31M04NE0002 2.4232 LORRAIN

010

REPORT ON R. M. CLARKE'S

LAT OUR LAKE

MINING PROPERTY

RECEIVED
OCT 27 1981
MINING LANDS SECTION

Date: December 1, 1980

Prepared by: D. M. Clarke
J. W. Ricketson, P. Eng.

L.D

Date: December 1, 1980

REPORT ON R. M. CLARKE'S LATOUR LAKE MINING PROPERTY

LOCATION:

The property consists of six (6) mining claims which are located approximately one mile north of Lorrain - South Lorrain Township line, at approximately latitude 47 degrees 15 minutes, and longitude 79 degrees 31 minutes. They are situated at and under the east end of Latour Lake, which is approximately two miles west of Highway 567.

The Town of Cobalt is approximately 11.5 miles N 34 degrees W, and the property is intersected by a hydro power line, with an access road to service the line from Highway 567.

ACCESS:

Thirteen miles south of North Cobalt on Highway 567 is a service road running east. At approximately one mile this service road intersects the hydro access road referred to above, which leads to the mining claims two miles in a southerly direction along the power line. The power line access road is negotiable with a four wheel drive or track vehicle.

HISTORY:

At this time no recorded historical data has been located relating to the old workings within the property boundaries. The information presented in this history was furnished by Ronald M. Clarke of Parry Sound, who has discussed the past mining history with Mr. Dave Bowers of Haileybury, and who was apparently a former employee of a mining venture on the property.

A check with the Land Registry Office at Haileybury as to the status of surface rights only claim numbers T-19088, T-19089, T-19090 which lie within the boundary of the property, revealed that they are defunct, and were returned to the Crown, apparently for non-payment of taxes some 60 years past. The former ownership of these rights was not established.

During the era of World War I, a mining concern believed to have been the Lang-Caswell Silver Mine shipped a silver-cobalt ore to a refinery at South River. This refinery is no longer in existence.

This ore was removed from numerous surface trenches, pits, and a shaft believed to be approximately 100 feet in depth. The ore consisted of smaltite with silver values.

The original surface dump in the vicinity of the shaft would appear to have been picked over at some time.

The surface exploration workings believed to have been those of the Giroux Mine are located at the northeastern end of Latour Lake within the boundaries of the property.

... 2

GENERAL TOPOGRAPHY:

The land at the east end of Latour Lake, within the property boundaries, is rolling country covered with mixed hardwood and softwood trees, of medium growth.

At the northeast end of the lake is a hilly area with rock outcrops. South of Latour Lake the land rises sharply with showings of rock faces.

Within the southeastern corner of the property is a creek and swamp area with dense bushes primarily of softwood.

OLD WORK SITES:

1. Within claim #576314 is a surface exploration working believed to have been the Giroux Mine. The work site is approximately 300 feet east of the western boundary line and along the northern shore line. Evidence of trenching is within a radius of approximately 50 feet.

2. Within claim #576312 is an old timbered mine shaft filled with water. Close-by is a waste dump believed to have come from the mine workings. Also evident at the shaft site are old metal equipment parts.

3. Within claims #574577 and #576311 are numerous trenches and glory holes. The trenches vary in depth from approximately two to five feet. The glory holes are shallow, and of undetermined depth due to water.

On the face of a sharply rising hill at the east edge of the lake is evidence of a mine working and waste dump.

RECOMMENDATIONS:

Based on the evidence of numerous trenches and an old shaft with a waste dump, (the latter showing cobalt mineralization) the property within the six claims exhibits a potential for exploration. Since the trenches have their faces now covered over with mosses and other vegetation, it is not possible to examine them properly.

The following options are worthy of consideration:

1) Examine at random sections of the old trenches and workings to greater depths exposing fresh faces.

2) Pump the old timbered shaft in claim #576312 and examine.

3) Pending the extent of mineralization and their assayed values, the showings should be surveyed, mapped and a correlation assessment made to determine a diamond drilling program.

4) Conduct sufficient test hole diamond drilling to establish the extent of mineralization and assayed values.

REGISTERED PROFESSIONAL ENGINEER
MINING
J. W. RICKETSON
PROVINCE OF ONTARIO

Prepared By:

D. M. Clarke; and

J. W. Ricketson, P. Eng.

RONALD M. CLARKE
24 BAY STREET
PARRY SOUND, ONTARIO
P2A 1S5

31M04NE0002 2.4232 LORRAIN

020

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MINING LANDS SECTION

LATOUR LAKE PROPERTY

SUMMARY

Observations:

1. The most striking feature that confronts the observer is the tremendous number of man hours that have been expended on the property. At to-days labour prices no one could afford to carry out such a detailed property evaluation.

2. The existance of a mine dump of approximately 1000 tons of broken material showing widely scattered signs of oxidized cobalt mineralization.

3. The presence of mineralization over such a wide area.

4. The presents of an existing road to within 1000 ft. of the mine dump, only 6.5 Km from a highway 567.

5. The proximity of the property to existing mills presently engaged in the procressing of cobalt ores.

6. Power Transmission lines crossing the property within 1000 ft. of the shaft.

7. The proximity and availability of student geologists and mining personnel from the Haileybury School of Mines - 20 miles away.

Recommendations:

1. That a high pressure Wajax type pump be brought in to clean out the trench systems and determine the detailed geology obviously responsible for their initial excavation.

2. That a wide zone around the immediate # 1 shaft be stripped with the pump to determine the structure the shaft was sunk on.

3. That the shaft itself be the source of the initial water for the hydraulic monitoring so as to dewater the shaft & condition of the shaft at depth.

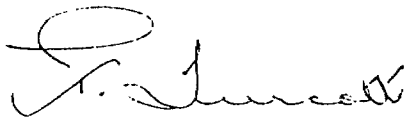
4. That student labour be engaged to take a bulk sample of the mine dump by cutting a trench across it.

