Vein or Zone: Little Squaw

Length: 100'

Bearing: North-south

Average Depth: 6'

Maximum Depth: 10'

1 W

Interval feet	Geological Description of Rock Types, Strikes and Dips - Mineralization	Sample #	Ounces Au	Ounces Ag
	Cut extends 100' N-S and 80' E-W, exposing a 4' to 8' wide vein, probably a segment between faults, striking N 60° E, in bottom of cut, no dip measurable. Segment exposed for 50' from where it emerges from frozen gouge in bottom of E side of the cut to a fault on the W side. Fault drag qtz is shuffled out from thewest end of the segmnt for 30' on a bearing S 18° E to the vein exposed in the old hand-dug trenches west of this fault.			
Measured from the fault East:				
28'	2' stained (scorodite green) on footwall (north wall) with abundant visible gold	123	18.47	2.34	549.44
28'	4' of glassy red & brown stained qtz with scattered sulphides extending from sample 123 to the hangingwall.	124	0.89	0.07	32.03
25'	2' as in #123	125	1.65	0.15	58.71
25'	4' qtz, hangingwall side, as in #124.	126	0.02	0.35	1.16
20'	18" vugy qtz with some massive arsenopyrite & visible gold, adjacent to northwall.	127	3.30	1.00	116.72
20'	3' hard glassy brownish stained qtz with scattered sulphides, some banding and visible gold, extending from #127 to south wall.	128	0.02	0.35	1.16
33'	18" banded qtz on N wall.	129	2.29	0.74	81.05
33'	18" banded qtz adjacent to & south of #129.	130	8.85	1.68	312.61
33'	3' hard glassy brownish stained qtz, from S end of #130 to S wall.	131	0.01	0.25	.67
15'	2' banded qtz with scorodite & visible gold on N wall (footwall).	132	1.60	0.50	56.25
15'	5' brownish qtz with scattered sulphides extending from #132 south to the south wall (hangingwall).	133	0.12	0.26	4.53
15'	2' of red qtz and sheared rotten schist south of #133	134	0.02	0.28	1.06
10'	18" banded, scorodite stained qtz with visible gold on north wall.	135	2.12	1.76	76.45
10'	42" brownish qtz, some sulphides, from #135 south to hangingwall.	136	0.23	Trace	8.05
5'	18" banded, scorodite stained qtz adjacent to N wall.	137	0.38	0.00	13.37
5'	42" brownish qtz, some sulphides, from #137 south to hangingwall.	138	0.03	Trace	1.05

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Length [illegible]

Bearing [illegible]

Interval feet	[illegible]				
Main vein in north end of cut: [illegible]					
	12" rusty [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	36" of glassy [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	12" stained brown [illegible]	[illegible]	[illegible]	0.10	Fines [illegible]
North end of cut: Undigitized [illegible] rusty glassy [illegible] in bottom of trench, [illegible] to measure [illegible] 75' south of main vein.		[illegible]	[illegible]	0.18	[illegible]

Length [illegible]
Bearings [illegible]

Average Depth 12'

Interval feet	Geological Description of Wall Rock, Structure and Type - Mineralization	Sample	Assays	
Main vein: center section of [illegible] 4' vein, [illegible] 56' N, amenable to [illegible] dip.				
	12" brown stained qtz with bleached [illegible] on E.wall.	143	0.34	Trace
	36" glassy white qtz from 143 to south wall.	144	0.01	Nil
	(Vein sampled in bottom of cut, not visible in face which was in frozen rubble)			

Length: 250'

Bearing: Northeastwith

Average Depth: [illegible]

Vertical Depth: [illegible]

Interval feet	Geological Description of Rock Types, Strikes and Dips - Mineralization	Sample #	Assays		
			Au		Ag
Main vein:	A' quartz showing at bottom of face of cut. Rest of cut still in frozen overburden.	164	0.01	8.09	0.44

Length: [illegible]

Bearing: Northsouth

Average Depth: 10'

Average Width: 12'

Interval feet	Geological Description of Rock Types, Strike and Dip - Mineralization	Sample #	Assays Au	Ag
Main vein: center section of cut. S.65° W				
	In bottom of unfinished pit:			
	18" stained qtz & gouge- north wall	145	0.81	Nil
	18" white qtz	146	0.81	Nil
	2' vein as exposed in face by finishing the cut	165	0.01	Trace

[illegible]

Length: [illegible]

Bearing: [illegible]

Average Dipping: [illegible]

Maximum Depth: [illegible]

Interval feet	Geological Description of Rock Types, Strikes and Dips - Mineralization	Sample #	Assays Au	Assays Ag
	Trench cut in deeply [illegible] [illegible]. Bed rock is a finely layered rotten schist.			
Measuring from Footwall North:				
Footwall + 0 - 12'	Crushed schist			
12' - 17'	5" gouge and fault breccia, 15% bio-quartz	27	Trace	Nil
32' - 34'	2' quartz	26	0.08	Trace
34' - 37'	quartz and gouge	25	0.14	0.16
37' - 40'	" "	24	0.02	nil
40' - 44'	" "	[illegible]	0.02	nil
49' - 50'	12" quartz and gouge along fault striking S 35° [illegible]. Hangingwall is at this point and cut by this fault.	22	0.02	nil
84' - 85'	12" altered yellow stained gouge and schist with [illegible]" qtz in hangingwall.	21	0.36	0.08

TRENCH NO. Mikado 3 E

Length: 385'

Bearing: North-south

Average Depth: 15'

Maximum Depth: 20'

Interval feet	Geological Description of Rock Types, Strikes and Dips - Mineralization	Sample #	Assays Au	Assays Ag	
Footwall plus feet north:					
0'-22'	Sheared footwall zone of Fe stained qtz, altered crushed schist, and red mud. Dip & strike not discernable. No apparent values, no samples taken.				
66'- 72'	Massive qtz scattered throughout schist; sample of picked arsenopyrite bearing quartz.	101	0.24	0.16	8.66
121'- 123'	Red stained hard glassy qtz with some scorodite. Strong vein N 50° E, dip 57° S. Appears to conform with jointing.	102	0.02	0.12	.82
159'- 164'	12" sample taken on south side of strong non-conformal qtz vein, vertical dip, striking N 55° E.	103	0.02	Trace	0.70
	24" of altered stained schist on north side of same vein, same sample number but different sack, as above.	103	0.02	Trace	0.70
159'- 161'	Same vein, scorodite, white crushed qtz & gouge on S side.	104	0.06	0.14	2.10
161'- 164'	Same vein, hard red stained qtz with scorodite, N section.	105	0.02	0.20	0.96
66'- 72'	15' up dip from #101; 8" qtz with arsenopyrite, N 35° E, dip 70° NW, runs down through #101.	147	0.20	Trace	7.0
	From 22' to 224' north of footwall lies hard blocky red schist showing signs of shearing, containing abundant non-conformal veins and stringers. The two principal qtz structures are described above. Hangingwall is indistinct.				
	From the footwall S, footwall schist finely foliated with poor jointing. Foliation dips 35° N, contains many pods and stringers of quartz, continues for 86' south to a 10' sheared area of crushed Fe stained qtz, schist & gouge, striking S35°E, dip 67° N. Footwall schist to S of this zone shows poor foliation S75°W, 63°N dip. Jointing: S85°E @ 85°N dip; & due W @ 5°N dip.				
66'- 62' (approx.)	15' up-dip from #101; 8" qtz with arsenopyrite, N 35° E dips 70° NW, running through area in sample #101	147	0.20	Trace	7.0

Length: 195' [illegible] Average Depth: 6'

Bearing: North [illegible] Average Width: [illegible]

Interval feet	Description of Rock Types, Strikes and Dips - Mineralization	Sample	Assay Au	Assay Ag
Footwall plus feet north:	[illegible] Foliation dips 20° NE.			
0'- 4'	[illegible] on footwall, N 55W, dip 85° N.	[illegible]	[illegible]	[illegible]
6'- 9'	Crushed Fe & azurite stained qtz & gouge	99	0.04	Nil
37'- 40'	Fe stained qtz & gouge adjacent to hangingwall in bottom of shaft. Hangingwall not definite.	100	0.04	Nil

TRENCH NO. Mikado 5 E

Length: 170'

Bearing: North-South

Average Depth: 6'

Maximum Depth: 12'

Interval feet	Geological Description of Rock Types, Strikes and Dips - Mineralization	Sample #	Assays Au	Assays Ag
Hangingwall area in road cut above trench: plus feet south:				
0'- 5'	gouge and quartz stringers in schist	93	0.02	Nil
5'- 10'	gouge and quartz stringers in schist	94	0.02	Nil
0'- 5'	scorodite, white quartz and gouge	119	0.85	0.18
0'- 3'	broken quartz and gouge .	120	0.32	Trace
Opposite side of St. Maries pass from #120--pieces of qtz with sulphides exposed in road cut where enlarged for turn around on the pass.		121	0.02	Trace
30" qtz in pit (old work) at north end of turn-around		122	0.04	Nil
Mikado 5E Footwall plus feet north:	Footwall stands vertical, S45°E, apparent break between sheared schist & gouge bounding fine-bedded rotten schist on the south.			
0'- 3'	Footwall fault gouge	#95	0.02	0.16
3'- 8'	Quartz and altered schist	96	0.60	Trace
46'- 49'	Apparently stray quartz in indistinct hangingwall area S 38° E, dip 74° N.	97	0.02	0.16

Interval	Geological description of each layer, Strike and Dip - Stratigraphy	Depth	Dip	Strike
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

TRENCH NO. Mikado 7 E

Length: 180'

Bearing: S 70° E

Average Depth: 10'

Maximum Depth: 12'

Interval feet	Geological Description of Rock Types, Strikes and Dips - Mineralization	Sample #	Assays Au	Assays Ag
	Cut begins in qtz & gouge at base of what is taken as the hangingwall scarp of the Mikado shear zone, and continues along this base at S 70° E for 180' x 20', following strong mineralized quartz intermittently exposed over the length of the cut.			
80' from west end of cut: 3' exposure of mineralized, oxidized quartz.		160	0.002	Nil
90' from west end of cut: 12" exposed mineralized quartz. Apparently a flat vein dipping 12° E, striking N-S, but probably this appearance is the result of slump.		161	Trace	Nil

Length: 200'

Bearing: N 80° W

TRENCH NO. Mikado 8 E

Average Depth: 8'

Maximum Depth: 10'

Interval feet	Geological Description of Rock Types, Strikes and Dips - Mineralization	Sample #	Assays Au	Assays Ag
	Incompleted cut. Evidence of shearing in the frozen rubble in the bottom of the cut for 100' west of what appears to be the hangingwall. Abundance of hard chunks of quartz in this frozen rubble near the hangingwall suggests the presents of good structure.			
30' south of hangingwall: 2' crushed qtz showing in frozen face of cut.		162	0.0101	Nil 0.35

[redacted]

Length 200'

Bearings N 50° E

[redacted]

Interval Feet	Geological Description of Rock Types, Strike and Dips - mineralization	Sample	Assays
	Unfinished trench. No rock in place in eight inch frozen gouge and crushed qtz in bottom rubble. Evidence of shear extends over a 100' length in the cut.		

Length: 300'

Bearing: N 80° W

Hole No. Kikadee [illegible]

Average Depth: 8'

Hole Dia: 8in

Interval feet	Geological Description of Rock Types, Strikes and Dips - Mineralization	Sample #	Assays Au	Ag
	Trench unfinished. No bedrock, all frozen rubble, some qtz & gouge. Evidence of possible structure over the entire length of cut.			

Trench No. [illegible]

Length: 200'

Bearing: North-South

Average Depth: 30'

Maximum Depth: [illegible]

Interval feet	Geological Description of Rock Types, Strikes and Dips - Mineralization	Sample #	Au	Ag	[illegible]
North of Footwall:					
0'- 2'	2' of crushed limonite & scorodite stained quartz on footwall	88	[illegible]	[illegible]	1.40
3½'- 8½'	crushed oxidized limonite & scorodite stained qtz.	89	0.02	[illegible]	.70
(2'-3½' ---	barren schist, not sampled)				
47'- 50'	3' crushed Fe & As stained qtz adjacent to hangingwall.	90	0.10	Trace	[illegible]
48'- 50'	2' crushed green stained cherts, 5' west of #90 in bottom of trench.	91	3.48	0.80	122.92
3½'- 6'	30" banded scorodite stained white qtz 25' west of #89 in bottom of trench.	92	0.90	0.20	31.26

Footwall here is vertical, S 70° E .

NNE jointing of footwall schist dips 80° W; E-W jointing 70° S.

TRENCH NO. MIKADO 2W

Length: 150'

Bearing: N - S

Average Depth: 6'

Maximum Depth: 8'

Interval feet	Geological Description of Rock Types, Strikes and Dips - Mineralization	Sample #	Assays Au	Assays Ag
	Trench is the road, cut wide into shear zone and country rock.			
Measuring from Footwall North:				
Footwall + 38'-39"	Crushed qtz with abundant arsenopyrite	18	0.02	Nil 0.70
41'-43'	2' qtz, some gouge	17	0.02	Nil 0.70
49'-52'	3' flat lying qtz, schist and some gouge, probably the Hangingwall.	16	0.10	trace 3.50
52'-54'	2' Crushed qtz with abundant arsenopyrite	15	0.22	0.04 9.84

Interval feet	[illegible]	[illegible]	[illegible]	[illegible]
Natural alluvial	[illegible]	[illegible]	[illegible]	[illegible]
0'-5'	[illegible]	[illegible]	[illegible]	[illegible]
5'- 10'	[illegible]	[illegible]	[illegible]	Nil
7'- 8'	[illegible]	[illegible]	[illegible]	Nil
	Natural [illegible]	[illegible]	[illegible]	[illegible]
Upper end on main road:	[illegible]	[illegible]	[illegible]	[illegible]

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UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

C 3 1963

Docket No. 6148
Contract No. 14-23-090-2140
Contract Amount $167,750.00
Gov't. Participation %50 $ 83,875.00
Mineral(s) Gold

OPERATOR'S MONTHLY VOUCHER

For Month of September, 1963

Operator's Name LITTLE SQUAW MINING COMPANY
Address 309 Radio Central Bldg. Spokane, Washington 99204

COST CATEGORIES	FOR OPERATOR'S USE			FOR GOVERNMENT APPROVAL ONLY		
	MONTHLY TOTAL	PREVIOUSLY REPORTED	TOTALS TO DATE	MONTHLY TOTAL	PREVIOUSLY REPORTED	TOTALS TO DATE
Fixed Unit Costs and						
(1) Independent Contracts:						
Bulldozing	none	31,185.00	31,185.00	-	29,250.00	29,250.00
Drifting	3,873.50	38,003.00	41,876.50	10,583.50	31,293.00	41,876.50
Crosscutting	4,666.50	4,819.00	9,485.50	4,788.50	4,697.00	9,485.50
Drilling	none	241.00	241.00	-	241.00	241.00
(2) Personal Services:						
Supervision & Technical						
Outside Consultants						
Labor						
(3) Operating Mat'l. & Supplies:						
Timber						
Explosives						
Pipe						
Rail						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehab. & Repairs:						
Buildings, Fixtures, etc.						
Operating Equipment						
(6) New Buildings, Fixtures, etc.				See assays in envelope left side.		
(7) Miscellaneous:						
Repairs to Equipment						
Analytical Work	519.00	99.00	618.00	519.00	99.00	618.00
Payroll Taxes						
Employee's Liability Ins.						
TOTALS	9,059.00	74,347.00	83,406.00	15,891.00	65,580.00	81,471.00

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Nov. 11, 1963 *Payee Little Squaw Mining Co.

Per _____ Title President

* When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

A willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction is a criminal offense. (U.S. Code, Title 18, Sec. 1001.)

(INSTRUCTIONS ON REVERSE)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of: 7,945.50
- 200.00 To Suspense
$ 7,745.50 To Operator

Signature BJB
(Authorized Certifying Officer)

Date 12/2/63 Vou. No. 962-6

(SEE OTHER SIDE)

Certification by Government Representative:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating an exploration project in accordance with the terms of Contract No. 2140

Signature D.R. Macbeth Title Acting Field Officer, Reg. I Date NOV 21 1963

Approved by OME Executive Officer or Alternate:

Signature D.R. Macbeth Title Acting Field Officer, Reg. I Date NOV 21 1963

OPERATOR'S MONTHLY REPORT

The Operator, under an Office of Minerals Exploration contract, is required to report monthly to the Government. The report consists of three parts.

FIRST, the Operator's Monthly Voucher on MME Form 60 listing the project costs incurred and claimed by the Operator is the voucher basis for payment of the Government's share of the cost.

SECOND, the Operator's Progress Report on MME Form 61 is a statistical report of the units and cost of of work performed under the contract.

THIRD, the Operator's Narrative Report is a concise description of the work performed, results accomplished, and any unusual situations encountered, illustrated and supported by engineering-geological maps or sketches, drill hole logs, assay reports, etc., as pertinent.

The Operator submits the original and four copies of each of the three sections of this report to the OME regional Executive Officer at the end of each month during the life of the contract.

PREPARATION OF OPERATOR'S MONTHLY VOUCHER, MME FORM 60

After all applicable spaces are filled in, the Operator or his agent must sign the certification in the lower left corner. Categories (2) through (7) apply to "Actual Cost" contracts only.

Under "Fixed Unit Costs" and Category (1) report, (a) the total fixed unit costs of work performed under contract provisions for contribution by the Government on a basis of "fixed unit costs"; and (b) the claimed costs of work performed on a unit-price basis by independent contractors.

Under Category (2) include the claimed costs of all payrolled and invoiced supervisory, technical, and labor personnel, except the costs for services applicable to Categories (5) and (6).

Under Category (3) include the claimed costs of all project materials and supplies other than those used for work under Categories (5) and (6).

Under Category (4) report claimed rentals on equipment belonging to a third party, claimed payments or obligations for payments on the Operator's purchase of equipment, and claimed depreciation for the use of Operator-owned equipment.

Under Categories (5) and (6) include all claimed costs of labor, supervision, technical services, operating materials and supplies, and all other items used in (5) the initial rehabilitation and repairs of existing buildings, fixtures, installations (exclusive of mine workings), and operating equipment; and (6) the installation or construction of new buildings, fixtures, and fixed improvements (exclusive of mine workings). Do not report these costs under Categories (2), (3), (4), and (7).

Under Category (7) include all miscellaneous claimed costs such as repairs (other than initial) and maintenance of equipment, sampling and analysis, travel, communication, accounting, office expenses, and the Operator's share of payroll taxes and insurance.

Except for amounts claimed under "fixed unit costs" provisions of the contract, all costs claimed in this voucher must be supported by documentary evidence consisting of: (a) certified copies or transcripts of payrolls which list each employee, wage rate, period of employment, gross earnings, itemized deductions, and net earnings; (b) original or certified copies of invoices, statements of accounts, or purchase orders which indicate items of materials or services, quantities, unit prices, total charges, and payment terms; and (c) certified memoranda of the Operator for such items as depreciation of Operator-owned equipment, unemployment taxes, and employee's liability insurance. The certification may be stated thus, "Certified True Copy (or Transcript)", followed by the signature of the Operator or his agent. One copy of each document should accompany the original of this voucher.

The requirement for submitting documentary evidence of claimed costs may be waived by the OME regional Executive Officer if he determines that it is impracticable for an Operator to submit this material. In any case of waiver of this requirement an "on-site" audit by an OME auditor is mandatory prior to payment of the final Operator's Monthly Voucher.

MME FORM 60
SEPT. 1959

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UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

OPERATOR'S PROGRESS REPORT For Month of September, 1963 Docket No. 6148

Operator's Name LITTLE SQUAW MINING COMPANY Contract No. 14-23-090- 2140

OPERATION	UNITS	FOR OPERATOR'S USE: UNITS THIS MONTH	UNITS TO DATE	COSTS TO DATE	FOR GOVERNMENT USE: APPROVED UNITS THIS MONTH	APPROVED UNITS TO DATE	APPROVED COSTS TO DATE
Drifting	feet	63.5	686.5	41,876.50	173.5 L1	686.5	41,876.50
Crosscutting	"	76.5	155.5	9,485.50	78.5 L1	155.5	9,485.50
Raising							
Shafts							
Winzes							
Other Underground							
Drilling, Core-Diamond							
Rotary							
Drilling, Non-core-Diamond							
Rotary							
Churn							
Percussion	feet	none	241	241.00	—	241	241.00
Miscellaneous							
Roads and Trails							
Stripping							
Trenching	hours	none	1,330	31,185.00	—	1240 L2	29,250.00
Test Pitting							
Other Surface Work							
Initial Rehabilitation and Repairs							
Rehabilitation of Mine Workings							
New Buildings, Fixtures, etc.							
Operating Equipment Purchases							
Analytical Work				618.00			618.00
TOTAL TO DATE (per MME Form 60)				83,406.00			81,471.00 L3

REMARKS

(Continue on back)

REMARKS
L1 Include respectively 110 ft. drift and 2 ft x-cut claimed but not approved in June 1963 Justification given in Int. Insp. Rept Oct 13, 1963 and letter from Operator's Engineer Nov 12, 1963
L2 See note L4 Aug. use.
L3 Withhold $200.00 pending resumption of work - winter recess has been requested

(Continue on back)

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date November 11, 1963 Operator LITTLE SQUAW MINING COMPANY

Per _____ Title President

...fully false statement or representation to any department or agency of the United States ...matter within its jurisdiction is a criminal offense. (U.S. Code, Title 18, Sec. 1001.)

I certify that the information above is complete and accurate to the best of my knowledge and belief.

Signature [illegible]

Title Acting Field Officer, Reg I
Government Representative

Date NOV 21 1963

(INSTRUCTIONS ON REVERSE)

REMARKS *(Cont.)*

REMARKS *(Cont.)*

INSTRUCTIONS FOR PREPARING OPERATOR'S PROGRESS REPORT, MME FORM 61

This report is the second of the three parts of the Operator's Monthly Report. Submit the original and four copies.

The cost for each operation should be the total of all claimed costs attributable to that type of work with two exceptions, namely—operating equipment purchased and analytical work which are stated separately. For example, drifting costs should be the total of all costs chargeable to drifting including supervision, technical services, timbering (if any), etc. Similarly, drilling costs should include the cost of cementing, reaming, core boxes, etc. This procedure of distribution holds whether the contract was written on an actual cost or a unit cost basis, or some combination of the two. Distribute the cost of such general items as supervision, equipment rented, etc. according to relative footages or on some other conventional basis. The item "Initial Rehabilitation and Repairs" covers all rehabilitation and/or repairs other than the rehabilitation of mine workings.

The item titled "Drilling, Non-core Percussion" includes all drilling performed with wagon, jack-hammer, stoper and mounted drills. The several items labelled "Other" are provided to take care of particular exploration operations not specified on this form.

LITTLE SQUAW MINING COMPANY
SPOKANE, WASH.

NARRATIVE REPORT

SEPTEMBER, 1963

During September the Mikado Mine 101 hangingwall X-Cut was driven 33' at a point opposite the footwall X-cut driven in August. This hangingwall X-cut encountered two high grade ore streaks, and found the hangingwall bending to the north.

The main 100 level heading was advanced 63.5' eastward into thawed ground. At this point preparation was made for a X-cut as per OME Work Authorization dated May 13, 1963. A 4' round was blasted into the hangingwall to make room for a slusher set-up, and an 8' round toward the footwall broke into wet and running ground. Insufficient time remained in the 1963 season to permit driving a timbered X-cut to the footwall. It was essential to locate the footwall and learn the character of the intervening shear, before pulling out for the winter. Location of the footwall X-cut was shifted 50' west into a more solidly frozen zone, and the X-cut completed.

Two days before leaving camp for the winter a 2' concrete bulkhead was placed in the 100 E drift about 20' east of the transfer raise in an effort to contain the flow of water, coming from the heading, for the winter months.

The accompanying sketch shows underground advance during September with sample locations. Accompanying assay sheets show all assays not previously reported.

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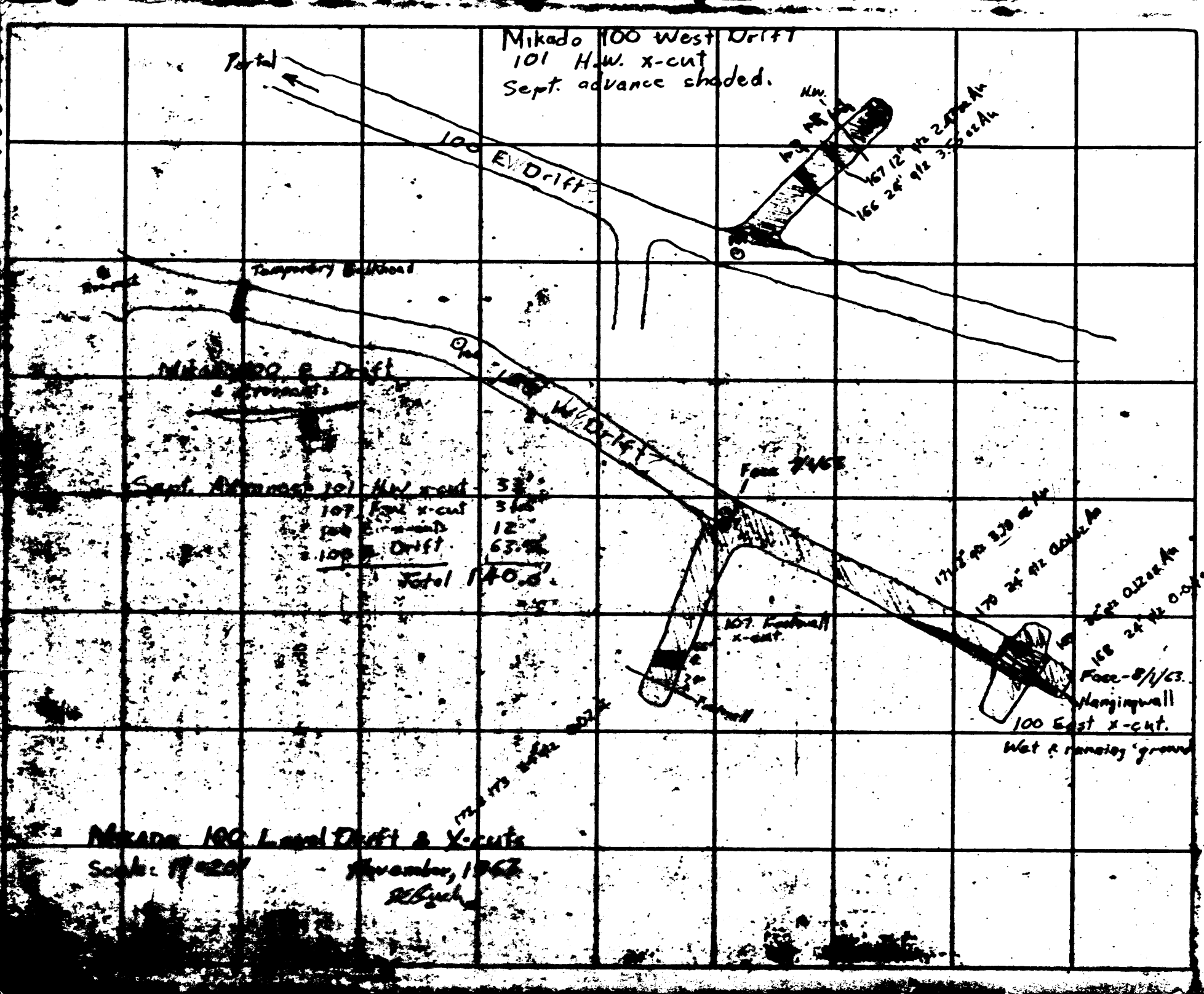
NOV 13 1963


Mikado 100 West Drift
101 H.W. x-cut
Sept. advance shaded.
Portal
100 E.W. Drift
H.W.
Temporary Railroad
Mikado 100 E. Drift
& crosscuts
Sept. Advances 101 H.W. x-cut 3
107 Foot x-cut 3
12
100 E. Drift 63.
Total 140.0
Face 7/1/63
107 Footwall x-cut
Face-8/1/63.
Hangingwall
100 East x-cut.
Wet & running ground
Mikado 100 Level Drift & X-cuts
Scale: 1" = 20'
November, 1963
R.E.Gych

State [illegible]
Department of Natural Resources
Division of Mines
and Minerals

Form M-1-6-63—25K

Assay Office [illegible]

Date Aug. 28, 1963

REPORT OF ASSAY

On samples received from Little Square Mining Co.

Address Chandler, Arizona [illegible]

Assay No.	Sample Marked	OUNCES PER TON		Value per Ton	Percentage of
		GOLD	SILVER		
[illegible]	[illegible]	[illegible]	[illegible]		
27919	51	[illegible]	[illegible]		
27920	52	[illegible]	[illegible]		
27921	53	[illegible]	[illegible]		
27922	54	[illegible]	[illegible]		
27923	55	[illegible]	[illegible]		
27924	56	[illegible]	[illegible]		
27925	57	[illegible]	[illegible]		
27926	58	[illegible]	[illegible]		
27927	59	[illegible]	[illegible]		
27928	60	[illegible]	[illegible]		
27929	61	[illegible]	[illegible]		
27930	62	[illegible]	[illegible]		
27931	63	[illegible]	[illegible]		
27932	64	[illegible]	[illegible]		

Sta[redacted]
Department [redacted] Natural Resour[redacted]

Division of Mines and Minerals

Form 14-1-8-65-204

Assay Office Fairbanks
Date Sept 10 1965

REPORT OF ASSAY

On samples received from Little Squaw Mining Co.

Address [redacted]ler, Alaska co: Neil Anderson 30½ [redacted] Central, [redacted]

Assay No.	Sample Marked	OUNCES PER TON		Value per Ton	Remarks
		GOLD	SILVER		
[redacted]	[redacted]	0.05	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
27955	67	[redacted]	nil	0.70	
27956	68	[redacted]	[redacted]	[redacted]	
27957	69	[redacted]	[redacted]	[redacted]	
27958	70	[redacted]	[redacted]	[redacted]	
27959	71	[redacted]	[redacted]	[redacted]	
27960	72	[redacted]	nil	[redacted]	
27941	73	0.10	[redacted]	[redacted]	
27942	74	[redacted]	nil	0.70	
27943	75	[redacted]	nil	[redacted]	
27944	76	[redacted]	nil	0.70	
27945	77	[redacted]	[redacted]	[redacted]	
27946	78	[redacted]	nil	0.70	
27947	79	[redacted]	[redacted]	[redacted]	
27948	80	[redacted]	nil	[redacted]	
27949	81	[redacted]	0.12	0.85	
27950	82	[redacted]	nil	0.10	
27951	83	[redacted]	nil	[redacted]	
27952	84	[redacted]	nil	0.70	
27953	85	[redacted]	[redacted]	[redacted]	
27954	86	[redacted]	nil	[redacted]	
27955	87	nil	nil	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
27958	90	0.10	[redacted]	[redacted]	
27959	91	[redacted]	[redacted]	[redacted]	
27960	92	[redacted]	nil	0.70	
27961	93	[redacted]	nil	0.70	
27962	94	[redacted]	nil		

½ assayton used for [redacted] sample.

Pulps are available for [redacted] if [redacted].

More results will be mailed out in two days.

[redacted]

State of Alaska
Department of Natural Resources
Division of Mines and Minerals
Form M-1-8-63-20M

Assay Office Fairbanks
Date Sept 17 1963

REPORT OF ASSAY

On samples received from Little Sunny Mining Co

Address Chandalar, Alaska c/o Basil Anderson, 100 Bellevue Central Bldg

Assay No.	Sample Marked	Ounces per Ton Gold	Ounces per Ton Silver	Value per Ton	Percentage of
27963	95	[illegible]	0.16	$0.35	
27964	96	[illegible]	[illegible]	[illegible]	
27965	97	[illegible]	[illegible]	[illegible]	
27966	98	0.14	trace	4.90	
27967	99	[illegible]	nil	1.40	
27968	100	0.04	nil	1.40	
27969	101	0.24	0.16	8.60	
27970	102	0.02	0.12	0.85	
27971	103	0.02	trace	0.70	
27972	104	[illegible]	0.15	2.10	
27973	105	[illegible]	[illegible]	[illegible]	
27974	106	[illegible]	trace	1.40	
27975	107	0.12	trace	4.20	
27976	108	[illegible]	0.15	1.63	
27977	109	0.02	nil	0.70	
27978	110	15.87	2.97	[illegible]	
27979	111	20.13	[illegible]	557.23	
27980	112	[illegible]	[illegible]	[illegible]	
27981	113	[illegible]	trace	1.75	
27982	114	[illegible]	trace	1.75	
27983	115	[illegible]	nil	1.05	
27984	116	[illegible]	nil	1.35	
27985	117 — 24"	[illegible]	nil	0.70	
[illegible]	118	[illegible]	[illegible]	[illegible]	
27993	119	[illegible]	[illegible]	[illegible]	
27994	120	[illegible]	[illegible]	[illegible]	
27995	121	0.07	trace	3.15	
27996	122	[illegible]	nil	1.40	
27997	123	18.47	2.34	[illegible]	

Samples run by assay ton. Remainder of crushed sample on 110, 111, 112 and 123 available for metallics assay if necessary. Pulps of [illegible] available for rechecking if necessary.

Harold [illegible]

State of Alaska
Department of Natural Resources

Division of Mines and Minerals

Form M-1-2-63-304

Assay Office Fairbanks

Date Sept. 27 1963

REPORT OF ASSAY

On samples received from Little Squaw Mining Co.
Att: [illegible] Anderson
Address Chandalar, Alaska
309 Radio Central Bldg.
[illegible], Wash.

Assay No.	Sample Marked	OUNCES PER TON		Value per Ton	Percentage of
		GOLD	SILVER		
26088	121-125	0.89	0.87	$32.02	
26089	125	1.65	0.75	58.71	
26090	126	[illegible]	[illegible]	[illegible]	
26091	127	[illegible]	1.[illegible]	11[illegible]	
26092	128	[illegible]	0.36	[illegible].16	
26093	129	2.[illegible]	0.70	[illegible]	
26094	130	4.[illegible]	1.49	1[illegible]	
26095	131	0.01	0.05	0.67	
26096	132	1.[illegible]	0.58	56.75	
26097	133	0.12	0.[illegible]	4.53	
26098	134	0.[illegible]	0.2[illegible]	1[illegible]06	
26099	135	[illegible].12	1.76	76.45	
26100	136	0.23	trace	8.05	
26111	137	0.38	0.97	13.37	
26112	138	0.03	trace	1.05	
26113	139	0.03	trace	1.05	
26114	140	0.01	nil	0.35	
26115	141	0.10	trace	3.50	
26116	142	1.00	0.19	35.[illegible]	
26117	143	0.34	trace	11.[illegible]	
26118	144	0.01	nil	0.35	
26119	145	0.01	nil	0.35	
26120	146	0.01	nil	0.35	
26121	147	0.20	trace	7.00	
26122	148	[illegible].18	trace	6.[illegible]	
26123	149	[illegible]	trace	[illegible]	
26124	150	1.12	0.36	109.66	

Run metallics
Mo
111
112
123

Harold [illegible]

USAY

			Value per Day

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

ALASKA OFFICE OF
MINERAL RESOURCES

OFFICIAL FILE COPY
O. M. E.
RECEIVED NOV 1 1963
P. O. BOX 2664
JUNEAU, ALASKA

INITIALS	CODE
	800
	500

October 29, 1963

MEMORANDUM

To : D. R. MacLaren, Acting Field Officer, OMR Region I

From : Acting Area Director, Area VIII

Subject: Chemical Laboratory Report

Enclosed is the subject report on the samples Art Kimball took during his recent visit to the Little Squaw Mining Company's OMR project. The samples are described in his report.

/s/ J. A. HERDLICK

J. A. Herdlick

Enclosure

RECEIVED
VIA
OCT 31 1963
AIR MAIL
U.S.G.S.
SPOKANE, WASH.

MME FORM 6 REFERENCE SLIP
REV. 2-59 OFFICE OF MINERALS EXPLORATION

TO: Chief, Divn. of Field Operations

	DATE	INITIALS
1.	10/31/63	
2.		
3.		
4.		
5. D. R. MacLaren		
FROM: Acting Field Officer, Region I		

FOR: Check items for action desired

____ Action ____ Reply for signature of ____
____ Approval ____ Investigate ____ Surname
____ Comment ____ Recommendations ____ Signature
____ Conference ____ Rewrite ____ File
____ Instructions X Your information

REMARKS: OME-6148 (Gold)
Little Squaw Mining Co.
Mikado, et al., Claims
Chandalar Mining District
Fairbanks Precinct, Alaska
Amended Contract 2140

Transmittal of assay results referred to in interim report by Art Kimball dated 10/18/63 forwarded to your office 10/24.

INT.-DUP. SEC., WASH., D.C.

M56300-62

Gold-silver

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

No.

Report to Mr. Art Kimball

Chemical Laboratory Report

Date received 10/22/63

Date reported October 28, 1963

Serial No	DESCRIPTION	Lot No.	Oz/T Au	Oz/T Ag	Pulp Wt., g
63-1141	Mikado	#1	1.47	0.86	181.7
1142	"	2	2.68	0.94	181.6
1143	"	3	3.92	2.01	226.1
1144	"	4	1.37	0.18	179.7

Signed Arnold F. Jorgensen (Analyst)

Natural Resources
of Mines
and Minerals

Form M-1-6-63—5M

Assay Office Fairbanks

Date Aug 28 1963

REPORT OF ASSAY

On samples received from Little Squaw Mining Co.

Address Chandalar, Alaska ce to Reid Anderson in Spokane, Wash

Assay No.	Sample Marked	OUNCES PER TON		Value per Ton	Percentage of
		GOLD	SILVER		
27873	17	0.02	nil	0.70	
27874	18	0.02	nil	[illegible]	
27875	19	[illegible]	0.08	[illegible]	
27876	20	0.04	nil	1.40	
27877	21	0.02	nil	0.70	
27878	22	0.02	nil	0.70	
27879	23	0.04	nil	1.40	
27880	11	0.32	0.30	11.20	
27881	12	[illegible]	trace	[illegible]	
27882	13	[illegible]	trace	[illegible]	
27883	14	[illegible]	trace	[illegible]	
27884	15	[illegible]	nil	0.70	
27885	16	0.02	nil	0.70	
27886	24	0.02	nil	0.70	
27887	25	0.12	nil	4.20	
27888	26	0.04	nil	1.40	
27889	27	0.02	nil	0.70	
27895	28	trace	nil		
27896	29	0.02	nil	0.70	
27897	30	trace	nil		
27898	31	trace	nil		
27899	32	trace	nil		
27900	33	nil	nil		
27901	34	[illegible]	nil	[illegible]	
27902	35	[illegible]	nil	0.70	
27903	36	nil	nil		
27904	37	trace	nil		
27905	38	trace	nil		
27906	39	nil	nil		
27907	40	trace	nil		
27909	41	trace	nil		
27910	42	0.02	nil		
27911	43	trace	nil		
27912	44	trace	nil		
27913	45	nil	nil		
27914	46	trace	nil		
27915	47	0.02	nil	0.70	
27916	48	nil	nil		
27917	49	0.02	nil	0.70	

Donald Stern

Natural Resources
Bureau of Mines
and Minerals

Form 25-1-5-59—25K

Assay Office Fairbanks

Date July 30 1963

REPORT OF ASSAY

On samples received from Little Squaw Mining Co.

