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Washoe County
Item 32

NOTES ON WASHOE COUNTY RECONNAISSANCE TRIP

May 17 to May 20, 1946, inclusive

Jay A. Carpenter and Byron S. Hardie

Nevada State Bureau of Mines

17 May 1946 - Reno-Gerlach 111.0 miles: The first property visited was the Pacific Portland Cement Company's Gypsum Quarry in the Hooker mining district, Pershing Co. The quarry is located in Pershing Co. about 1 mi. from the Washoe Co. line. The mill is located one mile on the Washoe Co. side of the county line and is connected to the quarry by a $6\frac{1}{2}$ mile aerial tramway in use since the Company began operations in 1923. Mr. Allan Moore, Supt. conducted us through the quarry after lunch at the Co. boarding house. Mr. Sutton, quarry supt. at this mine since late 1944. Main quarry face being worked to south with 100' face. Jointing in gyp. causes trouble with too large size blocks with blasting and shattering of bench to such extent that churn drilling next shot is dangerous. Face is being pivoted to the East to attempt to get away from so much blocking. 6" churn drill holes being drilled to 100' face above second bench at east side of quarry. There is just one churn drill in use at present (new-1 month). Trojan block powder (40%) being used. Usually 2-3' water in bottom of holes and water proof bags are used. First two or three bags not split but rest are split before loading. Use of bags brings powder almost twice as high as bulk. Much secondary blasting (jackhammer) done to reduce to size that rolls can handle - $1\frac{1}{2}$ ft. dia. pieces maximum. $1\frac{1}{2}$ c.y. gasoline (?) shovel used in quarry and two trucks

to crushing plant ($\frac{1}{2}$ mile). Mr. wants to get wagon drills so that face on E. of deposit can be started. Anhydrite has appeared near E. side of face in shape of a dome. Some lime is also found but not much. Mr. Moore and I walked S. of quarry about $\frac{1}{2}$ mi. where selenite occurs in domes 20-30' hi and 50' at base. These domes were described by 40th Parallel Survey in 1876. Settlers at that time were using selenite in 3' pieces for windows. At crushing plant $\frac{1}{2}$ mi. from quarry and upper terminus of aerial tramway, gyp. is reduced to $1\frac{1}{2}$ " before loading in buckets. Some of fines with anhydrite and lime impurities recently used to supplement tonnage, but 3% moisture caused too much trouble in transportation circuit. Trains formerly used from quarry. Capacity of crushing plant is 90 T. per hr. Plant production now 18,000 T/month. Two trucks now used to supplement tonnage hauled by tram. Old dumps being loaded to trucks by shovel.

Work 6 days per week and 9-10 hrs. per day. 90 men on payroll. Veterans have control of union and according to Mr. Moore, most veterans do not want to work very long. Since March, union (AFL) has forced three ultimatums on the company. Present pay is $82\frac{1}{2}$ ¢ 1 hr. for labor and \$1.04 1 hr. for sackers in mill. Jackhammer men in quarry \$1.00⁺. Board is \$1.25 1 day and room is \$5.00 1 month. Mr. Moore has room for 3-4 mining students this summer. Time and one-half over 8 hrs. per day and also over 40 hrs. 1 week. Union initiation fee (vets) \$2.00 and \$ 2-3 dues 1 month. 15 days to pay up.

Sacker \$63.44/wk. - Room and Board - \$53.44/month

Labor \$50.33/wk. - Room and Board - \$40.33/month

Joe Pieri, mill supt. Chadwell, chemist (Japanese wkd),
Paul Wayne, asst. chemist, R. A. Guggenheuser, office manager?
Spring above quarry that tastes alkaline and flat. Camp has
quite a few cottonwood trees and nicely built family houses. Also
trailer camp. Water supply comes from one well (12" 360' deep with
water at 135') about 400' south of office and west of mill and
tracks. Air lift supplies 70 g.p.m. A second well 200' s. of
office formerly gave 17 g.p.m. by pump (6"-180') but not used now.

Brooks and Boyd of Gerlach have gyp. property just below P. P. C.
Co. Quarry. Power supply from diesel driven gen. Three diesel units
of two 4 cyl. units ea. in use since 1923: no major repairs yet but
new cyl. and rebore contemplated. Mill at end of 8½ mile spur of
W. P. R. R. from Gerlach. P. P. C. Co. has own locomotives for
switching to main line. Trip to P. P. C. Co. made in Mackay School
Mines S. F. Hunt Foundation G. M. C. Panel truck via State Hwy. 34-
Sparks, Pyramid, Nixon, up w. side Winnemucca L. (dry) over bad
road - 111.0 miles.