5. That geochemistry be employed to determine the primary dispersion of T.H.M. (Total Heavy Metals) in the immediate power line transmission area.

6. That a V.L.F. geophysics survey be conducted over the entire property, on a 400' grid with close order spacing where ever warrented.

7. That a review of initial results be viewed with a possibility of diamond drilling of anomalous areas.

Respectfully Submitted



G. Turcott

Teaching Master

& Coordinator

Civil/Mining/Geology Dept.

LATOUR LAKE PROPERTY

Latour Lake is in Lorrain Township, Distric of Temiskaming - Sudbury Mining Division. The lake itself is located in the south half of lots 6, 7 & 8 of conn. II. A block of 17 contiguous claims encompasses the entire lake continuing to the East into the South half of lot 9 plus 5 claims in the North half of lots 8 & 9 conn. I, as per attached sketch.

The claims are accessible both by float plane and by 4 wheel drive vehicle on an access road, approximately 6.5 Km off Highway 567 commonly referred to as Silver Center Road.

A main Ontario Hydro transmission line cuts tangentially across the eastern claims 574571 - 574577 - 567312 - 567310 on a bearing of N 37^{o} E. Though this close proximity of hydro will undoubtedly be a valuable asset to further mining developments it has a somewhat detrimental effect on geophysical instrument reading in the immediate vacinity.

No. 1 Shaft Area

The No. 1 shaft is located in the N.W. corner of claim #576312. There is a 2 compartment timber cribbed shaft app. 6' X 12'

and free of obstructions in excess of the 100 foot measuring tape lower down from the collar. The shaft is flooded level with the ground surface, indicating competent wall rock, as the collar is easily 15' above the elevation of the beaver pond that surrounds the shaft on 3 sides.

The mine dump extends level from the collar for app. 40 ft. & out into the beaver pond at the normal engle of repose for an additional 30 ft.

The mineral erytherite ($Co_3As_2O_8.8H_2O$) commonly refered to as Cobalt Bloom is in evidence over a wide range of the dump, & cross-trenching reveals considerably more of the bright pink oxidation product. Closer investigation shows silver-white metallic speaks widely disseminated throughout the oxidized specimans. Without further petrographic investigation it is impossible to differentiate between the minerals Smaltite ($CoAs_2$), Cobaltite (CoAsS) or Skutterudite ($CoAs_3$) as being responsible for the pink erytherite bloom. Several traces of Annabergrite ($Ni_3As_2O_8.8H_2O$) (Nickel bloom) suggests the presents of Chloanthite the cobalt-nickel mineral commonly associated with

the silver ores of the Cobalt mining camp. Several specimans with blebs of massive chalcopyrite were also present. The host rock appears to be a moderate grained diorite closely resembling a coarse diabase. Exceptional specimans showing 3 directional jointing were common on the dump, that is to say specimans displaying perfectly smooth sides on 3 planes or faces. The majority of these brick or block like specimans are coated with red oxidation indicating the presents of sulphides in a hydro-thermal environment. The jointing feature may well be a structural control for the associated mineralization.

ORDER OF MAGNITUDE ESTIMATION

Calculations of material removed from the shaft alone:

Shaft dimensions X Depth X Expansion Factor

6' X 12' X 100' X 30% = 10,300 cu. ft.

Using specific gravity of diorite of 2.86

$$= \frac{2000}{2.86 \times 62.4} = \frac{2000}{178.4} = 11.2 \text{ cu. ft/ton in situ}$$

11.2 X 30% (expansion factor) = 3.69 + 11.2 = 14.89

cu. ft/ton (use 15)

. . 10,300 cu. ft. $\div$ 15 = 687 tons removed

Calculations of material on dump:

$$40' \times 20' \times 15 + \text{end area } \frac{(30 \times 20 \times 15)}{2}$$

$$= 12000 \text{ cu. ft.} + \frac{9000}{2} \text{ cu. ft.}$$

$$= 21000 \text{ cu. ft.} \div 15 = 1100 \text{ tons} \pm 10\%$$

The dump appears to contain in the order of magnitude of 1000 tons plus, with the additional tonnage probably comming from lateral development work underground. No records of ore shipments to Cobalt are available at this time.

The surface around the shaft collar is completely covered with till consisting of broken spherical granite boulders that appear to be of glacial drift. Extensive trenching leading away from the shaft indicate months of tedious hand digging to expose additional veins or control structures. The trenches can best be followed on the attached sketch, but are described as follows:

Trench S-1 (Shaft #1 - trench #1) starting at the NE corner of the shaft on a bearing of N70°E for 20' app. 3 ft. wide and 2 - 3 ft. deep, terminated by intersecting another trench S-2. Rock type same as host of shaft namely diorite, trench filled with debris & water in deeper areas.

Trench S-2 on a bearing of N40°E for 168 ft. varying in width and depth up to 5 ft. from the point of intersection a third trench (S-3) cuts S-2 @ 64' and a deep test pit is @119'.

Trench S-3 a shallow trench bearing due West running down hill and dissappearing into the beaver pond.

As noted above trench S-2 has a test pit @ 119' mark. This test pit is approximately 15' deep and full of water.

Samples from the trenched material are the same dioritic - (diabase) - as the main shaft.

The extensive beaver cutting activity in the area has caused wide spread flooding, right up to engulf the toe of the shaft dump. Any trenching or work to the west of the shaft is obviously lost until the water level could be lowered.

All samples from the mine dump & shaft area trenches are appropriately numbered #1 Shaft Area or with their respective trench numbers.

No. 2 Shaft Area

Approximately ¼ mile, bearing N25°E from No. 1 shaft are a series of shafts - test pits and a very extensive network of trenches.