Address Chandalar, Alaska

Assay No.	Sample Marked	OUNCES PER TON		Value per Ton	Percentage of
		GOLD	SILVER		
27623	#1	0.16	trace	[illegible]	
27624	2	[illegible]	trace	11.[illegible]	
27625	3	0.[illegible]	trace	0.7[illegible]	
27626	4	0.[illegible]	trace trace	2.1[illegible]	
27627	5	0.[illegible]	trace 1.4[illegible]	5.7[illegible]	
27628	6	0.10	trace 0.1[illegible]	3.43	
27629	7	0.[illegible]	trace	3.59	
27630	8	[illegible]	trace	[illegible]	
27631	9	[illegible]	[illegible]	[illegible]	
27632	10	0.[illegible]	[illegible]	[illegible]	

[illegible]

Area VIII

OFFICIAL FILE COPY
RECEIVED
DATE

October 18, 1963

Mr. D. R. MacLaren
Acting Field Officer
OME Region I
South 157 Howard Street
Spokane, Washington 99204

Dear Mac:

Enclosed are 3 copies of Art Kimball's report on his interim inspection of the Little Squaw Mining Company's OME exploration project. You will note that he took 4 samples; assay results will be forwarded as soon as reported by the laboratory.

Bruce Thomas has promised to deliver his report on the Richard Rowe project early next week.

Best regards,

J. A. Herdlick
Acting Area Director, Area VIII

Enclosures 3

RECEIVED
OCT 21 1963

MME FORM 6 REFERENCE SLIP

REV. 2-59 OFFICE OF MINERALS EXPLORATION

TO:	DATE	INITIALS
Chief, Divn. of Field Operations	10/24/63	
1.		
2.	11/1	
3.		
4.		
5. D. R. MacLaren		
FROM: Acting Field Officer, Region I		

FOR: Check items for action desired

X Action	____ Reply for signature of ____	
____ Approval	____ Investigate	____ Surname
____ Comment	____ Recommendations	____ Signature
____ Conference	____ Rewrite	____ File
____ Instructions	X Your information	

REMARKS: OME-6148 (Gold)
Little Squaw Mining Co.
Mikado, et al., Claims
Chandalar Mining District
Fairbanks Precinct, Alaska
Amended Contract 2140

Transmittal of two copies of interim inspection report dated 10/18/63 by Art Kimball, USBM, Alaska, on this property.

INT.-DUP. SEC., WASH., D.C. M56300-62

Area VIII

October 18, 1963

MEMORANDUM

To: J. A. Herdlick, Acting Area Director, Area VIII
Mineral Resource Office, Juneau, Alaska

From: Arthur L. Kimball, Mine Examination and Exploration Engineer

Subject: Interim Inspection: OME-6148 (Gold)
Little Squaw Mining Company
Mikado, etal., Claims
Chandalar Mining District
Fairbanks Precinct, Alaska
Amended Contract 2140

September 22nd and 23rd were spent on the Mikado and Little Squaw properties visiting bulldozer trenching at both localities and the underground workings at the Mikado mine.

The extent of the new underground workings is shown in figures 1 to 4. Figure 1, a plot of a Brunton-Tape Traverse of the 100-foot level east, was made during the visit; while figures 2, 3, and 4 were traced from company maps.

Thawed ground in the shear zone was encountered while drifting eastward on the 100-foot level throughout the last 60 + feet. Roof bolts were not holding well and the timber supply was short. When the first round of a crosscut to be driven southward to the footwall from the east end of the drift started minor progressive caving southward into the shear, this crosscut site was abandoned for another 60 feet to the west where ground required less support. A crosscut was driven from this point approximately 99 feet east of the pre-1963 working face, southward 37 feet, passing a few feet into the footwall. Water running from thawed parts of the shear zone and crosscut was running down the transfer raise to the 200-foot level and freezing in the portal area. Frank Birch planned to install a bulkhead to prevent filling of the workings with ice during the winter.

Mineralization on the 100-foot level east appeared limited to two quartz zones, a 2½ foot vein (?) exposed in the south half of the east drift face along the hanging wall and dipping steeply north, and a similar occurrence near the south end of the crosscut lying parallel to the footwall.

Support other than roof bolts and wire mat was limited to an occasional stull and two sets with 6 inch diameter round caps and posts 6½ and 10 feet back from the east end of the drift.

Extent of new workings to the west on the 100-foot level is shown in figure 2. The portal area lies beyond the work presently covered by OMM authorization and is not completely shown.

The footwall of the shear zone was clearly seen in the south crosscut, whereas, the hanging wall in the north crosscut known as 101 North, was vague and hard to see. Fractured and scorodite-stained quartz containing some sulfides in a large lens paralleling the shear was sampled on the west side of the crosscut approximately 15 feet from Station 101. Samples numbered 1 and 3, taken at chest height, represent respective stratigraphic widths of .75 and .95 feet with a continuous width of 1.7 feet. Sample number 2 was taken approximately two feet lower on the side of the crosscut across 1.05 feet of the same quartz zone.

With regard to the east 200-foot level diagonal advance across the shear zone from the hanging to the footwall, two reasons have been presented as to why this was done. The hanging wall on the 200 level east, was reportedly difficult to follow, apparently being indefinite and feathering out in some places. It was thought that the footwall might be easier to follow as it appears to be more easily distinguishable in most of the workings and as a rule in the surface trenches as well.

The shear zone does not appear to be straight on the 200-foot level, which may have contributed to the difficulty in following the hanging wall.

In order that longholes of 60 feet in depth or less span the shear zone, it was considered preferable to longhole as nearly perpendicularly to the zone as possible and in order to drill a positive single hole, it was considered desirable to longhole from the foot to the hanging wall side.

Some difficulty was reported in securing 60-foot depths involving both drilling conditions and equipment. Longhole number 1 East (Fig. 3) was stopped at 56 feet by water needle packing problems. The material at the end of the hole was apparently mucky and the hanging wall may not have been reached.

Little or no mineralization was noted in this section of the workings. The ground was heavy as it was largely within an unfrozen part of the shear zone. Roof bolts and matting on hand were used in an effort to hold the ground with marginal success.

The advance during 1963 on the 200-foot level west, was entirely in permafrost and there were no support problems. Little mineralized quartz was seen in this section other than that previously sampled along the first 50 feet of new drift (Fig. 4). Assay values of these samples

were reported as low. Samples from the longholes numbered 1, 2, and 3 West (Fig. 4) drilled to 60 foot depths were also reported as giving relatively low assay values.

Bulldozer trenches numbered 1 to 5 East and 1 to 5 West on the Mikado claim group were visited. With the exception of trench No. 1 West partly obscured in the 100-foot level portal area, trench No. 2 West with its critical areas obscured by the dump from the above portal, and trench No. 1 East now sloughed as no work was done there during 1963, all trenches visited showed evidence of the shear zone structure with veins (?) or lenses of quartz lying parallel to it. Most of the quartz was fractured or crushed and much showed some evidence of sulfide mineralization. Some zones showed considerable greenish scoreditic staining. The higher gold values have usually been found in fractured or crushed quartz containing small amounts of sphalerite and galena or arsenopyrite and scorodite. The gold, however, is not necessarily present when these minerals are.

Sample number 4 was taken approximately 5 feet north of the probable footwall, a channel of 2.2 feet of crushed quartz and gouge in the east wall of trench No. 5 East.

Mikado trench No. 6 East was not visited, but mineralized quartz with some evidence of the shear, was reported to have been previously sampled. Trenches numbered 7, 8, 9, and 10 East did not reach bedrock.

Bulldozing on the Little Squaw was largely done on the west trenches though some work was done on trenches 1-5 East in conjunction with millsite road improvement. The only exposure of bedrock in the latter group is found in a short adit at trench No. 1 East, present long before the trenches were put down, with the face showing a steeply dipping south shear passing through the face which appears unmineralized. There is quartz float lying in trench rubble roughly along the projected strike of the shear zone.

The quartz veins and pods seen in trenches numbered 1-5 West appeared to lie as shown in Figure 5. The most intense mineralization of quartz was noted in trench No. 2 West where the quartz lay in a band or vein several feet wide ; banded, crushed, ironstained, and containing small amounts of arsenopyrite and possibly other sulfides. The quartz was vuggy and scorodite stained. Some of the vugs, particularily along the footwall (north wall), contained occasional small ferns or feathers of free gold. The vuggy and fractured nature and minor sulfide content of the quartz appeard less intense to the West (trenches numbered 2 to 5 West). There was less quartz showing and a higher percentage to the West appeared barren.

Trench No. 1 West exposes a 40 to 50 foot left lateral offset in the shear zone structure, possibly along one or more northwest trending faults. A 30-foot section of the mineralized quartz zone where some

free gold has been found has apparently been moved by drag, lying in the offset gap.

The locations of some of the trenches on both Mikado and Little Squaw properties have been slightly changed on current maps by a second and more accurate survey during 1963.

It would have been desirable to have made a second visit underground, however, present air pickup schedule and lack of communication prevented it.

Art Kimball

Attachments

cc:
McLaren - Orig./2
Kimball
OME - 6148 (Gold)

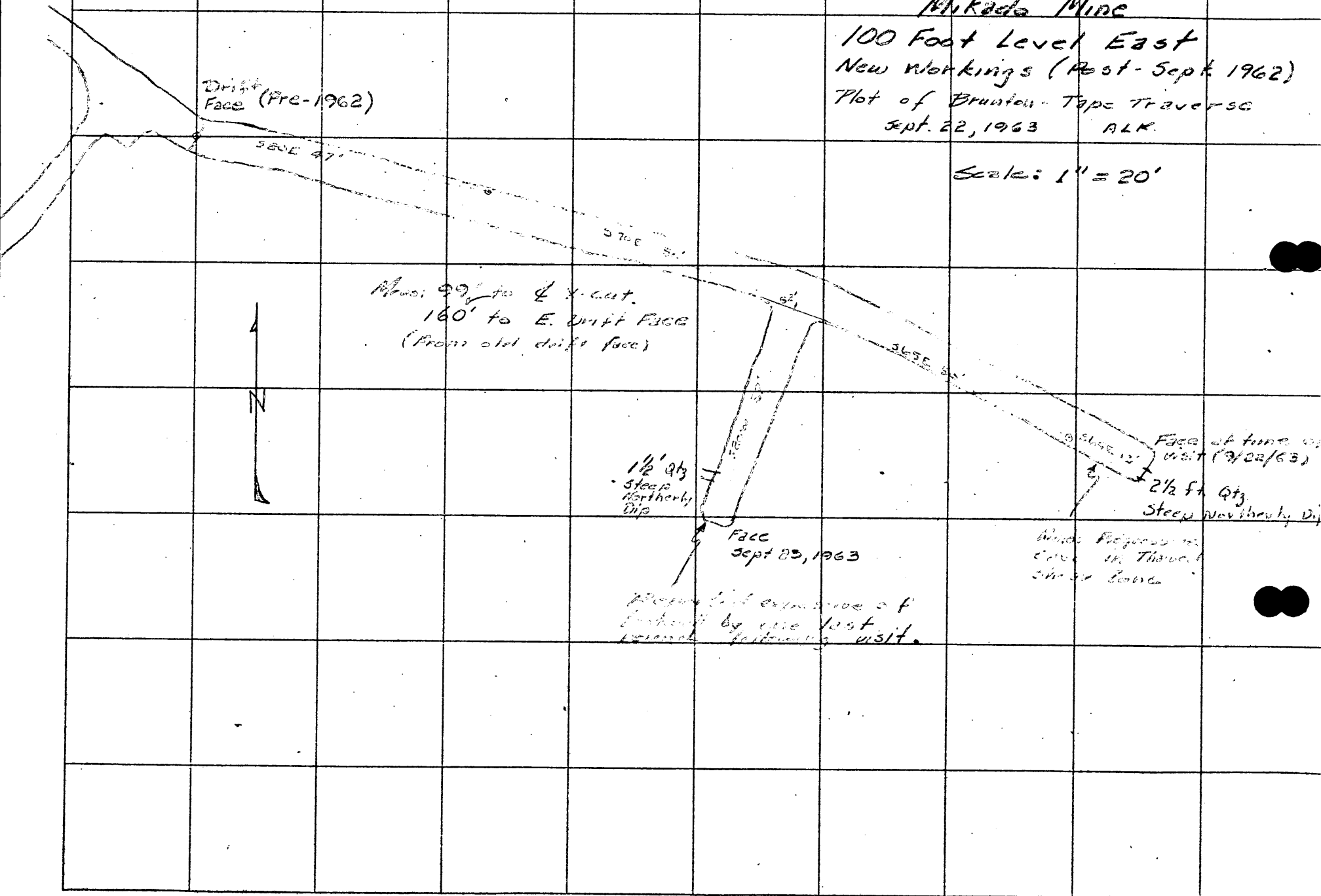
ALKimball:dj

RECEIVED
OCT 21 1963
U. S. G. S.

[Figure 1]

Mikado Mine
100 Foot Level East
New Workings (Post-Sept 1962)
Plot of Brunton-Tape Traverse
Sept. 22, 1963 ALK.

Scale: 1" = 20'

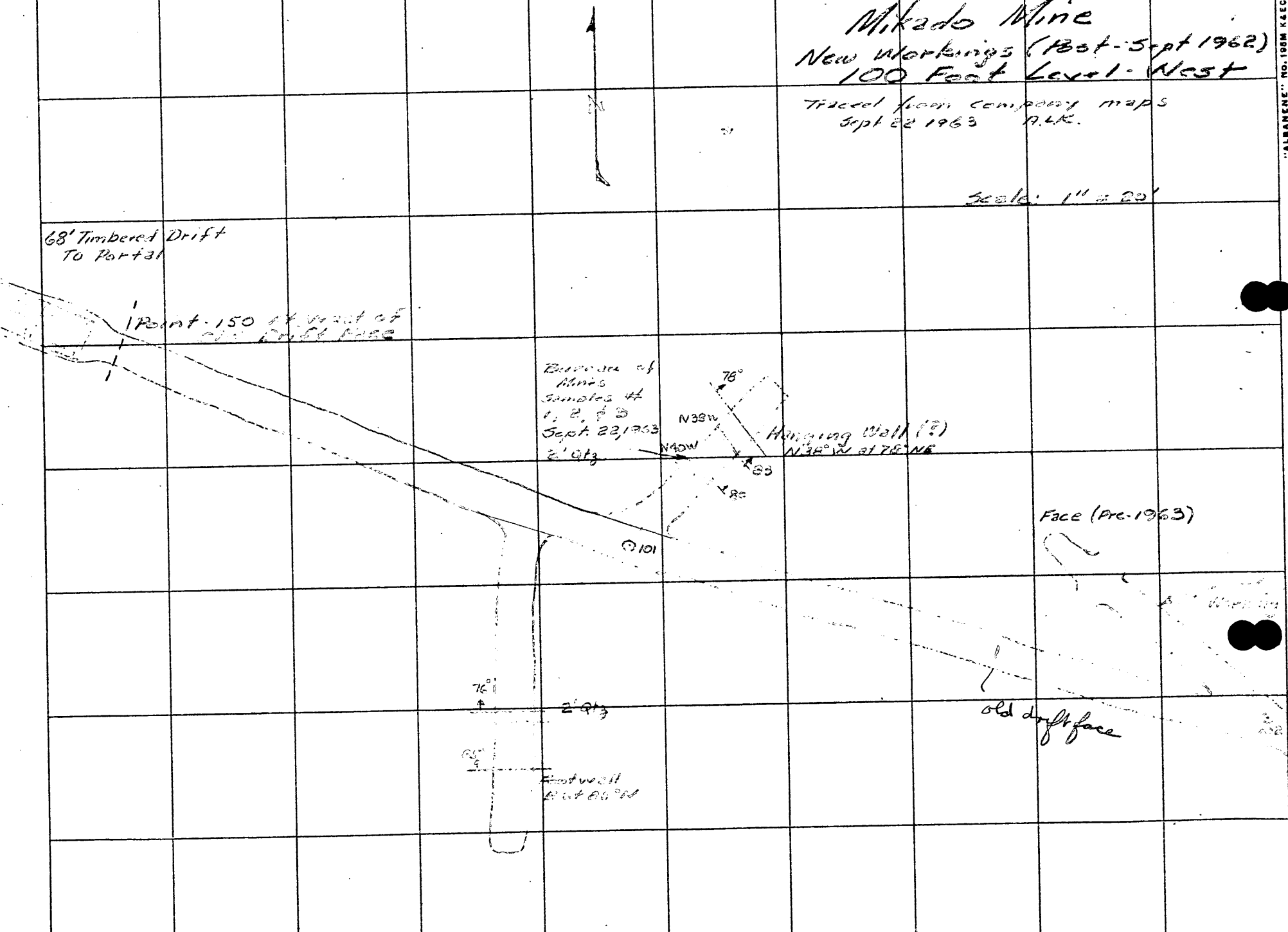


[Figure 2]

Mikado Mine
New Workings (Post-Sept 1962)
100 Foot Level - West

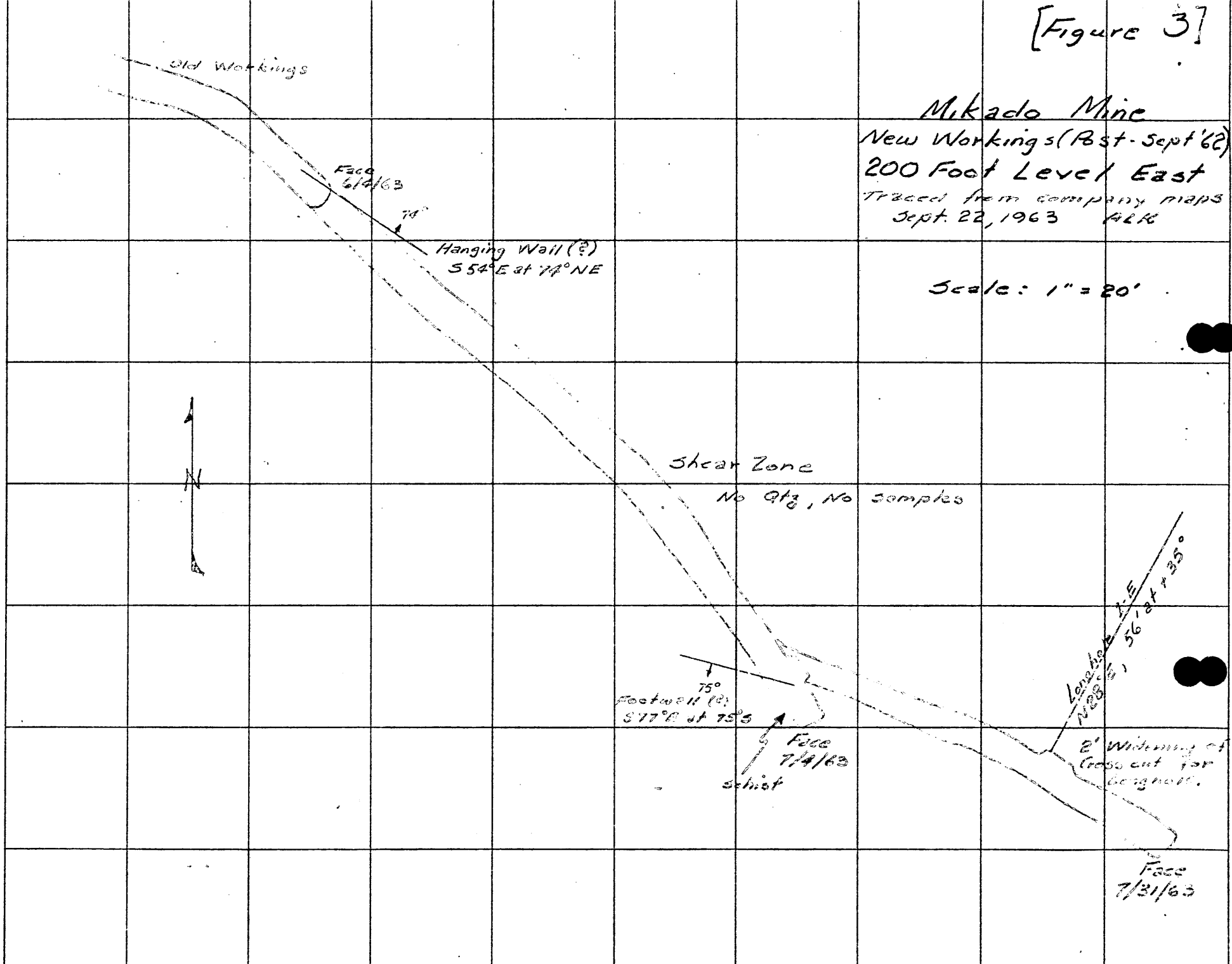
Traced from company maps
Sept 22 1963 A.L.K.

Scale: 1" = 20'



"ALBANENE" NO. 195M K&E CO., N.Y.

[Figure 3]


Mikado Mine
New Workings (Post-Sept '62)
200 Foot Level East
Traced from company maps
Sept. 22, 1963 ALK
Scale: 1" = 20'
Old Workings
Face 6/4/63
74°
Hanging Wall (?)
S 54° E at 74° NE
N
Shear Zone
No Qtz, No samples
Longhole
N 28° W
56' at +35°
75°
Footwall (?)
S 77° E at 75° S
Face 7/4/63
Schist
2' Widening of Cross cut for longhole.
Face 7/31/63

[Figure 4]

Mikado Mine

New Workings (Post-Sept. 1962)

200 Foot Level West

Traced from company maps
Sept. 28, 1963 ALK.

Scale: 1" = 20'

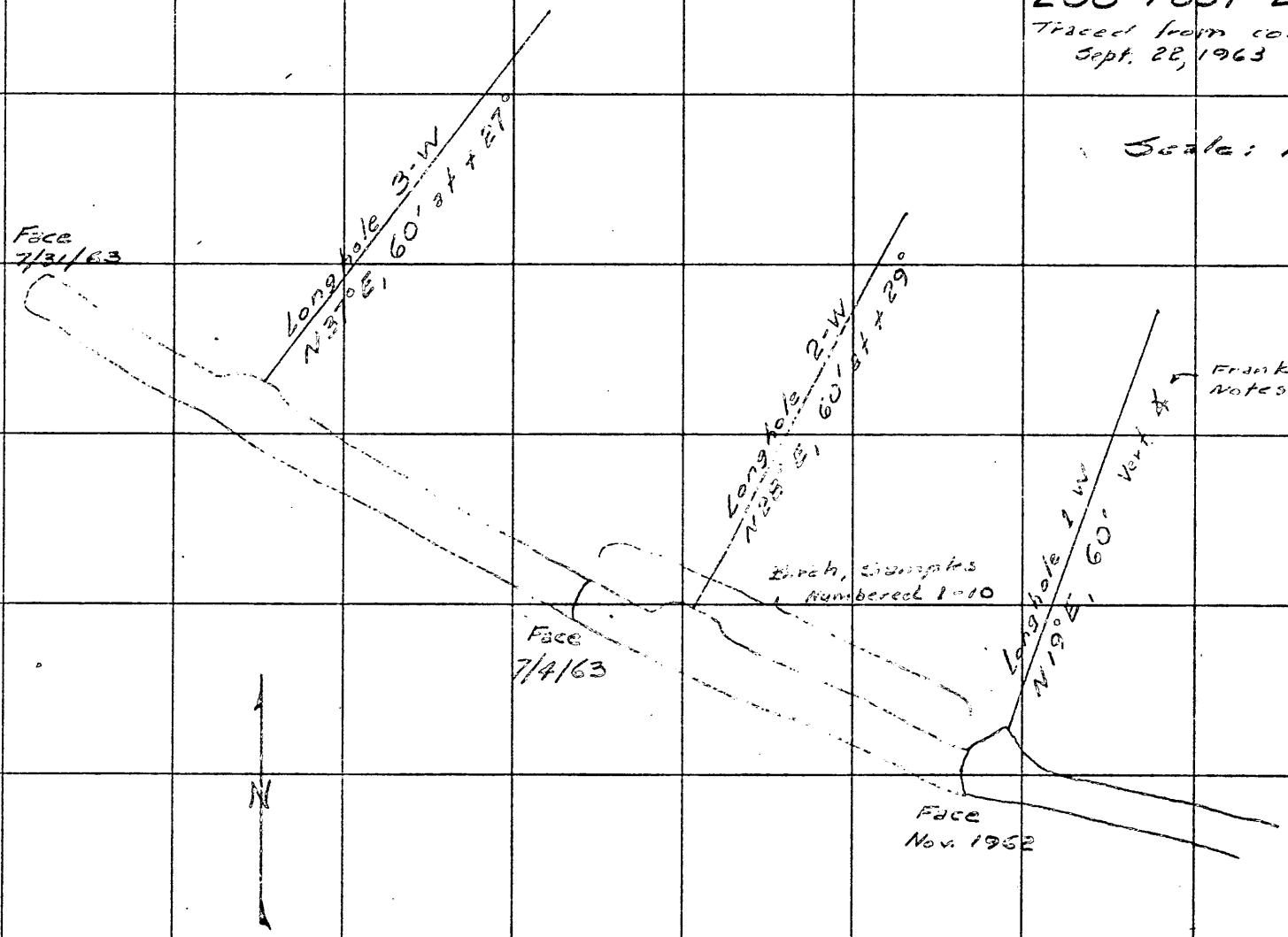
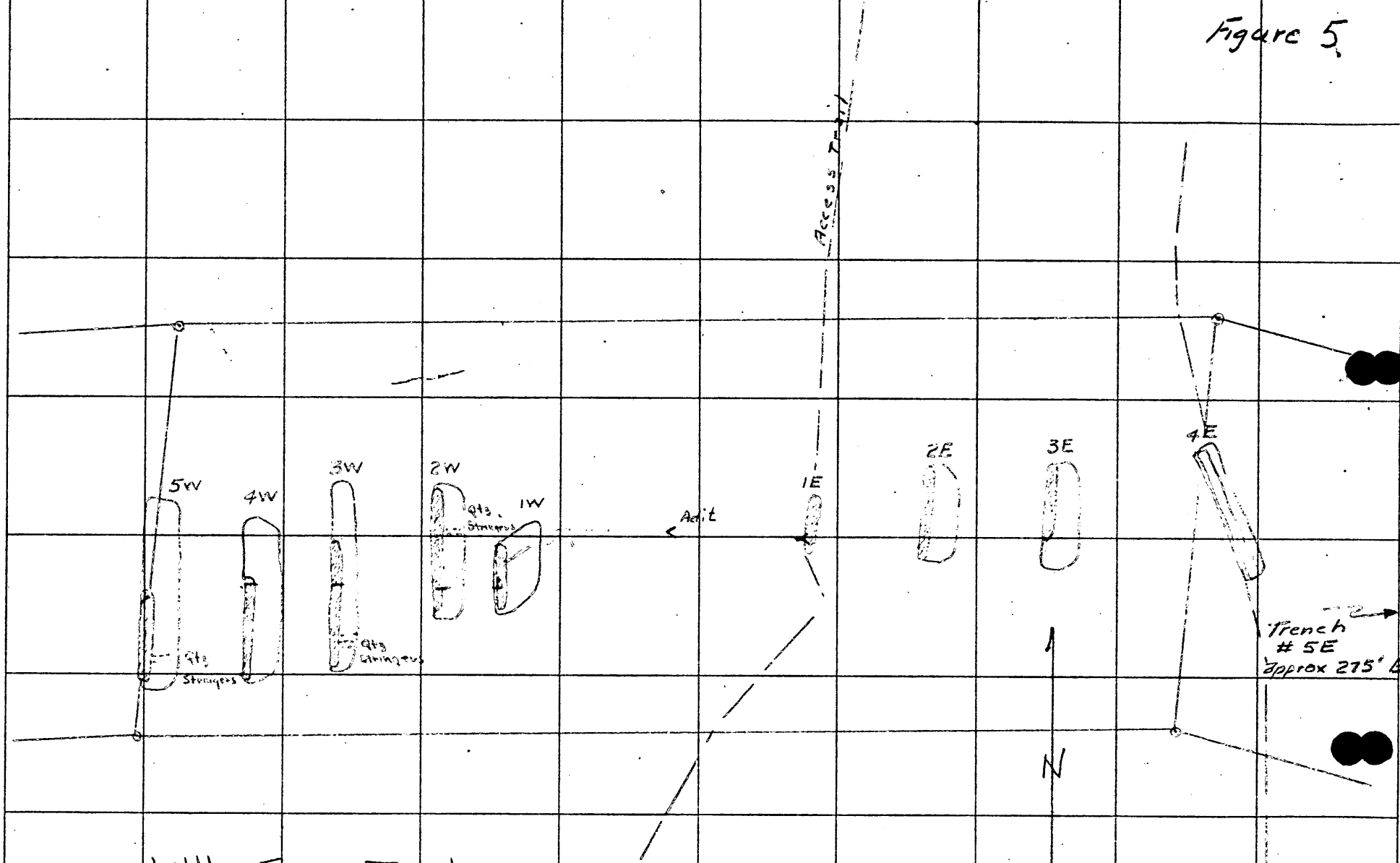


Figure 5



Little Squaw Trenches
1962 & 1963 (1962 work in black)

Traced from Company map ALK 9/23/63

Scale: 1" = 200'

Trench outlines include total disturbed area. A 2nd and more accurate survey somewhat altered the mapped locations of some of the West trenches. (during 1963)

Area VIII

EXTRA COPY
O. M. E
RECEIVED 23 1963
DATE

October 18, 1963

MEMORANDUM

To: J. A. Hardlick, Acting Area Director, Area VIII
Mineral Resource Office, Juneau, Alaska

From: Arthur L. Kimball, Mine Examination and Exploration Engineer

Subject: Interim Inspection: OME-6148 (Gold)
Little Squaw Mining Company
Mikado, etal., Claims
Chandalar Mining District
Fairbanks Precinct, Alaska
Amended Contract 2140

September 22nd and 23rd were spent on the Mikado and Little Squaw properties visiting bulldozer trenching at both localities and the underground workings at the Mikado mine.

The extent of the new underground workings is shown in figures 1 to 4. Figure 1, a plot of a Brunton-Tape Traverse of the 100-foot level east, was made during the visit; while figures 2, 3, and 4 were traced from company maps.

Thawed ground in the shear zone was encountered while drifting eastward on the 100-foot level throughout the last 60 + feet. Roof bolts were not holding well and the timber supply was short. When the first round of a crosscut to be driven southward to the footwall from the east end of the drift started minor progressive caving southward into the shear, this crosscut site was abandoned for another 60 feet to the west where ground required less support. A crosscut was driven from this point approximately 99 feet east of the pre-1963 working face, southward 37 feet, passing a few feet into the footwall. Water running from thawed parts of the shear zone and crosscut was running down the transfer raise to the 200-foot level and freezing in the portal area. Frank Birch planned to install a bulkhead to prevent filling of the workings with ice during the winter.

Mineralization on the 100-foot level east appeared limited to two quartz zones, a 2½ foot vein (?) exposed in the south half of the east drift face along the hanging wall and dipping steeply north, and a similar occurrence near the south end of the crosscut lying parallel to the footwall.

Support other than roof bolts and wire mat was limited to an occasional stull and two sets with 6 inch diameter round caps and posts 6½ and 10 feet back from the east end of the drift.

Extent of new workings to the west on the 100-foot level is shown in figure 2. The portal area lies beyond the work presently covered by OMK authorization and is not completely shown.

The footwall of the shear zone was clearly seen in the south crosscut, whereas, the hanging wall in the north crosscut known as 101 North, was vague and hard to see. Fractured and secondite-stained quartz containing some sulfides in a large lens paralleling the shear was sampled on the west side of the crosscut approximately 15 feet from Station 101. Samples numbered 1 and 3, taken at chest height, represent respective stratigraphic widths of .75 and .95 feet with a continuous width of 1.7 feet. Sample number 2 was taken approximately two feet lower on the side of the crosscut across 1.05 feet of the same quartz zone.

With regard to the east 200-foot level diagonal advance across the shear zone from the hanging to the footwall, two reasons have been presented as to why this was done. The hanging wall on the 200 level east, was reportedly difficult to follow, apparently being indefinite and feathering out in some places. It was thought that the footwall might be easier to follow as it appears to be more easily distinguishable in most of the workings and as a rule in the surface trenches as well.

The shear zone does not appear to be straight on the 200-foot level, which may have contributed to the difficulty in following the hanging wall.

In order that longholes of 60 feet in depth or less span the shear zone, it was considered preferable to longhole as nearly perpendicularly to the zone as possible and in order to drill a positive single hole, it was considered desirable to longhole from the foot to the hanging wall side.

Some difficulty was reported in securing 60-foot depths involving both drilling conditions and equipment. Longhole number 1 East (Fig. 3) was stopped at 36 feet by water needle packing problems. The material at the end of the hole was apparently mucky and the hanging wall may not have been reached.

Little or no mineralization was noted in this section of the workings. The ground was heavy as it was largely within an unfrozen part of the shear zone. Roof bolts and matting on hand were used in an effort to hold the ground with marginal success.

The advance during 1963 on the 200-foot level west, was entirely in permafrost and there were no support problems. Little mineralized quartz was seen in this section other than that previously sampled along the first 50 feet of new drift (Fig. 4). Assay values of these samples

were reported as low. Samples from the longholes numbered 1, 2, and 3 West (Fig. 4) drilled to 60 foot depths were also reported as giving relatively low assay values.

Bulldozer trenches numbered 1 to 5 East and 1 to 5 West on the Mikado claim group were visited. With the exception of trench No. 1 West partly obscured in the 100-foot level portal area, trench No. 2 West with its critical areas obscured by the dump from the above portal, and trench No. 1 East now sloughed as no work was done there during 1963, all trenches visited showed evidence of the shear zone structure with veins (?) or lenses of quartz lying parallel to it. Most of the quartz was fractured or crushed and much showed some evidence of sulfide mineralization. Some zones showed considerable greenish scorodific staining. The higher gold values have usually been found in fractured or crushed quartz containing small amounts of sphalerite and galena or arsenopyrite and scorodite. The gold, however, is not necessarily present when these minerals are.

Sample number 4 was taken approximately 5 feet north of the probable footwall, a channel of 2.2 feet of crushed quartz and gouge in the east wall of trench No. 5 East.

Mikado trench No. 6 East was not visited, but mineralized quartz with some evidence of the shear, was reported to have been previously sampled. Trenches numbered 7, 8, 9, and 10 East did not reach bedrock.

Bulldozing on the Little Squaw was largely done on the west trenches though some work was done on trenches 1-5 East in conjunction with millsite road improvement. The only exposure of bedrock in the latter group is found in a short adit at trench No. 1 East, present long before the trenches were put down, with the face showing a steeply dipping south shear passing through the face which appears unmineralized. There is quartz float lying in trench rubble roughly along the projected strike of the shear zone.

The quartz veins and pods seen in trenches numbered 1-5 West appeared to lie as shown in Figure 5. The most intense mineralization of quartz was noted in trench No. 2 West where the quartz lay in a band or vein several feet wide ; banded, crushed, ironstained, and containing small amounts of arsenopyrite and possibly other sulfides. The quartz was vuggy and scorodite stained. Some of the vugs, particularily along the footwall (north wall), contained occasional small forms or feathers of free gold. The vuggy and fractured nature and minor sulfide content of the quartz appeard less intense to the West (trenches numbered 2 to 5 West). There was less quartz showing and a higher percentage to the West appeared barren.

Trench No. 1 West exposes a 40 to 50 feet left lateral offset in the shear zone structure, possibly along one or more northwest trending faults. A 30-foot section of the mineralized quartz zone where zone

free gold has been found has apparently been moved by drag, lying in the offset gap.

The locations of some of the trenches on both Mikado and Little Squaw properties have been slightly changed on current maps by a second and more accurate survey during 1963.

It would have been desirable to have made a second visit underground, however, present air pickup schedule and lack of communication prevented it.

Art Kimball

Attachments

cc:
McLaren - Orig./2
Kimball
OMK - 6148 (Gold)

AlKimball:dj

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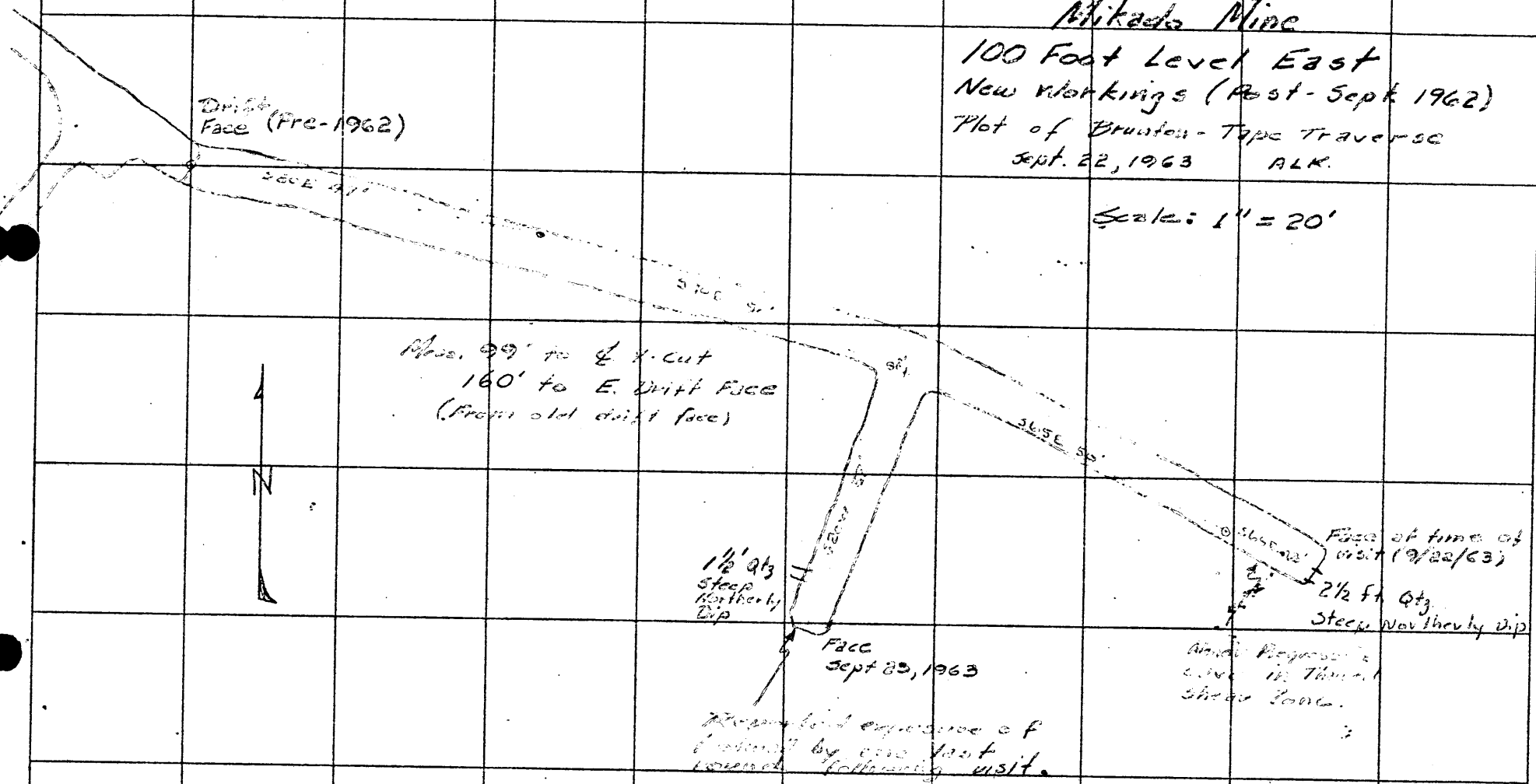
Via
OCT 21 1963
U.S.
WASH

[Figure 1]

Mikado Mine
100 Foot Level East
New Workings (Post-Sept. 1962)
Plot of Brunton-Tape Traverse
Sept. 22, 1963 ALK.