Mr. J. J. Thrasher (working in machine shop) in w. flank
Selenite range, leased by Geo. Thatcher during war. Thrasher devel.
mine considerably, but demand for tungsten after war dropped and
closed mine. V. P. Gianella made report on mine 43-44? Thrasher
also has Donnelly Mine in Donnelly district. Thrasher also inform-
ed us that Swingle and Penick own mine at Leadville - part of ground
of Leadville 19 s Co. Thrasher also has low-grade sulphur deposit on

E. flank Fox Mts. in Lake Range reached by turnoff to W.
10 mi. S. Gerlach on Reno road, thence 12-14 mi. South along
base of range. 5-6 cars shipped to Boise in winter '44 for
fertilizer.

Location-History-Facts (Min. yrbook) Gyp. deposit noted
by 40th Parallel survey in 1876. Jones, J. C. in U.S.G.S.
Bull. 697 (1920-p.150) Gyp. Dep. in U. S., describes deposit
as "Triassic limestones, schists and gyp. exposed in contact
with grano or diorite (intrusive or not?) on E. in large lenses
(gyp) belw. wh. ls. and dark calcaneous schist. Beds nearly
vertical and gyp. stands out in terraces upon one of which hot-
springs have built cones of selenite. Changes to anhydrite in
dpth. loc. in T 30 N R 24 E and T 31 N R 24 E. P. P. C. Co. began
devel. in 1922 while operating dep. at Mound House in 1923. Gyp.
in Hooker dist. on W. Base of Luxore Pk. towards N. and Truckee
Range and 10 mi. S. Gerlach.

On road to Pyramid before turnoff to Settlemeysr's ranch
on top of ridge to W. of road is Mn. dep. undevel. Several
small mines to E. of road and also a 'Dude Ranch' just before
Pyramid L. Huge Tuffa dep. on hills along W. side Winnemucca
L. Took one picture of concretion of tuffa on W. side road,
halfway up Lake (dry). M. G. L. mine seen across L. on E. side-
Letts(?) worked - dep. stone in L. A. according to J. A. C.
Also tungsten prop. seen on E. side valley 12 mi. below gyp. quarry
and another W. prop. 2/3 owned by Thrusher. Arrowhead Pk.
seen near N. end Winn. L. in N. end Nightengale Mts. Peak seems
to have three points. Picture #2 taken of Selenite mounds S.

of gyp. quarry $\frac{1}{4}$ to $\frac{1}{2}$ mi. Two pictures taken of quarry looking S. Samples: Selenite from mounds, gyp, limestone(xlized) and anhydrite from quarry.

Visit and stay overnight with Mr. and Mrs. Allan Moore. Before supper at P. P. C. Co. with Moore's, J. A. C. and I visited "Double Hot Springs" 8 mi. fr. Gerlach on Leadville Rd. at base of S. and Granite Range. Gerlach $8\frac{1}{2}$ mi. fr. P. P. C. Co. across Black Rock Desert. (Saw Mr. Boyd concerning his gyp. prop. near P. P. C. Co. ground. Mrs. Thrasher, Postmistress Gerlach) Took three pictures of springs looking S. towards gyp. Quarry. Two large (75' across) pools for bathing. Two smaller (20' w.) boiling springs feed these pools to heat them. The large pools will cool if hot pools cut off. Several people bathing and soaking in mud. Mud springs dangerous as may flash to boil. Mr. Thrasher gets numerous inquiries about spring. We tried these pools and steam bath 17 May - 5 p.m. nice and warm, slightly saline.