Shaft No. 2 is located 90' North - North-West of the No. 2 post of claim 574313, just off the fringe of the transmission line clearing. The 8' X 8' shaft is cut into a steep cliff face & is flooded to the collar on the open side. An obstruction 10 ft. below the water line precluded an accurate measurement. The steep grade going all the way down to Latour Lake, makes tonnage calculations of the removed material virtually impossible. Samples taken from the dump show both erytherite and annabergite. Samples are labeled #2 Shaft Area.

Test Pits & Trenching in No. 2 Shaft Area:

Trench # 2-1 (Shaft #2 - Trench #1) extends from the corner of # 2 shaft for 95' on a bearing of S70°E and terminates in a deep test pit and intersection of a second trench 2-2.

Trench # 2-2 extends both ways from the test pit, bearing S60°W and is 125' long. This trench also intersects another third trench (2-3) on its northly extension.

Trench # 2-3 this is the most extensive working in the area with a total length of 335 ft. and test pits along its strike of S20°W from the intersection with 2-2. The largest of the test pits is approximately 10' X 6' X 5' deep @ the 100' on the S20°W bearing A fourth trench (2-4) crosses @ 175' (Trench 2-4 -N40°W - 75' long).

Trench # 2-3 traversing north from the intersection point with 2-2:

@ 50' a test pit 4' X 4' X 6' deep - quartz stringers and blebs of massive chalcopyrite.

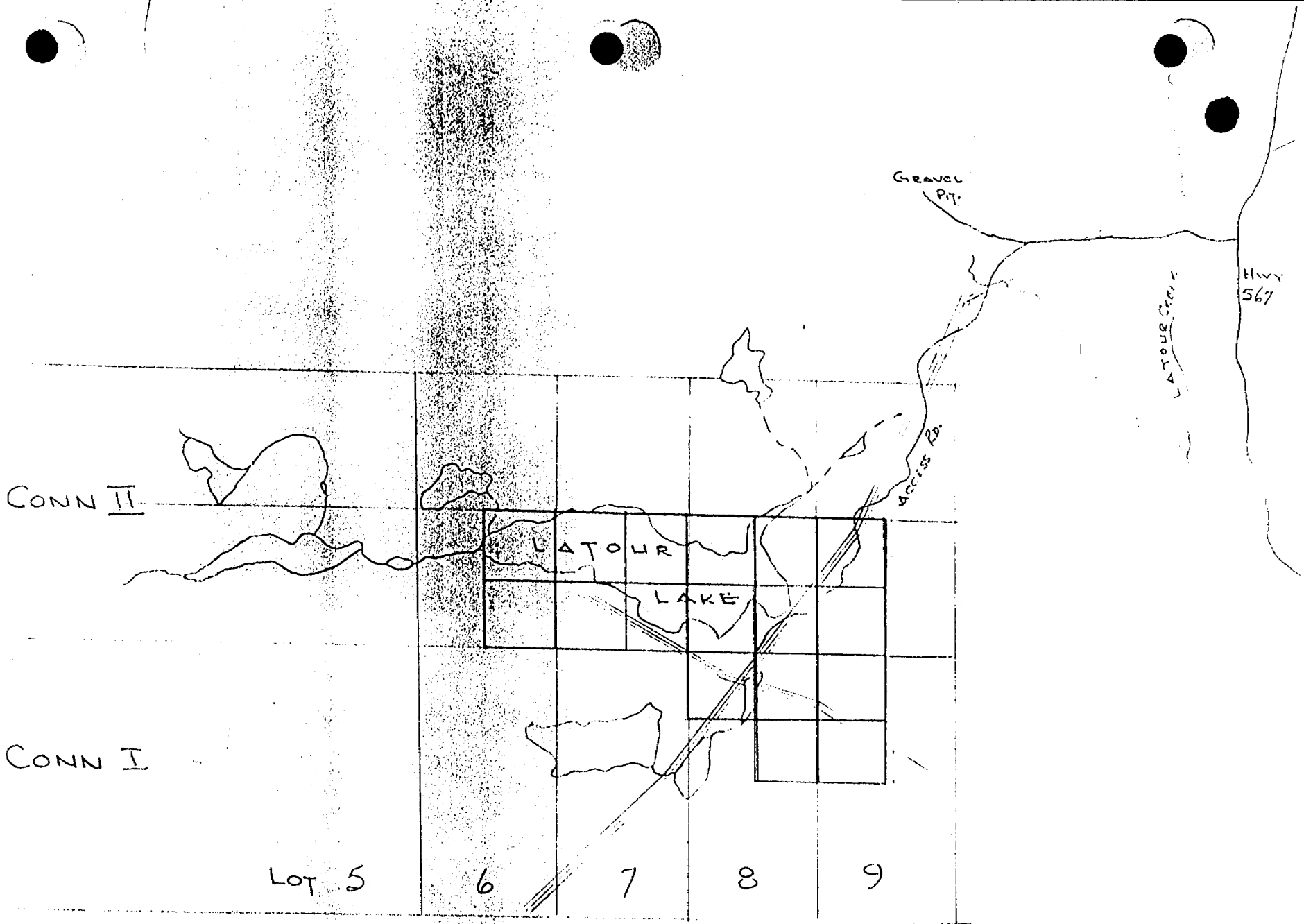
The extended workings terminate in a series of short parallel diggings an a 4' X 6' test pit.

A weathered calcite vein 8' - 10" wide is exposed for 7' or 8' vertical ft. and pink erytherite is evident throughout the stringer.

A second test pit 75' NE (N38°E) is joined by a trench shows both malachite and annabergite staining. Samples are labelled Test Pit Area - #2 Shaft.

Both test pits are just to the south of the power line clearing.

Claim # 574471 has extensive trenching stradling the road about the mid point of the claim and trying to maintain some semblance of logical description, it can best be described as a maze or intricate network of deep interconnecting trenches and test pits - the accompaning sketch can best convey the general trends.