Scale: 1" = 20'

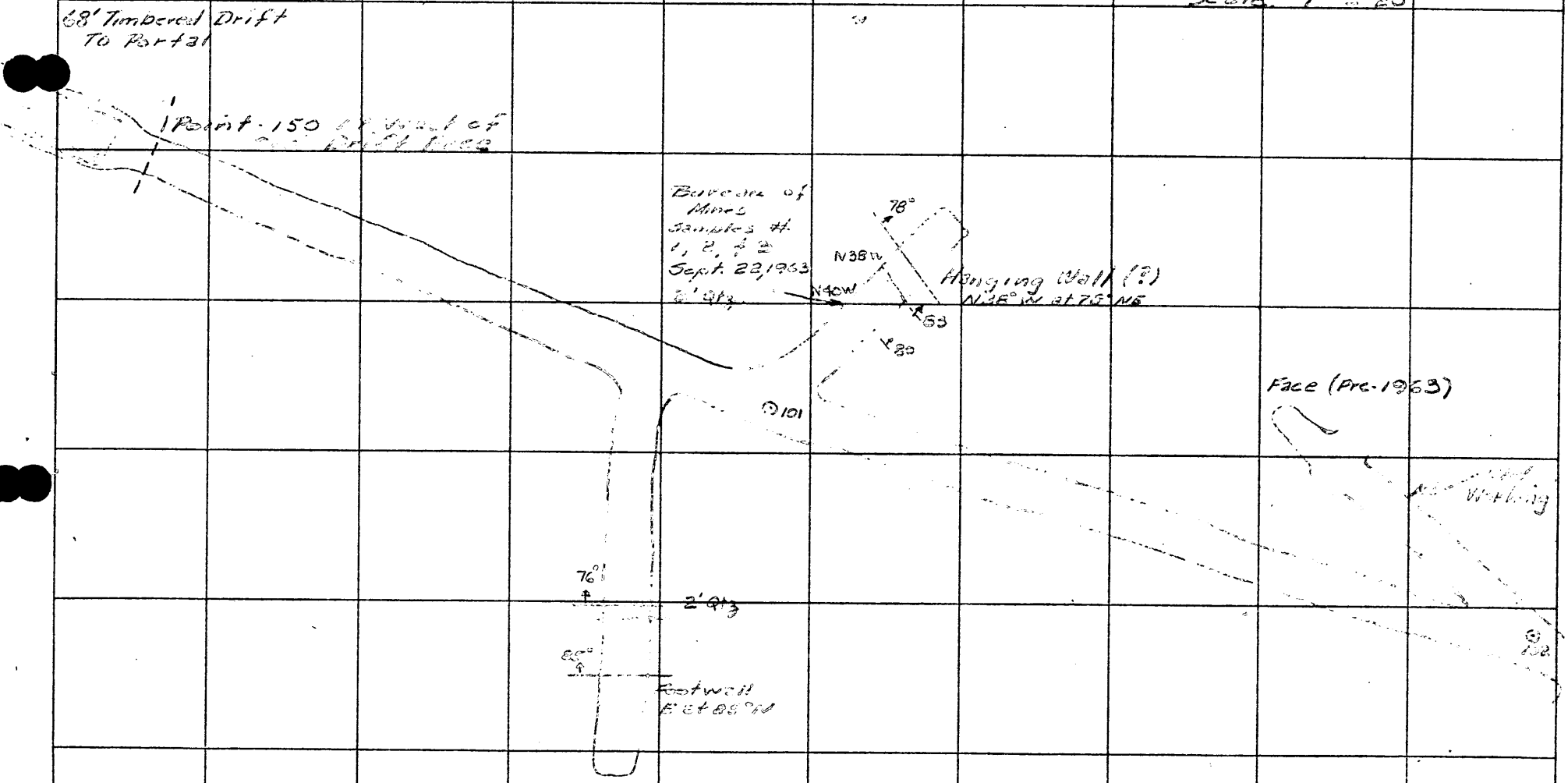


[Figure 2]

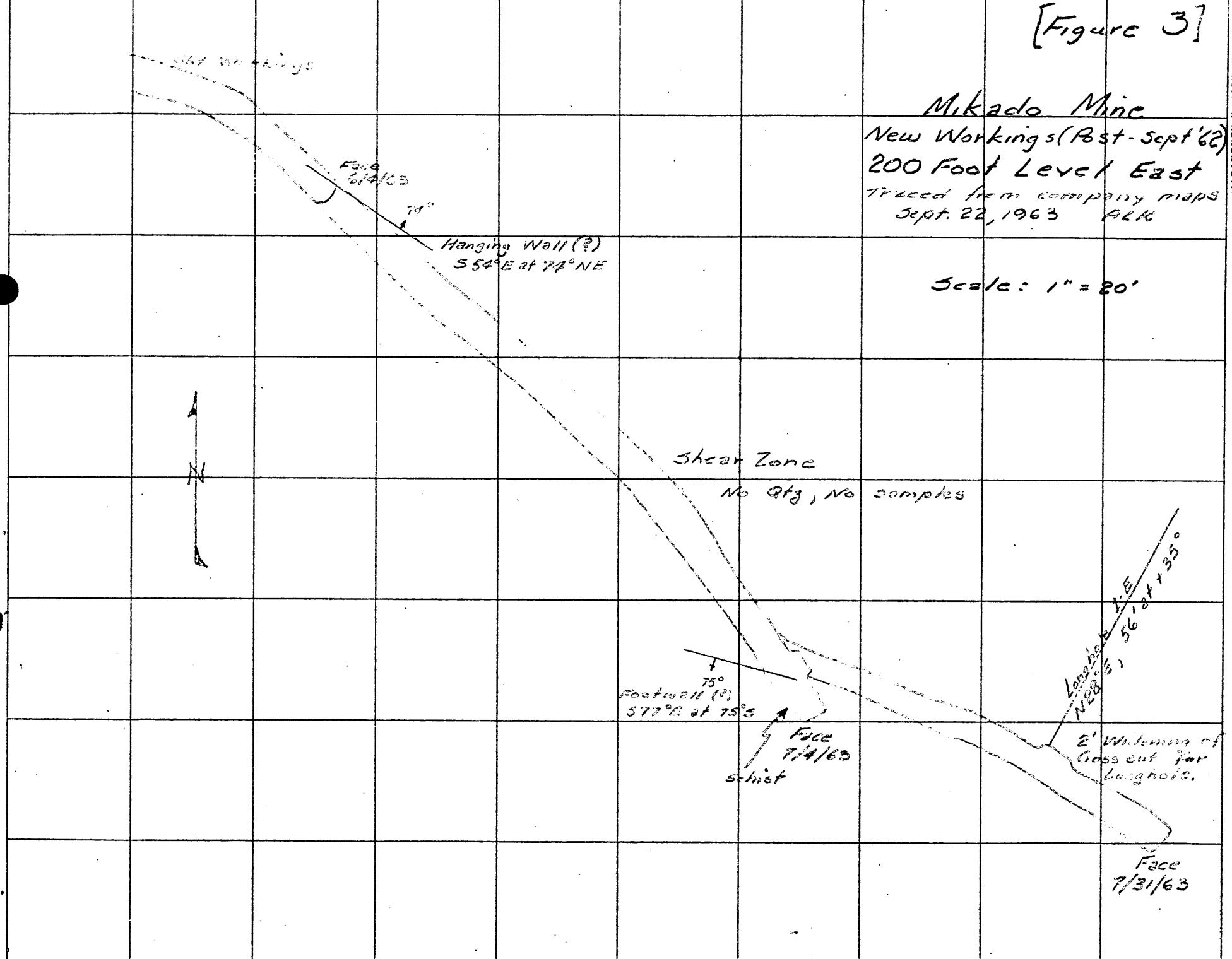
Mikado Mine
New Workings (Aug-Sept 1962)
100 Foot Level - West

Traced from company maps
Sept 22 1963 A.L.K.

Scale: 1" = 20'



[Figure 3]


Old Workings
Face 6/14/63
74°
Hanging Wall (?)
S 54° E at 74° NE
Mikado Mine
New Workings (Pest - Sept '62)
200 Foot Level East
Traced from company maps
Sept. 22, 1963 AEK
Scale: 1" = 20'
N
Shear Zone
No Qtz, No samples
75°
Footwall (?)
S 77° E at 75° S
Face 7/4/63
Schist
Longhole L.E.
N 28° W, 56' at 35°
2' Widening of Cross cut for longhole.
Face 7/31/63

[Figure 4]

Mikado Mine

New Workings (Post-Sept. 1962)

200 Foot Level West

Traced from company maps
Sept. 28, 1963 ALK.

Scale: 1" = 20'

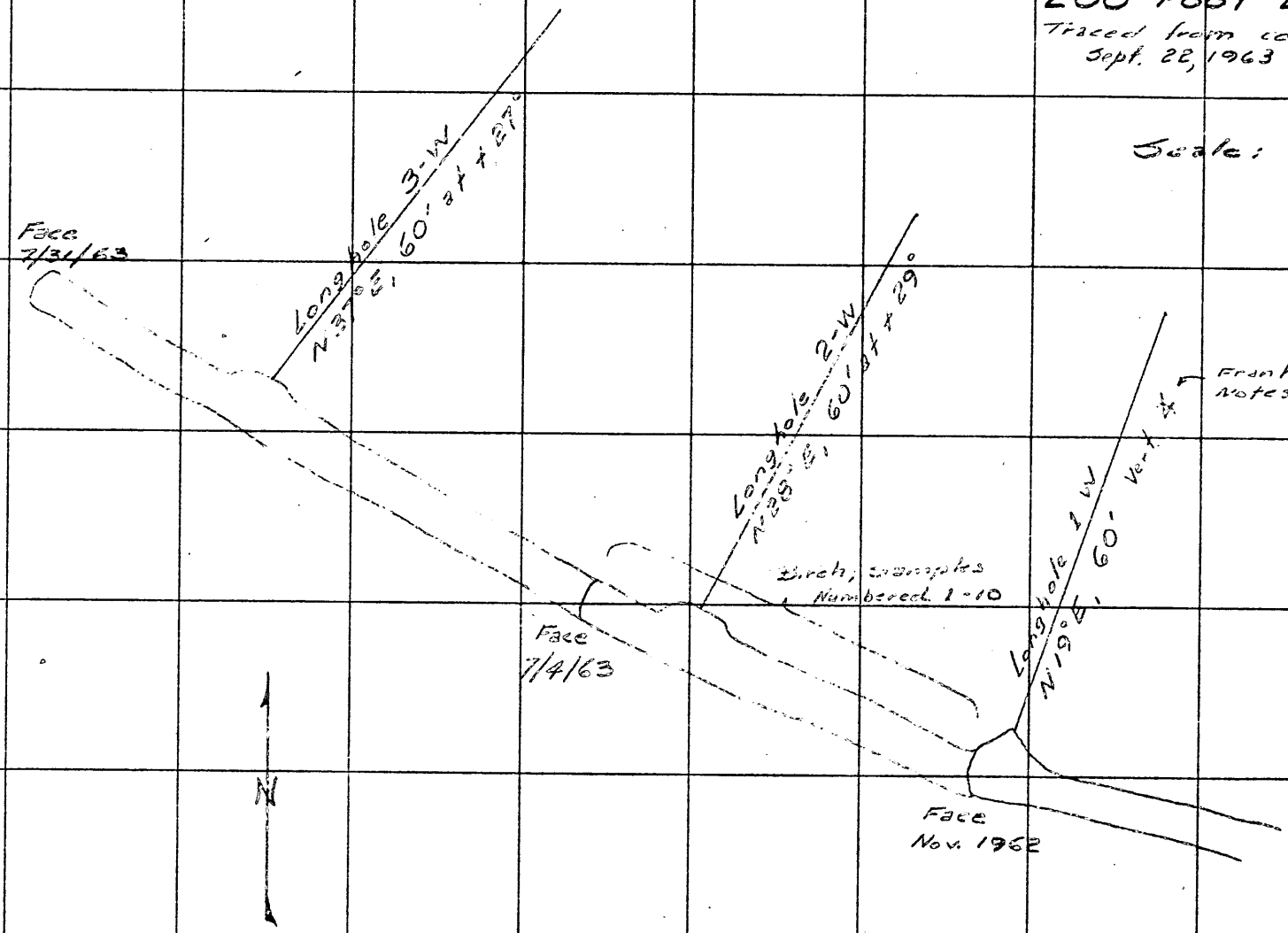
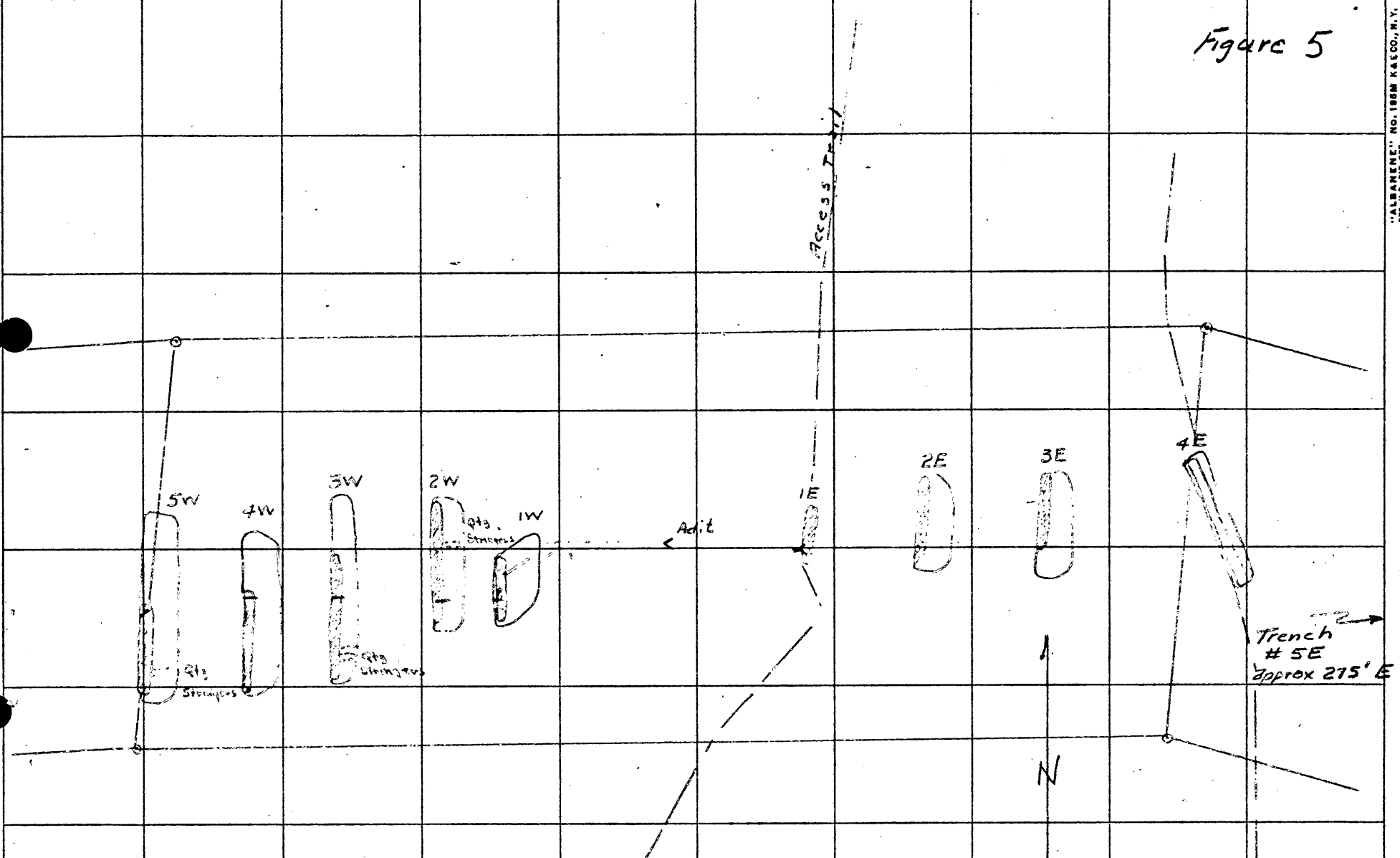


Figure 5



Little Squaw Trenches
1962 & 1963 (1962 work in black)

Traced from Company map ALK 9/23/63

Scale: 1" = 200'

Trench outlines include total disturbed area. A 2nd and more accurate survey somewhat altered the mapped locations of some of the West trenches (during 1963)

MME FORM 604
SEPT. 1959

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SEP 20 1963

Griswold

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

SEP 26 1963

Docket No. 6148
Contract No. 14-23-090-2140
Contract Amount $ 167,750.00
Gov't. Participation 50 % $ 83,875.00
Mineral(s)

OPERATOR'S MONTHLY VOUCHER

For Month of August, 1963

Operator's Name Little Squaw Mining Company
Address 309 Radio Central Bldg Spokane Wash 99204

COST CATEGORIES	FOR OPERATOR'S USE			FOR GOVERNMENT APPROVAL ONLY		
	MONTHLY TOTAL	PREVIOUSLY REPORTED	TOTALS TO DATE	MONTHLY TOTAL	PREVIOUSLY REPORTED	TOTALS TO DATE
Fixed Unit Costs and						
(1) Independent Contracts:						
Bulldozing	7,840.00	23,345.00	31,185.00	5905.00	23,345.00	29,250.00
Drifting	9,150.00	28,853.00	38,003.00	13,298.00	17,995.00	31,293.00
Crosscutting	3,233.00	1,586.00	4,819.00	3,355.00	1,342.00	4,697.00
Drilling	None	241.00	241.00	56.00	185.00	241.00
(2) Personal Services:						
Supervision & Technical						
Outside Consultants						
Labor						
(3) Operating Mat'l. & Supplies:						
Timber						
Explosives						
Pipe						
Rail						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehab. & Repairs:						
Buildings, Fixtures, etc.						
Operating Equipment						
(6) New Buildings, Fixtures, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Analytical Work	None	99.00	99.00		99.00	99.00
Payroll Taxes						
Employee's Liability Ins.						
TOTALS	20,223	54,124.00	74,347.00	22,614.00	42,966.00	65,580.00

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 9 20 63 *Payee Little Squaw Mining Co.

Per Carl Anderson Title Vice-President

* When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

A willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction is a criminal offense. (U.S. Code, Title 18, Sec. 1001.)

(INSTRUCTIONS ON REVERSE)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 11,307.00

Signature BaB
(Authorized Certifying Officer)

Date 9/25/63 Vou. No. 464-1

(SEE OTHER SIDE)

Certification by Government Representative:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating an exploration project in accordance with the terms of Contract No. 2140

Signature [illegible] Title Acting Field Officer, Reg. I Date SEP 23 1963

Approved by OME Executive Officer or Alternate:

Signature [illegible] Title Acting Field Officer, Reg. I Date SEP 23 1963

OPERATOR'S MONTHLY REPORT

The Operator, under an Office of Minerals Exploration contract, is required to report monthly to the Government. The report consists of three parts.

FIRST, the Operator's Monthly Voucher on MME Form 60 listing the project costs incurred and claimed by the Operator is the voucher basis for payment of the Government's share of the cost.

SECOND, the Operator's Progress Report on MME Form 61 is a statistical report of the units and cost of of work performed under the contract.

THIRD, the Operator's Narrative Report is a concise description of the work performed, results accomplished, and any unusual situations encountered, illustrated and supported by engineering-geological maps or sketches, drill hole logs, assay reports, etc., as pertinent.

The Operator submits the original and four copies of each of the three sections of this report to the OME regional Executive Officer at the end of each month during the life of the contract.

PREPARATION OF OPERATOR'S MONTHLY VOUCHER, MME FORM 60

After all applicable spaces are filled in, the Operator or his agent must sign the certification in the lower left corner. Categories (2) through (7) apply to "Actual Cost" contracts only.

Under "Fixed Unit Costs" and Category (1) report, (a) the total fixed unit costs of work performed under contract provisions for contribution by the Government on a basis of "fixed unit costs"; and (b) the claimed costs of work performed on a unit-price basis by independent contractors.

Under Category (2) include the claimed costs of all payrolled and invoiced supervisory, technical, and labor personnel, except the costs for services applicable to Categories (5) and (6).

Under Category (3) include the claimed costs of all project materials and supplies other than those used for work under Categories (5) and (6).

Under Category (4) report claimed rentals on equipment belonging to a third party, claimed payments or obligations for payments on the Operator's purchase of equipment, and claimed depreciation for the use of Operator-owned equipment.

Under Categories (5) and (6) include all claimed costs of labor, supervision, technical services, operating materials and supplies, and all other items used in (5) the initial rehabilitation and repairs of existing buildings, fixtures, installations (exclusive of mine workings), and operating equipment; and (6) the installation or construction of new buildings, fixtures, and fixed improvements (exclusive of mine workings). Do not report these costs under Categories (2), (3), (4), and (7).

Under Category (7) include all miscellaneous claimed costs such as repairs (other than initial) and maintenance of equipment, sampling and analysis, travel, communication, accounting, office expenses, and the Operator's share of payroll taxes and insurance.

Except for amounts claimed under "fixed unit costs" provisions of the contract, all costs claimed in this voucher must be supported by documentary evidence consisting of: (a) certified copies or transcripts of payrolls which list each employee, wage rate, period of employment, gross earnings, itemized deductions, and net earnings; (b) original or certified copies of invoices, statements of accounts, or purchase orders which indicate items of materials or services, quantities, unit prices, total charges, and payment terms; and (c) certified memoranda of the Operator for such items as depreciation of Operator-owned equipment, unemployment taxes, and employee's liability insurance. The certification may be stated thus, "Certified True Copy (or Transcript)", followed by the signature of the Operator or his agent. One copy of each document should accompany the original of this voucher.

The requirement for submitting documentary evidence of claimed costs may be waived by the OME regional Executive Officer if he determines that it is impracticable for an Operator to submit this material. In any case of waiver of this requirement an "on-site" audit by an OME auditor is mandatory prior to payment of the final Operator's Monthly Voucher.

MME FORM 61
SEPT. 1959

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SEP 20 1963
U.S. G.S.
ANCHORAGE, ALASKA

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

OPERATOR'S PROGRESS REPORT For Month of August 1963 Docket No. 6148

Operator's Name Little Squaw Mining Company Contract No. 14-23-090- 2140

OPERATION	UNITS	FOR OPERATOR'S USE: UNITS THIS MONTH	UNITS TO DATE	COSTS TO DATE	FOR GOVERNMENT USE: APPROVED UNITS THIS MONTH	APPROVED UNITS TO DATE	APPROVED COSTS TO DATE
Drifting	feet	150	623	38,003.00	218 L1	513	31,293.00
Crosscutting	"	53	79	4,819.00	55 L2	77	4,697.00
Raising							
Shafts							
Winzes							
Other Underground							
Drilling, Core-Diamond							
Rotary							
Drilling, Non-core-Diamond							
Rotary							
Churn							
Percussion	feet	none	241	241.00	56 L2	241	241.00
Miscellaneous							
Roads and Trails							
Stripping							
Trenching	hours	350	1,330	31,185.00	260 L4	1240 L4	29,250.00
Test Pitting							
Other Surface Work							
Initial Rehabilitation and Repairs							
Rehabilitation of Mine Workings							
New Buildings, Fixtures, etc.							
Operating Equipment Purchases							
Analytical Work				99.00			99.00
TOTAL TO DATE (per MME Form 60)				74,347.00			65,580.00

REMARKS

(Continue on back)

REMARKS
L1 includes 68 ft. claimed but not approved in July
L2 includes 2 ft. claimed but not approved in July
L3 claimed but not approved in July

(Continue on back) (over)

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date Sept. 20, 1963 Operator Little Squaw Mining Company

Per Eskil Anderson Title Vice-President

A willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction is a criminal offense. (U.S. Code, Title 18, Sec. 1001.)

I certify that the information above is complete and accurate to the best of my knowledge and belief.

Signature [illegible]

Title Acting Field Officer, Reg. I
Government Representative

Date SEP 23 1963

(INSTRUCTIONS ON REVERSE)

REMARKS (Cont.)

REMARKS (Cont.)

14 Maximum allowable for TD-18 dozer is 500 hrs. Of 260 hrs claimed for TD-18 only 170 hrs. allowable. Total to Date:

TD-18	500 hrs @ $21.50/hr	= $10,750.00
D-8	740 hrs @ $25.00/hr	= 18,500.00
	1240	$29,250.00

INSTRUCTIONS FOR PREPARING OPERATOR'S PROGRESS REPORT, MME FORM 61

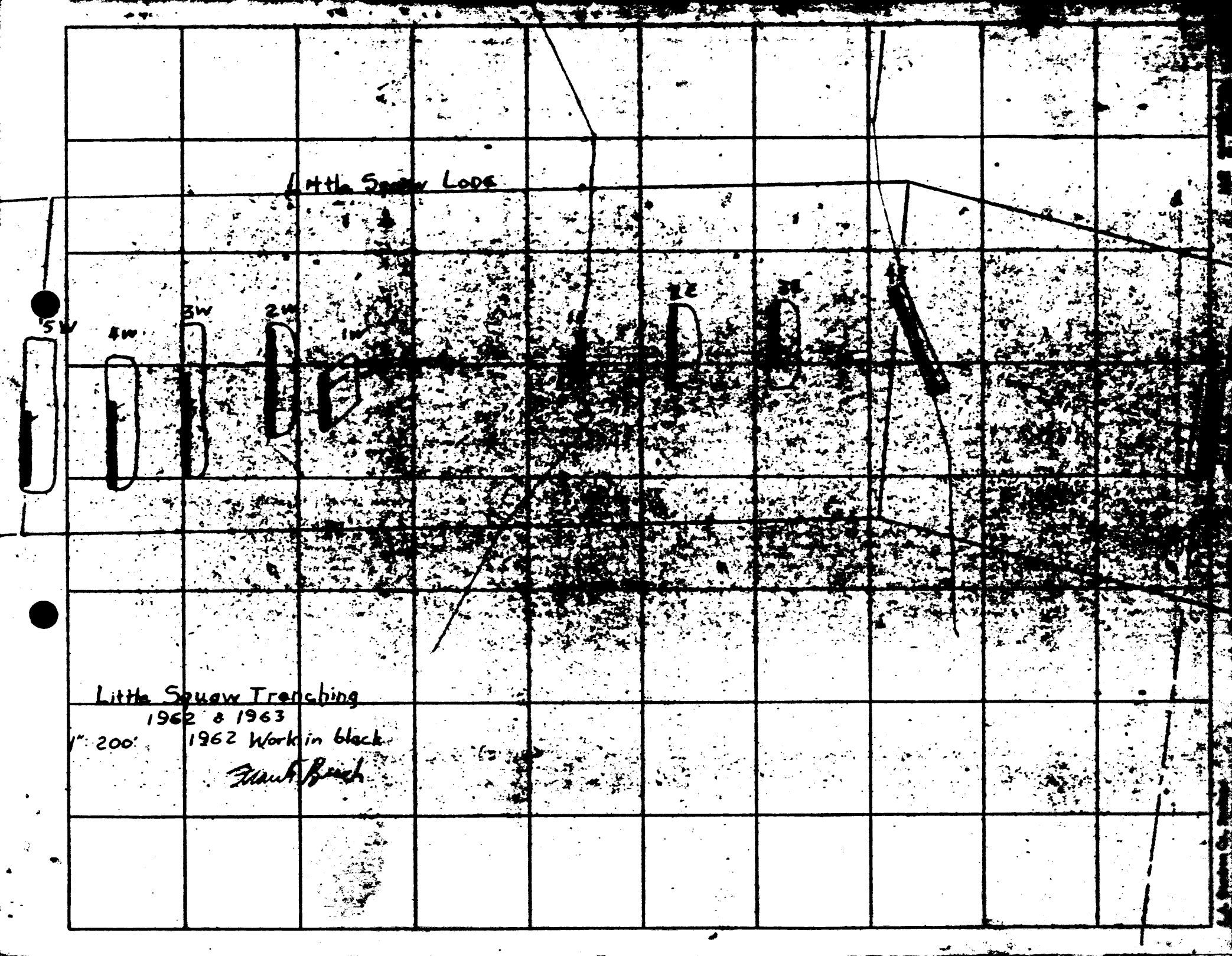
This report is the second of the three parts of the Operator's Monthly Report. Submit the original and four copies.

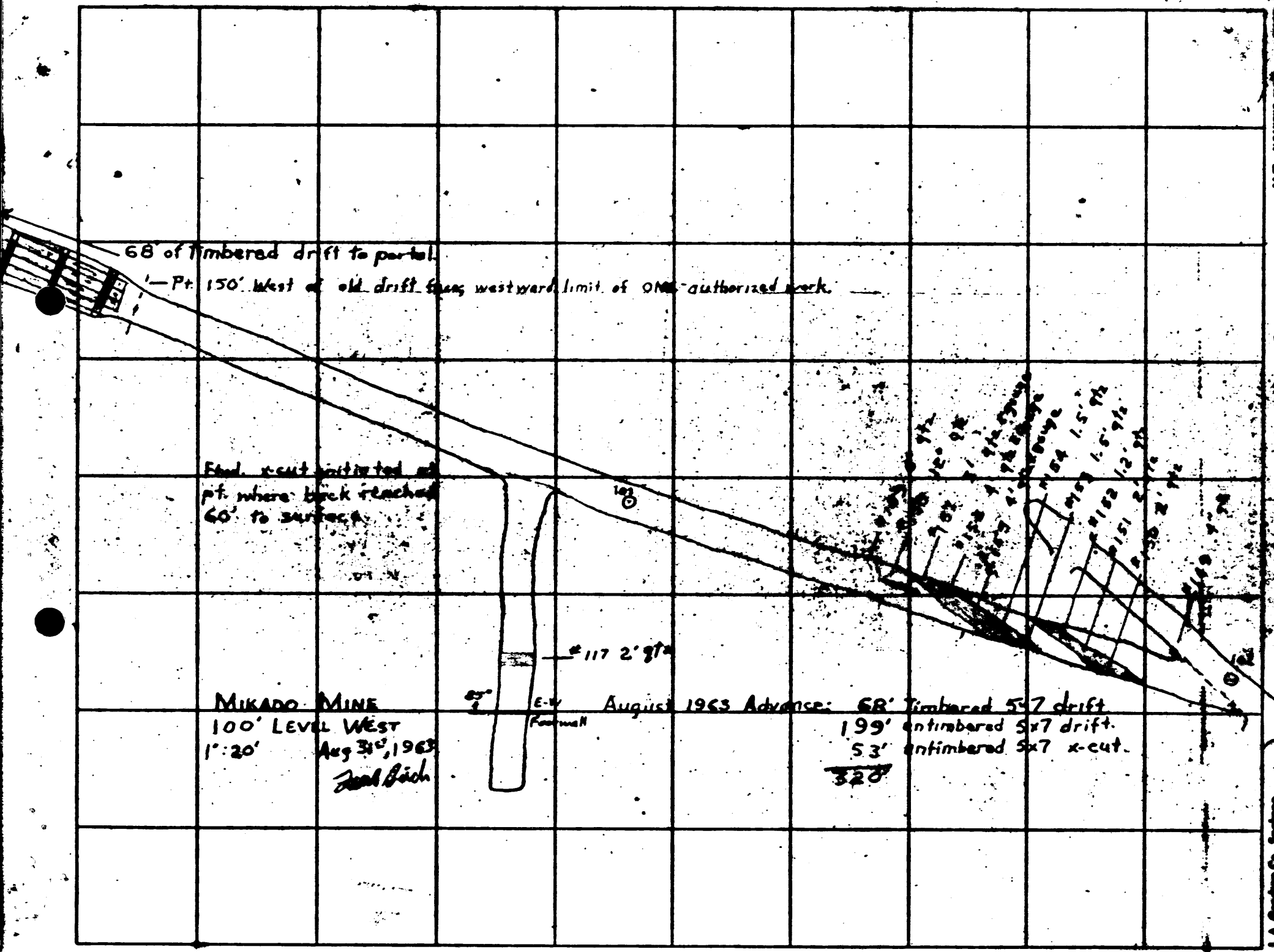
The cost for each operation should be the total of all claimed costs attributable to that type of work with two exceptions, namely—operating equipment purchased and analytical work which are stated separately. For example, drifting costs should be the total of all costs chargeable to drifting including supervision, technical services, timbering (if any), etc. Similarly, drilling costs should include the cost of cementing, reaming, core boxes, etc. This procedure of distribution holds whether the contract was written on an actual cost or a unit cost basis, or some combination of the two. Distribute the cost of such general items as supervision, equipment rented, etc. according to relative footages or on some other conventional basis. The item "Initial Rehabilitation and Repairs" covers all rehabilitation and/or repairs other than the rehabilitation of mine workings.

The item titled "Drilling, Non-core Percussion" includes all drilling performed with wagon, jack-hammer, stoper and mounted drills. The several items labelled "Other" are provided to take care of particular exploration operations not specified on this form.

During August the [illegible] the 100' level,
267' of drift driven [illegible] of
this drift was [illegible]
This adit was [illegible] the footwall,
only 150' of drift [illegible] level, although
Work authorized [illegible]
[illegible]

Mikado Theatre
June 2 August 1963
1962 [illegible]
[illegible]


Little Squaw Loop
5W
4W
3W
2W
1W
1E
2E
3E
4E
Little Squaw Trenching
1962 & 1963
1" = 200'
1962 Work in black
Frank Beach


68' of timbered drift to portal
Pt. 150' West of old drift faces westward limit of OMC authorized work.
Ftnd. x-cut initiated at pt. where block reached 60' to surface.
117 2' qtz
E-W Footwall
MIKADO MINE
100' LEVEL WEST
1":20'
Aug 31st, 1963
August 1963 Advance: 68' Timbered 5x7 drift
199' untimbered 5x7 drift.
53' untimbered 5x7 x-cut.
320'

of Natural Resources

Bureau of Mines
and Minerals

Date

REPORT OF ASSAY

The samples received from

Sample Marked

Samples run by assay ton.
Results reliable for samples
available for remelting if

[redacted]aska
[redacted] of Natural Resources

Division of Mines and Minerals

Form M-1-3-68-3M

[redacted]y Office .....
Fairbanks
Date .....[redacted]

REPORT OF ASSAY

On samples received from .....[redacted]

Address [redacted]

[redacted]	Sample Marked	[redacted]
[redacted]	[redacted]	[redacted]

[redacted]

State of Alaska
Department of Natural Resources
Division of Mines and Minerals
Form M-1-5-59—5M

Assay Office Fairbanks
Date Aug. 28 1963

REPORT OF ASSAY

On samples received from Little Giant Mining Co.

Address Chandalar, Alaska c/o Ed Anderson in Spokane, Wash

Assay No.	Sample Marked	OUNCES PER TON		Value per Ton	Percentage of
		GOLD	SILVER		
27873	17	0.02	nil	$0.70	
27874	18	0.02	nil	0.70	
27875	19	0.08	0.08	2.98	
27876	20	0.04	nil	1.40	
27877	21	0.02	nil	0.70	
27878	22	0.02	nil	0.70	
27879	23	0.04	nil	1.40	
27880	11	0.32	0.30	11.69	
27881	12	0.20	trace	7.00	
27882	13	0.28	trace	9.80	
27883	14	0.07	trace	2.45	
27884	15	0.02	nil	0.70	
27885	16	0.02	nil	0.70	
27886	24	0.02	nil	0.70	
27887	25	0.12	nil	4.20	
27888	26	0.04	nil	1.40	
27889	27	0.02	nil	0.70	
27890	28	trace	nil		
27891	29	0.02	nil	0.70	
27892	30	trace	nil		
27893	31	trace	nil		
27894	32	trace	nil		
27895	33	nil	nil		
27896	34	0.02	nil	0.70	
27897	35	0.02	nil	0.70	
27898	36	nil	nil		
27899	37	trace	nil		
27900	38	trace	nil		
27901	39	nil	nil		
27902	40	trace	nil		
27903	41	trace	nil		
27904	42	0.02	nil		
27905	43	trace	nil		
27906	44	trace	nil		
27907	45	nil	nil		
27908	46	trace	nil		
27909	47	0.02	nil	0.70	
27910	48	nil	nil		
27911	49	0.02	nil	0.70	

Merrill Stevens

RM 60
1959

RECEIVED
AUG 21 1963
U.S.G.S.
SPOKANE WASH.

One · Griswold

S 1 2 1963

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

Docket No. 6148
Contract No. 2140
14-23-090-
Contract Amount $ 157,750.00
Gov't. Participation % 50 $ 83,875.00
Mineral(s) gold

OPERATOR'S MONTHLY VOUCHER

For Month of July, 1963

Operator's Name LITTLE SQUAW MINING COMPANY
Address 309 Radio Central Bldg., Spokane Washington 99204

COST CATEGORIES	FOR OPERATOR'S USE			FOR GOVERNMENT APPROVAL ONLY		
	MONTHLY TOTAL	PREVIOUSLY REPORTED	TOTALS TO DATE	MONTHLY TOTAL	PREVIOUSLY REPORTED	TOTALS TO DATE
Fixed Unit Costs and						
(1) Independent Contracts:						
Bulldozing	2,360.00	20,985.00	$23,345.00	2,360.00	20,985.00	23,345.00
Drifting	8,662.00	20,191.00	28,853.00	4,514.00	13,481.00	17,995.00
Crosscutting	244.00	1,342.00	1,586.00	122.00	1,220.00	1,342.00
Drilling	208.00	33.00	241.00	152.00	33.00	185.00
(2) Personal Services:						
Supervision & Technical						
Outside Consultants						
Labor						
(3) Operating Mat'l. & Supplies:						
Timber						
Explosives						
Pipe						
Rail						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehab. & Repairs:						
Buildings, Fixtures, etc.						
Operating Equipment						
(6) New Buildings, Fixtures, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Analytical Work		99.00	99.00			
Payroll Taxes						
Employee's Liability Ins.						
TOTALS	11,474.00	42,650.00	54,124.00	7,148.00	35,818.00	42,966.00

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 8/21/63 *Payee LITTLE SQUAW MINING CO.

