300 feet wide by 25 feet thick, having an estimated available reserve of 1,450,000 tons.

Road improvements might shorten the distance to the rail by no more than one mile and maintenance or construction would not cost excessively in the loose talus and wash debris covering the road area.

Johnston & Fitchett Perlite - Carp, Nevada

The perlite property owned by Johnston-Fitchett of Carp, Lincoln County, Nevada, is located 12 miles northwest of Carp. It is reached by poor desert road in the foothills of the Meadow Valley Mountains. (See Plates IX and X)

The property consists of 480 acres held by placer location in an unorganized mining district, Lincoln County, Nevada. Specifically in the south half of Sections 27, 28, and 29 and the north half of Sections 33, 34, and 35, T.8S., R.66E.

Only limited discovery work has been done on the property but development is not necessary at this time. There are no facilities of any kind either at or in the immediate vicinity of the property.

Geology at the property is quite simple. Igneous activity has produced a heavy thickness, in excess of 1,000 feet of dacitic, rhyolitic and perlitic flows. The flows have been subsequently distorted, causing flow plane dips from horizontal to 80°.

The perlite occurs as lenticular inclusions between dacite and/or rhyolite. The inclusions vary in thickness from 4 to 50 feet and the length is difficult to determine in most instances. The northern section of the deposit shows perlite in apparent, but not actual, veins, striking N. 10° W. and dipping from 15° to 80° NE. The southern section, for the most part, strikes N. 40° E. and dips horizontally to 25° SE. Variations between a northeast and northwest strike are readily observed on all sections of the property.

The perlite appears to be of good quality although there are innumerable thin stringers of waste in practically every exposure. It is generally jet black in color with graduations toward lighter colors.

In almost every exposure, the perlite, due to dip, is soon covered with considerable overburden. This feature, plus the scattered nature of the perlite inclusions, eliminates this prospect as an immediate, cheap, source of crude perlite.

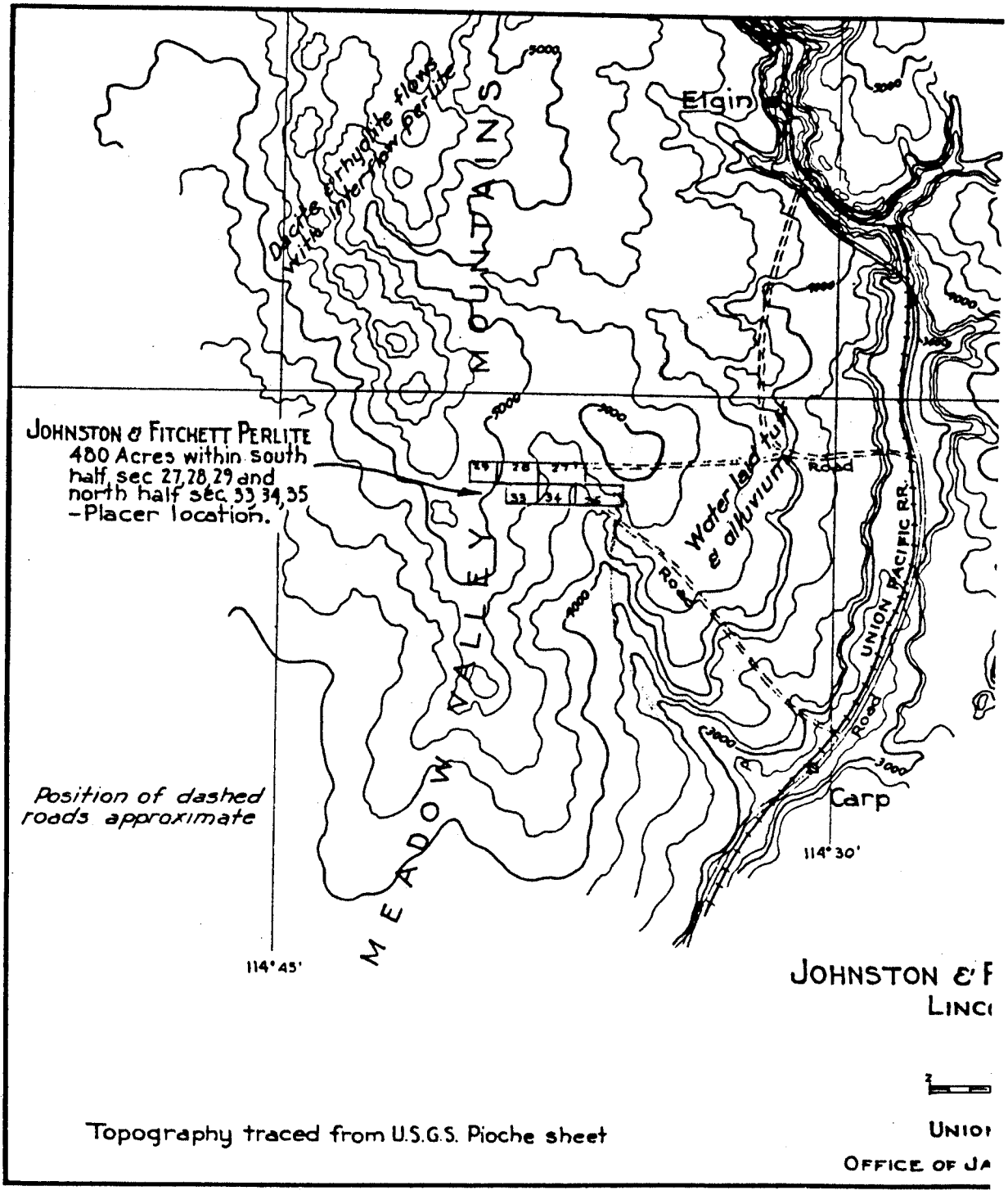
On the basis of numerous observed exposures, it is safe to say that there is a measured ore reserve of one million tons but at no place is there a sufficient concentration to allow mining of more than a few thousand tons from one operation. Indicated ore reserves are at least 5,000,000 tons.