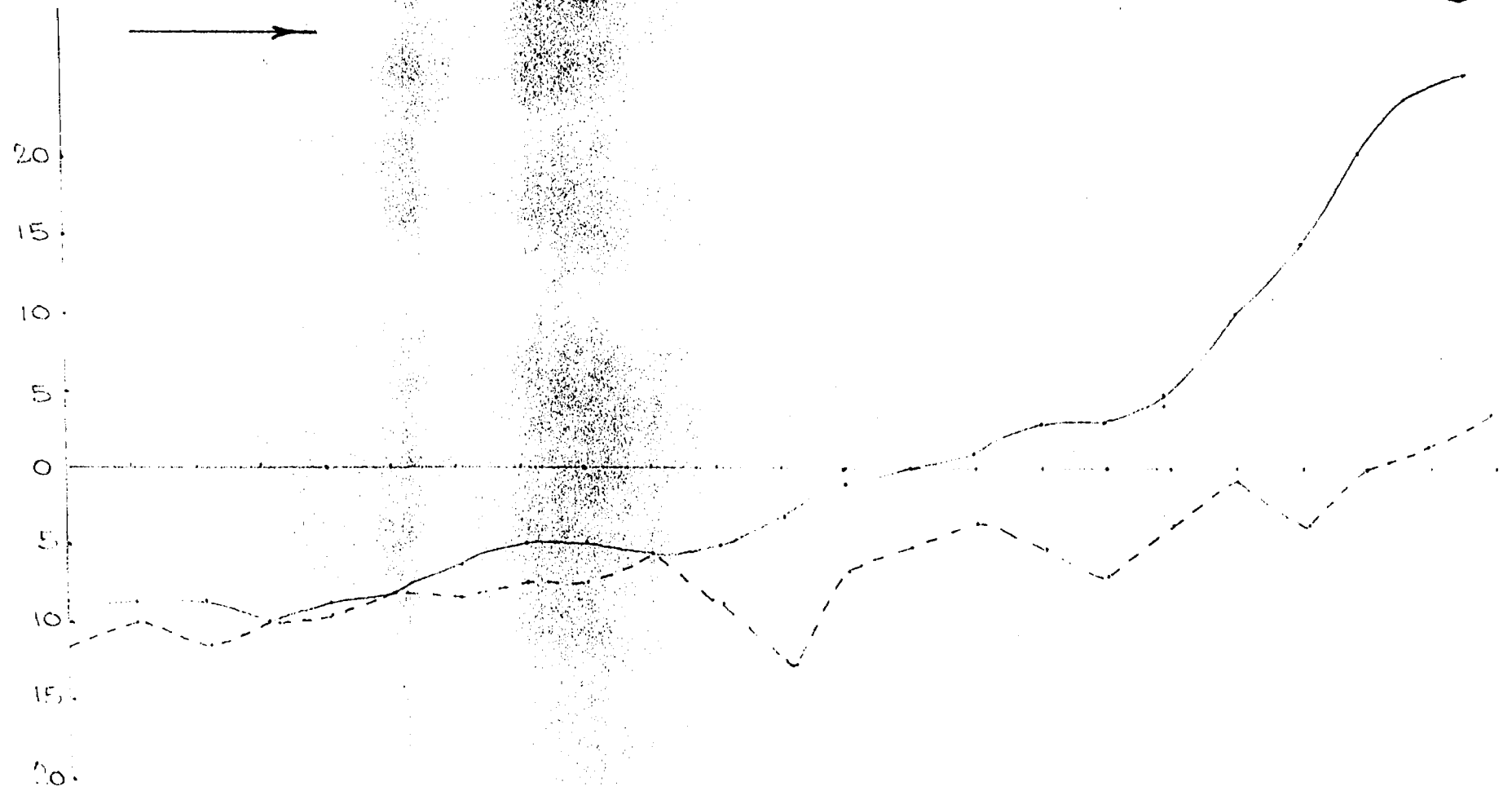


LATOUR LAKE PROPERTY CLAIMS

LINE # 2

IN PHASE ——————

OUT of PHASE - - - -



EM-16 SURVEY : TRAVERSE: SOUTH → NORTH STATION CUTLER MAINE