Per Karl W. Jaspler Title President

* When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

A willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction is a criminal offense. (U.S. Code, Title 18, Sec. 1001.)

(INSTRUCTIONS ON REVERSE)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 3,574.00

Signature BWB
(Authorized Certifying Officer)

Date 9/9/63 Vou. No. 373-3

(SEE OTHER SIDE)

Certification by Government Representative:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating an exploration project in accordance with the terms of Contract No. 2140

Signature D R MacKeren Title Acting Field Officer, Reg. I Date AUG 28 1963

Approved by OME Executive Officer or Alternate:

Signature D R MacKeren Title Acting Field Officer, Reg. I Date AUG 28 1963

OPERATOR'S MONTHLY REPORT

The Operator, under an Office of Minerals Exploration contract, is required to report monthly to the Government. The report consists of three parts.

FIRST, the Operator's Monthly Voucher on MME Form 60 listing the project costs incurred and claimed by the Operator is the voucher basis for payment of the Government's share of the cost.

SECOND, the Operator's Progress Report on MME Form 61 is a statistical report of the units and cost of of work performed under the contract.

THIRD, the Operator's Narrative Report is a concise description of the work performed, results accomplished, and any unusual situations encountered, illustrated and supported by engineering-geological maps or sketches, drill hole logs, assay reports, etc., as pertinent.

The Operator submits the original and four copies of each of the three sections of this report to the OME regional Executive Officer at the end of each month during the life of the contract.

PREPARATION OF OPERATOR'S MONTHLY VOUCHER, MME FORM 60

After all applicable spaces are filled in, the Operator or his agent must sign the certification in the lower left corner. Categories (2) through (7) apply to "Actual Cost" contracts only.

Under "Fixed Unit Costs" and Category (1) report, (a) the total fixed unit costs of work performed under contract provisions for contribution by the Government on a basis of "fixed unit costs"; and (b) the claimed costs of work performed on a unit-price basis by independent contractors.

Under Category (2) include the claimed costs of all payrolled and invoiced supervisory, technical, and labor personnel, except the costs for services applicable to Categories (5) and (6).

Under Category (3) include the claimed costs of all project materials and supplies other than those used for work under Categories (5) and (6).

Under Category (4) report claimed rentals on equipment belonging to a third party, claimed payments or obligations for payments on the Operator's purchase of equipment, and claimed depreciation for the use of Operator-owned equipment.

Under Categories (5) and (6) include all claimed costs of labor, supervision, technical services, operating materials and supplies, and all other items used in (5) the initial rehabilitation and repairs of existing buildings, fixtures, installations (exclusive of mine workings), and operating equipment; and (6) the installation or construction of new buildings, fixtures, and fixed improvements (exclusive of mine workings). Do not report these costs under Categories (2), (3), (4), and (7).

Under Category (7) include all miscellaneous claimed costs such as repairs (other than initial) and maintenance of equipment, sampling and analysis, travel, communication, accounting, office expenses, and the Operator's share of payroll taxes and insurance.

Except for amounts claimed under "fixed unit costs" provisions of the contract, all costs claimed in this voucher must be supported by documentary evidence consisting of: (a) certified copies or transcripts of payrolls which list each employee, wage rate, period of employment, gross earnings, itemized deductions, and net earnings; (b) original or certified copies of invoices, statements of accounts, or purchase orders which indicate items of materials or services, quantities, unit prices, total charges, and payment terms; and (c) certified memoranda of the Operator for such items as depreciation of Operator-owned equipment, unemployment taxes, and employee's liability insurance. The certification may be stated thus, "Certified True Copy (or Transcript)", followed by the signature of the Operator or his agent. One copy of each document should accompany the original of this voucher.

The requirement for submitting documentary evidence of claimed costs may be waived by the OME regional Executive Officer if he determines that it is impracticable for an Operator to submit this material. In any case of waiver of this requirement an "on-site" audit by an OME auditor is mandatory prior to payment of the final Operator's Monthly Voucher.

MME FORM 61
SEPT. 1959

RECEIVED
AUG 21 1963
U.S. WASH.

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

OPERATOR'S PROGRESS REPORT For Month of July, 1963 Docket No. 6148

Operator's Name LITTLE SQUAW MINING COMPANY Contract No. 14-23-090- 2140

OPERATION	UNITS	FOR OPERATOR'S USE: UNITS THIS MONTH	UNITS TO DATE	COSTS TO DATE	FOR GOVERNMENT USE: APPROVED UNITS THIS MONTH	APPROVED UNITS TO DATE	APPROVED COSTS TO DATE
Drifting	feet	142	473	28,853.00	74 [1]	295	17,995.00
Crosscutting	"	4	26	1,586.00	2 [1]	22	1,342.00
Raising							
Shafts							
Winzes							
Other Underground							
Drilling, Core-Diamond							
Rotary							
Drilling, Non-core-Diamond							
Rotary							
Churn							
Percussion	feet	208	241	241.00	152 [1]	185	185.00
Miscellaneous							
Roads and Trails							
Stripping							
Trenching	hours	100	980	23,345.00	100	980 [2]	23,345.00
Test Pitting							
Other Surface Work							
Initial Rehabilitation and Repairs							
Rehabilitation of Mine Workings							
New Buildings, Fixtures, etc.							
Operating Equipment Purchases							
Analytical Work				99.00			99.00
TOTAL TO DATE (per MME Form 60)				54,124.00			

REMARKS

(Continue on back)

REMARKS
[1] 200 level E Drift: 68 ft drifting, 2 ft x-cut, 56 ft percussion drilling not yet approved. See June MME-61 Remarks
[2] 330 hrs TD-18 @ $21.50/hr
650 hrs D-8 @ $25.00/hr

(Continue on back)

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 8/21/63 Operator LITTLE SQUAW MINING COMPANY

Per [signature] Title President

A willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction is a criminal offense. (U.S. Code, Title 18, Sec. 1001.)

I certify that the information above is complete and accurate to the best of my knowledge and belief.

Signature [signature]

Title Acting Field Officer, Reg. I
Government Representative

Date AUG 28 1963

(INSTRUCTIONS ON REVERSE)

REMARKS *(Cont.)*

REMARKS *(Cont.)*

INSTRUCTIONS FOR PREPARING OPERATOR'S PROGRESS REPORT, MME FORM 61

This report is the second of the three parts of the Operator's Monthly Report. Submit the original and four copies.

The cost for each operation should be the total of all claimed costs attributable to that type of work with two exceptions, namely—operating equipment purchased and analytical work which are stated separately. For example, drifting costs should be the total of all costs chargeable to drifting including supervision, technical services, timbering (if any), etc. Similarly, drilling costs should include the cost of cementing, reaming, core boxes, etc. This procedure of distribution holds whether the contract was written on an actual cost or a unit cost basis, or some combination of the two. Distribute the cost of such general items as supervision, equipment rented, etc. according to relative footages or on some other conventional basis. The item "Initial Rehabilitation and Repairs" covers all rehabilitation and/or repairs other than the rehabilitation of mine workings.

The item titled "Drilling, Non-core Percussion" includes all drilling performed with wagon, jack-hammer, stoper and mounted drills. The several items labelled "Other" are provided to take care of particular exploration operations not specified on this form.

NARRATIVE REPORT

July, 1963

The Mikado Mine 200' Level East Drift was extended 68' eastward along the footwall of the Mikado shear zone, placing this face approximately beneath trench 1 East. No appreciable quartz was encountered, no samples taken. A 2' crosscut was driven to the north to enable the drilling of a 56' longhole towards the hangingwall. Cuttings from each four feet were collected and sent to the Alaska Department of Mines Assayer at Fairbanks. This East Drift was abandoned at this time due to falling ground, (all rock bolts on hand were used and an additional shipment hasn't arrived to date) and work was continued in the 200 West Drift. Upon completing 74' of advance along the footwall quartz vein, a 2' cross-cut was driven to the north to enable drilling a 60' longhole toward the hangingwall, about thirty feet east of the drift face. Another 60' hole was drilled approximately 55' east of this, and an additional 32' was drilled in the hole started last winter. The quartz in this footwall drift was sampled at 5' intervals and these samples were shipped to the Alaska Assayer, as were the longhole samples. All longholes were sampled at 4' intervals.

Three deep trenches at the Little Squaw Mine were dozed to frost, as were 6 trenches at the Mikado. Mikado Trench 1 West was considerably enlarged to determine the best location for the 100' level portal site. Road was built to this site and equipment and shop building moved up from the 200' level.

All other Mikado trenches appear the same as when mapped last year. The ones worked this month are now deeper and somewhat wider. They will all be deepened further as the ground thaws in August, except trenches 1W, 2W, and 1E, which are completed. At the Little Squaw Mine three trenches below the mine were deepened to frost, these and the rest will be deepened again in August. Frozen quartz and gouge in these trenches indicate that they are on the vein structure.

Breakdown of bulldozer time per trench is as follows:

		D-8 hours	TD-18 hours.
Mikado	1W	30	10
	3W	11	-
	4W	13	-
	5W	6	-
	5E	-	7
	6E	-	8
Little Squaw	2E	-	5
	3E	-	5
	4E	-	5
Totals		60 hrs.	40 hrs.

Assay results will be included with a later report, as soon as they are received from the State assayer.

RECEIVED
AUG 21 1963
U. S. G. S.
SPOKANE, WASH.

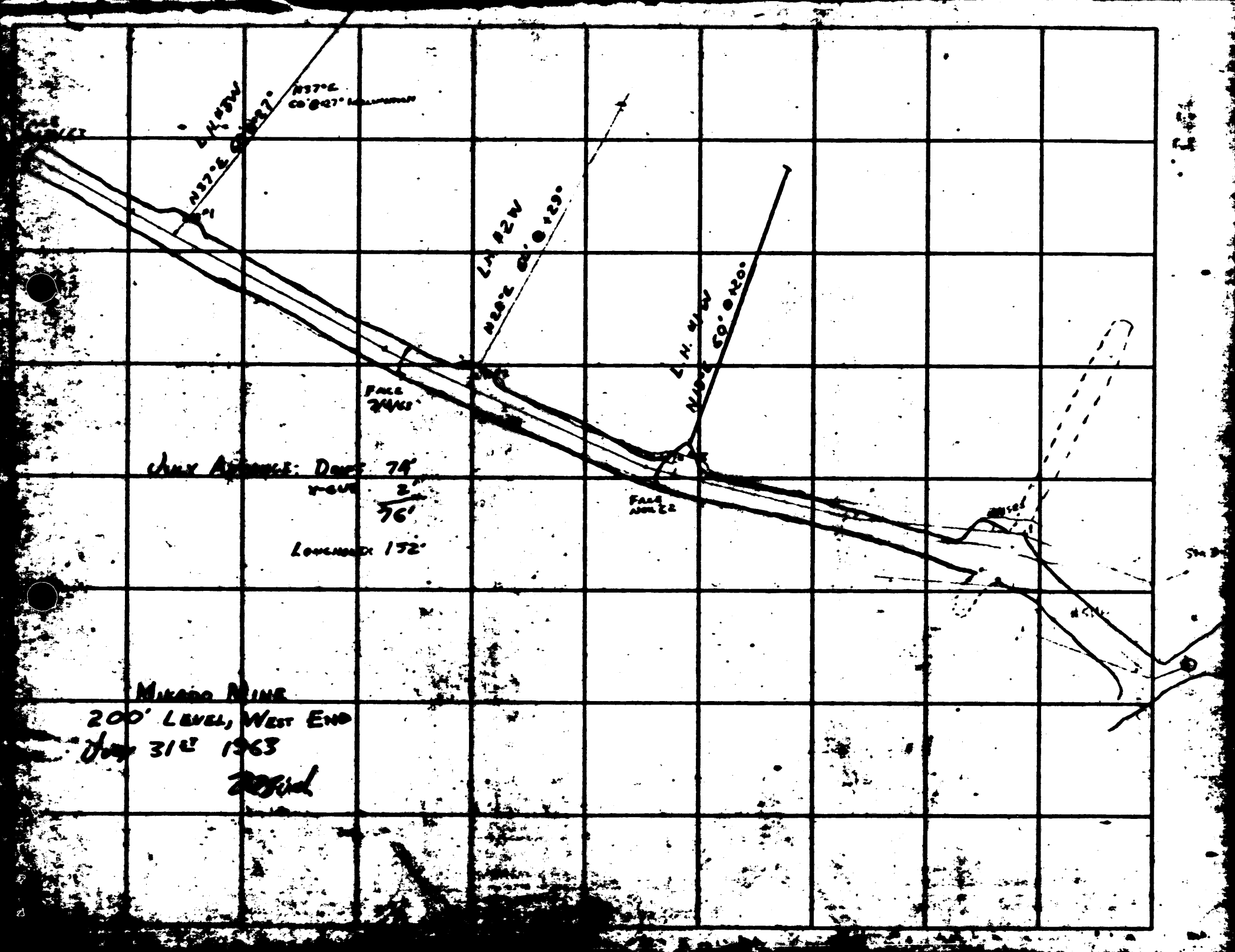
Minutes [illegible]

200' LEVEL EAST

July 31st 1963

[illegible]

[illegible]


L.H. N4°W
N37°E
N37°E
L.H. N2°W
N28°E
L.H. N4°W
N18°E
FALL
FALL
Juny Approach: Dip 74°
76'
Longhole 152°
Mineral Mine
200' Level, West End
June 31st 1963

MME FORM 60
SEPT. 1959

RECEIVED
AUG 21 1963
U.S. WASH.

SEP 2 1963

Greiwold

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

Docket No. 6148
Contract No.
14-23-090- 2140
Contract Amount $ 167,750.00
Gov't. Participation % 50 $ 83,875.00
Mineral(s) gold

OPERATOR'S MONTHLY VOUCHER

For Month of June, 1963

Operator's Name LITTLE SQUAW MINING COMPANY
Address 309 Radio Central Bldg. Spokane, Wash. 99204

COST CATEGORIES	FOR OPERATOR'S USE			FOR GOVERNMENT APPROVAL ONLY		
	MONTHLY TOTAL	PREVIOUSLY REPORTED	TOTALS TO DATE	MONTHLY TOTAL	PREVIOUSLY REPORTED	TOTALS TO DATE
Fixed Unit Costs and						
(1) Independent Contracts:						
Bulldozing		20,985.00	$ 20,985.00			
Drifting	11,346.00	8,845.00	20,191.00	4,636.00		
Crosscutting	244.00	1,098.00	1,342.00	122.00		
Drilling		33.00	33.00			
(2) Personal Services:						
Supervision & Technical						
Outside Consultants						
Labor						
(3) Operating Mat'l. & Supplies:						
Timber						
Explosives						
Pipe						
Rail						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehab. & Repairs:						
Buildings, Fixtures, etc.						
Operating Equipment						
(6) New Buildings, Fixtures, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Analytical Work		99.00	99.00			
Payroll Taxes						
Employee's Liability Ins.						
TOTALS	11,590.00	31,060.00	$42,650.00	4758.00	31,060.00	35,818.00

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 8/21/63 *Payee LITTLE SQUAW MINING COMPANY

Per Karl Jasper Title President

* When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

A willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction is a criminal offense. (U.S. Code, Title 18, Sec. 1001.)

(INSTRUCTIONS ON REVERSE)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 2,379.00

Signature BWB
(Authorized Certifying Officer)

Date 9/9/63 Vou. No. 393-3

(SEE OTHER SIDE)

Certification by Government Representative:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating an exploration project in accordance with the terms of Contract No. 2140

Signature D.R. Macharen Title Acting Field Officer, Reg. I Date AUG 28 1963

Approved by OME Executive Officer or Alternate:

Signature D.R. Macharen Title Acting Field Officer, Reg. I Date AUG 28 1963

OPERATOR'S MONTHLY REPORT

The Operator, under an Office of Minerals Exploration contract, is required to report monthly to the Government. The report consists of three parts.

FIRST, the Operator's Monthly Voucher on MME Form 60 listing the project costs incurred and claimed by the Operator is the voucher basis for payment of the Government's share of the cost.

SECOND, the Operator's Progress Report on MME Form 61 is a statistical report of the units and cost of of work performed under the contract.

THIRD, the Operator's Narrative Report is a concise description of the work performed, results accomplished, and any unusual situations encountered, illustrated and supported by engineering-geological maps or sketches, drill hole logs, assay reports, etc., as pertinent.

The Operator submits the original and four copies of each of the three sections of this report to the OME regional Executive Officer at the end of each month during the life of the contract.

PREPARATION OF OPERATOR'S MONTHLY VOUCHER, MME FORM 60

After all applicable spaces are filled in, the Operator or his agent must sign the certification in the lower left corner. Categories (2) through (7) apply to "Actual Cost" contracts only.

Under "Fixed Unit Costs" and Category (1) report, (a) the total fixed unit costs of work performed under contract provisions for contribution by the Government on a basis of "fixed unit costs"; and (b) the claimed costs of work performed on a unit-price basis by independent contractors.

Under Category (2) include the claimed costs of all payrolled and invoiced supervisory, technical, and labor personnel, except the costs for services applicable to Categories (5) and (6).

Under Category (3) include the claimed costs of all project materials and supplies other than those used for work under Categories (5) and (6).

Under Category (4) report claimed rentals on equipment belonging to a third party, claimed payments or obligations for payments on the Operator's purchase of equipment, and claimed depreciation for the use of Operator-owned equipment.

Under Categories (5) and (6) include all claimed costs of labor, supervision, technical services, operating materials and supplies, and all other items used in (5) the initial rehabilitation and repairs of existing buildings, fixtures, installations (exclusive of mine workings), and operating equipment; and (6) the installation or construction of new buildings, fixtures, and fixed improvements (exclusive of mine workings). Do not report these costs under Categories (2), (3), (4), and (7).

Under Category (7) include all miscellaneous claimed costs such as repairs (other than initial) and maintenance of equipment, sampling and analysis, travel, communication, accounting, office expenses, and the Operator's share of payroll taxes and insurance.

Except for amounts claimed under "fixed unit costs" provisions of the contract, all costs claimed in this voucher must be supported by documentary evidence consisting of: (a) certified copies or transcripts of payrolls which list each employee, wage rate, period of employment, gross earnings, itemized deductions, and net earnings; (b) original or certified copies of invoices, statements of accounts, or purchase orders which indicate items of materials or services, quantities, unit prices, total charges, and payment terms; and (c) certified memoranda of the Operator for such items as depreciation of Operator-owned equipment, unemployment taxes, and employee's liability insurance. The certification may be stated thus, "Certified True Copy (or Transcript)", followed by the signature of the Operator or his agent. One copy of each document should accompany the original of this voucher.

The requirement for submitting documentary evidence of claimed costs may be waived by the OME regional Executive Officer if he determines that it is impracticable for an Operator to submit this material. In any case of waiver of this requirement an "on-site" audit by an OME auditor is mandatory prior to payment of the final Operator's Monthly Voucher.

MME FORM 61
SEPT. 1959

RECEIVED
AUG 21 1963

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

OPERATOR'S PROGRESS REPORT For Month of June, 1963 Docket No. ~~6140~~ 6148

Operator's Name LITTLE SQUAW MINING COMPANY Contract No. 14-23-090- ~~2140~~

OPERATION	UNITS	FOR OPERATOR'S USE: UNITS THIS MONTH	UNITS TO DATE	COSTS TO DATE	FOR GOVERNMENT USE: APPROVED UNITS THIS MONTH	APPROVED UNITS TO DATE	APPROVED COSTS TO DATE
Drifting	feet	186	331	$20,191.00	76 [1]	221	13461.00
Crosscutting	"	4	22	1,342.00	2 [1]	20	1,220.00
Raising							
Shafts							
Winzes							
Other Underground							
Drilling, Core-Diamond							
Rotary							
Drilling, Non-core-Diamond							
Rotary							
Churn							
Percussion	feet	none	33	33.00	—	33	33.00
Miscellaneous							
Roads and Trails							
Stripping					—	290 [2]	6,235.00
Trenching	hours	none	880	20,985.00	—	590 [2]	14,750.00
Test Pitting							
Other Surface Work							
Initial Rehabilitation and Repairs							
Rehabilitation of Mine Workings							
New Buildings, Fixtures, etc.							
Operating Equipment Purchases							
Analytical Work				99.00			99.00
TOTAL TO DATE *(per MME Form 60)*				$ 42,650.00			35,818.00

REMARKS

(Continue on back)

REMARKS
[1] Only 10 ft of 200 E. drift conforms to Work Authorization dated July 2, 1963. Remaining 110 ft of drift and 2 ft. of x-cut may later be reinstated if Operator justifies new Authorization
Other drift and x-cut claims approved

(Continue on back) (over)

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date 8/21/63 Operator LITTLE SQUAW MINING COMPANY

Per Karl W Jaspen Title President

A willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction is a criminal offense. (U.S. Code, Title 18, Sec. 1001.)

I certify that the information above is complete and accurate to the best of my knowledge and belief.

Signature [illegible]

Title Acting Field Officer Reg. I
Government Representative

Date AUG 28 1963

(INSTRUCTIONS ON REVERSE)

REMARKS (Cont.)

REMARKS (Cont.)

[2] See Remarks Sept-Nov. MME Form 61

There is a typographic error in par. 3 of Narrative Report. Map clearly indicates this is 200 level W, not 100 level W

INSTRUCTIONS FOR PREPARING OPERATOR'S PROGRESS REPORT, MME FORM 61

This report is the second of the three parts of the Operator's Monthly Report. Submit the original and four copies.

The cost for each operation should be the total of all claimed costs attributable to that type of work with two exceptions, namely—operating equipment purchased and analytical work which are stated separately. For example, drifting costs should be the total of all costs chargeable to drifting including supervision, technical services, timbering (if any), etc. Similarly, drilling costs should include the cost of cementing, reaming, core boxes, etc. This procedure of distribution holds whether the contract was written on an actual cost or a unit cost basis, or some combination of the two. Distribute the cost of such general items as supervision, equipment rented, etc. according to relative footages or on some other conventional basis. The item "Initial Rehabilitation and Repairs" covers all rehabilitation and/or repairs other than the rehabilitation of mine workings.

The item titled "Drilling, Non-core Percussion" includes all drilling performed with wagon, jack-hammer, stoper and mounted drills. The several items labelled "Other" are provided to take care of particular exploration operations not specified on this form.

NARRATIVE REPORT

June, 1963

The Mikado Mine 100' Level drift was extended 16' eastward along the hanging wall, in the Mikado shear zone. A turn to the south in this drift forced its abandonment due to inability to slush muck on this level around a curve economically with the equipment available. This drift will be continued when it is holed from the surface. ?

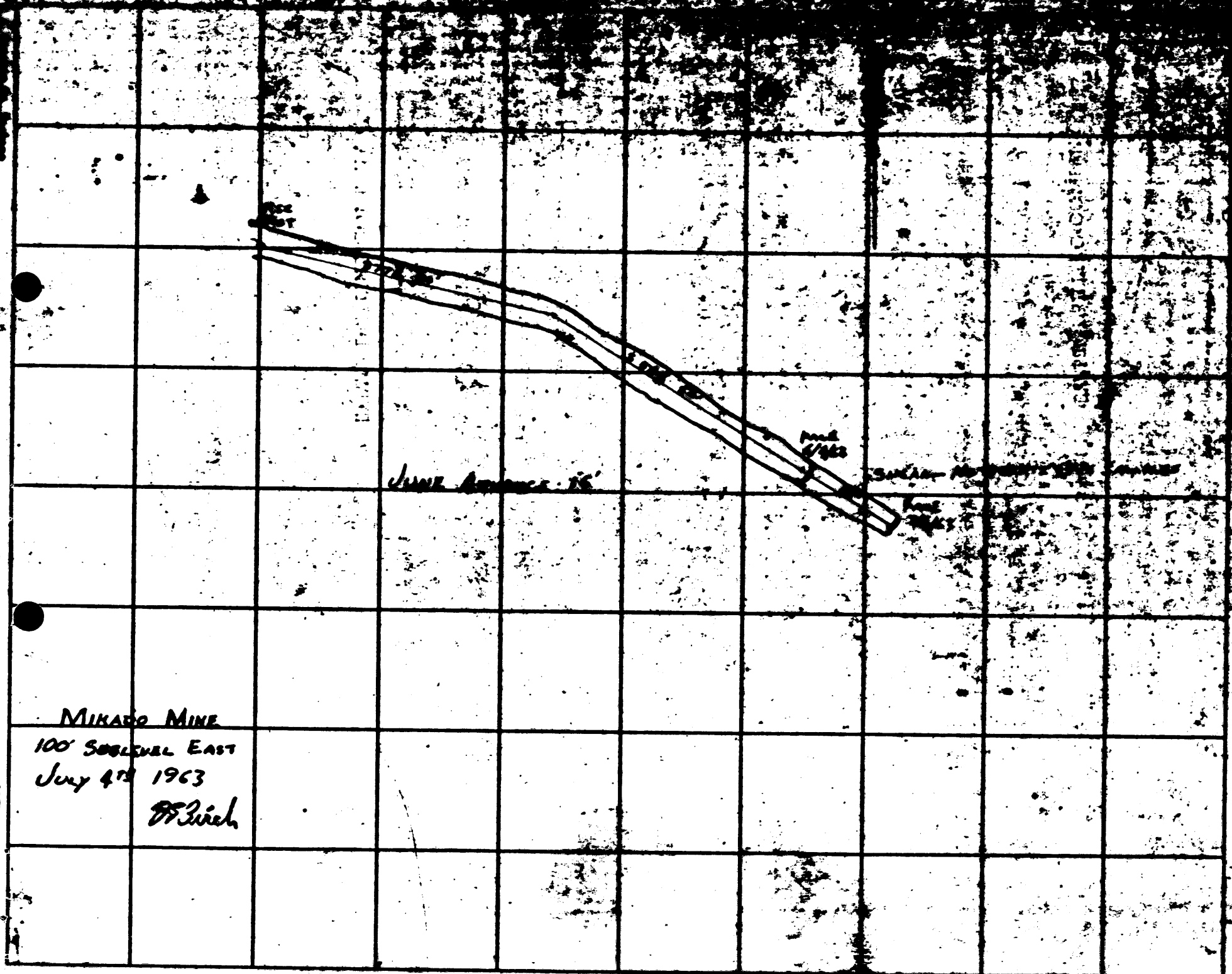
The 200' Level East drift was advanced diagonally across the shear zone to the footwall, and a two foot heading cut in the rib of the drift at the footwall as a cross-cut to furnish room for longhole drilling back across the shear in the event there is insufficient time for additional advance in this drift. No mineralized quartz was encountered in this work, and no samples taken.

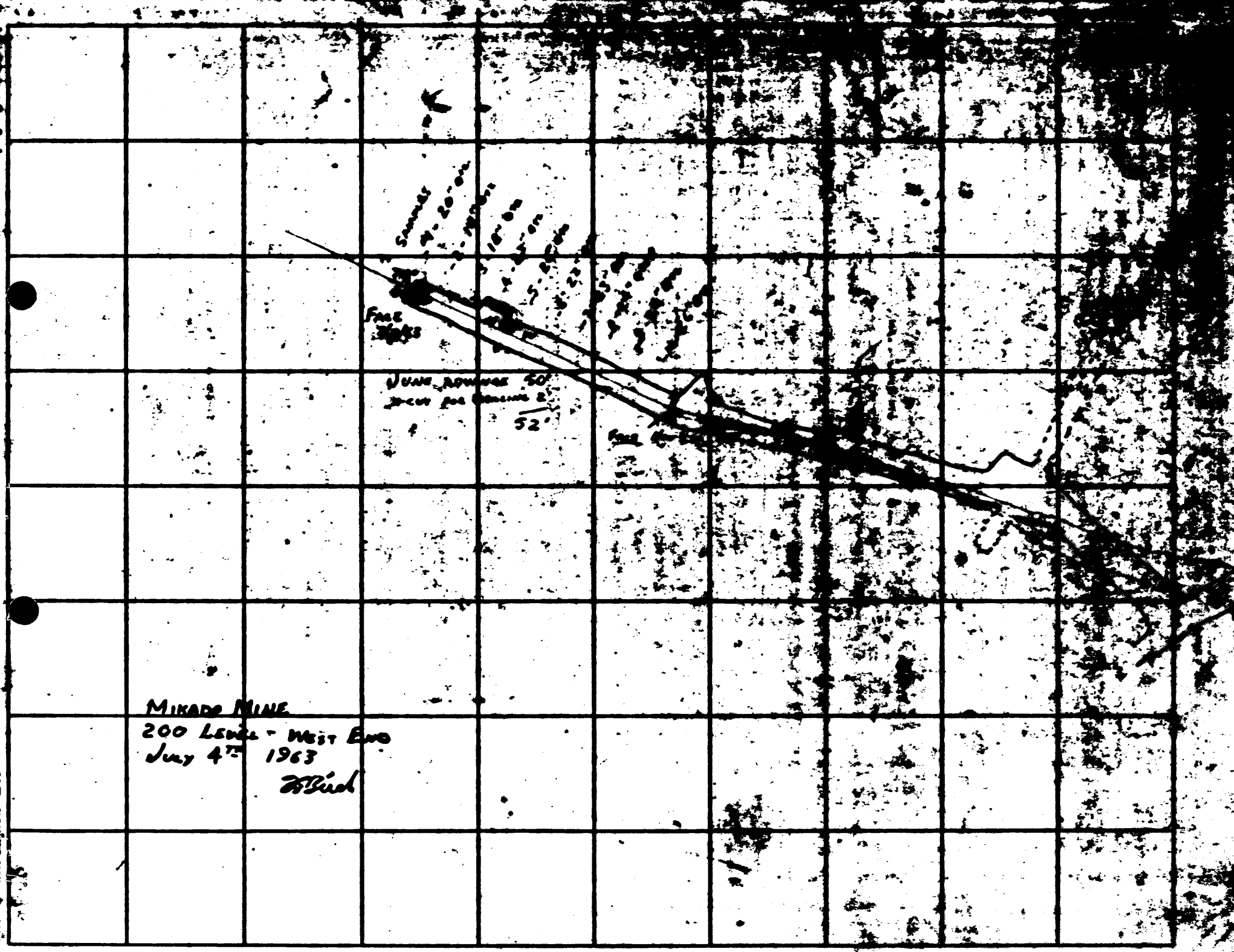
The 100' Level East drift was advanced 50' along a strong footwall vein of what has been well mineralized but low grade quartz. A 2' cross-cut was taken in the rib as shown on the accompanying sketch, to facilitate longhole drilling to the hanging wall. Samples of the quartz were taken at 5' intervals and shipped to the Alaska Department of Mines Assayer in Fairbanks.

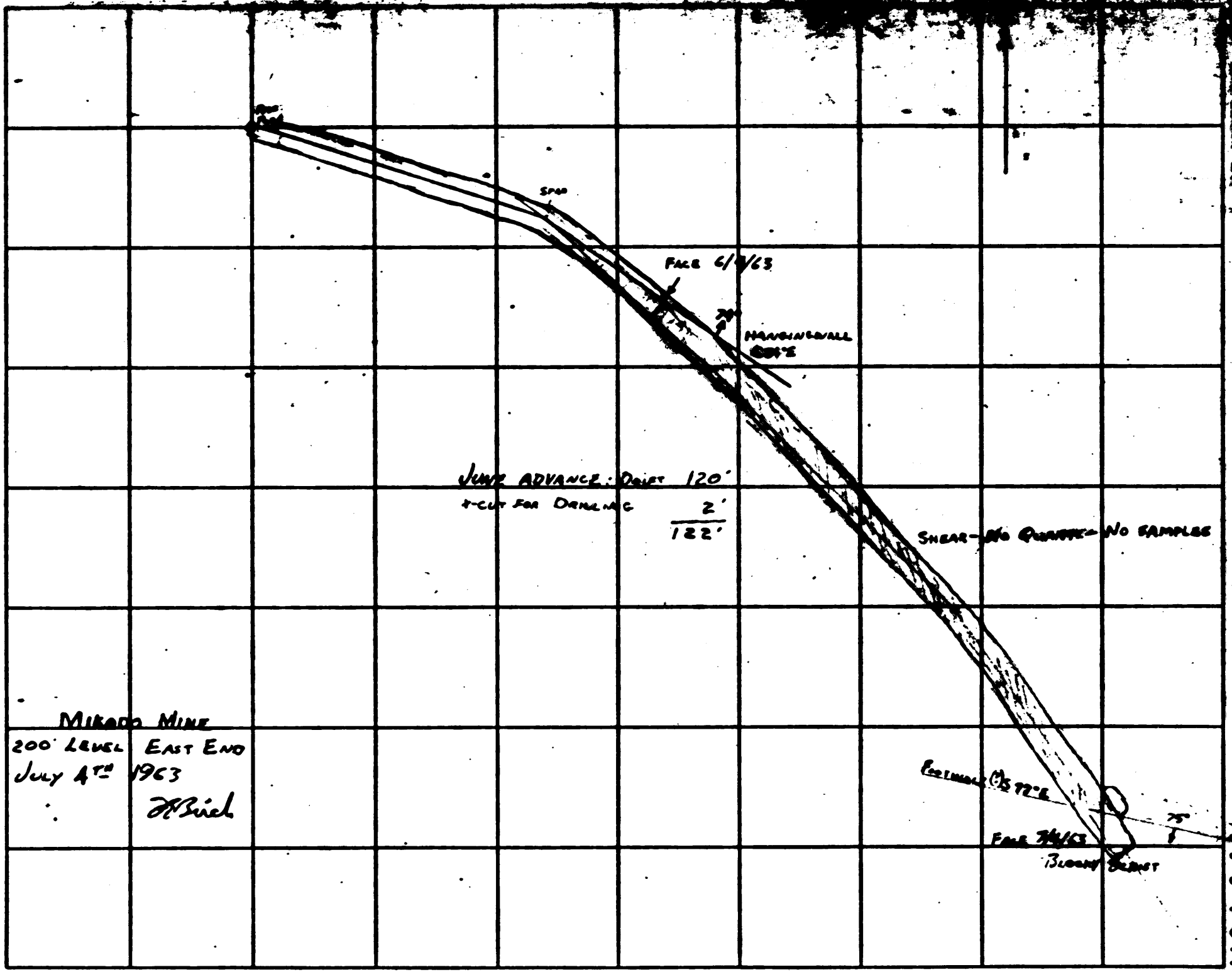
There was no trenching during the month, the rest of the crew and equipment being tied up completing a 4,500' landing field at Chandalar Lake, and working on the road connecting this field to the Mikado Mine.

Assay results for samples shown will be included with a following report, as soon as it is received from the Alaska Department of Mines Assayer.

RECEIVED
AUG 21 1963
U. S. S.
SUCCANT, WASH.


MIKADO MINE
100' SOUTHEAST
JULY 4TH 1963


Face
52'
MIKADO MINE
200 LEVEL - WEST END
JULY 4TH 1963


SPOT
FACE 6/8/63
HANGINGWALL
JUNE ADVANCE: DRIFT 120'
+CUT FOR DRILLING 2'
122'
SHEAR — NO QUARTZ — NO SAMPLES
FOOTWALL
FACE 7/4/63
BLOCKY BREAST
MIKADO MINE
200' LEVEL EAST END
JULY 4TH 1963
J H Birch

MME FORM-60
SEPT. 1959

JUN 27 1963

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

Docket No. 6148
Contract No. 14-23-090-2140
Contract Amount $ 167,750.00
Gov't. Participation % 50 $ 83,875.00
Mineral(s) Gold

OPERATOR'S MONTHLY VOUCHER

For Month of May, 1963

Operator's Name LITTLE SQUAW MINING COMPANY
Address 309 Radio Central Bldg., Spokane 4, Wash.

COST CATEGORIES	FOR OPERATOR'S USE			FOR GOVERNMENT APPROVAL ONLY		
	MONTHLY TOTAL	PREVIOUSLY REPORTED	TOTALS TO DATE	MONTHLY TOTAL	PREVIOUSLY REPORTED	TOTALS TO DATE
Fixed Unit Costs and						
(1) Independent Contracts:						
Bulldozing		$20,985.00	$ 20,985.00			
Drifting	$5,307.00	3,538.00	8,845.00			
Crosscutting		1,098.00	1,098.00			
Drilling		33.00	33.00			
(2) Personal Services:						
Supervision & Technical						
Outside Consultants						
Labor						
(3) Operating Mat'l. & Supplies:						
Timber						
Explosives						
Pipe						
Rail						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehab. & Repairs:						
Buildings, Fixtures, etc.						
Operating Equipment						
(6) New Buildings, Fixtures, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Analytical Work		99.00	99.00			
Payroll Taxes						
Employee's Liability Ins.						
TOTALS	$5,307.00	$25,753.00	$ 31,060.00	5,307.00	25,753.00	31,060.00

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 6/18/63 *Payee Little Squaw Mining Company

Per [signature] Title President

* When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

A willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction is a criminal offense. (U.S. Code, Title 18, Sec. 1001.)

(INSTRUCTIONS ON REVERSE)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 2,653.50

Signature BJB
(Authorized Certifying Officer)

Date 6/24/63 Vou. No. 6727

(SEE OTHER SIDE)

Certification by Government Representative:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating an exploration project in accordance with the terms of Contract No. 2140

Signature O.R. Zachasen Title Acting Field Officer, Reg. I Date JUN 19 1963

Approved by OME Executive Officer or Alternate:

Signature O.R. Zachasen Title Acting Field Officer, Reg. I Date JUN 19 1963

OPERATOR'S MONTHLY REPORT

The Operator, under an Office of Minerals Exploration contract, is required to report monthly to the Government. The report consists of three parts.

FIRST, the Operator's Monthly Voucher on MME Form 60 listing the project costs incurred and claimed by the Operator is the voucher basis for payment of the Government's share of the cost.

SECOND, the Operator's Progress Report on MME Form 61 is a statistical report of the units and cost of of work performed under the contract.

THIRD, the Operator's Narrative Report is a concise description of the work performed, results accomplished, and any unusual situations encountered, illustrated and supported by engineering-geological maps or sketches, drill hole logs, assay reports, etc., as pertinent.

The Operator submits the original and four copies of each of the three sections of this report to the OME regional Executive Officer at the end of each month during the life of the contract.

PREPARATION OF OPERATOR'S MONTHLY VOUCHER, MME FORM 60

After all applicable spaces are filled in, the Operator or his agent must sign the certification in the lower left corner. Categories (2) through (7) apply to "Actual Cost" contracts only.

Under "Fixed Unit Costs" and Category (1) report, (a) the total fixed unit costs of work performed under contract provisions for contribution by the Government on a basis of "fixed unit costs"; and (b) the claimed costs of work performed on a unit-price basis by independent contractors.