Saw Brooks and Boyd in Gerlach. Mr. Brooks lives in "large white house" on edge of town near P. P. C. Co. side. Brooks gave us sample of 'one' to assay. Also gave us chunk of "chalk" that appears to be diatomite and comes from 40 m. N. Gerlach. Hard, white material--no effervescence with HCl. Also has xline 1st calcite in huge deposit S. of Gerlach. Drove north toward Leadville across Granite Creek and Black Rock desert and up east side Granite range along Nevada hwy 34 which lies in valley betw. Granite and Black Rock Ranges (according to map Calif-Nevada Associated Dealers Official Road Map. H. M. Gousha Co., Chicago, Illinois). Took a picture of a mirage on desert. From a distance of 1 mile a corrugated iron-culvert pipe lying on surface of lake

seemed to be a dirigible 50-100' in air! 24.1 m. N. Gerlach we visited and sampled a Geyser cone which we named "Reservoir Fountain". There is a reservoir in vicinity. Fountain is 0.5 m. E. of road and easily visible from several miles. The cone is about 10' high and 20' at base. Between two ranches and 2.1 m. S. of one ranch. Took two pictures looking N. at Carpenter and N. 70 W. at distance of 20'. Also one looking W. with pick in picture. Three spouts issuing steam and H₂O. From observation of another well in process of building, this cone may have been built around a pipe originally. [Mr. Moore, P. P. C. Co. says cone has built up 2-3' in 6-10 yrs.] Small marble-like pebbles of Fe₂CO₃ and CaCO₃ (?) also gelatinous brown material around base of fountain and some material that looks like mountain heather. Cone is hard. Numerous round holes 20'-100' dia. in area of 4-5 acres. Salt grass fairly abundant in area. Larger pools warm. Some small (4' dia.) pools are 180° +.

Leadville Mine 1.2 mi. W. Nevada hwy. 34 and 45.5 mi. fr. Gerlach North. Mine W. of road 1.2 mi. and visible from main road. Sign on camp building: D. B. Penick, 520 Van Ness Avenue, San Francisco, California, owner.

Ate lunch at mine and continued 3 mi. North on Nev. 34 to Swingles Ranch. Mr. Swingle, a husky, toothless affable buckaro-miner. Mr. Swingle: Pray and Jim Razor own 7 patented claims at Leadville. Swingle owns 3 Pat. claims and Penick owns 3 Pat. claims. Swingles claims in South gulch (on S. of hill with flooded adit) near cabin. He worked at mine first in

1909 (Penick and Swingle formerly partners). Owned mine after it was worked out - (after 1923?) Vein near the mill was barren. Ore hit west under top of hill. Best ore near fault. Winze put down to 800 level, 700 level had most ore. No ore found beyond fault. Harnan shaft (S. gully ?) \$20.00 ore above 700, \$40.00 to \$100.00 ore on 700 level. Ore on 700 level on Swingles ground - Tohoqua #2 (? should this be Tohoqua?) J. A. Burgess made report on mine when Codd was owner. Ogle Swingles term: for his property: \$20,000.00 Cash or 15% royalty to apply on purchase price. Nothing down. Work has to be done on Swingles ground from a shaft that has been proposed. Old tunnel or adit too crooked and poor to get ore out. On 800 level drifting was not done for enough to catch ext. of ore from 700, and was never stoped. Mr. Swingle claims to have seen good 3' vein on 700. In places ore pinches narrower than 3' and gets richer.

Ben Cassidy leased mine after Backlund left. Cassidy now at P. P. C. Co., Gerlach. (Empire) Cassidy old hoist man, mill and mine worker. Also Al Scott of Susanville worked at Leadville with Ben Cassidy (?) according to Thrasher at P. P. C. Co. Mon. 20 May, 1946.

Ogle Swingles ranch on W. side of road. Large stump in 3 sections easily visible from $\frac{1}{4}$ - $\frac{1}{8}$ m. down road (Hwy. 34). A section partly buried lies on ground a few feet from this stump and is 11'3" long and looks to be the same diameter. In vicinity 20-30 stumps are visible 18" to 3' in dia. and 2-3' high. Two pictures taken of this stump. 4 p.m. 18, May, '46.

Antelope seen $\frac{1}{8}$ mi. north of stump. Obsidian and glassy rock seen on rt. of road 5 mi. N. Swingles ranch. Obsidian in

rounded pebbles and none in place could be found. Obsidian pebbles seen along road for $\frac{1}{2}$ mi. to 1 mile. Diatomite seen along road in cuts (1' cuts). Also at little hi-rock creek, 13 mi. fr. Leadville Diatomite or light colored tuff? is seen on both sides of creek bed - 2-3 mi. wide creek bed.