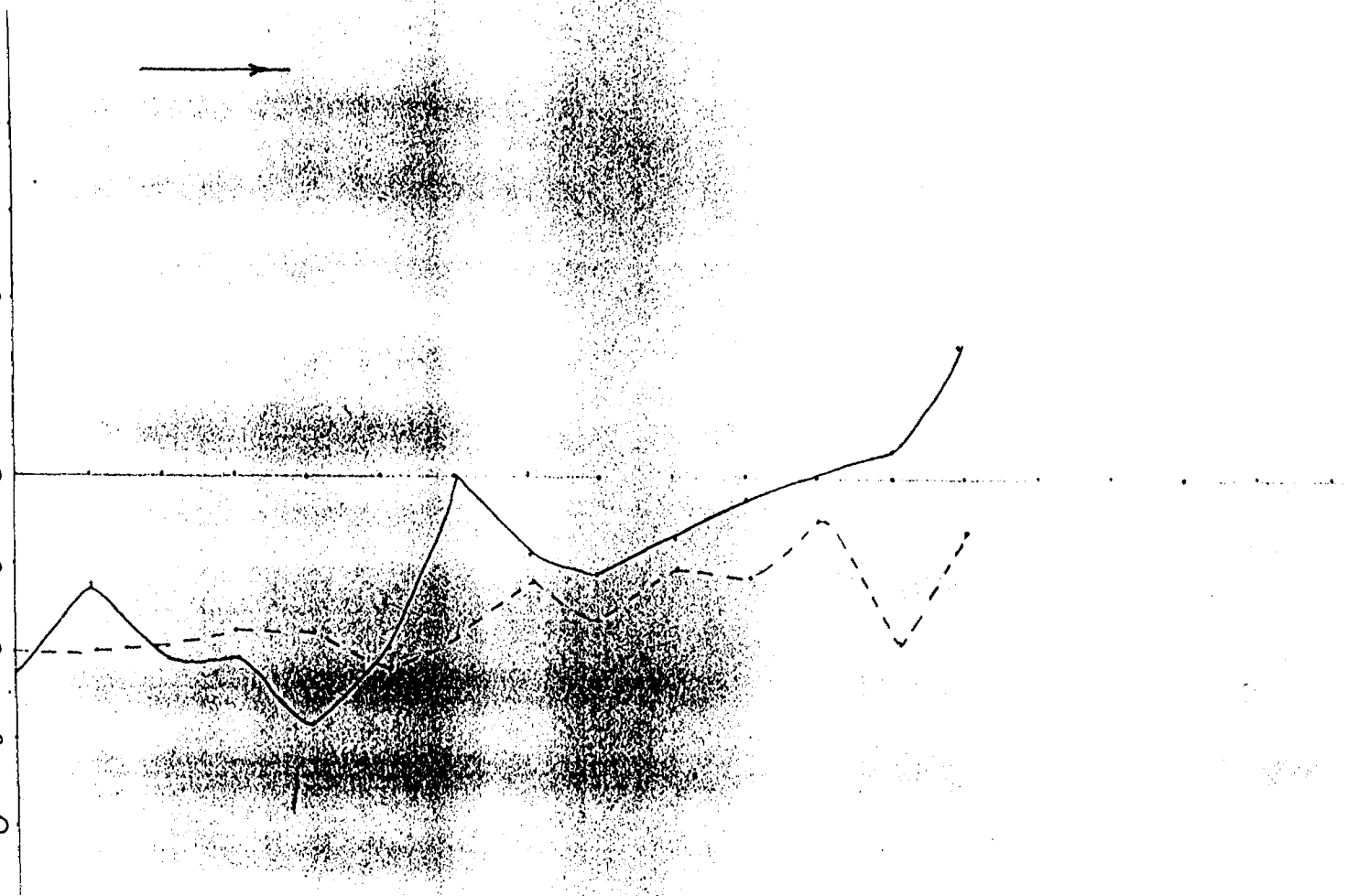
24232

24232

LINE #3

IN PHASE ——

OUT OF PHASE - - - -



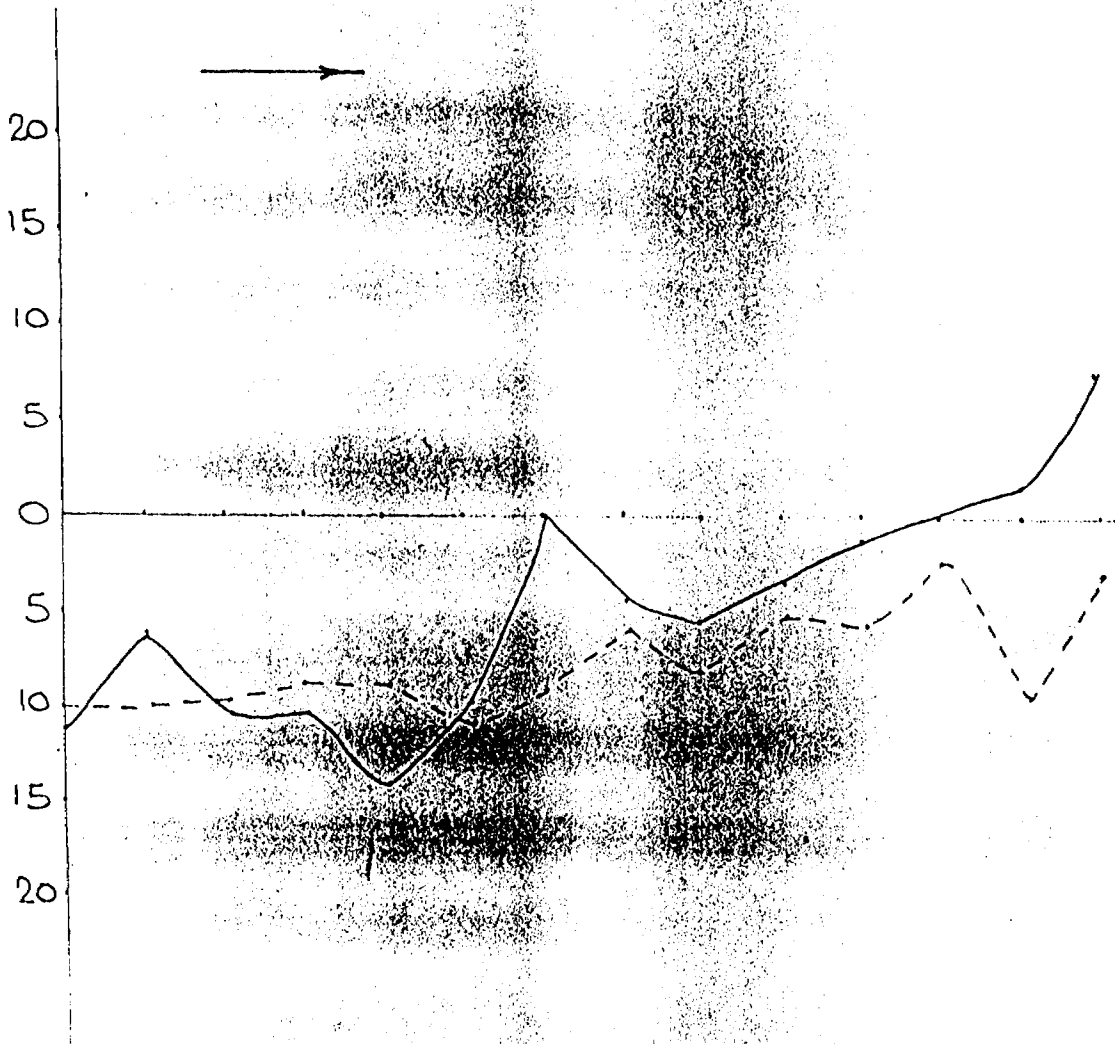
EM 16 SURVEY : TRAVERSE SOUTH → NORTH : STATION CUTLER MAINE