Under Category (2) include the claimed costs of all payrolled and invoiced supervisory, technical, and labor personnel, except the costs for services applicable to Categories (5) and (6).

Under Category (3) include the claimed costs of all project materials and supplies other than those used for work under Categories (5) and (6).

Under Category (4) report claimed rentals on equipment belonging to a third party, claimed payments or obligations for payments on the Operator's purchase of equipment, and claimed depreciation for the use of Operator-owned equipment.

Under Categories (5) and (6) include all claimed costs of labor, supervision, technical services, operating materials and supplies, and all other items used in (5) the initial rehabilitation and repairs of existing buildings, fixtures, installations (exclusive of mine workings), and operating equipment; and (6) the installation or construction of new buildings, fixtures, and fixed improvements (exclusive of mine workings). Do not report these costs under Categories (2), (3), (4), and (7).

Under Category (7) include all miscellaneous claimed costs such as repairs (other than initial) and maintenance of equipment, sampling and analysis, travel, communication, accounting, office expenses, and the Operator's share of payroll taxes and insurance.

Except for amounts claimed under "fixed unit costs" provisions of the contract, all costs claimed in this voucher must be supported by documentary evidence consisting of: (a) certified copies or transcripts of payrolls which list each employee, wage rate, period of employment, gross earnings, itemized deductions, and net earnings; (b) original or certified copies of invoices, statements of accounts, or purchase orders which indicate items of materials or services, quantities, unit prices, total charges, and payment terms; and (c) certified memoranda of the Operator for such items as depreciation of Operator-owned equipment, unemployment taxes, and employee's liability insurance. The certification may be stated thus, "Certified True Copy (or Transcript)", followed by the signature of the Operator or his agent. One copy of each document should accompany the original of this voucher.

The requirement for submitting documentary evidence of claimed costs may be waived by the OME regional Executive Officer if he determines that it is impracticable for an Operator to submit this material. In any case of waiver of this requirement an "on-site" audit by an OME auditor is mandatory prior to payment of the final Operator's Monthly Voucher.

MME FORM 61
SEPT. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

OPERATOR'S PROGRESS REPORT For Month of May, 1963 Docket No. 6148

Operator's Name LITTLE SQUAW MINING COMPANY Contract No. 14-23-090-2140

OPERATION	UNITS	FOR OPERATOR'S USE: UNITS THIS MONTH	UNITS TO DATE	COSTS TO DATE	FOR GOVERNMENT USE: APPROVED UNITS THIS MONTH	APPROVED UNITS TO DATE	APPROVED COSTS TO DATE
Drifting	feet	87	145	$8,845.00	87	145	$8,845.00
Crosscutting	"		18	1,098.00	—	18	1,098.00
Raising							
Shafts							
Winzes							
Other Underground							
Drilling, Core-Diamond							
Rotary							
Drilling, Non-core-Diamond							
Rotary							
Churn							
Percussion	feet		33	33.00	—	33	33.00
Miscellaneous							
Roads and Trails							
Stripping						290	6,235.00
Trenching	hours	none	880	20,995.00	—	590	14,750.00
Test Pitting							
Other Surface Work							
Initial Rehabilitation and Repairs							
Rehabilitation of Mine Workings							
New Buildings, Fixtures, etc.							
Operating Equipment Purchases							
Analytical Work				99.00			99.00
TOTAL TO DATE (per MME Form 60)				$31,060.00			$31,060.00

REMARKS

(Continue on back)

REMARKS

(Continue on back)

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date June 18, 1963 Operator Little Squaw Mining Co.

Per Karl W Jasper Title President

A willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction is a criminal offense. (U.S. Code, Title 18, Sec. 1001.)

I certify that the information above is complete and accurate to the best of my knowledge and belief.

Signature D R Mackaren

Title Acting Field Officer, Reg. I
Government Representative

Date JUN 19 1963

(INSTRUCTIONS ON REVERSE)

REMARKS *(Cont.)*

REMARKS *(Cont.)*

INSTRUCTIONS FOR PREPARING OPERATOR'S PROGRESS REPORT, MME FORM 61

This report is the second of the three parts of the Operator's Monthly Report. Submit the original and four copies.

The cost for each operation should be the total of all claimed costs attributable to that type of work with two exceptions, namely—operating equipment purchased and analytical work which are stated separately. For example, drifting costs should be the total of all costs chargeable to drifting including supervision, technical services, timbering (if any), etc. Similarly, drilling costs should include the cost of cementing, reaming, core boxes, etc. This procedure of distribution holds whether the contract was written on an actual cost or a unit cost basis, or some combination of the two. Distribute the cost of such general items as supervision, equipment rented, etc. according to relative footages or on some other conventional basis. The item "Initial Rehabilitation and Repairs" covers all rehabilitation and/or repairs other than the rehabilitation of mine workings.

The item titled "Drilling, Non-core Percussion" includes all drilling performed with wagon, jack-hammer, stoper and mounted drills. The several items labelled "Other" are provided to take care of particular exploration operations not specified on this form.

INT.DUP.,D.C.59- 61577

OME DOCKET NO. 6148
LITTLE SQUAW MINING CO.

NARRATIVE DESCRIPTION
to June 4, 1963

Work at Chandalar Lake began in early April with tune-up of equipment and clearing the ice for a 5,000 foot by 100 foot landing field and for freighting. During April and early May approximately 75 tons were air freighted to Chandalar Lake from Fairbanks and hauled by bulldozer to the base camp at Big Creek for summer bulldozer trenching on the Little Squaw and Mikado zones, and to the Mikado camp where underground work began on about May 9.

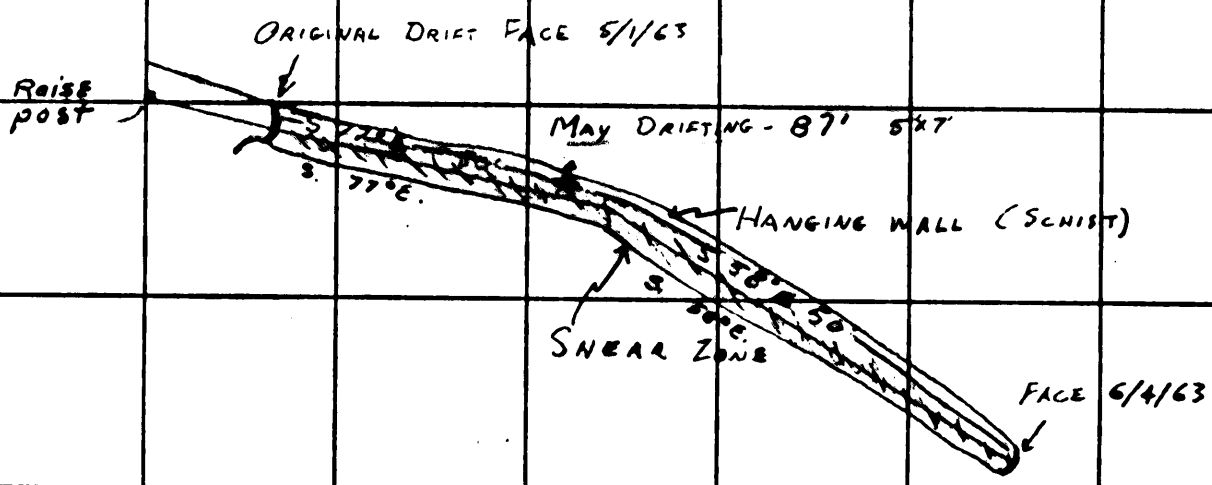
By that time five men and a cook were working, mainly on equipment repair and on the land airport at Chandalar Lake, and two men were cutting stulls and reopening the Mikado preparatory to the start of drifting.

Since early May bulldozer operators and mechanics have been working 10-hour shifts seven days a week, with D-8s and D-8 and 12 yd. carry-all, working two ten-hour shifts daily and a TD-18 intermittently. In late June three D-8s and one TD-18 will move ten miles inland to the Big Creek camp for bulldozer trenching in hopes that that can be completed by mid-August.

At the Mikado 87' of drifting was completed with no quartz material found in the drift, as described on the accompanying sheet. Before the shear zone has been crosscut by long hole drilling and by crosscut drift no assayable material will be available unless drifting gets back on to the quartz material visible in cuts above the drifting and found elsewhere in the shear zone.

Narrative Report

Mikado Mine 100' Level drift was advanced 87' East along the hanging wall of the Mikado shear zone, from a point 15' east of the main transfer raise, (see sketch). No quartz has been encountered. Hanging wall and shear zone appear quite distinctly in the drift. There was no apparent mineralization to be sampled. Accompanying sketch shows direction and extent of advance reported.



MIKADO MINE
100' SUBLEVEL
JUNE 4TH 1963
B.E. Birch

1" = 20'

J. A. Gendron Co., Spokane

STAGE II

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

MAY 15 1963 O.M.E.

Docket No. OME 6148
Com. No. 2140
14-23-090
Contract Amount
Gov't Participation % $

OPERATOR'S MONTHLY VOUCHER

For Month of Sept. - Nov, 1962 inclusive

Operator's Name LITTLE SQUAW MINING CO.
Address 309 Radio Central Bldg. Spokane 4, Wash.

COST CATEGORIES	FOR OPERATOR'S USE: MONTHLY TOTAL	PREVIOUSLY REPORTED	TOTALS TO DATE	FOR GOVERNMENT APPROVAL ONLY: MONTHLY TOTAL	PREVIOUSLY REPORTED	TOTALS TO DATE
Fixed Unit Costs and						
(1) Independent Contracts:						
Bulldozing						
Drifting						
Crosscutting						
Drilling						
(2) Personal Services:						
Supervision & Technical			$2,640.00			
Outside Consultants						
Labor			3,470.66			
(3) Operating Mat'l. & Supplies:						
Timber						
Explosives			431.45			
Pipe			24.25			
Rail			92.52			
shop & mine supplies			465.33			
fuel & lub.			1,304.92			
equipment parts			77.55			
engineering supplies			48.87			
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation			593.78			
(5) Initial Rehab. & Repairs:						
Buildings, Fixtures, etc.						
Operating Equipment						
(6) New Buildings, Fixtures, etc.						
(7) Miscellaneous:						
Repairs to Equipment (outside repairs)			400.33			
xxxxxxxxxxx accounting			205.53			
xxxxxxxxxxx Board			22.36			
Employee's Liability Ins.			562.10			
Trans. of Personnel			521.26			
Board charges			- 417.00			
Excess Costs			- 5,774.91			
TOTALS			4,669.00	4,669.00	—	4,669.00

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Jan. 25, 1963 * Payee Little Squaw Mining Co.

Per Karl Jasper Title president

* When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

A willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction is a criminal offense. (U.S. Code, Title 18, Sec. 1001.)

(INSTRUCTIONS ON REVERSE)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 2,334.50

Signature BWB
(Authorized Certifying Officer)

Date 5/10/63 Vou. No. 5880

(SEE OTHER SIDE)

Certification by Government Representative:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating an exploration project in accordance with the terms of Contract No. 2140 Amended

Signature D.R. Macharon Title Acting Field Officer Date APR 30 1963

Approved by OME Executive Officer or Alternate:

Signature D.R. Macharon Title Acting Field Officer Date APR 30 1963

OPERATOR'S MONTHLY REPORT

The Operator, under an Office of Minerals Exploration contract, is required to report monthly to the Government. The report consists of three parts.

FIRST, the Operator's Monthly Voucher on MME Form 60 listing the project costs incurred and claimed by the Operator is the voucher basis for payment of the Government's share of the cost.

SECOND, the Operator's Progress Report on MME Form 61 is a statistical report of the units and cost of of work performed under the contract.

THIRD, the Operator's Narrative Report is a concise description of the work performed, results accomplished, and any unusual situations encountered, illustrated and supported by engineering-geological maps or sketches, drill hole logs, assay reports, etc., as pertinent.

The Operator submits the original and four copies of each of the three sections of this report to the OME regional Executive Officer at the end of each month during the life of the contract.

PREPARATION OF OPERATOR'S MONTHLY VOUCHER, MME FORM 60

After all applicable spaces are filled in, the Operator or his agent must sign the certification in the lower left corner. Categories (2) through (7) apply to "Actual Cost" contracts only.

Under "Fixed Unit Costs" and Category (1) report, (a) the total fixed unit costs of work performed under contract provisions for contribution by the Government on a basis of "fixed unit costs"; and (b) the claimed costs of work performed on a unit-price basis by independent contractors.

Under Category (2) include the claimed costs of all payrolled and invoiced supervisory, technical, and labor personnel, except the costs for services applicable to Categories (5) and (6).

Under Category (3) include the claimed costs of all project materials and supplies other than those used for work under Categories (5) and (6).

Under Category (4) report claimed rentals on equipment belonging to a third party, claimed payments or obligations for payments on the Operator's purchase of equipment, and claimed depreciation for the use of Operator-owned equipment.

Under Categories (5) and (6) include all claimed costs of labor, supervision, technical services, operating materials and supplies, and all other items used in (5) the initial rehabilitation and repairs of existing buildings, fixtures, installations (exclusive of mine workings), and operating equipment; and (6) the installation or construction of new buildings, fixtures, and fixed improvements (exclusive of mine workings). Do not report these costs under Categories (2), (3), (4), and (7).

Under Category (7) include all miscellaneous claimed costs such as repairs (other than initial) and maintenance of equipment, sampling and analysis, travel, communication, accounting, office expenses, and the Operator's share of payroll taxes and insurance.

Except for amounts claimed under "fixed unit costs" provisions of the contract, all costs claimed in this voucher must be supported by documentary evidence consisting of: (a) certified copies or transcripts of payrolls which list each employee, wage rate, period of employment, gross earnings, itemized deductions, and net earnings; (b) original or certified copies of invoices, statements of accounts, or purchase orders which indicate items of materials or services, quantities, unit prices, total charges, and payment terms; and (c) certified memoranda of the Operator for such items as depreciation of Operator-owned equipment, unemployment taxes, and employee's liability insurance. The certification may be stated thus, "Certified True Copy (or Transcript)", followed by the signature of the Operator or his agent. One copy of each document should accompany the original of this voucher.

The requirement for submitting documentary evidence of claimed costs may be waived by the OME regional Executive Officer if he determines that it is impracticable for an Operator to submit this material. In any case of waiver of this requirement an "on-site" audit by an OME auditor is mandatory prior to payment of the final Operator's Monthly Voucher.

MME FORM 6.1
SEPT. 1959

STAGE II

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

OPERATOR'S PROGRESS REPORT For Month of Sept. - Nov. Inclusive Docket No. OME 6148

Operator's Name Little Squaw Mining Co. Contract No. 14-23-090- 2140

OPERATION	UNITS	FOR OPERATOR'S USE: UNITS THIS MONTH	UNITS TO DATE	COSTS TO DATE	FOR GOVERNMENT USE: APPROVED UNITS THIS MONTH	APPROVED UNITS TO DATE	APPROVED COSTS TO DATE
Drifting	feet		58 ?	3538.00	58	58	$ 3,538.00
Crosscutting	feet		18	1098.00	18	18	1,098.00
Raising							
Shafts							
Winzes							
Other Underground							
Drilling, Core-Diamond							
Rotary							
Drilling, Non-core-Diamond							
Rotary							
Churn							
Percussion	feet		33	33.00	33	33	33.00
Miscellaneous							
Roads and Trails							
Stripping					~~290~~ L	290 L	6,235.00
Trenching					~~590~~ L	590 L	19,750.00
Test Pitting							
Other Surface Work							
Initial Rehabilitation and Repairs							
Rehabilitation of Mine Workings							
New Buildings, Fixtures, etc.							
Operating Equipment Purchases							
Analytical Work							99.00 L
TOTAL TO DATE (per MME Form 60)				$4,669.00			$ 25,753.00

REMARKS

(Continue on back)

REMARKS

L Approved July - September 1962 voucher under Stage I

(Continue on back)

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date Jan. 25, 1963 Operator Little Squaw Mining Co.

Per Kalyjasper Title President

A willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction is a criminal offense. (U.S. Code, Title 18, Sec. 1001.)

I certify that the information above is complete and accurate to the best of my knowledge and belief.

Signature D. Wackaren

Title Acting Field Officer
Government Representative

Date APR 30 1963

(INSTRUCTIONS ON REVERSE)

REMARKS *(Cont.)*

REMARKS *(Cont.)*

INSTRUCTIONS FOR PREPARING OPERATOR'S PROGRESS REPORT, MME FORM 61

This report is the second of the three parts of the Operator's Monthly Report. Submit the original and four copies.

The cost for each operation should be the total of all claimed costs attributable to that type of work with two exceptions, namely—operating equipment purchased and analytical work which are stated separately. For example, drifting costs should be the total of all costs chargeable to drifting including supervision, technical services, timbering (if any), etc. Similarly, drilling costs should include the cost of cementing, reaming, core boxes, etc. This procedure of distribution holds whether the contract was written on an actual cost or a unit cost basis, or some combination of the two. Distribute the cost of such general items as supervision, equipment rented, etc. according to relative footages or on some other conventional basis. The item "Initial Rehabilitation and Repairs" covers all rehabilitation and/or repairs other than the rehabilitation of mine workings.

The item titled "Drilling, Non-core Percussion" includes all drilling performed with wagon, jack-hammer, stoper and mounted drills. The several items labelled "Other" are provided to take care of particular exploration operations not specified on this form.

INT.DUP.,D.C.59- 61577

EXPLANATION

STAGE II

With regard to the enclosed Distribution of Costs statement for Stage II work at the Mikado Mine during the months of September, October and November, 1962, all efforts exerted in the district during the described period were directed solely toward accomplishing the exploration drift, crosscut and drilling described. All supplies taken to the camp were exhausted, and additional requirements were taken from stores cached in the camp. We have no warehouse in the area, all supplies being charged directly to the exploration project as they are purchased, and with the exception of pipe, rail, powder, fuel and lubricants, there are no excess supplies purchased, - just minimum requirements.

Buildings in the area are all temporary, being minimum shelter required in the area for this project; compressor house and shop are plank, canvas and tarpaper affairs erected at minimum expense, requiring annual recovering or rebuilding, depending on severity of winter wind and the degree of slump on the unstable mountainside and new dump which is the foundation. More permanent buildings with solid foundation will be put up as camp development when ore reserves and cash on hand justify the expenditure, but are not requirements for an exploration program of this size.

The Mikado is a three man camp consisting of two small house trailers, one tent, and the above mentioned compressor house-shop, which is a 12' x 14' tent over a solid 2" lagging frame. Power plant is a 165 cfm diesel powered compressor which is sufficient to operate one machine, but eliminates any possibility of doing any two things at once, such as longholing while mucking or drilling a round. This results in the entire cost of the operation falling on the drifting or longholing as it is done, with nothing else being accomplished to deploy any of the costs. The result of this small and economical camp is a surprisingly low overall cost of operation in one of the most remote and severe locations in North America, but a large unit cost in the exploration project. This unit cost was further greatly exaggerated this fall by the fact that we had to stop the operation at the Mikado just as it was getting underway, due to the absence of any remuneration from the government for its pledged participation in the past summer season's trenching on the Little Squaw and Mikado veins.

Blizzard conditions, extreme cold, seeping super-cooled water, and total freezeup of all water supply in the early fall cause a unique number of difficulties during the months of September and October at this particular elevation and location in the mountains of the Chandalar district that are difficult to visualize while enjoying the comforts of our office even here in the north. It appears from past correspondence that such vision is all but impossible from a location in the southern United States, as evidenced by our present contract and such items as the maximum allowable unit cost of $1 per foot on longhole drilling. Costs allocated to longholing were determined as one 48th part of the total costs of the 48 working days spent at the Mikado this fall. The rest of the costs went against the drift and crosscut.

Insurance rate reported for the Fund Insurance Company is for the industrial accident liability insurance required by the laws of the State of Alaska.

This is an audit-type account at the rate of $8.74 per $100 of payroll for the underground work. Source of costs quoted for the small amount of material taken from previously purchased supplies already on hand are listed below.

Equipment costs shown depreciated under Category 4 were based on the total costs of each item of equipment as recorded in the company books for the years 1959 and 1960, when these items were purchased.

Equipment not used this fall, such as slusher hoist, scraper, blocks, and cobra drill, were not included in this cost.

We have not yet received our bills and invoices for groceries and assaying, but since our costs are already well above the contract maximums, they shouldn't be necessary.

Stage II - Category 3 - Items taken from stores at Mikado.

Rail, Splice Bars and Bolts, Spikes - from Carrington, 1959 invoice.
Vistac - from Standard Oil 1959 invoice.
Pipe - Copco invoice # 1900 4/7/60
Powder - Carrington (Fairbanks office) 1959 invoice # 443F 5/8/59
Ties - Fairbanks Lumber Co. invoice 4/27/59
Fuse and Caps - Carrington invoice # 443F, as above for powder
Salt - Samson Hdwe. Co. invoice 4/28/60
Delo, Gasoline and Diesel - Current Standard Oil Co. invoices.

Insurance - work at Mikado during Sept. Oct., and Nov.
Classify as Underground:

Labor = $3,470.66
Super = 2,640.00
$6,110.66 = 61.11 Hundred

Fund Insurance Premium Underground x 8.74 per $100 payroll

$534.10

St. Paul Fire and Marine - Liability Ins. $112 Premium per year.
Work year April thru November - 8 months.
Underground October & November - 2 months.
2/8 x $112 = $28 applicable to Stage II

Footage - 53' Drift 23' x cut (18' in raise)
(5' at face of drift)

33' Longhole - 1 shift

MME FORM 60
SEPT. 1959

Governed

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

OME 6148

Docket No. 2140
Contract No. 14-23-000-167,750.00
Contract Amount 50 $ 83,875.00
Gov't. Participation
Mineral(s) gold

OPERATOR'S MONTHLY VOUCHER

For Month of July & Sept. 1962

Operator's Name Little Squaw Mining Company
Address 309 Radio Central Bldg., Spokane 4, Washington

COST CATEGORIES	FOR OPERATOR'S USE: MONTHLY TOTAL	PREVIOUSLY REPORTED	TOTALS TO DATE	FOR GOVERNMENT APPROVAL ONLY: MONTHLY TOTAL	PREVIOUSLY REPORTED	TOTALS TO DATE
Fixed Unit Costs and						
(1) Independent Contracts:						
Bulldozing						
Drifting						
Crosscutting						
Drilling						
(2) Personal Services:						
Supervision & Technical	1772.13	1238.70	3010.83			
Outside Consultants						
Labor	2966.00	5252.65	8218.65			
(3) Operating Mat'l. & Supplies:						
Timber						
Explosives	99.80	-	99.80			
Pipe						
Rail						
fuel & lubricants	2161.71	8699.63	10,861.34			
cat parts	-	167.60	167.60			
shop	-	72.90	72.90			
assay	-	82.49	82.49			
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation dozers	779.80	1070.20	1850.00			
(5) Initial Rehab. & Repairs:						
Buildings, Fixtures, etc.						
Operating Equipment						
(6) New Buildings, Fixtures, etc.						
(7) Miscellaneous:						
-Excess Aug. shipping	-(25.60)	-	-(25.60			
Repairs to Equipment						
~~Analytical Work~~ xxxxxxxxx accounting	-	168.00	168.00			
Payroll Taxes	44.58	704.45	749.03			
Employee's Liability Ins.	190.38	353.63	544.01			
Air-Jeep Trans.	-	1500.00	1500.00			
Board	1061.79	1387.00	2448.79			
Excess Cost (	- 100.59	(- 429.10	(- 529.69			
TOTALS	8950.00	20,268.15	29,218.15	876.12	20,207.88	21,084.00

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 1/25/63 *Payee Little Squaw Mining Co.

Per Harlan Joseph Title President

* When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

A willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction is a criminal offense. (U.S. Code, Title 18, Sec. 1001.)

(INSTRUCTIONS ON REVERSE)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 438.06

Signature BMB
(Authorized Certifying Officer)

Date 5/10/63 Vou. No. 3880

(SEE OTHER SIDE)

Certification by Government Representative:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating an exploration project in accordance with the terms of Contract No. 2140 Amended

Signature D.B. Macharen Title Acting Field Officer Date APR 30 1963

Approved by OME Executive Officer or Alternate:

Signature D.B. Macharen Title Acting Field Officer Date APR 30 1963

OPERATOR'S MONTHLY REPORT

The Operator, under an Office of Minerals Exploration contract, is required to report monthly to the Government. The report consists of three parts.

FIRST, the Operator's Monthly Voucher on MME Form 60 listing the project costs incurred and claimed by the Operator is the voucher basis for payment of the Government's share of the cost.

SECOND, the Operator's Progress Report on MME Form 61 is a statistical report of the units and cost of of work performed under the contract.

THIRD, the Operator's Narrative Report is a concise description of the work performed, results accomplished, and any unusual situations encountered, illustrated and supported by engineering-geological maps or sketches, drill hole logs, assay reports, etc., as pertinent.

The Operator submits the original and four copies of each of the three sections of this report to the OME regional Executive Officer at the end of each month during the life of the contract.

PREPARATION OF OPERATOR'S MONTHLY VOUCHER, MME FORM 60

After all applicable spaces are filled in, the Operator or his agent must sign the certification in the lower left corner. Categories (2) through (7) apply to "Actual Cost" contracts only.

Under "Fixed Unit Costs" and Category (1) report, (a) the total fixed unit costs of work performed under contract provisions for contribution by the Government on a basis of "fixed unit costs"; and (b) the claimed costs of work performed on a unit-price basis by independent contractors.

Under Category (2) include the claimed costs of all payrolled and invoiced supervisory, technical, and labor personnel, except the costs for services applicable to Categories (5) and (6).

Under Category (3) include the claimed costs of all project materials and supplies other than those used for work under Categories (5) and (6).

Under Category (4) report claimed rentals on equipment belonging to a third party, claimed payments or obligations for payments on the Operator's purchase of equipment, and claimed depreciation for the use of Operator-owned equipment.

Under Categories (5) and (6) include all claimed costs of labor, supervision, technical services, operating materials and supplies, and all other items used in (5) the initial rehabilitation and repairs of existing buildings, fixtures, installations (exclusive of mine workings), and operating equipment; and (6) the installation or construction of new buildings, fixtures, and fixed improvements (exclusive of mine workings). Do not report these costs under Categories (2), (3), (4), and (7).

Under Category (7) include all miscellaneous claimed costs such as repairs (other than initial) and maintenance of equipment, sampling and analysis, travel, communication, accounting, office expenses, and the Operator's share of payroll taxes and insurance.

Except for amounts claimed under "fixed unit costs" provisions of the contract, all costs claimed in this voucher must be supported by documentary evidence consisting of: (a) certified copies or transcripts of payrolls which list each employee, wage rate, period of employment, gross earnings, itemized deductions, and net earnings; (b) original or certified copies of invoices, statements of accounts, or purchase orders which indicate items of materials or services, quantities, unit prices, total charges, and payment terms; and (c) certified memoranda of the Operator for such items as depreciation of Operator-owned equipment, unemployment taxes, and employee's liability insurance. The certification may be stated thus, "Certified True Copy (or Transcript)", followed by the signature of the Operator or his agent. One copy of each document should accompany the original of this voucher.

The requirement for submitting documentary evidence of claimed costs may be waived by the OME regional Executive Officer if he determines that it is impracticable for an Operator to submit this material. In any case of waiver of this requirement an "on-site" audit by an OME auditor is mandatory prior to payment of the final Operator's Monthly Voucher.

MME FORM 61
SEPT. 1959

STAGE 1

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

RECEIVED
JAN 28 1963
U. S. G. S.
SPOKANE, WASH.

OPERATOR'S PROGRESS REPORT

For Month of July & Sept 1962

Docket No. CME 6148

Operator's Name Little Squaw Mining Co.

Contract No. 14-23-090- 2140

OPERATION	UNITS	FOR OPERATOR'S USE: UNITS THIS MONTH	UNITS TO DATE	COSTS TO DATE	FOR GOVERNMENT USE: APPROVED UNITS THIS MONTH	APPROVED UNITS TO DATE	APPROVED COSTS TO DATE
Drifting							
Crosscutting							
Raising							
Shafts							
Winzes							
Other Underground							
Drilling, Core-Diamond							
Rotary							
Drilling, Non-core-Diamond							
Rotary							
Churn							
Percussion							
Miscellaneous Engineering & access to sites	hours	358	358	8950.00	—	—	— [1]
Roads and Trails							
~~xxxxxx~~ trenching	hours		290	5435.66	290 [2]	290	6,235.00
Trenching	hours		590	14,750.00	590 [3]	590	14,750.00
Test Pitting							
Other Surface Work							
Initial Rehabilitation and Repairs							
Rehabilitation of Mine Workings							
New Buildings, Fixtures, etc.							
Operating Equipment Purchases							
Analytical Work Assays				82.49			99.00 [4]
TOTAL TO DATE *(per MME Form 60)*				29,218.15			21,084.00

REMARKS

(Continue on back)

REMARKS

[1] See Amended Contract
[2] TD-18 @ $21.50/hr
[3] XD-8 @ $25.00/hr
[4] 33 gold assays @ $3.00 ea.

(Continue on back)

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date Jan. 25, 1963 Operator Little Squaw Mining Co.

Per Karl Jasper Title President

A willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction is a criminal offense. (U.S. Code, Title 18, Sec. 1001.)

I certify that the information above is complete and accurate to the best of my knowledge and belief.

Signature D. Blackburn

Title Acting Field Officer
Government Representative

Date APR 30 1963

(INSTRUCTIONS ON REVERSE)

REMARKS *(Cont.)*

REMARKS *(Cont.)*

INSTRUCTIONS FOR PREPARING OPERATOR'S PROGRESS REPORT, MME FORM 61

This report is the second of the three parts of the Operator's Monthly Report. Submit the original and four copies.

The cost for each operation should be the total of all claimed costs attributable to that type of work with two exceptions, namely—operating equipment purchased and analytical work which are stated separately. For example, drifting costs should be the total of all costs chargeable to drifting including supervision, technical services, timbering (if any), etc. Similarly, drilling costs should include the cost of cementing, reaming, core boxes, etc. This procedure of distribution holds whether the contract was written on an actual cost or a unit cost basis, or some combination of the two. Distribute the cost of such general items as supervision, equipment rented, etc. according to relative footages or on some other conventional basis. The item "Initial Rehabilitation and Repairs" covers all rehabilitation and/or repairs other than the rehabilitation of mine workings.

The item titled "Drilling, Non-core Percussion" includes all drilling performed with wagon, jack-hammer, stoper and mounted drills. The several items labelled "Other" are provided to take care of particular exploration operations not specified on this form.

[illegible] Central [illegible]
[illegible], [illegible]

Contract # [illegible]

[illegible]

The enclosed distribution of [illegible] for [illegible] and September, [illegible], with the following [illegible] approval consequent to the recent amendment [illegible] contract [illegible]). All [illegible] described [illegible] performed [illegible] essential [illegible] completion of [illegible] contract [illegible] last paragraph at the bottom of page [illegible]

[illegible]

no.

Cate[illegible] for each of the two [illegible] used. Work vouchers for month of [illegible] dozer work were submitted with one [illegible] application.

no!

DISTRIBUTION OF COSTS STAGE I JULY AND SEPTEMBER, 1962

COST CATEGORIES, ETC.	TOTAL COST	NON-CONTRACT COST	D-8	TOTALS OME FORM 60	
CATEGORY 2:			CORRECTIONS -172.80		CORRECTIONS: -172.80 - EXCESS SUPERVISION, ~~DB~~
SUPERVISION & TECHNICAL - JULY	1372.80	Ø	1372.80 - 38.70	1372.80	- 38.70 SUPERVISION PREVIOUSLY CHARGED ~~DB~~
" " SEPTEMBER	610.83	Ø	610.83	610.83	
LABOR - JULY	1890.00	Ø	1890.00	1890.00	
" SEPTEMBER	1076.00	Ø	1076.00	1076.00	
CATEGORY 3:					
FUEL & LUBRICANTS	2161.71	Ø	2161.71	2161.71	
POWDER	99.80	Ø	99.80	99.80	
CATEGORY 4: EQUIPMENT DEPRECIATION					
2-D-8's - JULY	800.00	Ø	800 - 20.20	800.00	- 20.20 DEPRECIATION PREVIOUSLY CHARGED ~~DB~~
CATEGORY 5:					
INITIAL REHABILITATION	Ø	Ø	Ø	Ø	
CATEGORY 6:					
NEW BUILDINGS & INSTALLATIONS	Ø	Ø	Ø	Ø	
CATEGORY 7:					
PAYROLL TAXES - JULY	52.96	26.48	26.48 - 25.60	26.48	- 25.60 EXCESS SHIPPING CHARGED IN AUGUST ~~DB~~
" " SEPTEMBER	18.10	Ø	18.10 - 369.00	18.10	- 369.00 UN-CREDITED BOARD DEDUCTIONS ~~DB~~
LIABILITY INSURANCE - JULY	246.60	123.30	123.30 - 35.51	123.30	626.30 = GROSS OVERCHARGES ~~DB~~
" " SEPTEMBER	40.90	9.33	31.57 Ø 590.79	31.57	- 35.51 UNCHARGED PAYROLL INSURANCE ~~DB~~
BOARD - JULY	1623.55	811.77	811.78	811.78	Ø 590.79 TOTAL NET OVERCHARGE, ~~DB~~
" SEPTEMBER	1120.23	501.22	619.01	619.01	
SUB TOTALS	11113.48	14721.0	~~9641.38~~ 9050.59	~~9641.38~~	9050.59 CORRECTED ~~DB~~
EXCESS COSTS*	Ø	691.38	~~691.38~~ - 100.59	~~691.38~~	- 100.59 CORRECTED ~~DB~~
CLAIMED TOTALS	11113.48	2163.48	8950.00	8950.00	

Corrected 2/26/63 by Frank Bird
Superintendent
Little Squaw Mining Co.

*UNITS COMPLETED	358 HRS
MAXIMUM UNIT COSTS	$25/HR
ALLOWABLE MAXIMUM	$8950.00

I certify that the information on this Distribution of Cost Statement is true and correct to the best of my knowledge.

Karl Jaeb
President, Little Squaw Mining Co.

STAGE I
CATEGORY 2

		CR	SUPERVISION & TECHNICAL	LABOR	MAN-SHIFTS	D-8 HOURS CAT #1 HRS.	D-8 HOURS CAT #2 HRS.
JULY 3	ENGELSTAD - 10 HRS ON D-8 ON ACCESS ROAD @ $4/HR	4400		4400	1		10
" 5	" " "	4400		4400	1		10
" 6	" " "	4400		4400	1		10
" 7	" " "	4400		4400	1		10
" 8	" " 10 HRS OVERTIME @ $6/HR	6000		6000	1		10
" 9	" 8 HRS STRT. TIME 2 HRS OVER.	4400		4400	1		10
" 10	" " "	4400		4400	1		10
" 11	" " "	4400		4400	1		10
" 12	" " "	4400		4400	1		10
12	GRYBECK - ROCKWORK IN ACCESS ROAD 1/30 - $575/MO.	1920		1920	1		
13	ENGELSTAD ON D-8, GRYBEC PACKING	6320		6320	1		10
14	ENGELSTAD - OVERTIME + GRYBECK @ $19.20/DAY SALARY	7920		7920	2	10	
15	" " " "	7920		7920	2	10	
16	" STRAIGHT TIME DOZING + 2 HRS OVERTIME	4400		4400	1	10	
16	GRYBECK - MAPPING AHEAD OF TRAIL	1920	1920		1		
17	ENGELSTAD - 10 HRS DOZING	4400		4400	1	10	
17	GRYBECK - MAPPING AHEAD OF TRAIL	1920	1920				
18	ENGELSTAD DOZING 10 HRS. GRYBECK MAPPING	6320	1920	4400	1	10	
19	" " " " "	6320	1920	4400	1		10
20	" " " " "	6320	1920	4400	1	10	
21	ENGELSTAD DOZING 10 HRS OVERTIME	6000		6000	1	10	
21	GRYBECK MAPPING @ $575/MONTH	1920	1920		1		
22	ENGELSTAD DOZING 10 HRS OVERTIME	6000		6000	1	10	
22	GRYBECK MAPPING @ $575/MO.	1920	1920		1		
23	ENGELSTAD DOZING 10 HRS - L.S. ACCESS ROAD	4400		4400	1	10	
23	JACOBSON - BULLDOZING WITH D-8 - 8 HRS	3200		3200	1		8
23	GRYBECK - MAPPING @ $575/MO	1920	1920		1		
24	ENGELSTAD & JACOBSON - 10 HRS EACH - D 8's	8800		8800	2	10	10
24	GRYBECK - MAPPING	1920	1920		1		
25	ENGELSTAD & JACOBSON 10 HRS D-8's EACH	8800		8800	2	10	10
25	JACOBSON - 3 EXTRA HRS REPAIRING RIPPER @ $6/HR	1800		1800 ✓			
26	ENGELSTAD & JACOBSON 10 HRS EACH ON D-8's	8800		8800	2	10	10
27	" " "	8800		8800	2	10	10
28	" " " OVERTIME	12000		12000	2	10	10
29	" " "	12000		12000	2	10	10
29	JACOBSON - 3 EXTRA HRS ON RIPPER	1800		1800 ✓			
30	ENGELSTAD & JACOBSON - 10 HRS EACH ON D 8's	8800		8800	2	10	10
30	JACOBSON - 4 EXTRA HRS REPAIRING RIPPER	2400		2400 ✓			
30	GRYBECK - ONE SHIFT DIGGING DITCH	1920		1920	1		
31	JACOBSON - 10 HRS ON D-8 - ACCESS ROAD	4400		4400	1		10
		204480	17280	187200	45	160	198

STAGE I
CATEGORY 2

			Cr.	Supervision & Technical	Labor	Man Shifts
		Brought Forward	2044 80	172 80	1872 00	45
July	31	Potrate - 3 extra hrs building up corner bits	18 00		18 00	
July	31	Birch - 1 mo. staking grade, route, etc.	1200 00	1200 00		31
		Total for July, 1962	3262 00	1372 80	1890 00	76
August		per previous report.				
Sept	1	thru Sept. 11 - 1/3 month. Grybek & Birch mapping Little Squaw work, map & sample Mirado cuts. Pick ice & snow out of cuts.				
Sept	12	Birch — 1/3 month	400 00	400 00		11
"	12	Grybeck - Pay for September - 11 days	210 83	210 83		11
		Sub Total for September, 1962	610 83	610 83		22
Sept	3	Jacobson - Repair - 10 hrs @ 4 + overtime	44 00		44 00	
"	4	" "	44 00		44 00	
"	5	" "	44 00		44 00	
"	6	" "	44 00		44 00	
"	7	" "	44 00		44 00	
"	8	" " All overtime	60 00		60 00	
"	9	" " All overtime	60 00		60 00	
"	10	" " 8 hr start time 2 hrs over	44 00		44 00	
"	11	" " "	44 00		44 00	
"	12	" "	44 00		44 00	
"	13	" "	44 00		44 00	
"	14	" "	44 00		44 00	
"	15	" " All overtime	60 00		60 00	
"	16	" " "	60 00		60 00	
"	17	" " 8 hrs str. time 2 over	44 00		44 00	
"	18	" " 8 hrs straight time	32 00		32 00	
"	19	" " " "	32 00		32 00	
"	20	" " " "	32 00		32 00	
"	21	" " " "	32 00		32 00	
"	22	" " 8 hrs overtime	48 00		48 00	
"	23	" " " "	48 00		48 00	
"	24	" " 8 hrs straight time	32 00		32 00	
"	25	" " " "	32 00		32 00	
"	26	" " " "	32 00		32 00	
"	27	" " " "	32 00		32 00	
			1686 83	610 83	1076 00	47

STAGE I CATEGORY 3	CR.	FUEL & LUB	EXPLOSIVES	TOOLS & SHOP EQUIPMENT SUPPLIES	PARTS	SHIPPING	TOTAL COST
JULY 31 SUPPLIES USED FROM STORES ON BIG CREEK IN GAINING ACCESS TO LITTLE SQUAW AND MIKADO CLAIMS :							
27 Bbls DIESEL FUEL @ 53 GAL & .34¢/GAL - FOX	495.13	- 495.13					195.313
FRT. ON ABOVE 27 Bbls @ 460# EACH & 12¢/#	1458.00					1458.00	
1 Bbl DELO 30 - 55 GAL @ 1.525/GAL - FOX	83.88	83.88					141.48
FRT ON ABOVE 480# Bbl DELO @ 12¢/#	57.60					57.60	
1 Bbl CHEVRON GASOLINE 53 GAL @ 45.1¢/GAL - FOX	23.90	23.90					67.10
FRT ON ABOVE 360# Bbl @ 12¢ FOX - CHAN.	43.20					43.20	
4 BOXES POWDER @ 18.95/BX - FAIRBANKS	75.80		75.80				99.80
FRT ON ABOVE 200# @ 12¢/#	24.00					24.00	
JULY 31 TOTAL	2261.51	602.91	75.80			1582.80	2261.51

STAGE I
CATEGORY 7
MONTH OF JULY, 1962

		CR.	EQUIP REPAIRS (OUTSIDE SER.)	ANALYTICAL WORK	PAYROLL TAXES	LIABILITY INSURANCE	TRANSPORT OF PERSONNEL	BOARD	ACCOUNTING	OTHER	DIRECTLY APPLICABLE TO BULLDOZING ACCESS
JULY	GROCERIES - 1/6 OF TOTAL 6 MO. SUPPLY	35713						35713			17856
	COOK	101640						101640			50820
	HEAT - 3 Bbls DIESEL @ $72.34	21702						21702			10851
	PROPANE - 100# BOTTLE	3300						3300			1650
	FICA - COOK	3148			3148						1574
	" GRAYBECK	2148			2148						1074
	WORKMENS COMPENSATION - COMMISSARY - @ 1.83%	1860				1860					930
	WORKMENS COMPENSATION - SURFACE @ 3.30%	21400				21400					10700
	ST. PAUL FIRE & MARINE - 1/8 OF 8 MO WORKING SEASON	1400				1400					700
		192311			5296	24660		162355			96155

MONTH OF SEPTEMBER 1962

SEPT. 1-30	GROCERIES - 1/6 OF TOTAL 6 MO. SUPPLY	35713						35713			x 1/3 = 11904	
SEPT 1-12	COOK - FIRST 11 DAYS OF SEPTEMBER	36840						36840			36840	
" 1-30	HEAT - 5 Bbls DIESEL @ $72.34	36170						36170			x 1/3 = 12057	
" 1-30	PROPANE - 100# BOTTLE	3300						3300			x 1/3 = 1100	
" 1-12	FICA - COOK	1151			1151						1151	61901
" 1-12	" GRAYBECK	659			659						659	
" 1-12	WORKMENS COMPENSATION - COMMISSARY @ 1.83%	674				674					674	
" 1-12	" " SURFACE @ 3.3% OF $61083	2016				2016					2016	
SEPT 1-30	ST PAUL FIRE & MARINE 1/8 OF 8 MO WORKING SEASON	1400				1400					x 1/3 467	3157
		117923			1810	4090		112023			66868	

ABOVE SUPPLIES TAKEN FROM STORES INVOICES COVERING ALL ITEMS HAVE BEEN PREVIOSLY SUBMITTED. COSTS OF FUEL, PROPANE & GROCERIES TAKEN FROM PREVIOUSLY SUBMITTED & APPROVED ITEMIZED LISTINGS.