Searchlight Insulation Products - Clark Co., Nevada

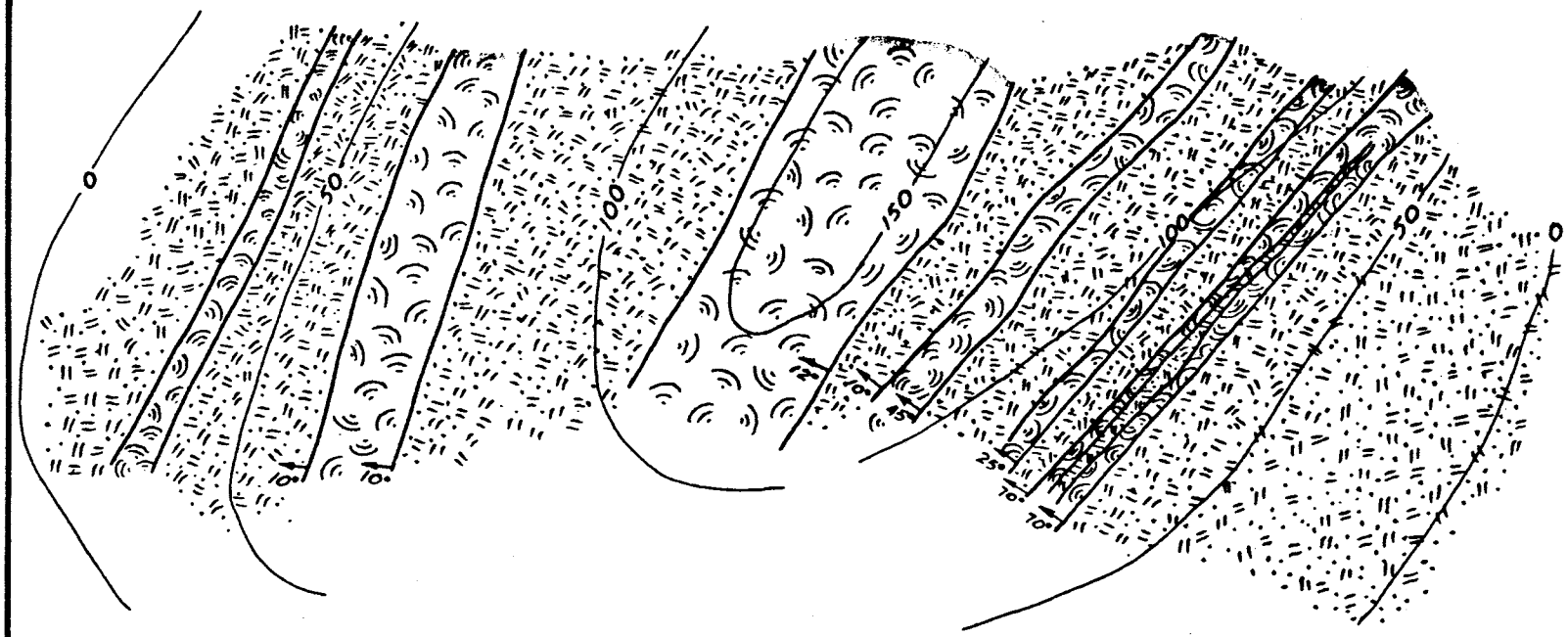
The Searchlight Insulation Products deposit is located two miles west of U. S. Highway No. 95 and six miles north of the town of Searchlight, Nevada. Mr. B. L. Tanner, owner and operator, lives at the deposit and his address is Box 1126, Las Vegas, Nevada. Specifically, the deposit lies in the $S\frac{1}{2}$, Section 9 and $N\frac{1}{2}$ Section 16, T.28S., R.63E. and consists of nine placer claims (180 acres) in Clark County, Nevada.