24232

LINE #3

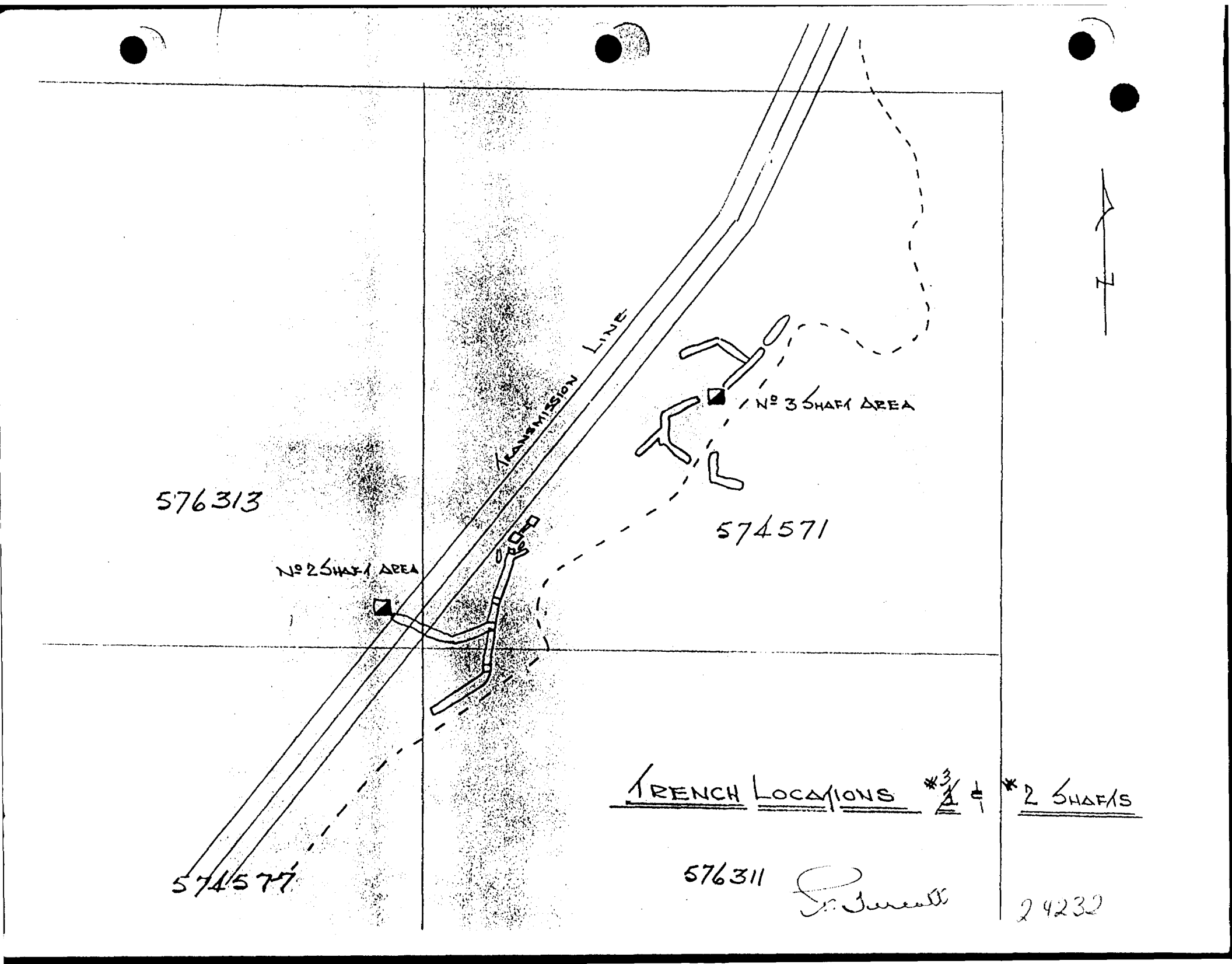
IN PHASE ——

OUT OF PHASE - - - - -



EM 16 SURVEY : TRAVERSE SOUTH → NORTH : STATION CUTLER MAINE

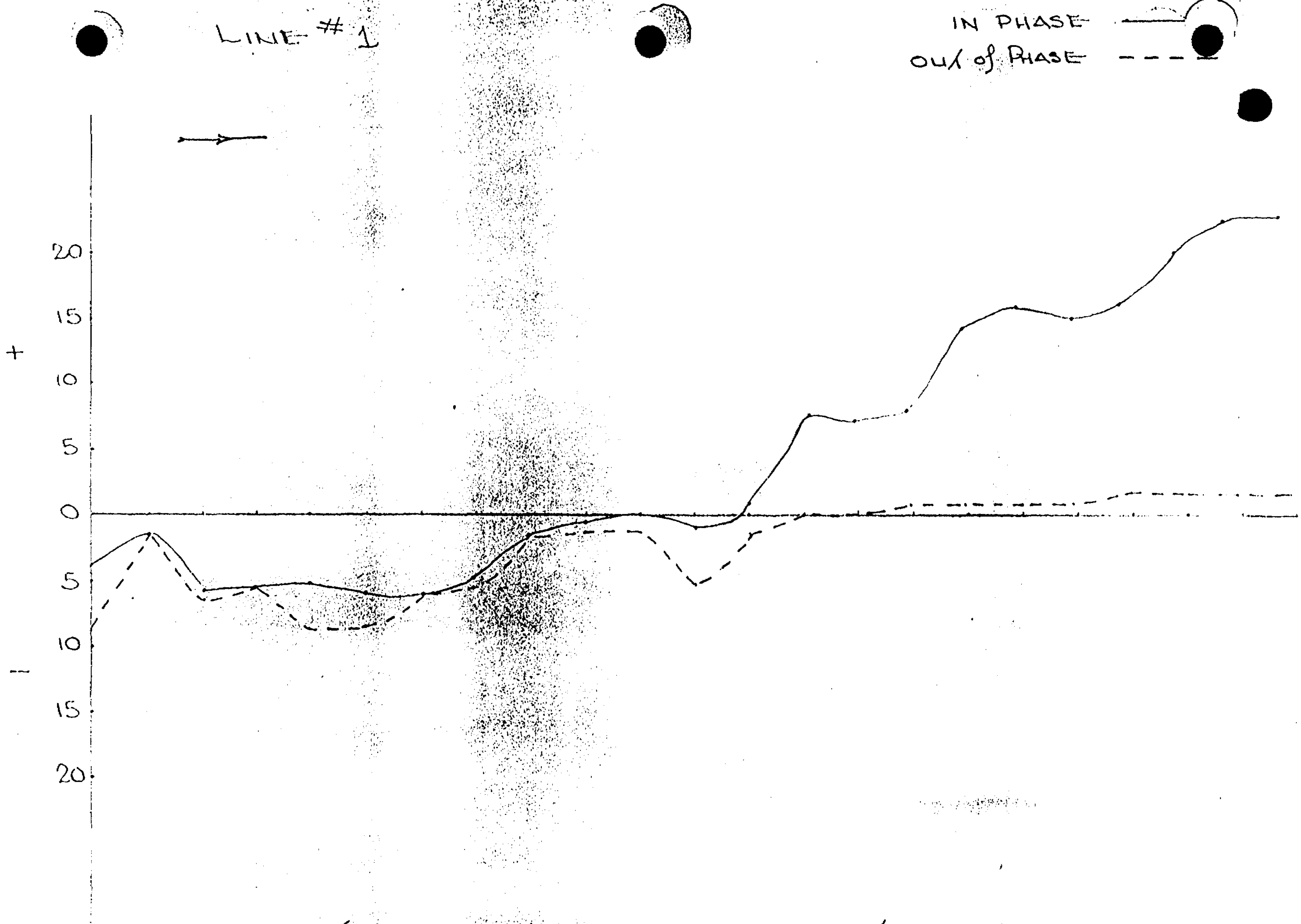