?

?

} M2W

M1W
M1E

State of Alaska
Department of Natural Resources
Division of Mines
and Minerals

Mining Office

RECORD OF ASSAY

On sample received from

Address

Assay No.	Sample Marked	Gold in Mills New		Value per Ton	Assayer's Ck
		(Oz.)	(Dwts.)		
	M5E				
	M4E				
	M2W				
	M1W				
	M1E				
	M2E				
	M3E				
	M4W				

State of Alaska
Department of Natural Resources
Division of Mines
and Minerals

M&W

MIDAS TRENCH SAMPLING

TRENCH # 1W: Samples taken in frozen zone of crushed quartz and gouge. [illegible] not yet to bedrock.

Sample #19 [illegible]' Crushed qtz and gouge [illegible] oz. Au [illegible] oz. Ag [illegible]
20 [illegible]' Crushed Qtz and gouge [illegible] oz. Au Trace Ag [illegible]

TRENCH # 2W: Samples taken in frozen zone of crushed [illegible] not yet to bedrock.

Sample # 15 - 2' crushed [illegible] qtz [illegible] Zn
16 - 2' qtz, [illegible] and gouge [illegible] Au
17 - 2' qtz and gouge [illegible] Au
18 - [illegible] crushed [illegible] altered [illegible] Au [illegible]

TRENCH # 3A: No samples taken. [illegible] but insufficient [illegible] outlines.

TRENCH # 4W:

Trench [illegible]

Sample # [illegible]

Sample [illegible]

TRENCH [illegible]:

[illegible]

[illegible] # : [illegible]

[illegible] .70

[illegible] .70

[illegible] 5.08

[illegible] 2.80

[illegible] Au [illegible] Ag [illegible]

frozen overburden.

Au 0.18 oz. Ag .80

oz. Au Ag .70

oz oz. Ag .85

oz. Ag 1.23

1.40

.20

Ag

Sample # 13

Sample # 4

TRENCH #

layer

Sample #

Sample #

Sample #

TRENCH # 6

The [illegible] were not taken to [illegible] strate[illegible] continuity of mine [illegible] When the first 4' [illegible] four sa[illegible] were taken from mine [illegible] use of [illegible] season an additional [illegible] were also sampled, showing an increase from 0.[illegible] oz. Au to 0.[illegible] oz. (Samples # [illegible] & #15) 0.02 oz. to 0.10 oz., (samples [illegible] & #16); 0.12 oz. to 0.2[illegible] oz., (Samples [illegible] and 0.06 oz. to 0.36 oz., (samples #4 & 21).

Standard Form No. 1034
7 GAO 5000
1034-108

PUBLIC VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL

Use continuation sheet(s) if necessary

VOUCHER NO. 4230

U. S. Interior - Office of the Secretary - Accounting Unit
(Department, bureau, or establishment)

Voucher prepared at Washington 25, D. C.
(Give place and date)

Payee's Account No. _____ Discount Terms _____

TO Little Squaw Mining Company
(Payee)

309 Radio Central Building, Spokane 4, Washington
(Address)

PAID BY

FEB 26 1963 O.M.E.

Contract No. Date Req. No. Date Invoice Rec'd.
Shipped from to Weight Govt. B/L No.

No. and Date of Order	Date of Delivery or Service	ARTICLES OR SERVICES (Enter description, item number of contract or Federal supply schedule, and other information deemed necessary)	Quantity	UNIT PRICE Cost	UNIT PRICE Per	AMOUNT *
Cont 2140 Reg 1		Reclaim of deduction taken on Administrative Suspension Stat dated 12/27/62.				
		Air-Jeep Transportation				608.52
			TOTAL			608.52

PAYMENT:

- COMPLETE ☐
- PARTIAL ☐
- FINAL ☐
- PROGRESS ☐
- ADVANCE ☐

(PAYEE MUST **NOT** USE THIS SPACE)

DIFFERENCES _____

Amount verified; correct for 608.52

(Signature or initials) _____

† Approved for _____ =$ 608.52

By _____

Title _____

Exchange rate _____ =$1.00

Pursuant to authority vested in me, I certify that this voucher is correct and proper for payment.

† _____ 2/18/63
(Authorized Certifying Officer) (Date)

THE REVERSE OF THIS FORM MUST BE EXECUTED WHEN PURCHASES ARE MADE OR SERVICES SECURED WITHOUT WRITTEN AGREEMENT IN ANY FORM

ACCOUNTING CLASSIFICATION (Appropriation Symbol must be shown; other classification optional)

14X0100 $608.52

501(62) $608.52 [illegible] $608.52 33

Paid by
Check No. _____ on Treasurer of the United States
Check No. _____ on _____ (Name of Bank)
Cash, $ _____, on _____, 19____ Payee _____

Per _____

Title _____

* When used in foreign countries, insert name of currency of country in which used.

† If the ability to certify and authority to approve are combined in one person, one signature only is necessary; otherwise the approving officer will sign on the line below "Approved for $ _____", and over his official title.

METHOD OF OR ABSENCE OF ADVERTISING

METHOD OF ADVERTISING

1. Advertising in newspapers Yes ☐ No ☐.
2. (*a*) Advertising by circular letters sent to ..... dealers.
   (*b*) And by notices posted in public places Yes ☐ No ☐.

   (If notices were not posted in addition to advertising by circular letters sent to dealers, explanation of such omission must be made below.)

ABSENCE OF ADVERTISING

3. Without advertising, under an exigency of the service which existed prior to the order and would not admit of the delay incident to advertising.
4. Without advertising in accordance with .....
5. Without advertising, it being impracticable to secure competition because of .....

.....

.....

.....

.....

(Here state in detail the nature of the exigency or circumstances under which the securing of competition was impracticable under 3 and 4)

NOTE.—The above form "Method of or Absence of Advertising" is to be used when purchases are made or services secured under proper authority without written agreement in any form. In case of a written agreement (formal contract, proposal, and acceptance, or less formal agreement) Standard Form No. 1036 should be used for abstracting the method of or absence of advertising and award of contract. (See 7 GAO 4500 and 5000.)

U.S. GOVERNMENT PRINTING OFFICE : 1961 O—584441

Telephone MA 4-[illegible]

LITTLE SQUAW MINING COMPANY
Suite 309-312 Radio Central Building
Spokane 4, Washington

February 7, 1963

Opal A. Shelton
U. S. Dept. of the Interior
Accounting Unit - Office of the Secretary
Washington, D. C.

OME 6148

Contract 2140

With regard to reclaim of deductions taken on Administrative Suspension Statement dated Dec. 27, 1962, and your subsequent statement on Standard Form No. 1034, voucher No. 3952, requesting additional identification of five passengers covered by airway bill, these passengers were Donald Grybeck, geologist and helper on the project; Bettijeanne Birch, cook, and Mrs. Birch's children, Kit, Sue and Carolyn. This group was leaving the district upon finishing their share of the Stage I work. This transportation from and to Fairbanks was a company expense under the terms of Grybeck's and the cook's employment.

Transportation of Jacobson, mechanic, to Spokane, is in accordance with Alaska law requiring a company to pay full transportation and expenses to and from the place of employment for all personnel hired out of state.

Transportation of Berry, mechanic, was a condition of his employment made when he was hired near the end of Stage I work to replace Grybeck.

Birch, superintendent, is authorized business transportation to and from Fairbanks at company expense.

Petratz and Engelstad were granted leave at the end of Stage I work for a brief and strenuous respite after six isolated months in the bush; their transportation between Fairbanks and Chandalar was a condition of employment.

These charges are justified as necessary, reasonable and direct costs of Stage I work by the fact that they were pre-negotiated conditions of employment required to entice civilized people into this unimproved Arctic area.

Very truly yours,

LITTLE SQUAW MINING COMPANY

KARL W. JASPER, President

B
J

Standard Form No. 1034
7 GAO 5000
1034-108

PUBLIC VOUCHER FOR PURCHASES AND SERVICES OTHER THAN PERSONAL

Use continuation sheet(s) if necessary

Griswold

VOUCHER NO. 3957

U. S. Interior - Office of the Secretary - Accounting Unit
(Department, bureau, or establishment)

Voucher prepared at Washington 25, D. C.
(Give place and date)

Payee's Account No. _____ Discount Terms _____

TO Little Squaw Mining Company
(Payee)

309 Radio Central Building, Spokane 4, Washington
(Address)

PAID BY

Contract No. Date Req. No. Date Invoice Rec'd.
Shipped from to Weight Govt. B/L No.

No. and Date of Order	Date of Delivery or Service	ARTICLES OR SERVICES (Enter description, item number of contract or Federal supply schedule, and other information deemed necessary)	Quantity	UNIT PRICE Cost	UNIT PRICE Per	AMOUNT *
Cont 2143 Reg 1		Reclaim of deductions taken on Administrative Suspension Statement dated 12/27/62.				
		Typewriter ribbons 3.50				
		Engineering supplies 6.20				
		Air frt.-51 samples 72.67				
		Total 82.37				
		Government Participation				41.18
		The reclaim of $608.52 requires additional identification of the five passengers covered by the airway bill. Also, justification of all six charges				
				TOTAL		

PAYMENT:
- COMPLETE ☐
- PARTIAL ☐
- FINAL ☐
- PROGRESS ☐
- ADVANCE ☐

(PAYEE MUST **NOT** USE THIS SPACE)

as necessary, reasonable, and direct costs of the Stage I work.

DIFFERENCES _____

Amount verified; correct for _____
(Signature or initials) _____ 41.18

† Approved for _____ =$ 41.18

By _____

Title _____

Exchange rate _____ =$1.00

Pursuant to authority vested in me, I certify that this voucher is correct and proper for payment.

† _____
(Authorized Certifying Officer) (Date)

OFFICIAL FILE COPY
O. M. E

THE REVERSE OF THIS FORM MUST BE EXECUTED WHEN PURCHASES ARE MADE OR SERVICES SECURED BY WRITTEN AGREEMENT IN ANY FORM

RECEIVED FEB 1 1963

ACCOUNTING CLASSIFICATION (Appropriation Symbol must be shown; other classification optional)

14X0103

501(62) $41.18 116 $41.18 33

DATE		
2/1	[illegible]	110
	Griswold	500

Paid by
Check No. _____ on Treasurer of the United States
Check No. _____ on _____ (Name of Bank)
Cash, $ _____, on _____, 19 _____ Payee _____

Per _____

Title _____

* When used in foreign countries, insert name of currency of country in which used.

† If the ability to certify and authority to approve are combined in one person, one signature only is necessary; otherwise the approving officer will sign on the line below "Approved for $ _____", and over his official title.

METHOD OF OR ABSENCE OF ADVERTISING

METHOD OF ADVERTISING

1. Advertising in newspapers Yes ☐ No ☐.
2. (*a*) Advertising by circular letters sent to ..... dealers.
   (*b*) And by notices posted in public places Yes ☐ No ☐.

   (If notices were not posted in addition to advertising by circular letters sent to dealers, explanation of such omission must be made below.)

ABSENCE OF ADVERTISING

3. Without advertising, under an exigency of the service which existed prior to the order and would not admit of the delay incident to advertising.
4. Without advertising in accordance with .....
5. Without advertising, it being impracticable to secure competition because of .....

.....

.....

.....

.....

(Here state in detail the nature of the exigency or circumstances under which the securing of competition was impracticable under 3 and 4)

NOTE.—The above form "Method of or Absence of Advertising" is to be used when purchases are made or services secured under proper authority without written agreement in any form. In case of a written agreement (formal contract, proposal, and acceptance, or less formal agreement) Standard Form No. 1036 should be used for abstracting the method of or absence of advertising and award of contract. (See 7 GAO 4500 and 5000.)

U.S. GOVERNMENT PRINTING OFFICE : 1961 O—584441

OFFICE

10/15 800
10/16 Gressold 120
500
800
500

October 8, 1962

Mr. D. R. MacLaren
Acting Field Officer
OME Region I
South 157 Howard Street
Spokane 4, Washington

Dear Mac:

Enclosed is Art Kimball's report on the operations of the Little Squaw Mining Co. Apparently they have had their problems with unseasonable weather; this also was a problem during the examination.

The system of trenching described by Kimball is standard practice in permafrost--it takes just as long to get one trench to bedrock as it does a dozen or more as only a comparatively thin layer of material will thaw and be ready for removal each day. Digging a series of trenches in succession would take several to many seasons and, unless other work was available, would result in poor utilization of expensive equipment.

The Docket is returned herewith.

Best regards.

Sincerely yours,

J. A. Nordlick
Chief, Alaska Office of
Mineral Resources, Region I

Enclosures

CC: Bishop
Kimball
File 001.4
004.4

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Air mail
OCT 10 1962

U.S.G.S.
SPOKANE, WASH.

ME FORM 6 REFERENCE SLIP

REV. 2-59 OFFICE OF MINERALS EXPLORATION

TO:	DATE	INITIALS
1. Chief, Divn. of Field Operations	10/10/62	
2.		
3.		
4.		
5. MoYourt		

FROM: M. Yourt for D. R. MacLaren
Act. Fld. Offr., Region I

FOR: Check items for action desired

____ Action ____ Reply for signature of ____
____ Approval ____ Investigate ____ Surname
____ Comment ____ Recommendations ____ Signature
____ Conference ____ Rewrite ____ File
____ Instructions X Your information

REMARKS: OME-6148 (Gold)
Little Squaw Mining Company
Mikado, et al., Claims
Chandalar Mining District
Fairbanks Precinct, Alaska
Contract 2140

Report on subject property by USBM, Juneau. Any necessary comments will follow upon return of Mr. MacLaren from field trip.

INT.-DUP. SEC., WASH., D.C. M56300-59

C O P Y

October 5, 1962

Memorandum

To: J. A. Hardlick, Chief, Alaska Office of Mineral Resources, Region I

From: Mining Engineer, Alaska Office of Mineral Resources, Region I, Fairbanks, Alaska

Subject: ORE-6146 (Gold) Mikado, etal., Claims, Chandalar Mining District, Fairbanks Precinct, Alaska, Contract 2140

During the week of September 15 to 22, 1962, I spent 4 days with Little Squaw Mining Co. personnel on the Mikado Lode, the Little Squaw Quartz Lode, and at their camp on Big Creek in the Chandalar Mining District.

Their work this season, in addition to freighting in April and maintenance of equipment in May and June, consisted largely of surface dozer trenching on the Little Squaw and Mikado Lode properties in August, and the construction of a dozer trail, or 4 by 4 road, for access to these properties from their Big Creek camp.during July. The road was improved and extended toward the mill site and Squaw Lake during September. Preparations are being made for underground exploration on the Mikado to begin in early October and cease in late December.

Snow, high winds, and packed drifts at the time of my visit prevented detailed inspection of the cuts on the Mikado and Little Squaw Lodes. Field check verified positions of the cuts shown on the attached tracings of company maps, figures 1, 2, and 3.

Most of the following data were gathered from company records and maps, or from talking with company personnel.

Plans of the east side of eight of the eleven new cuts on the Mikado Lode are shown in figures 4, 5, and 6 with sample locations and mineralization indicated as mapped by company personnel.

The method of trenching employed on the Mikado, due to the extreme difficulty and expense of attempting to dose permafrost found just beneath the surface consisted of taking a series of trenches in quick

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SPOKANE, WASH.

C O P Y

succession to the permafrost horizon with a D-8, followed by skimming of thawed material with a TD-18 every 2 or 3 days for nearly a month. Most of these trenches reached bedrock with this treatment.

The rate of thawing, when the insulation of the thawed material was removed frequently, apparently varied from 2 to 3 inches a day in warm sunny weather to almost nil in cool rainy weather.

Though the trenches were largely obscured by drifted snow, their up-hill side depths appeared to vary from a few to 10 or 12 feet.

The same method of trenching was employed on the Little Squaw Quartz Lode property, though the work began later in the season, overburden thicknesses were greater than at the Mikado, and although the Little Squaw is at a lower elevation, it lies on a steep north east facing slope less thawed by the sun than the Mikado on a steep southwest slope.

The position of the cuts on the Little Squaw property are shown on figure 7 traced from a company map. None of these cuts was reported to have reached bedrock or considered by company personnel to have reached a satisfactory stage for detailed mapping or sampling. Several cuts, however, showed probable evidence of mineralization manifested as high spots in the trench bottoms where the frozen material with different characteristics than elsewhere, offered greater resistance to dozing. These localities reportedly contained fragments of quartz of the same type found in mineralized zones elsewhere in the district. Two of these localities are indicated in figure 7.

The trenching season on both properties was limited to little more than a month this year. A late spring, unanticipated equipment repair, and access trail construction delayed arrival of heavy equipment on the Mikado Lode property till the end of July, and on the Little Squaw till early August. During the later 2 weeks of August, cold rains reduced the thawing to virtually nil. With early freezing weather, no trenching was attempted during September.

Equipment used in trenching and in access road construction consisted of two D-8 Cats and one TD-18. A second TD-18 and a third D-8 are inoperable at present.

In addition to Mr. Frank Birch, mining engineer, personnel this season consisted of three dozer operator-mechanics, and a student geologist during the summer only. The men worked a 70-hour week during most of the season.

C O P Y

Dozer trenching time on the Mikado and Little Squaw are reported as follows:

Mikado Lode:

July	D-8	10 hours
August	D-8	310 hours
August	TD-18	290 hours

Little Squaw Lode:

August	D-8	280 hours

I have attached tracings of company maps showing the location of the access trail, or 4 by 4 road, from the Big Creek camp to the Little Squaw and Mikado properties. Dozer time for access road construction is as follows:

May	D-8	10 hours
June	D-8	20 hours
July	D-8	270 hours
August	--	--
September	D-8	320 hours - Improvement and extension toward mill site and Squaw Lake.

It was felt by company personnel that access trail construction should have been included under work applicable for financial assistance under the OMK contract, as no trenching could begin till access to the two properties was gained.

The trenching method employed on the two properties, of stripping a series of zones to the permafrost horizon, followed by successive thaw-skim cycles is standard practice for solving trenching problems where permafrost is prevalent in other parts of Alaska.

It appears that strict adherence to stipulations in the OMK contract requiring the starting of trenches successively to depend on completion of earlier ones when moving progressively away from a showing of known mineralization, is not entirely applicable to the conditions encountered by the company in the Chandalar Mining District, and that had the company not used the skim-thaw method in a series of simultaneous trenches, rather than the stipulated successive method, little would have been accomplished this season.

Sincerely yours,

Art Kimball

CC: Bishop
Kimball
File 001.4 OMK
004.4 Little Squaw

Figure 1

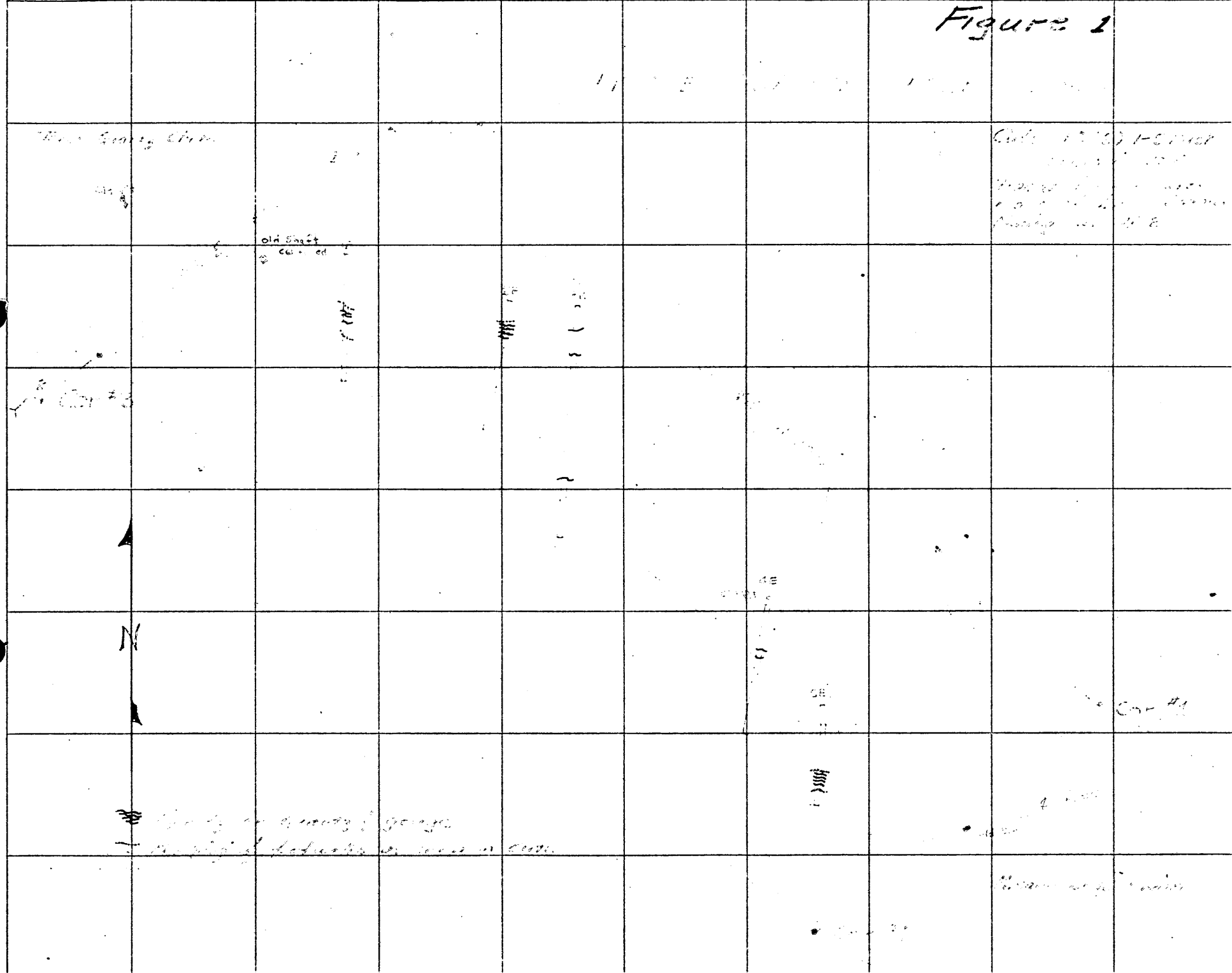


Figure 2

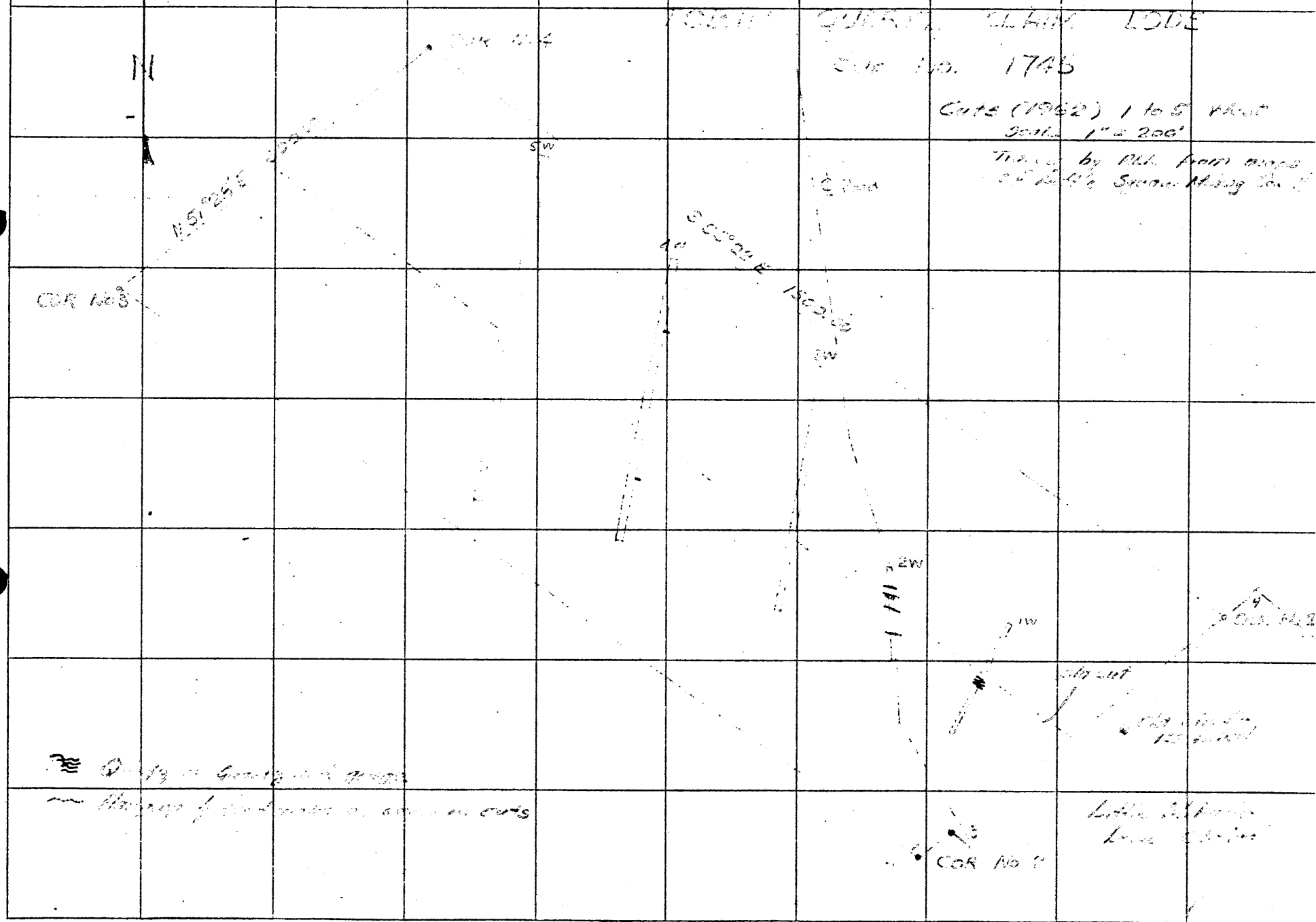
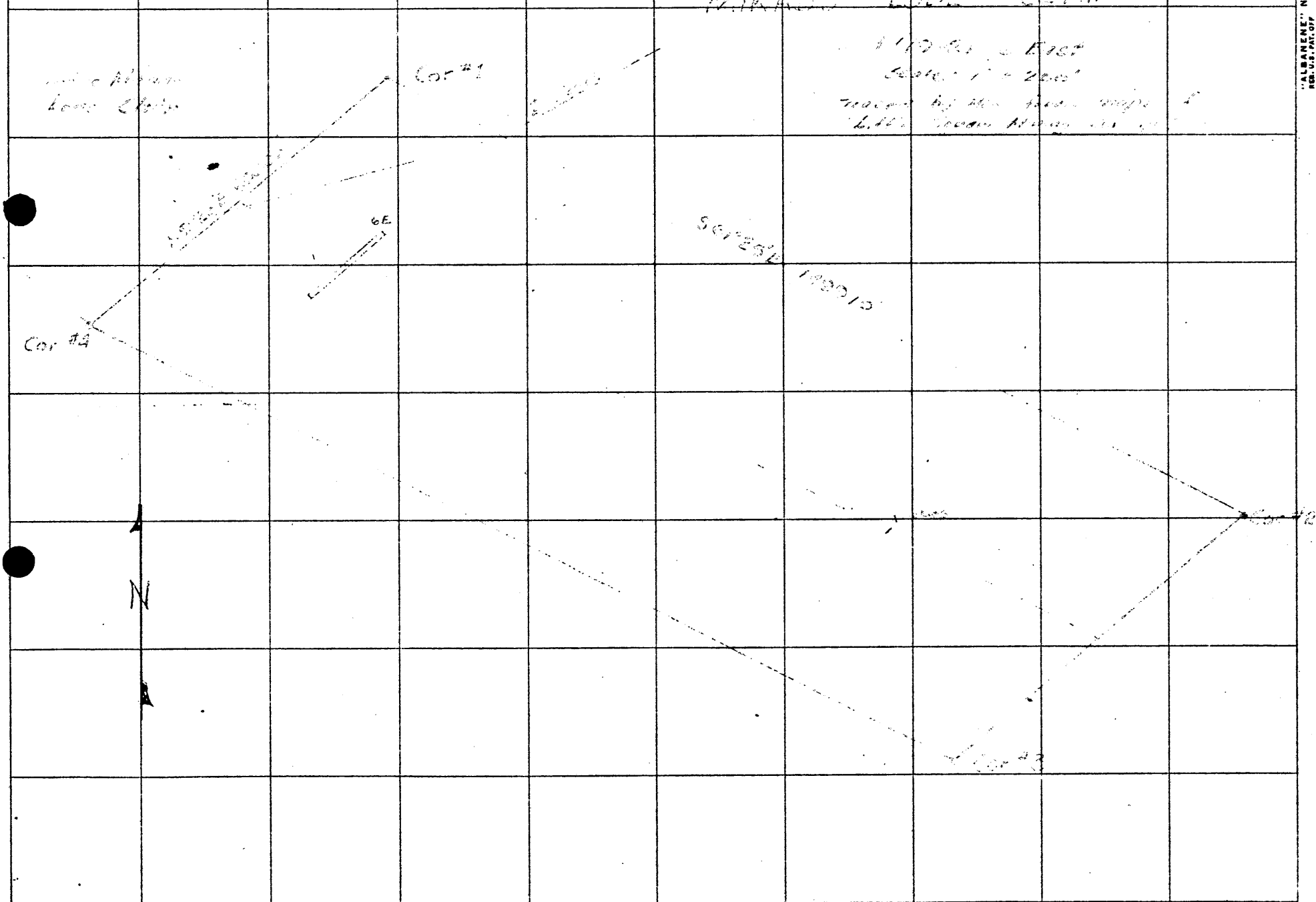

Site No. 1745
Cuts (1952) 1 to 5 Pl. 5
Scale 1" = 200'
COR No 3
COR No 2
COR No 1

Figure 3

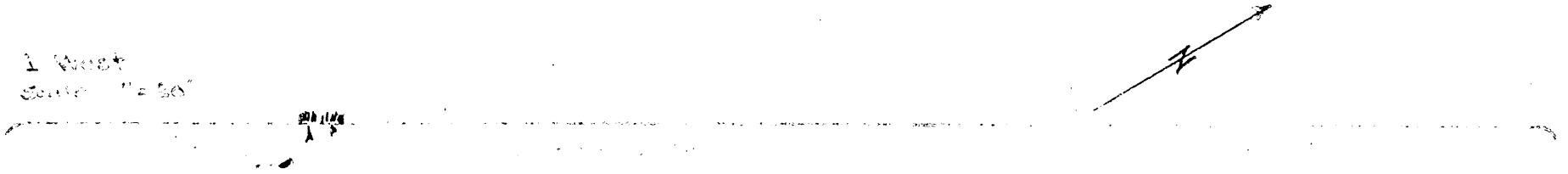


"ALBANENE" No. 195M K&EGO., N.Y.
REG. U.S. PAT. OFF.

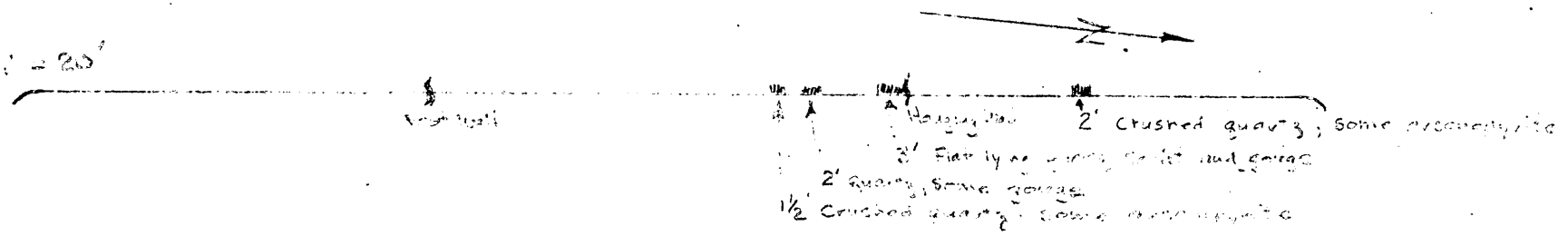
1/8

Figure 4

1 West
Scale 1" = 50'



2 West
Scale 1" = 20'



4 West
Scale 1" = 40'

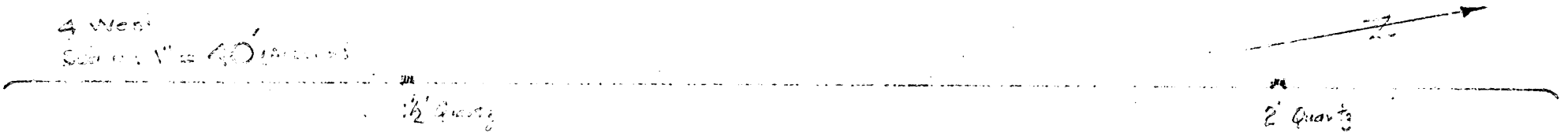
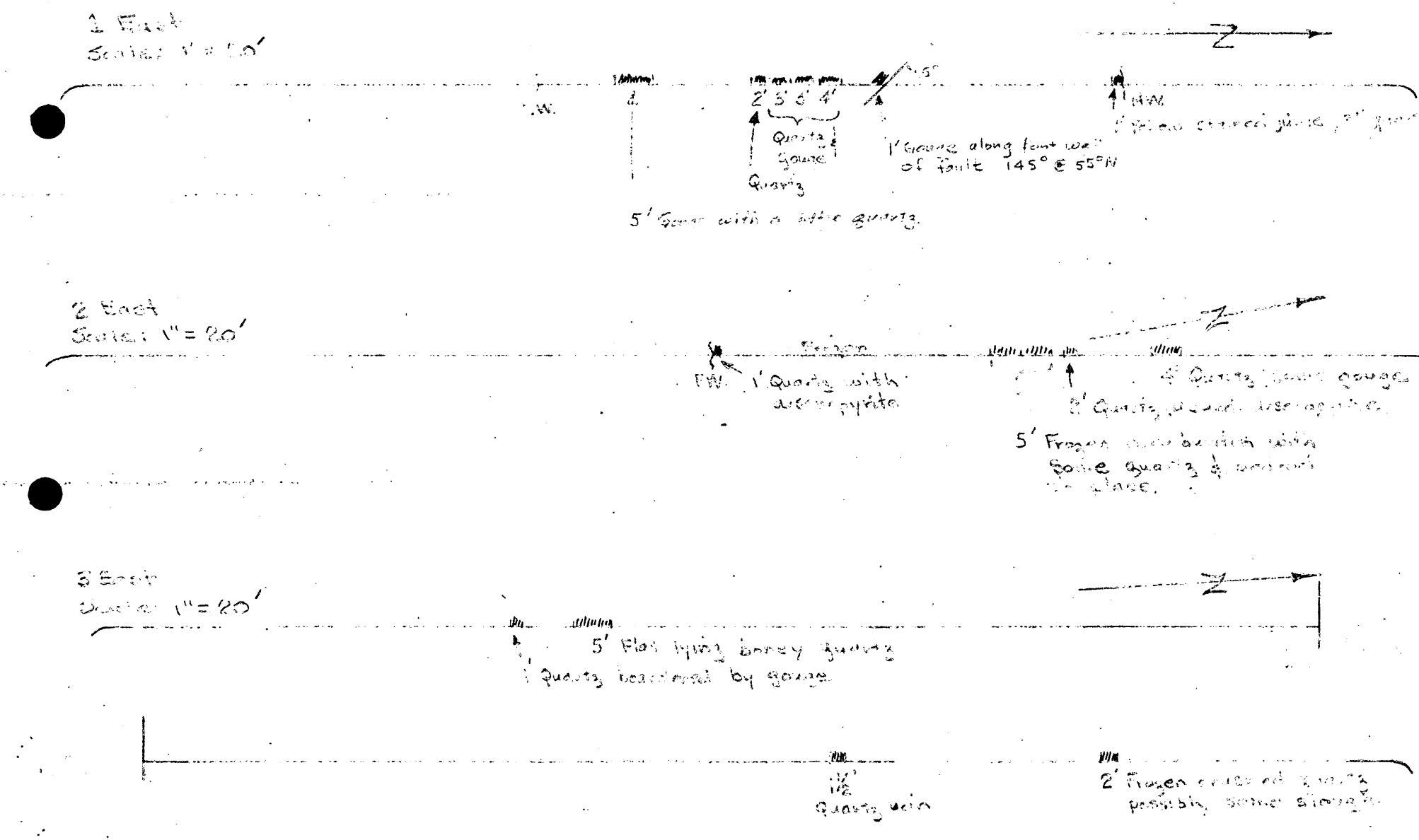


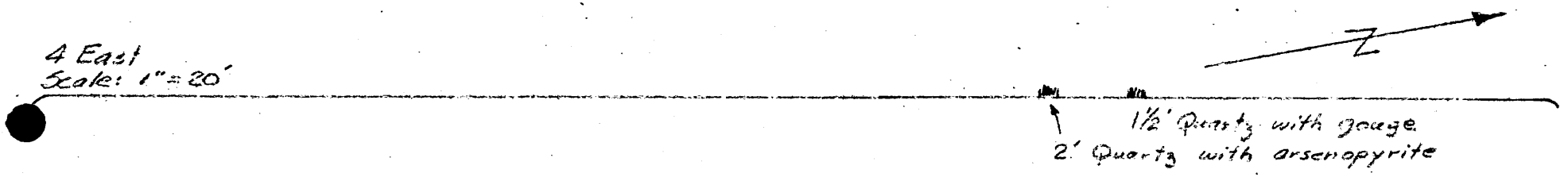
Figure 5


1 East
Scale: 1" = 20'
N
F.W.
2' 3' 3' 4'
Quartz & gouge
Quartz
1' Gouge along foot wall of fault 145° @ 55°N
5' Gouge with a little quartz.
2 East
Scale: 1" = 20'
N
F.W.
1' Quartz with some pyrite
5' Frozen
3 East
Scale: 1" = 20'
N
5' Flat lying bony quartz
Quartz boudinaged by gouge
Quartz vein
2' Frozen

Mikado Lode
1962 Bulldozer Cuts: 4 & 5 East
Plan of East or uphill side of cuts
showing mineralization mapped by
Little Squaw Mining Co. personnel.