The deposit consists of two flow lenses and the occurrence is a typical perlite deposit. It is quite free of overburden and includes thin stringers of dacite or andesite. Usually the contamination is not extensive. It is more or less flat-lying and covers a wide area.

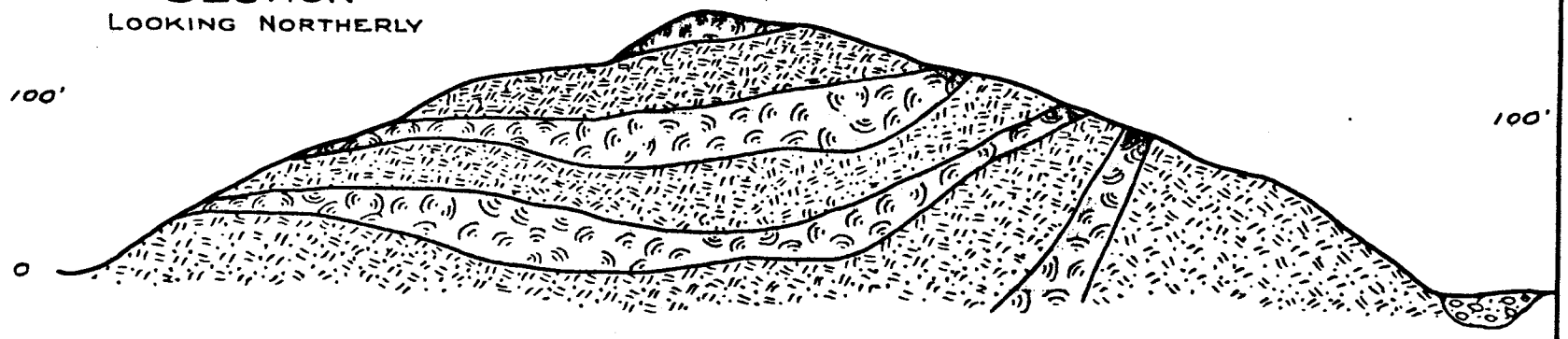
The deposit from which present production is obtained is 1500 feet long by 240 feet wide by 21 feet thick. The second deposit is 2600 feet long by 500 feet wide by an average of 100 feet thick.


Elgin
Dacite, rhyolite flows with interflow perlite
MEADOW VALLEY MOUNTAINS
JOHNSTON & FITCHETT PERLITE
480 Acres within south half, sec 27,28,29 and north half sec. 33,34,35 -Placer location.
Water laid tuff & alluvium
Road
UNION PACIFIC RR.
Carp
114°30'
114°45'
Position of dashed roads approximate
Topography traced from U.S.G.S. Pioche sheet
JOHNSTON &
LINC
UNIO
OFFICE OF JA

PLAN



SECTION
LOOKING NORTHERLY



DACITE AND RHYOLITE

PERLITE

DIAGRAMMATIC SKETCHES
JOHNSTON & FITCHETT PERLITE PROSPECT
T.8S., R.66E., LINCOLN Co., NEVADA

Scale in feet. (Approx.)

100' 50' 0 100'

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PLATE X

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**	