Continued on Nev. 34 and obs. same volcanic flow capping on hills, with other beds of flow rock underlying. These beds appear to have an eastward dip but they were not investigated. Central Lake was dry as was Fortynine Lake at junction of Nev. 34 and 8A or Denio road. We traveled E. on Denio road 3 mi. from junction with 34 past Painted Pk. and over ridge to a narrow dirt road leading N. 2 mi. to Middle Lake. Camped at S. end Middle L. Sat. eve, 18, May, '46. Lat. $41^{\circ}37'$ N. (approx.) about 26 m. S. Oregon line. Froze water in frying pan and J. A. C. had bad night of it. I slept well on good pad, cot, sleeping bag and two U. S. M. C. blankets. Cooked on gas stove and cow dung! J. A. C. likes coffee grounds! Middle L. has water but fairly muddy. Sun. 19, May, '46, Massacre Lake, Painted Peak - Chas. Sheldon, Wild Life Refuge - Cedarville (Calif.) - Duck Flat - Deep Hole - C. G. C. Camp - Mt. View - Double Hot Springs - Gerlach.

Sun. A. M. we explored basalt? capped mesa to E. of Massacre L. for obsidian which is supposed to be area from which probably obtained large chunk from cliff of same! All we could find was float pebbles $\frac{1}{2}$ " to 6" in dia. Also numerous chipped pieces. On flat just S. Middle L. I found obsidian with $\frac{1}{2}$ " spherical inclusion. We returned on 8A to Painted Pk. and noticed obsidian all along road except on ridge to E. of Painted Pk. We stopped at B. M. N-48 5661'cl. at base of Pk. and climbed to bottom of low capped peak (50' from top). On W. side, peak has vertical cliffs with Reds, Yellow and buff to white colors exposed. On E. side only talus from capping

seen. Flow capping is dark rock and looks like basalt. Red material looks like burnt tuff. Yellow, buff and white material has fragments distributed thruout with spherical cavities. Cliffs of this same material are 75-100' high. One picture taken of J. A. C. in front of brecciated material between capping flow and red, burnt tuffs. This material made up of angular fragments 1' to 5' in thickness. Fragments 1" to 5" dia. and many have hard, transparent coating - calcedony? . One picture taken from base of cliff. From here we drove to Chas. Sheldon Wild Life Refuge along valley where numerous dry lakes seemed to be formed in tuff beds. High lava capped cliff to S. E. of road appeared to have same series as Painted Peak. Road to Refuge climbed this cliff and we crossed same Painted Pk. series. No Antelope seen here. More lava flows as far E. as we could see - also N. caretaker's house had some red tuff in construction. Caretaker young man out of Army (C. B. I. war theatre) says that red tuff hauled to Reno for building? Took picture of dry lakes south of Mud L. that were not on map. Carpenter and Hardie Lakes, Nev. 34 ends in Reserve. Where 34 joins Denio road to Cedarville (at B. M. R. 49) white tuff cliffs in E. flank of Mts. on state line were observed to extend 1 m. N. and 2-3 m. South to lat. of Fortyning lake. These Mts. Lava capped and tuffs were again observed on other side of range. Cedarville, Calif, L. A. McCulley and Bill Grobe showed us numerous samples from Nev - Calif. McCulley has his yard full of rock specimens of petrified wood, obsidian, agate, calcedony, claystone, tufa and fossil shells. He gave us some banded obsidian from near Cedarville and claystones and fossil shells from near Wall Canyon, Nev. (Washoe Co.). Also fossil bones. These fossils are 3 mi. below Stone cabin

near road on W. side of gully N. of High Rock Creek. Bones and shells up on side of hill. Mrs. Delmas has arrowhead (obsidian) and mm. collection. Also large chunk (1' dia.) obsidian from Wall canyon. Obsidian in quantity 80 m. fr. Cedarville beyond Altoras on road to Klamath Falls N. of Canby, California. Location called Devil's Garden or Glass Mt. Bill Grobe showed me some large Calcite crystal with dbl. refr. He has large deposit that was to be used in bomb sights, near Cedarville. Pete Hurd at Eagleville has large rock collection. Pete is old and has one eye. Pete directed us to another location of petrified stumps E. of lost creek ranch in some yellow hills and N. W. of a Black Peak. 50 mi. N. Gerlach on road from Cedarville. We didn't take time to find them. On flat before reaching Lost Creek Ranch we found tufa scattered all over flat. Tufa seemed to grow from point-rock or pebble and have large part (that of as base) upward in mud of flat. Road from Calif. below S. end of Lower L. passes thru a pass with practically no grade! Old shore lines plainly visible in Calif. and Nev. side of pass. From Cedarville to end of Lower L. many ranches. Pebbly road W. side of range betw. Calif-Nev. shows apparently same structure or formation as was obs. at Painted Pk. Mt. View Au. Mine seen across valley 29.5 m. N. Gerlach. From this point, Granit Mt. is 562° E. We had supper at old C. C. C. camp 4 mi. below here. Only water tank and foundations left. Road very good. Pretty valley here below Granite Mt. Same series of lava-tuffs seen in canyon N. of C. C. C. camp.