8/8/32



TRENCH LOCATIONS *3 & *2 SHAFTS

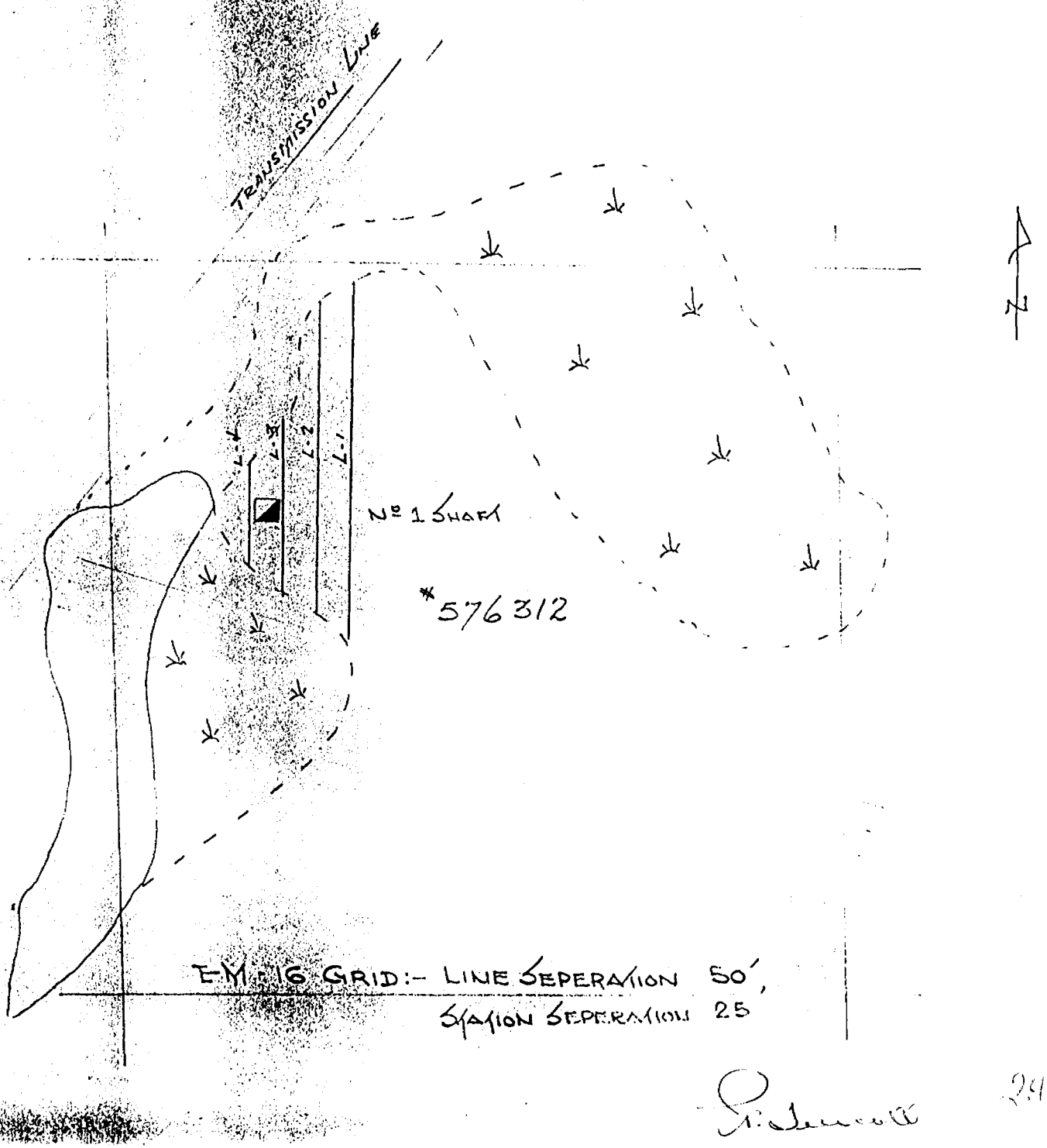
24232

LINE #1



EM-16 SURVEY : L-1 TRAVERSE SOUTH → NORTH : STATION CLIKLER?