3/3 Figure 6 MLK-9/62

4 East
Scale: 1" = 20'



5 East
Scale: 1" = 20'.

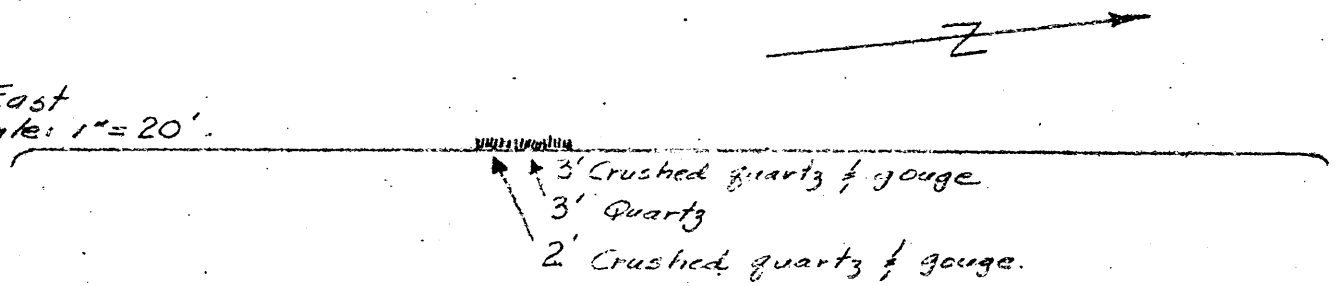


Figure 7

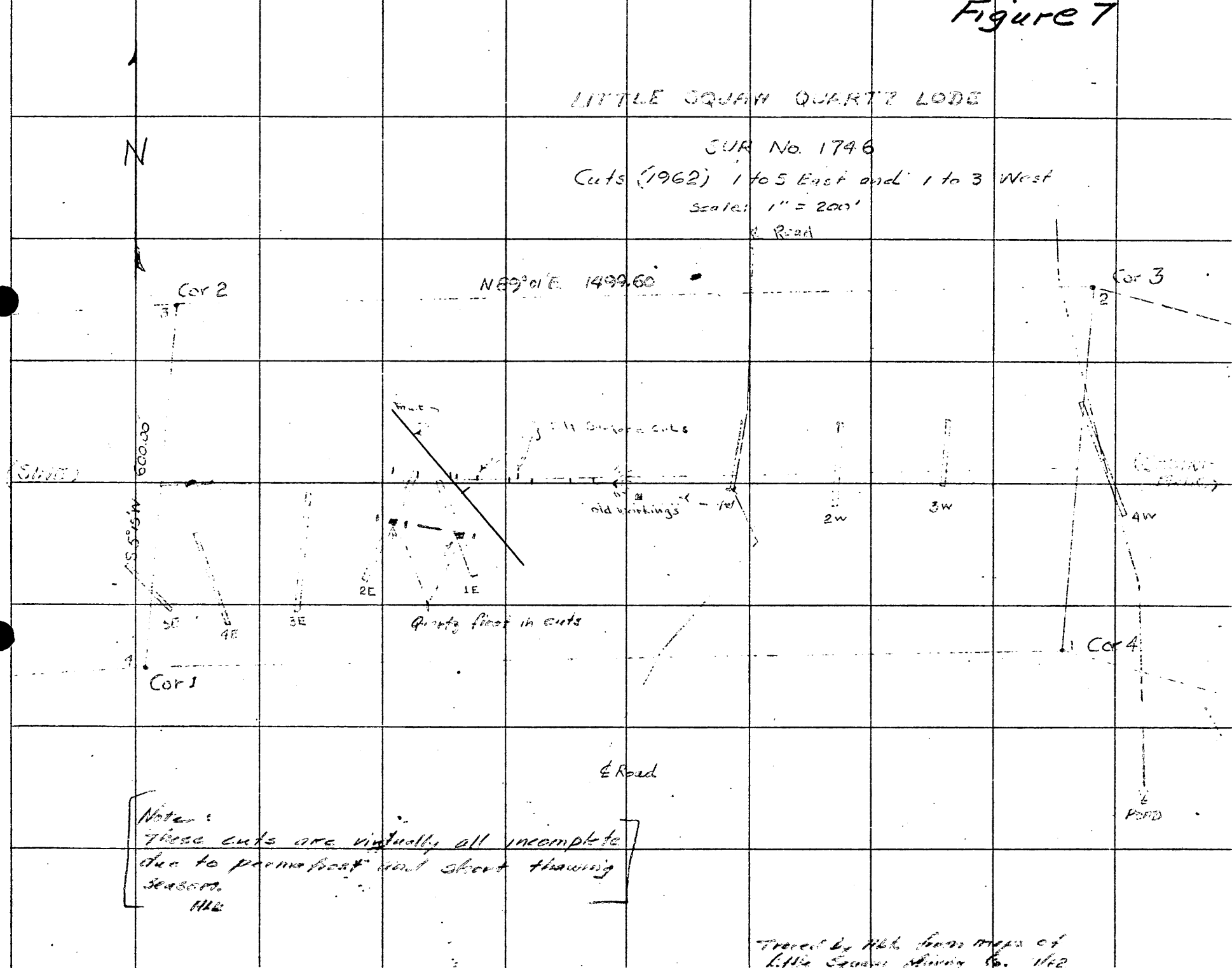
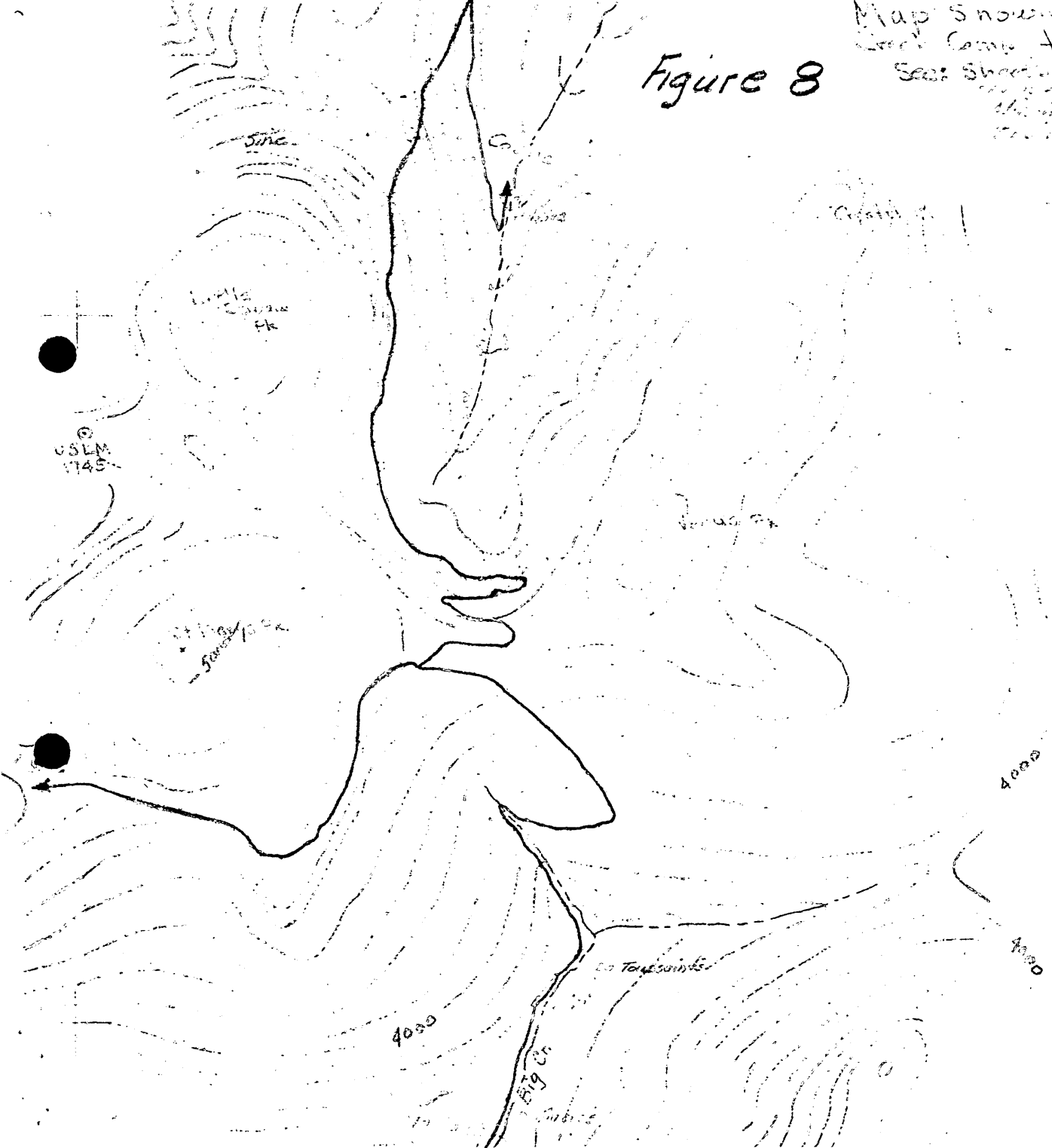

LITTLE SQUAW QUARTZ LODE
SUR No. 1746
Cuts (1962) 1 to 5 East and 1 to 3 West
Scale: 1" = 200'
N
℄ Road
N89°01'E 1499.60
Cor 2
Cor 3
Cor 4
Cor 1
(SLOPE)
600.00
S45°S
old workings
2W
3W
4W
2E
1E
5E
4E
3E
Quartz float in cuts
℄ Road
℄ POND
Note:
These cuts are virtually all incomplete due to permafrost and short thawing season.
HLL
Traced by HLL from maps of Little Squaw Mining Co. 1962

Figure 8

Map showing access road from Long Creek Camp to Little Squaw and Wanda Lake
See: Sheets (1) (2) (3)



Sheet (1) (of 3)

— Access road for trail

Access Road

Extends from to approx feet beyond switchback above Cascade chute.

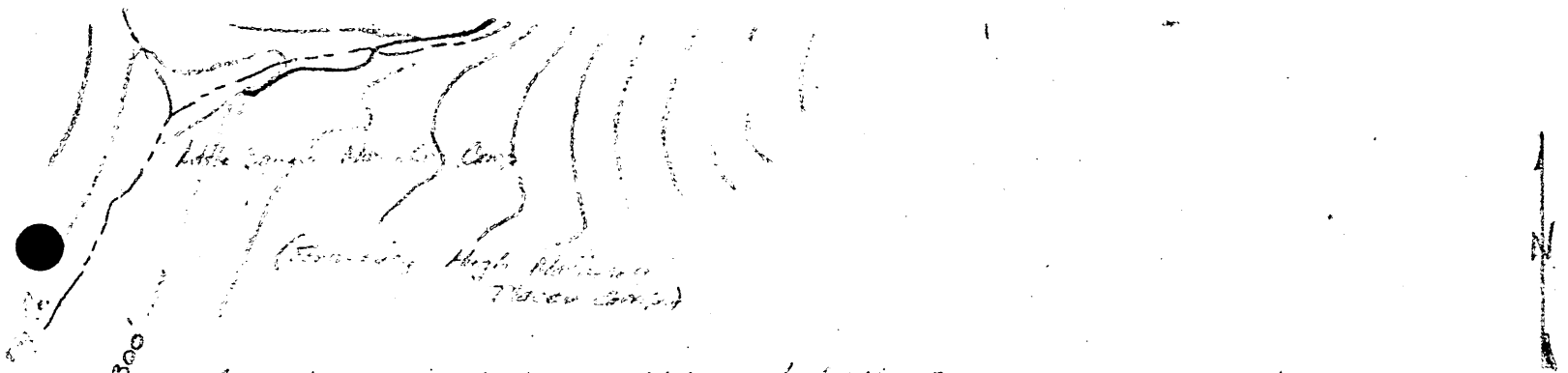
Road consists of rough, soil and boulder 4x6 trail. Plans are to bulldoze road surveying at switch backs cleared 1983. Cost estimate for route area improvement and maintenance clearing 1984 [illegible]

N

Figure 9

sheet 1

sheet 2 (of 3)

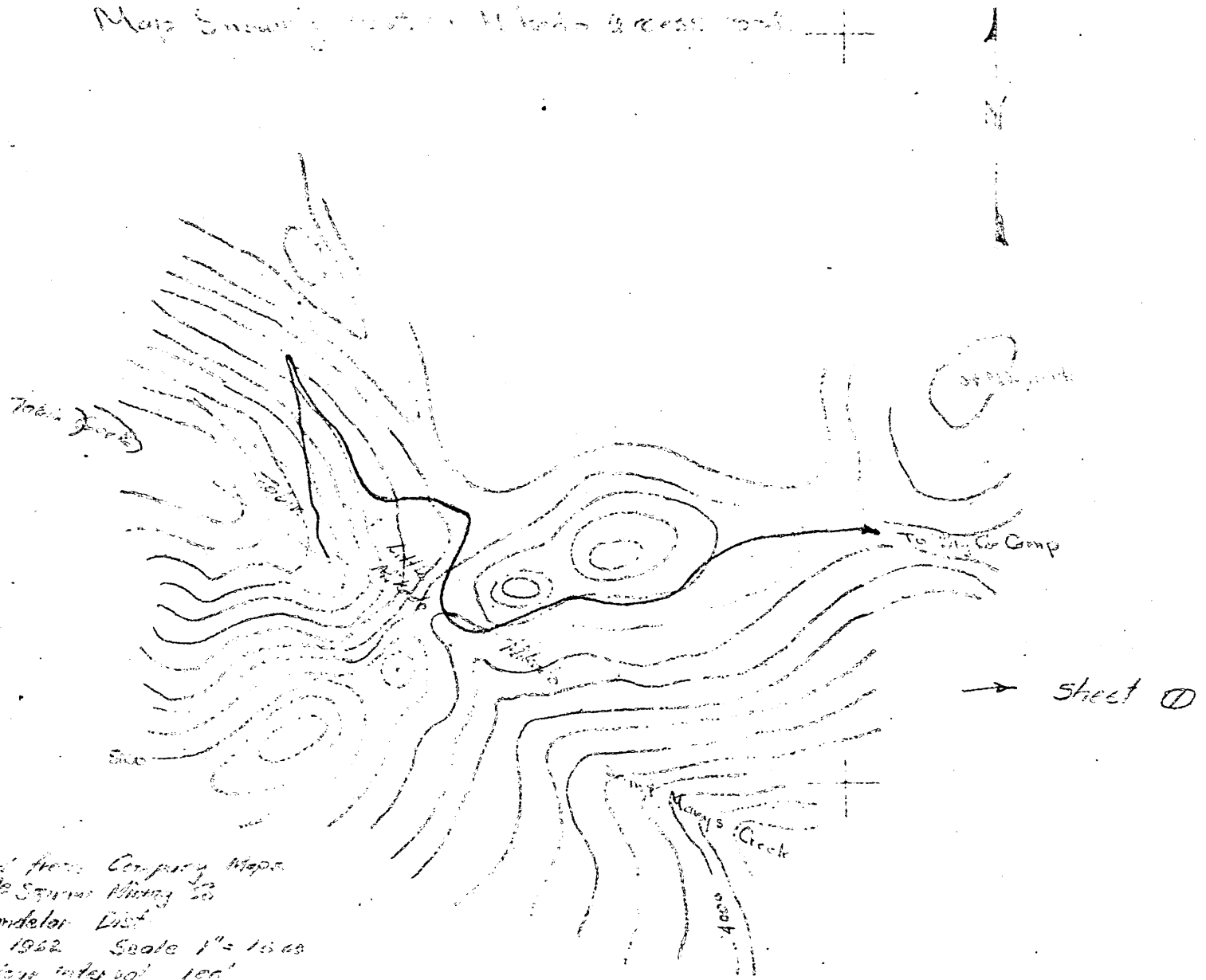


Map Showing Start of Alinement of Little Spoon access road.

[illegible]

— Access road (or trail)

Figure 10



Traced from Company Maps
Little Squaw Mining Co
Chandelar Dist
Sept 1962 Scale 1" = 1600
Contour interval 100'
—— Access road (or trail)
Sheet 3

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NOV 16 1962

U S G. S.
SPOKANE, WASH.

MME FORM 50
SEPT. 1959

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

OPERATOR'S MONTHLY VOUCHER

For Month of April - Sept. incl. 1962

Operator's Name LITTLE SQUAW MINING CO.
Address 309 Radio Central Bldg Spokane 4, Wash.

Docket No. OE 6148
Contract No.
14-23-090- 2140
Contract Amount $ 167,750.00
Gov't. Participation % 50 $ 83,875.00
Mineral(s) gold

COST CATEGORIES	FOR OPERATOR'S USE			FOR GOVERNMENT APPROVAL ONLY		
	MONTHLY TOTAL	PREVIOUSLY REPORTED	TOTALS TO DATE	MONTHLY TOTAL	PREVIOUSLY REPORTED	TOTALS TO DATE
Fixed Unit Costs and						
(1) Independent Contracts:						
Bulldozing						
Drifting						
Crosscutting						
Drilling						
(2) Personal Services:						
Supervision & Technical			$ 1238.70	1,212.90		1,212.90
Outside Consultants						
Labor			5252.65	5,145.33		5,145.33
(3) Operating Mat'l. & Supplies:						
Timber						
Explosives						
Pipe						
Rail						
gas, diesel, lub.			8699.63	8,699.63		8,699.63
Cat Parts			167.60	182.00		182.00
Shop			72.90	72.90		
Assay			82.49	—		—
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation Dozers			1070.20	1,070.20		1,070.20
(5) Initial Rehab. & Repairs:						
Buildings, Fixtures, etc.						
Operating Equipment						
(6) New Buildings, Fixtures, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
xxxxxxxxx accounting			168.00	168.00		168.00
Analytical Work			704.45	112.17		112.17
Payroll Taxes			353.63	246.72		246.72
Employee's Liability Ins.			1500.00	891.48		891.48
Air-Jeep trans.			1387.00	1,107.15		1,107.15
Board			(429.10)			
Excess costs			$20,268.15	18,908.48		18,908.48
TOTALS						

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Nov. 14, 1962 *Payee Little Squaw Mining Co.

Per [signature] Title president

* When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

A willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction is a criminal offense. (U.S. Code, Title 18, Sec. 1001.)

(INSTRUCTIONS ON REVERSE)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 9,454.24

Signature 3303
(Authorized Certifying Officer)

Date 12/21/62 Vou. No. [illegible]

(SEE OTHER SIDE)

Certification by Government Representative:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating an exploration project in accordance with the terms of Contract No. 2140

Signature [illegible] Title Acting Field Officer Date DEC 6 1962

Approved by OME Executive Officer or Alternate:

Signature [illegible] Title Acting Field Officer Date DEC 6 1962

OPERATOR'S MONTHLY REPORT

The Operator, under an Office of Minerals Exploration contract, is required to report monthly to the Government. The report consists of three parts.

FIRST, the Operator's Monthly Voucher on MME Form 60 listing the project costs incurred and claimed by the Operator is the voucher basis for payment of the Government's share of the cost.

SECOND, the Operator's Progress Report on MME Form 61 is a statistical report of the units and cost of of work performed under the contract.

THIRD, the Operator's Narrative Report is a concise description of the work performed, results accomplished, and any unusual situations encountered, illustrated and supported by engineering-geological maps or sketches, drill hole logs, assay reports, etc., as pertinent.

The Operator submits the original and four copies of each of the three sections of this report to the OME regional Executive Officer at the end of each month during the life of the contract.

PREPARATION OF OPERATOR'S MONTHLY VOUCHER, MME FORM 60

After all applicable spaces are filled in, the Operator or his agent must sign the certification in the lower left corner. Categories (2) through (7) apply to "Actual Cost" contracts only.

Under "Fixed Unit Costs" and Category (1) report, (a) the total fixed unit costs of work performed under contract provisions for contribution by the Government on a basis of "fixed unit costs"; and (b) the claimed costs of work performed on a unit-price basis by independent contractors.

Under Category (2) include the claimed costs of all payrolled and invoiced supervisory, technical, and labor personnel, except the costs for services applicable to Categories (5) and (6).

Under Category (3) include the claimed costs of all project materials and supplies other than those used for work under Categories (5) and (6).

Under Category (4) report claimed rentals on equipment belonging to a third party, claimed payments or obligations for payments on the Operator's purchase of equipment, and claimed depreciation for the use of Operator-owned equipment.

Under Categories (5) and (6) include all claimed costs of labor, supervision, technical services, operating materials and supplies, and all other items used in (5) the initial rehabilitation and repairs of existing buildings, fixtures, installations (exclusive of mine workings), and operating equipment; and (6) the installation or construction of new buildings, fixtures, and fixed improvements (exclusive of mine workings). Do not report these costs under Categories (2), (3), (4), and (7).

Under Category (7) include all miscellaneous claimed costs such as repairs (other than initial) and maintenance of equipment, sampling and analysis, travel, communication, accounting, office expenses, and the Operator's share of payroll taxes and insurance.

Except for amounts claimed under "fixed unit costs" provisions of the contract, all costs claimed in this voucher must be supported by documentary evidence consisting of: (a) certified copies or transcripts of payrolls which list each employee, wage rate, period of employment, gross earnings, itemized deductions, and net earnings; (b) original or certified copies of invoices, statements of accounts, or purchase orders which indicate items of materials or services, quantities, unit prices, total charges, and payment terms; and (c) certified memoranda of the Operator for such items as depreciation of Operator-owned equipment, unemployment taxes, and employee's liability insurance. The certification may be stated thus, "Certified True Copy (or Transcript)", followed by the signature of the Operator or his agent. One copy of each document should accompany the original of this voucher.

The requirement for submitting documentary evidence of claimed costs may be waived by the OME regional Executive Officer if he determines that it is impracticable for an Operator to submit this material. In any case of waiver of this requirement an "on-site" audit by an OME auditor is mandatory prior to payment of the final Operator's Monthly Voucher.

INT.DUP.,D.C.59- 61579

MME FORM 61
SEPT. 1955

RECEIVED
NOV 16 1962
U. S. G. S.
SPOKANE, WASH.

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

OPERATOR'S PROGRESS REPORT For Month of April - September ~~incl. 1962~~ Docket No. OME 6148

Operator's Name LITTLE SQUAW MINING CO. Contract No. 14-23-090- 2140

OPERATION	UNITS	FOR OPERATOR'S USE: UNITS THIS MONTH	UNITS TO DATE	COSTS TO DATE	FOR GOVERNMENT USE: APPROVED UNITS THIS MONTH	APPROVED UNITS TO DATE	APPROVED COSTS TO DATE
Drifting							
Crosscutting							
Raising							
Shafts							
Winzes							
Other Underground							
Drilling, Core-Diamond							
Rotary							
Drilling, Non-core-Diamond							
Rotary							
Churn							
Percussion							
Miscellaneous							
Roads and Trails							
~~Stripping~~ Trenching			290	$ 5,435.66	290(D-18)	290	5,435.66
Trenching			590	14,750.00	590(D-8)	590	14,750.00
Test Pitting							
Other Surface Work							
Initial Rehabilitation and Repairs							
Rehabilitation of Mine Workings							
New Buildings, Fixtures, etc.							
Operating Equipment Purchases							
Analytical Work Assays				82.49			—
TOTAL TO DATE *(per MME Form 60)*				$20,268.15			20,185.66

REMARKS

(Continue on back)

REMARKS

(Continue on back)

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date Nov. 14, 1962 Operator LITTLE SQUAW MINING CO.

Per Karl Joseph Title president

A willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction is a criminal offense. (U.S. Code, Title 18, Sec. 1001.)

I certify that the information above is complete and accurate to the best of my knowledge and belief.

Signature O.R. Mechaber

Title Acting Field Officer
Government Representative

Date DEC 6 1962

(INSTRUCTIONS ON REVERSE)

REMARKS *(Cont.)*

REMARKS *(Cont.)*

INSTRUCTIONS FOR PREPARING OPERATOR'S PROGRESS REPORT, MME FORM 61

This report is the second of the three parts of the Operator's Monthly Report. Submit the original and four copies.

The cost for each operation should be the total of all claimed costs attributable to that type of work with two exceptions, namely—operating equipment purchased and analytical work which are stated separately. For example, drifting costs should be the total of all costs chargeable to drifting including supervision, technical services, timbering (if any), etc. Similarly, drilling costs should include the cost of cementing, reaming, core boxes, etc. This procedure of distribution holds whether the contract was written on an actual cost or a unit cost basis, or some combination of the two. Distribute the cost of such general items as supervision, equipment rented, etc. according to relative footages or on some other conventional basis. The item "Initial Rehabilitation and Repairs" covers all rehabilitation and/or repairs other than the rehabilitation of mine workings.

The item titled "Drilling, Non-core Percussion" includes all drilling performed with wagon, jack-hammer, stoper and mounted drills. The several items labelled "Other" are provided to take care of particular exploration operations not specified on this form.

Docket No. OME 6148
Contract # 14-24-090-2140
Commodity - GOLD

LITTLE SQUAW MINING COMPANY

OPERATOR'S NARRATIVE REPORT

SEPTEMBER, 1962

In addition to invoices and work vouchers listed on the June - July - August narrative report, the August work vouchers and invoices are enclosed. Also the following additional documentation: "Workmens Compensation" instead of "Employer's Liability", Payroll Labor, Payroll Taxes, Diesel Oil and Lubricants, and Cost of Board.

Five sets of maps of the trenching on the Mikado zone and Little Squaw zone at a scale of 1" - 200' are enclosed with eight sample maps of trenches on the Mikado zone. Early in October half of the samples had been flown to Fairbanks. Because there is no communication with the crew now the results will not be available until December when the underground work is halted for the year and the crew returns with complete information.

Ten bulldozer trenches to frost were completed on the Little Squaw zone just before summer thawing was brought to a halt by an early snowfall. These were left for completion to bedrock and sampling until next July when the ground will again thaw rapidly. Evidence of the continuity of the Little Squaw zone was said to have been noted in many of the cuts. This evidence so far consists of a hump of finaly crushed frozen material with some quartz over the shear zone which thaws more slowly than the permeable and coarser broken bedrock on the sides.

The mineralized shear zone at the Mikado was clearly visible in most of the trenches. None of them, however, had been taken down through the decomposed bedrock and the sheared material to fresh solid bedrock or quartz. All of the quartz and oxidized sulfide material was finely broken up, perhaps by frost action. No solid quartz masses or solid bedrock was encountered. As a result the sampling probably will not be representative until next July when the trenches are expected to be taken down to solid material, cuts blasted in the bottom where necessary, and proper sampling completed. Between Trench #6 East and the eastern part of the Mikado Lode claim, quartz outcroppings are shown on McKee's field note sketches of the Mikado. Lack of time and steep slopes discouraged trenching this area in 1962.

Boadway's report and his map of the quartz lenses in the Mikado shaft, and McKee's opinions as well, indicate that no single vein within the Mikado shear has much continuity. This is born out by the underground and surface work done in the last few years. Any continuity must come from the continuity of the mineralized zone as a whole which is made up of many small quartz lenses usually somewhat parallel to and within about 10 feet of either wall of the shear zone. The shear zone is known to be continuous for miles, bending, offset, and probably split in some places. The U.S.G.S. preliminary geologic map of the Chandalar quadrangle, issued this summer, shows the Mikado zone extending from Chandalar Lake to Big Creek, more than eight miles. The outcrop location on

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McKee's surface maps, on the original Little Mikado patent plat, and on the trenching map of the Little Mikado claim show one of these offsets or splits in the shear zone. Trenches 3W, 4W, and 5W were made long and shallow at first to hasten thawing along their full lengths in case the shear were missed by a shorter trench. This would save a year in getting to bedrock if the zone should swerve to either side. The shear's location was recognized in the long cuts and these shear zone parts of the trenches were then flagged and deepened as much as frost would permit. They will be completed early next summer.

Members of the same crew that worked on the surface until October are now drifting and crosscutting at the Mikado. Their work began on the 200 level where surface trenching would have no bearing on the work done. They are working under instructions to drift only where field evidence appears to indicate the best possibility of picking up more ore quickly.

For the sole purpose of completing the work on Stage I of this OME project the Little Squaw Mining Company spent more than $73,000 before the end of September. The vouchers enclosed make claim for approximately $10,000 which perhaps may be recognized as the OME's share of the exploration costs so far.

Underground work and Stage II has already begun as there is no practical way to delay it. If the Office of Minerals Exploration is able by amendment to continue its participation in the underground exploration program substantial progress will be made towards the project's completion. Otherwise the Little Squaw Company will probably be unable to continue work next year and may well be forced out of business at a critical stage in a difficult exploration program.

LITTLE SQUAW MINING COMPANY
OPERATOR'S NARRATIVE REPORT
JUNE, JULY & AUGUST, 1962

Docket No. DF 6148
Contract No. 14-03-090-2140
Commodity: Gold

In June and early July work consisted to [illegible] extent [illegible] pment repair and other preparation, surveying, marking [illegible] office [illegible] ation, and construction of access roads [illegible] trenching area. The [illegible] made it necessary to delay the trenching and deep cut bulldozing [illegible] as long as possible to give the ground time to thaw to a maximum [illegible] Vouchers are enclosed for two days bulldozer work [illegible] with date V[illegible] the crew [illegible] almost all of whom [illegible] 70 hour week to [illegible] of the [illegible]

Late in [illegible] work was commenced [illegible] begun on the Mikado and [illegible] of 590 [illegible] 590 [illegible] completed on the Mikado [illegible] of between four and [illegible] e Squaw. The [illegible] and of August [illegible] almost all [illegible] ulfide and [illegible] ost [illegible] ssible [illegible]

[illegible]

[illegible]

assay [illegible]

[illegible]

[illegible] ed [illegible] ee [illegible] ee [illegible] liability.

Invoices and [illegible] vouchers are contained [illegible] May, June, and [illegible]

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UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
So. 157 Howard Street
Spokane, Washington 99204
January 31, 1964

Memorandum

To: Chief, Division of Field Operations

From: Acting Field Officer, Region I

Subject: OME-6148 (Gold)
Little Squaw Mining Company
Mikado, et al., Claims
Chandalar Mining District
Fairbanks Precinct, Alaska
Amended Contract 2140

This is relative to your memorandum of January 9, 1964. I agreed that the results of the work completed to date have not improved the over-all status of the potential of the Mikado and Little Squaw ore zones. However, insufficient work has been done to detract greatly from the potential.

The relative amount of time spent on airport enlargement and road work as compared with the amount of trenching is not as unreasonable as it may appear. In various communications from the Operator, Boadway, and Kevin Malone of the Bureau of Mines, mention is made of the difficulty in bringing in supplies, the distance from the airport to the campsite and of the latter from the two work areas. The airstrip was enlarged so that C-46 and C-82 freighter planes can land, making possible larger cargoes and as a consequence reducing the number of trips and the total cost. Therefore, although not a part of the OME contract, this work all tends to facilitate the contract work. However, work on a road to a mill site at this stage seems to benefit no one. I might mention here that January 21 I received a telephone call from Herdlick who had just been asked by Area Redevelopment Administration to appraise a new application for a loan to build a mill. He will advise ARA that until more exploration has been successfully carried out, a mill is not justified. Two days later Herdlick sent me a Thermo-Fax copy of Anderson's letter and progress report to ARA. Typed copies were sent on to you.

Malone's inspection report of October 5, 1962, recounts the climatic and other problems encountered during that season's work and the necessarily slow "thaw and scrape" dozing process. The total number

of dozer hours reported for both seasons, D-8 and TD-18 combined, is 1,330 (only 1,240 acceptable under contract terms) resulting in the completion of 20 out of 25 trenches started. Little Squaw Trenches 1-W and 2-W are the only ones in this area which show any significant gold content although the main vein is also exposed in Trenches 3-W, 4-W, and probably 5-W. In Trench 3-W there is 1 foot of quartz on the north wall that assayed 0.34 ounce gold, but the average across the full width of the vein is only 0.09 ounce gold. In the Mikado area only Trenches 2-E, 5-E, road cut above 5-E, and 1-W show any significant values. The logs of the trenches which accompanied the September 1963 narrative and voucher indicate that at some places two or more samples were taken adjacently across veins. These have been combined in the attached Tabulation of Significant Trench Sampling Data. In summary, in the Mikado area, of 33 quartz exposures in 15 trenches and 4 in road cuts, only 6 contain significant amounts of gold. None of these exposures appear to project to adjacent trenches. In the Little Squaw area, of 7 quartz exposures (excluding veinlets shown in Trenches 3-W and 5-W) in 10 trenches, only 2 could be called significant in gold content, 1 on the main vein east of the fault; west of the fault the main vein apparently is continuous from Trench 1-W through 5-W, but the assay values are all insignificant.

The over-all picture suggested by the trenching so far completed suggests that in the Mikado area there are lenses of quartz erratically sized and spaced in a zone up to 300 feet wide and 3,000 feet long and that the values in any given lens are very erratic in location and amount. The value of channel sampling in the trenches can therefore be quite misleading. Bulk sampling of each exposure would be costly and the value of the unsampled parts of lenses between trenches would still be an unknown quantity. In the Little Squaw area there appears to be more continuity to the main vein. A parallel vein exposed in Trench 2-W is of doubtful importance as it was not found in the trenches farther west. Also, the main vein has not been exposed east of the tunnel portal. If, as McKee suggests, the 2 old adits near Trench 1-E are respectively 26 and 50 feet north of the vein (McKee, Report of Examination of Lake Properties in the Chandalar Area, Alaska, 1938, p. 4), Trench 1-E has not been extended far enough to the south.

Results of the drifting and long hole drilling on the 100 and 200 levels at the Mikado appear to be no more encouraging than those of the trenching. During 1962 the 200 west drift was driven along the FW vein for 58 feet. Within this distance 13 samples, presumably cut across the vein, indicate a width ranging from 1 to 1.5 feet and averaging $4.78 per ton. The unweighted average of the Operator's values is $4.93 per ton. During 1963 the drift was extended an additional 124 feet within which distance 27 samples indicated a width

from 0.4 to 2.2 feet averaging 1.3 feet. The weighted average of the samples indicates a grade of 0.10 ounce gold worth $3.50 per ton. The arithmetical average of the Operator's values for these samples is $3.29 per ton.

Trench 1-W is just beyond the face of this drift. Samples 88, 89, and 92 indicate an average width of 3.75 feet and an average grade of 0.31 ounce gold per ton over a length of 25 feet (Tabulation of Significant Trench Sampling Data). Sample 15 (not shown on map, see trench logs), the best from Trench 2-W and which may or may not be on the same vein, is 52 to 54 feet N. of the footwall. It assayed 0.28 ounce gold over a width of 2 feet.

Of the long holes, 201-W may not be deep enough to reach the downward extension of quartz cut on the 100 level drift west, however, the final 20 feet of this hole averages 0.04 ounce gold; 202-W is definitely not long enough; but 203-W should have cut the quartz disclosed in Trench 1-W (Samples 90 and 91). Assays of the long hole samples are not startling, the best being 0.08 ounce gold at 78-82 feet in Hole 201-W.

The 200 drift east was started in 1963 and for 10 feet or so followed a weak mineralized hanging wall shear zone. At this point the shear is said to have turned toward the northeast and the drift was turned southeasterly to cross to the footwall vein. This also was a shear zone with no appreciable sign of quartz mineralization. A section which accompanied the September-November 1962 voucher indicates that the hanging wall vein or veins in this immediate area are dying out about 25 to 30 feet above the 200 level. The 200 E. drift appears to confirm this and indeed to indicate that the quartz on the footwall side may also not reach the level in this area.