20, May, 1946, Monday, Gerlach-Flannigan-Charal Marl-Reno.
7 mi. N. Gerlach on road to Deep Hole-Cedarville, picture taken
of Basalt flow over tuff that is a remnant apparently surrounded
by granite - W. side Granite Range 38 m. fr. Gerlach and 1 m. S.
Second steel bridge, in Sand Pass mining dist., is turnoff (Reno
24 M.) to E. O. S. M. to E. F. Cornell chicken ranch. Mr. Cornell
not home, but Mrs. Cornell told us he was old timer and has info.
on old Buffalo Salt Works. Bert Ithurburn at Sheephead Sta. $\frac{1}{4}$
m. South. Fuller's earth dep. 25 m. to S. and West of road. Sm.
N. Flannigan. Bonhain Bros. Ranch, gas start hot springs 14 m. S.
Cornell Ranch and just inside Pyramid L. Indian Reservation. W.
D. Parker owns this ranch and 3 others along Snake Creek Desert.
Also owns land near old Buffalo Springs Salt Works, near mouth
Buffalo Cr. W. edge Snake Creek desert 25 mi. W-S. W. Gerlach. W. P.
R. R. Salt and Sodium Nitrate, U. S. G. S. Bull. 669 Salt Resources
U. S. (Phalen) - 1919. NaCl , Na_2SO_4 and other saline materials
found in lake beds. Na_2SO_4 several feet thick in several places
but not thoroughly explored. Brine was collected in wells and
pumped to surface vats: 14.84% NaClO . 147 CaSO_4 ; SiO_2Tr ; H_2O -
83%. F. C. Lincoln in 1885 had produced 1500 T. salt. Prod. at
rate to 250 T/yr. in 1885. Parker purchased from Christensen? 40
acres? Mail add. Gerlach. We talked to Sam F. Parker (bro.).
Bonhams 89 m. N. Reno by our speedometer which seems to register
too high. Took two pictures of huge gravel pit at Sand Pass (W. P.
R. R.) on edge of Snake Creek Desert. Tufa seen just below surface
in gravel pit. [Speedometer 84 m. to Reno, sign 56 m. to Reno - this
includes our detour to Flannigan of 12 m. and about 2 m. detour at
Marl dep. - still 14 m. too much!] Hugh piles of gravel and used

in fill across desert lake. Made detour to Flannigan where W. P. R. R. crosses S. P. R. R. W. P. from Winnemucca, Gerlach and to Feather R. Canyon. S. P. from Fernley to Susanville. No loading platforms here except small one on W. P.

Nevada Lime Co. Producers of Marl-Gro Rm. 203, 139 N. Virginia
St. Phone 23298 Reno. 3 pictures taken here. 61.3 m. to Reno by our speedometer. One shovel loading into two trucks. Material being stripped and dumped down canyon. Diatomite overlies Chararific dust. Marl very soft and acid bottle used to differentiate from diatomite. Don Burrus worked here for awhile (\$300.00/mo.) Bill Smythe recommended stripping plan to obviate dbl. handling. Also phenolphtholein test for +65% CaCO_3 . Diatomite in plates and Marl powdery with minute shells and stems. Shipping pt. on W. P. R. R. $\frac{3}{4}$ mi. below dep. Fred Humphries wrote report on prop. Dep. in canyon and peculiar grass outlines surface dep. and is surrounded by sage.

Several diatomite dep. seen on W. side Pyramid L. Pictures of Needles, Pyramid and Tufa.

Suteliff Siding Loading Pt. for: Vital Gro - Grade A Calcareous Marl-Lodi Fertilizer Co. Walnut and Main Sts. Lodi, California. Phones 777 and 1528. Prod. U. S. A. To Reno 5.45 p.m. 20, May, 1946 - 603.9 m. by speedometer.