24232


TRANSMISSION LINE
No 1 SHAFT
*576312
E-M-16 GRID:- LINE SEPERATION 50'
STATION SEPERATION 25

Tacheometric
E.M.

LINE 1 W

Sta	½ P	° P
0	-1	-8
	-2	-2
0+50	-6	-7
	-5	-5
1+00	-5	-8
	-6	-8
1+50	-6	-6
	-4	-5
2+00	-2	-2
	-1	-2
2+50	0	-2
	-1	-5
3+00	+1	-2
	+8	0
3+50	+7	0
	+8	+1
4+00	+15	+1
	+17	+1
4+50	+16	+1
	+17	+2

Tacheometric
E.M.

L-2 W

Sta	½ P	° P
0	-8	-12
	-8	-10
0+50	-8	-12
	-10	-10
1+00	-8	-9
	-7	-7
1+50	-6	-7
	-5	-7
2+00	-5	-7
	-6	-6
2+50	-5	-8
	-4	-13
3+00	-1	-7
	0	-5
3+50	+1	-4
	+3	-5
4+00	+3	-7
	+5	-4
4+50	+11	-1
	+15	-4

Tacheometric
E.M.

L 3 W

Sta	½ P	° P
0	-11	-10
	-6	-10
0+50	-11	-10
	-11	-9
1+00	-14	-9
	-10	-11
1+50	0	-9
	-1	-6
2+00	-5	-7
	-4	-5
2+50	-1	-5
	0	-2
3+00	+2	-9
	+8	-2
3+50	edge of [illegible]	
4+00		

Tacheometric
E.M.

L 4 W

Sta	½ P	° P
0	-13	-12
	-16	-11
0+50	-15	-12
	-15	-13
1+00	-10	-11
	6	-13
1+50	-7	-10
	-6	-10
2+00	0	-10
	-14	-4
2+50	+1	-11
3+00	beaver pond	

L-2W

Km	S/P	O/P
5+00	+24	0
	+25	+2
5+50	+27	+1
	swamp	
6+00		

L.1W

Km	S/P	O/P
5+00	+21	+2
	+24	+2
5+50	+24	+2
	edge of beaver pond	
6+00		

BUCKE TWP. (M. 432)

COLEMAN TWP. (M. 454)

GILLIES LIMIT TWP. (M. 483)

SOUTH LORRAIN TWP. (M. 591)

PROVINCE OF QUEBEC

Lake Timiskaming

Kirk Lake

Chown Lake

Nicol Lake

Goodwin Lake

Suddie Lake

Longfellow L.

Gleeson Lake

Latour Creek

Edison L.

Bouck Lake

Latour Lake

Anderson Lake

Caswell L.

Montreal R.

HY 107

Hermit L.

Mission Point

Pte a' la Barbe

Withdrawn From Staking
Section 38 - F The Mining Act

LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES
  - TOWNSHIP, BASE LINES ETC.
  - LOTS, CONCESSIONS, CLAIMS, PARCELS ETC.
- UNSURVEYED LINES
  - LEASE
  - PATENT, LICENCE OF OCCUPATION ETC.
  - MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT SURFACE & MINING RIGHTS	●
SURFACE RIGHTS ONLY	◓
MINING RIGHTS ONLY	◒
LEASE SURFACE & MINING RIGHTS	■
SURFACE RIGHTS ONLY	◨
MINING RIGHTS ONLY	◧
LICENCE OF OCCUPATION	▼
ORDER IN COUNCIL	OC
RESERVATION	⊛
CANCELLED	⊗
SAND & GRAVEL	ⓖ

NOTE MINES AND MINERALS IN PARCELS PATENTED PRIOR TO MAY 6 1913 VESTED IN CROWN BY ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT R.S.O. 1970 CHAP. 380 SEC. 63 SUBSECT. 1

NOTES

400' SURFACE RIGHTS RESERVED AROUND ALL LAKES AND RIVERS

RESERVATION OF ONE CHAIN FROM HIGH WATER MARK TO BE MADE ON ALL PATENTS OF LANDS BORDERING ON LAKE TIMISKAMING, EFFECTIVE FEBUARY 13, 1928.

AREAS WITHDRAWN FROM DISPOSITION

S.R. – SURFACE RIGHTS M.R. – MINING RIGHTS

Description	Order No	Date	Disposition	File

DATE OF ISSUE
NOV - 5 1981
Ministry of Natural Resources
TORONTO

SAND AND GRAVEL

- GRAVEL 1758
- GRAVEL - FILE 9808
- GRAVEL - FILE 52858
- GRAVEL - FILES 51640, 107092
- GRAVEL PIT 1457, D.H.O., FILE 107092

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 1000 (1 KM) 2000 (2 KM)

ACRES	HECTARES
40	16

TOWNSHIP OF

LORRAIN

DISTRICT
TIMISKAMING
MINING DIVISION
SUDBURY

Ministry of Natural Resources — Ontario
Surveys and Mapping Branch
24232

Date 5/2/1979
National Topographic Series

Plan No
M-536

31M04NE0002 2.4232 LORRAIN