The adit portion of the 100 level either missed the 5-foot long quartz lens exposed in Trench 1-W (Samples 90 and 91) or the lens extends to a depth less than 30 feet. Near its junction with the old workings the adit cut across three lenses of very good grade quartz. However, these were cut by the old inclined "crosscut" southwest of and near the end of the old workings and therefore do not materially add to the known reserve. Crosscut 101 cut 2 more 1- to 2-foot wide lenses of ore grade quartz. Starting at about Station 105, the 100 level was driven 165 feet easterly and encountered a quartz lens at 135 feet which continued to the face. Four samples indicate that the lens has an average grade of 0.53 ounce gold over a sample width of 2.0 feet; excluding a 1-foot sample assaying 3.78 ounces, the grade of the lens would be only 0.06. Crosscut 107 cut a quartz lens 2 feet wide containing 0.07 ounce gold. Neither of these last mentioned lenses can with certainty be projected to anything found in Trench 1-E, almost directly above.

the larger lens. At 65° dip as indicated on the latest map of the Mikado workings the lens in the 107 crosscut would crop out south of the indicated location of the footwall.

The over-all picture presented by the underground work at the Mikado tends to support that presented by the trenches. In the hanging wall area, there appear to be a series of erratically spaced and sized quartz lenses. In the area of the old workings the grades are in general consistently good, but east of that area they become erratic. There is little, if any, evidence that the near hanging wall lenses or lens swarms extend to the 200 level east of the crosscut. Drifting west in this zone has not been done on the 200 level. In the footwall area there is a quartz vein apparently continuous over a length of about 250 feet averaging a little better than 0.01 ounce gold per ton but containing a few separated spots of much higher grade material. East of the crosscut the footwall vein too appears not to reach the 200 level. Above the 200 level the footwall vein has been indicated in inclined "crosscuts" on Sections B and C which accompanied the application, but no samples are indicated.

The Mikado reserve estimate which accompanies the application is believed to be high. It is based on bulk samples from quartz lenses encountered during the 100 level drifting, "crosscutting," and shafting, but apparently the grade is applied to the entire volume of the calculated block. This is not believed to be proper as the vertical extent of the individual lenses has not been established and there is undoubtedly a considerable tonnage of low-grade nonore material within the block limits. Thus, either the calculated tonnage or the grade applied to that tonnage must be reduced. As there are considerable variations in the detailed data, particularly with respect to location and size of the quartz lenses, between that presented with the application and that shown on the latest level map, 10 days to 2 weeks of detailed geologic mapping of the levels, "crosscuts," and trenches should be done before a more accurate reserve calculation could be made. Even then, the question of vertical extent of the lenses, the frequency of their occurrence above the 100 level and between the 100 and 200 levels would not be answered. Quite possibly the actual tonnage available at the grades previously determined by bulk sampling would not be more than half the presently calculated amount, even making allowance for the addition of the two lenses in the 101 crosscut.

Boadway's longitudinal section on which he shows his Little Squaw reserve calculation shows only the widths of samples in inches and the grades in dollars per ton for samples taken on the level. He did not use any surface samples and was unable to enter the winze for sampling and shows only one sample in the raise. McKee, about 7 years later, resampled the level, and took 9 samples from the

surface and 22 samples from the winze. He was not able to enter the raise. I have checked the computations of each with the following results:

Boadway:

Boadway's designation	Boadway's results (tons)	My results (tons)
Assured Ore Block	700	560
Probable Ore Block	1,000	900
Indicated Ore Block	2,300	1,870
Total	4,000	3,330

The average sample width of 48.8 inches or 4 feet was used in my tonnage calculation. Possibly, errors in plotting or paper shrinkage accounts for part of the difference. My grade computation showed a value of $33.78 compared to Boadway's $33.80.

McKee:

McKee's designation	McKee's results (tons)	My results (tons)
Above adit level	1,300	1,100
20 feet below adit	686	600
Total	1,986	1,700

The average width of surface and tunnel samples, which is 2 feet, was used in my tonnage calculation. Also, I broke up into triangles and parallelograms McKee's irregular ore outline above the level so here too part of the difference may be due to paper shrinkage and errors in plotting or scaling. The grade was determined by considering 5 surface samples shown on McKee's section and 27 of the 29 samples shown on the north side of his level plan. No correction was made for high assays. The combined samples comprising No. 29 should be $61.68 which I used rather than $62.84 which McKee shows on his section. The two easternmost samples were not included as they are shown as having been taken east of the portal. In determining the lengths of sample influence, errors in plotting and scaling may have further contributed to the difference between my results and McKee's.

McKee's designation (weighted average)	McKee's results Width (inches)	McKee's results Value	My results Width (inches)	My results Value
Surface samples	30.00	$54.01	30.00	$54.28
Adit level samples	20.16	$54.20	21.85	$48.13
Surface and adit level	25.08	$50.15	25.92	$51.69

Winze sampling is described by McKee on page 6 of his 1938 report which accompanied the application, but the only assay record is that shown on a cross section through the winze from which Sample 38 mentioned in the text is missing. McKee points out that the values of the winze samples are erratic and average below ore grade but accounts for this by stating that the winze is on a section of vein in which an adjacent level sample (No. 33) is nil. The winze does indicate that the vein continues to be strong and to contain gold values for a distance of 50 feet below the level.

At this point two quotes might be of interest, one by J. B. Mertie, Jr., from U. S. Geological Survey Bulletin 773*, Geology and gold placers of the Chandalar district, Alaska: A. H. Brooks, et al. (1925); the other by McKee from his 1938 report cited above.

Mertie says on page 262:

> "Some of the gold quartz is very high grade, but it should not be expected that all the vein will be of this character. The gold probably occurs in rich ore shoots, and in the exploitation of such a mine due allowance must be made for much unprofitable mining and for dead work in prospecting the vein for ore shoots. The ore shoots may average $40 to $50 in gold to the ton, but the quartz veins as a whole are much leaner."

McKee says beginning with the ultimate paragraph on page 1 of Summary and Conclusions:

> " . . . the general impression was obtained that the ore sections of the quartz veins are lenticular and development costs between shoots will be high . . . Information obtained during this examination . . . lead to the conclusion that the area has some intriguing prospecting possibilities . . . The high grade nature of the ore and the economy of tunnel mining leads to the conclusion that profitable operations, commensurate with the risk involved may be expected in the Chandalar area."

*Chapter (e)

The work completed to date confirms the predictions of Mertie and McKee that the ore occurs in rich, lenticular shoots and that considerable high cost deadwork is necessary to explore the veins in order to find the shoots. For profitable production from the lodes a mill of some sort is a necessity, but more ore similar in grade to that previously "blocked" in the Mikado and Little Squaw areas must be found to justify the cost of a mill of any sort. With these points in mind, careful consideration of the factual data presented by the Operator leads to the conclusion that the best chance to find additional ore in these two areas is to do the following work:

Mikado Area

Drifting: From the 200 level crosscut drift 150 feet westerly in the hanging wall zone to explore the downward extension of the "lens swarm" found on the 100 level. 1.

The vein in Trench 1-E identified by Samples 110 and 163 (see table) when projected at 70° to the 100 level is almost directly in line with the lens exposed in the drift face. It is possible that the intervening ground may contain other lenses of ore grade. Extend the 100 level east drift 300 feet on a bearing of S. 65° E. 2.

Long hole drilling: At 50-foot intervals beginning at the present faces drill long holes 25 feet into the north wall and 50 feet into the south wall to search for additional significant quartz lenses; the total drilling recommended is 825 feet.

Sampling: Because the gold occurs from small blebs to fair sized flakes and is not evenly distributed the value of channel sampling is questionable. If possible, with equipment on hand, bulk sampling would probably give more reliable data as to the value of the ore shoots. If the Operator does not have the necessary equipment for crushing and splitting bulk samples, channel sampling should continue to be acceptable. In the case of the long holes, the small area of the hole makes the sampling results of even more questionable value. The main value of the long holes lies in the size of any potentially gold-bearing quartz lens that may be found. 3. amendment to also allow bulk sampling

Little Squaw Area

Trenching: None of the trenches east of the present portal has located the Little Squaw vein. As the Operator has expressed a desire to start 700 feet of drifting at or near Trench 1-E, and assuming McKee's estimate that the vein is 50 feet south of the easternmost old adit, this trench should be extended southerly up to 30 feet and to a depth necessary to be sure the Little Squaw vein extends this far east. Only after this has been established should drifting at this altitude be started. Trenches 2-E, 3-E, and 4-E, if McKee is correct, are way too far north. Their continuance might

indicate a parallel vein of which there is little evidence to date but otherwise will serve no particular purpose other than prospecting trenches. The Operator's reason for using the TD-18 in these trenches is that the slopes are too steep for the heavier D-8. This caused him to exceed the TD-18 hours allowed under the contract. However, the trench map shows the center line of a road passing through Trench 1-E from which it should be possible with safety to cut into the uphill side in order to extend the trench southerly.

Drifting: Backs at the face of the present drift are about 60 to 70 feet and will increase as the work progresses westerly. The drift follows an unbroken 2-foot (McKee) to 4-foot (Broadway) wide quartz vein (in contrast to the lenses at the Mikado) for some 200 feet east of the fault and Trenches 1-W through 4-W indicate that west of the fault the vein 2 feet wide continues unbroken for some 450 feet. In Trench 3-W as in 1-W east of the fault, the vein is widening and turning southwesterly possibly indicating that another offsetting fault is being approached. Thus, except for the one known fault offset the Little Squaw vein has been traced for a continuous length of some 650 feet. It is therefore reasonable to expect that the vein will continue to Trench 1-E about 250 feet from the tunnel portal.

If the underground work starts at the face of the present tunnel, the first 50 feet or so will be a crosscut either following the drag ore in the fault or will be slightly less if driven due south to the vein west of the fault. The remaining 650 feet would follow the vein to some point about 30 feet west of Trench 3-W. Also, drifting will be away from the best known mineralization under trenches that have yielded lower values than those over the tunnel.

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If the underground work is started near Trench 1-E, assuming that this trench locates the vein, it will be following a presumably continuous vein for about 350 feet to the fault projected to the new level. As you point out, part of the drift, about 130 feet as nearly as I can determine, will be approximately 114 feet below the present level; the remaining 120 feet will be in new ground under increasing backs and will be driven toward known ore. Allowing 350 feet here and 50 feet for crosscutting at the fault, there will remain 300 feet for drifting beyond the fault which will explore to within 25 feet of Trench 3-W.

or both this?

My only objection to drifting on the present level is that the values indicated in the trenches are low and the backs developed will be less than those that would be developed by the Operator's proposed level. However, as stated above the accuracy of channel or chip samples in these veins and lenses is questionable. My preference for drifting on the lower level is that the east limit of the ore zone may be established and that it will also be established whether or not the know ore extends to the depth of this tunnel. If it does, and the values west of the fault improve with depth,

Mac thinks starting drift at 1 E best.

?

the value of this vein will be sufficiently enhanced to warrant what might be considered development of the known ore. Since the vertical extent of the known ore is not known, this work could also be considered exploration as is the proposed 200 level west drift at the Mikado.

Long hole drilling: The only indication in the trenches that there may be parallel veins is a 24-inch wide quartz showing in Trench 2-W, 70 feet north of the main vein, and quartz veinlets in Trenches 3-W and 5-W, 80 feet and 60 feet respectively south of the main vein, and in Trench 5-W a small quartz vein about 10 feet north of the main vein. Long hole footage already used plus that recommended for the Mikado area leaves only 934 feet which is not enough to drill for possible lenslike bodies as much as 60 to 80 feet away if the holes are spaced at 50-foot intervals. The winze section shows small offshoots from the main vein that are not too intriguing and would be found in any case during mining operations. It is therefore recommended that holes be drilled north and south from the drift from stations under Trenches 2-W through 5-W, and each hole to cut the structures above mentioned, the total drilling not to exceed 600 feet. If any significant structure is found, the remaining 334 feet will be available for further drilling.

In order to do as much drifting as possible in the most promising area, no footage has been reserved for crosscutting.

It is believed that the above recommendations will prove conclusively whether the explored areas of the Mikado and Little Squaw structures are worth further consideration and whether construction of a mill of any size is justified. However, it is doubtful that all the work can be completed by July 15, 1964, as required by the contract. This is particularly true of the Little Squaw if it is decided to extend Trench 1-E southerly to locate the main vein. The ground here is a northeasterly facing slope and requires longer time to thaw than the southwesterly slope at the Mikado.

Authorized work	Completed to date	Completed 1963	Recommended 1964	Total used and recommended
Drift and crosscut 2,000 ft	842 ft	879 ft*	1,150 ft	1,992 ft
Long hole drilling 2,000 ft	241 ft	208 ft	1,425 ft	1,666 ft
Dozing:				
TD-18 - 500 hrs	500 hrs	210 hrs	0 hrs	500 hrs
D-8 - 1,200 hrs	740 hrs	150 hrs	85± hrs	825± hrs

*Includes 113 ft driven on company account.

If the above recommendations are approved, it is also recommended that the time to complete the contract be extended 12 months to July 15, 1965, as requested in the Operator's letter of November 12, 1963.

D. R. MacLaren

Enclosure

Distribution:
J. A. Herdlick w/cy incoming memo from Chief, Div. of Fld. Operations 1/9/64
MacLaren
Voucher file

Director's Reading File
Resources Research Branch Chief

DRMacLaren:mls

Tabulation of Significant Trench Sampling Data

Area	Trench No.	Sample locations from trench logs (feet)	(from)	Sample No.	Width (feet)	Assay Oz. Au	Average grade	Total width (feet)	Effective length	Vein exposed Width	average Grade
Little Squaw	1-W	5	W. end	137	1.5	0.38					
				138	3.5	0.03	0.135	5.0	7.5		
		10	"	135	1.5	2.12					
				136	3.5	0.23	0.797	5.0	5.0		
		15	"	132	2.0	1.60					
				133	5.0	0.12	0.543	7.0	5.0		
				134	in schist wall/rock - not included						
		20	"	127	1.5	3.30					
				128	3.0	0.02	1.113	4.5	5.0		
		25	"	125	2.0	1.65					
				126	4.0	0.02	0.363	6.0	4.0		
		28	"	123	2.0	18.47					
				124	4.0	0.89	6.750	6.0	4.0		
		33	"	129	1.5	2.29					
				130	1.5	8.87					
				131	3.0	0.01	2.795	6.0	4.5	5.64	1.64
	2-W	75	N. of Main Vein	142	2.0	1.00	1.000	2.0	-	2.00	1.00
Mikado	2-E	58-59	N. of FW	110	0.7	15.50					
		25	N. of #110	163	0.5	1.15	9.521	0.6	25.0	0.60	9.52
		63-64	N. of FW	111	1.0	20.13					
		Check of #111		112	1.0	7.07	8.600	1.0	-	1.0	8.60
	Road Cut	0-3	S. of HW	120	3.0	0.32					
	Above 5-E	3-5	S. of HW	119	2.0	0.85	0.532	5.0	-	5.0	0.53
	5-E	3-8	N. of FW	96	5.0	0.60	0.60	5.0	-	5.0	0.60

Area	Trench No.	Sample locations from trench logs (feet)	(from)	Sample No.	Width (feet)	Assay Oz. Au	Average grade	Total width (feet)	Effective length	Vein exposed Width	average Grade
Mikado (Cont'd)	1-W	47-50	N. of FW	90	3.0	0.10					
		48-50	N. of FW	91	2.0	3.48	1.452	2.5	5.0	2.5	1.45
		3.5-6	N. of FW	92	2.5	0.90	0.90	2.5			
			E. end of same)	88	2.0	0.04					
			vein)	89	5.0	0.02	0.02	5.0	25.0	3.75	0.31

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LITTLE SQUAW MINING COMPANY

CHANDALAR, ALASKA

1963 Chandalar Progress Report

The 4500' airstrip on Chandalar Lake was graveled and improved sufficiently to permit landing of C-46 and C-82 freighter planes throughout the year. A nine mile road route between this airstrip and the Mikado Mine was established, and with the aid of $21,000 from the State of Alaska five miles of this road was completed.

At the Mikado Mine the five western bulldozer trenches and first six eastern trenches were completed to bedrock. Four easternmost trenches on the steep slope below St. Mary's Pass were started late in the season for further eastern exploration of the Mikado shear zone, and will require another summer thaw for completion.

Underground, the 200' level was extended to points 250' east and 250' west of the old Mikado Shaft. A 56' longhole from near the east face encountered small gold values midway in the shear zone. Three 60' longholes drilled from the 200 West drift do not appear to be long enough to reach the ore as subsequently delineated near the hangingwall on the 100' level. These holes would be extended before additional work would be undertaken on the 200 level in this area. The 200 East drift is in thawed ground at the face; and it is only conjecture at this time whether this is the limit of the permafrost, or a locally thawed zone beneath Tobin Creek.

On the 100 level a new portal site and plant area was cut into the mountainside on the right limit of Tobin Creek, and the 100 level was driven from this site 260' to the 100 sub-level which was previously driven from the top of the 204 transfer raise that connects the 200' level to the bottom of the old ice-filled Mikado shaft. The 101 X-cut on the 100 level cut the ore zone and hangingwall 60' west of the last ore exposure in the previous workings, and found this structure turning northward. A small amount of additional work to the north in trench 1W should determine if this structure is extending in a north-westerly direction as a split, or is just a brief irregularity.

Thawed and running ground was encountered as well as a small flow of water in a crosscut started toward the footwall from a point near the east face of the 100 level drift. Due to the short time that remained in the programmed 1963 season this crosscut was abandoned in favor of one 50 feet to the west in frozen ground. A 2' concrete bulkhead was placed in the drift approximately 20' east of the shaft in hopes of containing the flow of water until our return for the 1964 season, at which time the water can be handled satisfactorily. If the flow continues to drain down the 204 transfer raise to the 200' level it will fill that level with ice.

Strong high grade ore was cut in the 101 Xcut and the 100 drift east of the Xcut, adding 1,188 tons of ore valued at $208 per ton to the previously proven ore reserves, for a total increase in value of $247,000,

raising total proven value at the Mikado to $1,260,000. Total drifting and crosscutting for the season was 882 feet. 1.3 tons/foot

At the Little Squaw Mine the five west trenches were completed to bedrock, proving a strong quartz vein for a horizontal distance of 800'. In trench 1W overburden was stripped exposing this Little Squaw vein for a distance of 50' showing a 6' width of quartz carrying over $60 in gold per ton.

The east trenches are still in deep overburden, and will require another summer thaw for completion. No bedrock structure has been uncovered in these trenches.

During September the haulage road was widened, improved, and extended to the Spring Creek Millsite, two miles downstream from the Little Squaw Mine. This 8 mile haulage road connects the Mikado and Little Squaw Mines with the patented Spring Creek Millsite, which lies 1½ miles southeast of Squaw Lake.

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LITTLE SQUAW MINING COMPANY

CHANDALAR, ALASKA

1963 Chandalar Progress Report

The 4500' airstrip on Chandalar Lake was graveled and improved sufficiently to permit landing of C-46 and C-82 freighter planes throughout the year. A nine mile road route between this airstrip and the Mikado Mine was established, and with the aid of $21,000 from the State of Alaska five miles of this road was completed.

At the Mikado Mine the five western bulldozer trenches and first six eastern trenches were completed to bedrock. Four easternmost trenches on the steep slope below St. Mary's Pass were started late in the season for further eastern exploration of the Mikado shear zone, and will require another summer thaw for completion.

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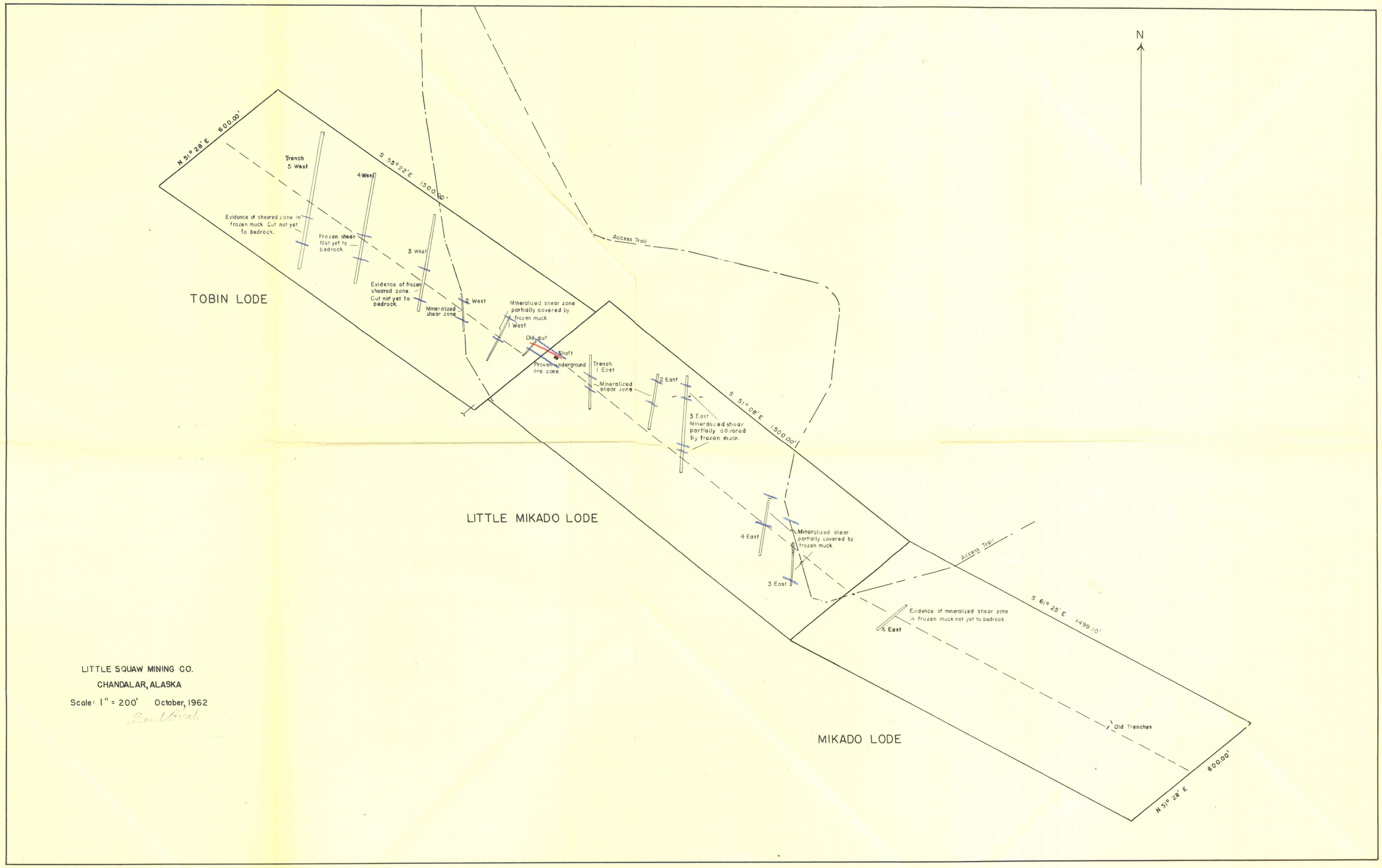
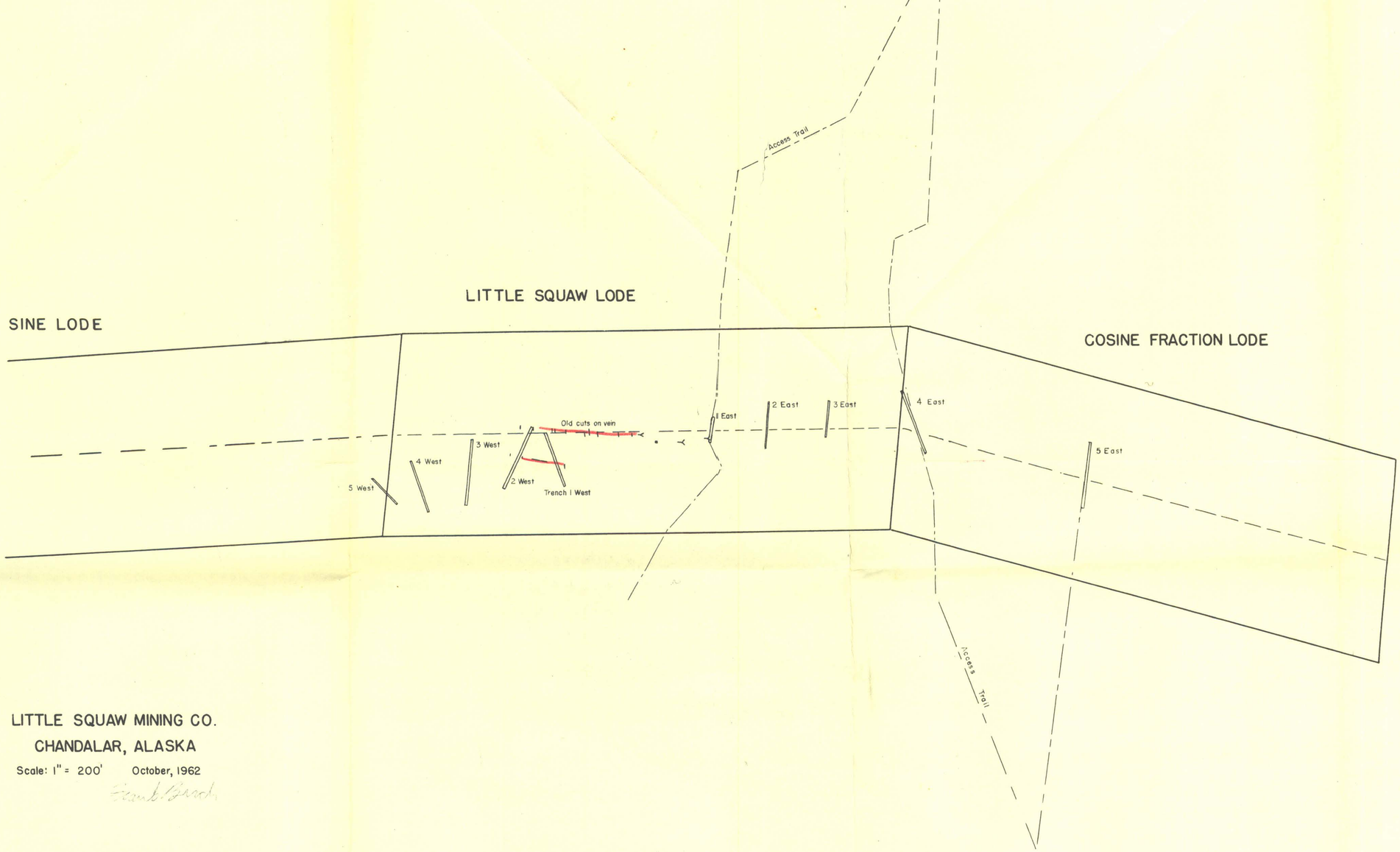


LITTLE SQUAW MINING CO.
CHANDALAR, ALASKA
Scale: 1" = 200' October, 1962

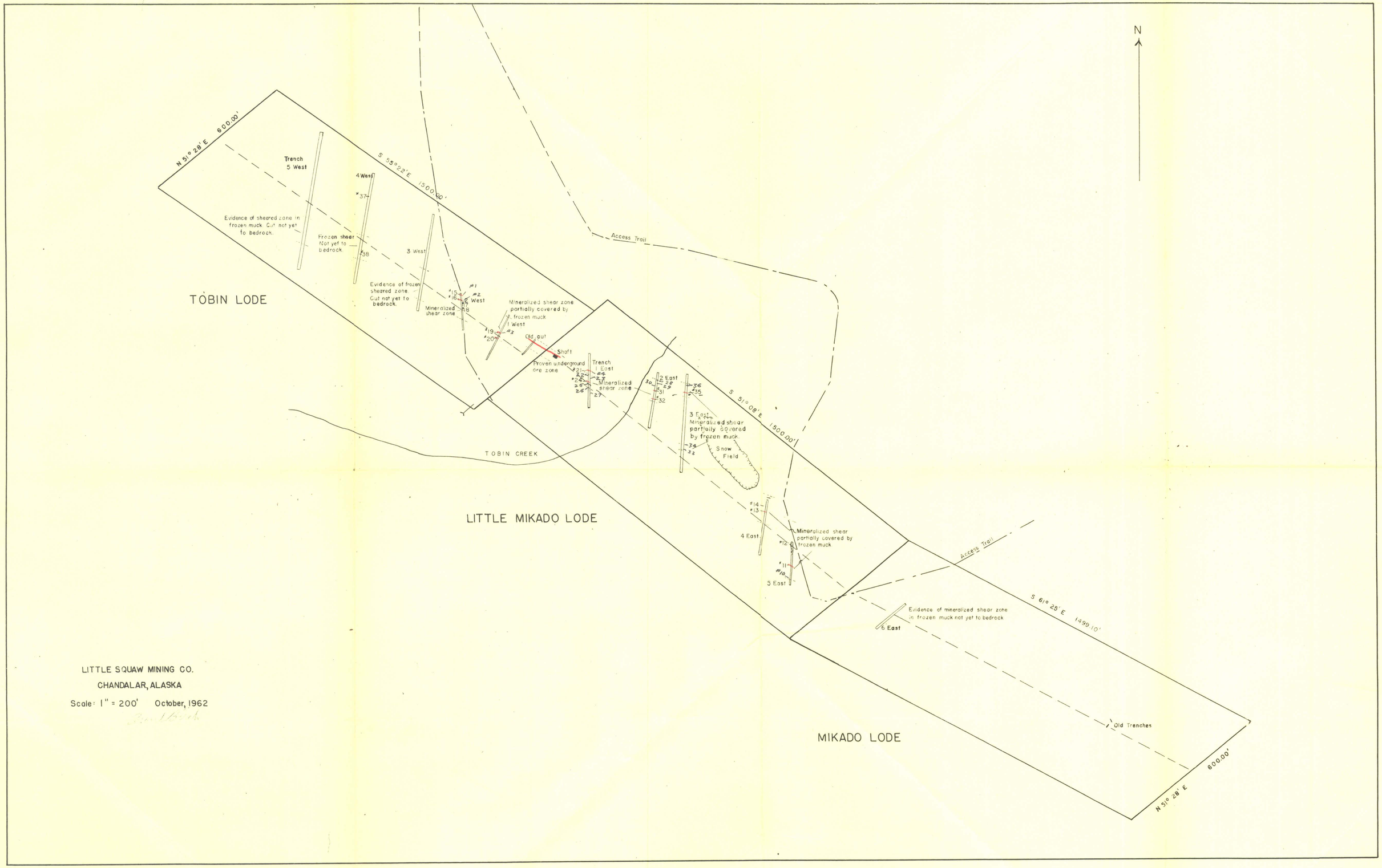


LITTLE SQUAW MINING CO.

CHANDALAR, ALASKA

Scale: 1" = 200' October, 1962

Frank Birch

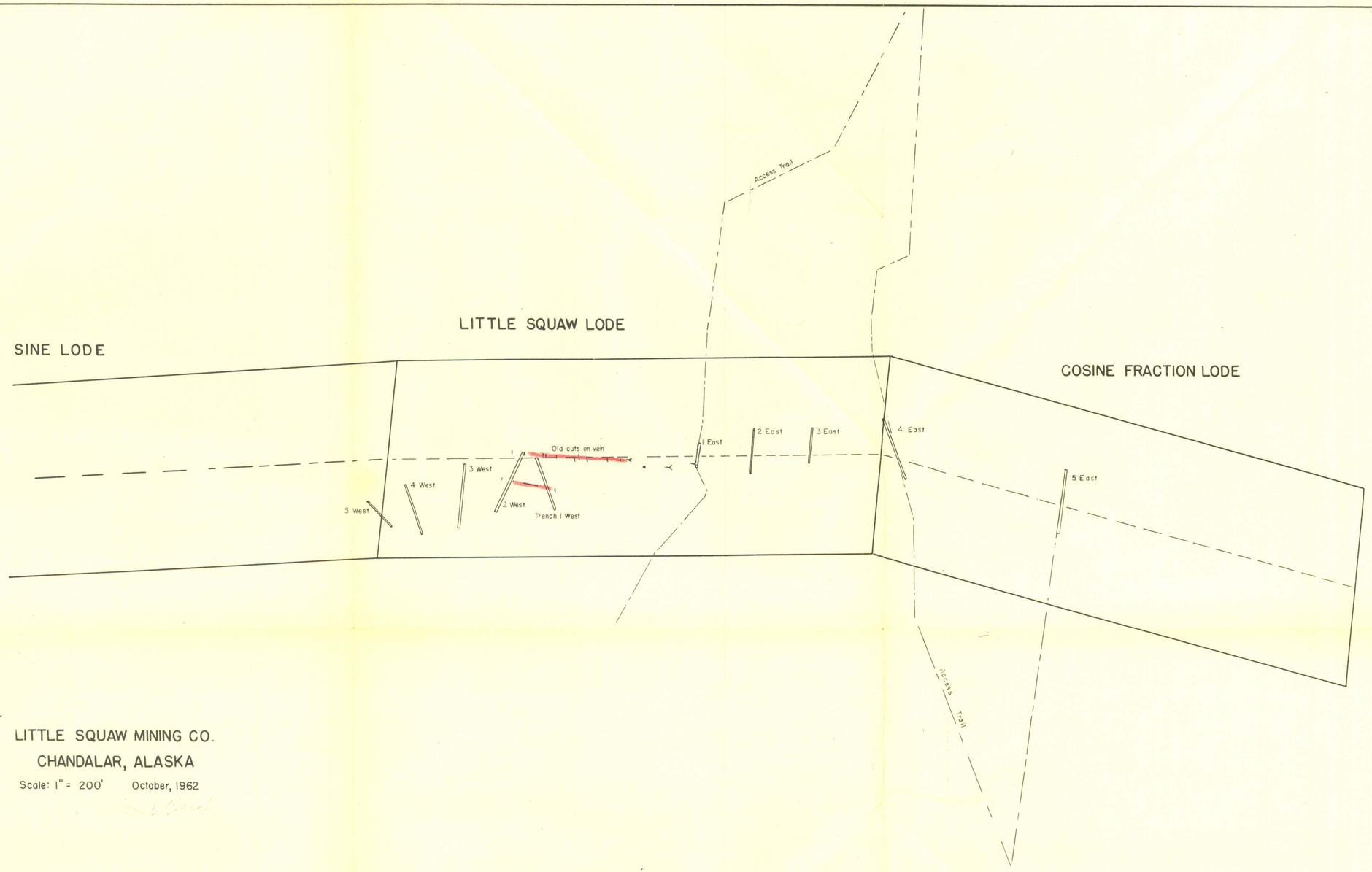


LITTLE SQUAW MINING CO.

CHANDALAR, ALASKA

Scale: 1" = 200' October, 1962

Paul Brock



LITTLE SQUAW MINING CO.

CHANDALAR, ALASKA

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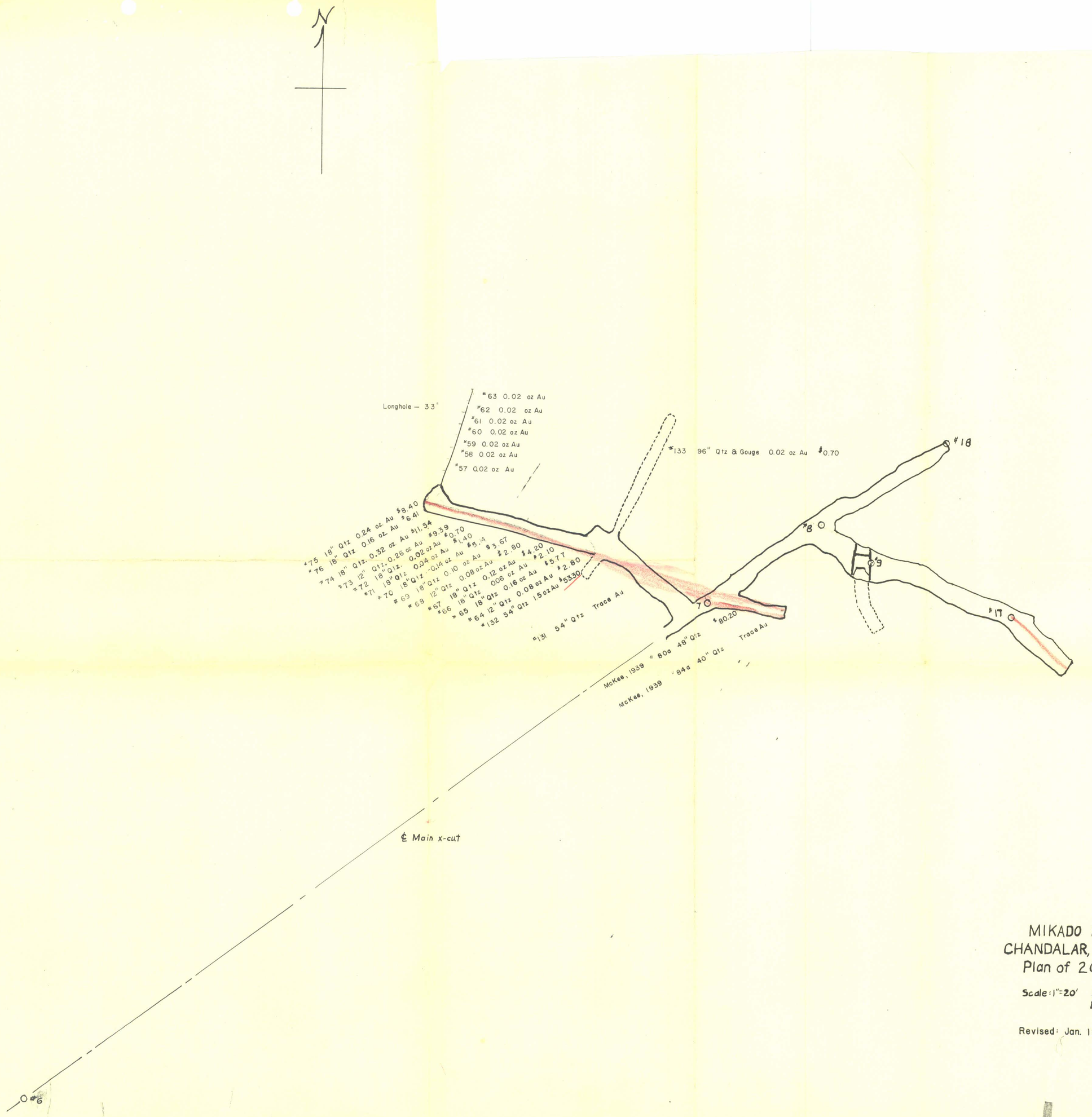

MIKADO MINE
CHANDALAR, ALASKA
Plan of 200' Level

Scale: 1" = 20' December, 1960
By: J. S. Birch

Revised: Jan. 1963 By: J. S. Birch