OM36-PE32-P-80

EXCALIBUR
INTERNATIONAL
CONSULTANTS LTD.

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The Mine Assessor
Mineral Resources

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Mississauga, Ont., Canada L5G 3G7
Telephone (416) 271-1043

March 27, 1981

SUMMARY OF WORK UNDERTAKEN

The review of available geological and geophysical data was the first assignment completed. The horizontal loop electromagnetic data was plotted at a more suitable scale and depth determinations were carried out. The inspection of the magnetic data revealed that re-contouring of the data may bring out details which may be of significance. After the re-contouring of the data, interpretation of the ground magnetic data followed. The preliminary interpretation of the magnetics was utilized to select drill hole locations.

The specifications for line cutting, and ground magnetic surveys were also prepared.

Frank L. Jagodits, P. Eng.,
Consulting Geophysicist

Lightval Syndicate

O.M.E.P. Program

Drillers:	1) Troop Exploration	Winkie Drill "A" core
	2) Heath and Sherwood	"B.Q."

Core stored - 7020 Yonge St., Thornhill, Ontario

Geologist	David A. Bell	Timmins, Ontario
Geophysicist	Frank J. Jagodits	Mississauga, Ontario
Manager Field Operations	William A. Strauss	Matheson, Ontario

PARTICIPANTS IN LIGHTVAL SYNDICATE (1980)

RE: The Ontario Mineral Exploration Program Act, 1980

Participant	Commitment	Amount Paid
Geoffrey C. Noble	$ 50,000.00	$ 50,000.00
C. E. Hofmann	22,200.00	22,200.00
J. E. Clemenger	2,500.00	2,500.00
A. J. Jespersen	12,500.00	12,500.00
N. P. Copes	12,500.00	12,500.00
P. Zyla	25,000.00	25,000.00
	$124,700.00	$124,700.00

The previous pages of Introduction cover work history on the property. Attached as an exhibit to this report is a more complete work history assembled by Lightval Syndicate from the records of the Teddy Bear Valley Mines Limited.

PROPERTY, DESCRIPTION AND LOCATION

The Teddy Bear Valley Mines Limited mining property consists of nineteen (19) contiguous patented mining claims which are located in the northwest and northeast corners respectively of Holloway and Harker Townships, Larder Lake Mining Division, Northeastern Ontario and straddle Highway 101 which is an all-weather paved road travelling due west some

40 miles to Matheson, Ontario.

We understand that during the period of activity in the late 20's and the early 1930's, the operation was serviced by way of a wagon road from Ramore and there was also access north to the rather large Lake Abitibi which in itself has access to the main Canadian National Railway line.

The actual area of interest which is within the boundaries of claim 10080, is centred on Seagers Hill and this feature is located approximately 1,200 feet north of the above mentioned highway and a few hundred feet east of the Holloway-Harker north-south boundary line.

ACCESSIBILITY, TOPOGRAPHY AND LOCAL RESOURCES

The property is easily reached via Highway 101 from Matheson, a small northern Ontario town which is linked to southern Ontario centres by Highway 11, a main north-south route and by the Ontario Northland Railway which is linked to the Canadian National Railway lines. Access to Seagers Hill is accomplished by using a narrow 1,000 foot clay based bush road which now is not passable other than by using a four wheel drive or all-terrain vehicle.

In general, the surrounding country known as the Ontario Clay Belt is relatively flat and the main topographic features are the Ghost Range and Lightning Mountain situated a few miles to the north and northeast. Seagers Hill has an area of approximately one-eighth of a square mile and rises some 30 feet above the surrounding area.

The local resources have been drastically reduced over the years since most of the small rivers and creeks are more or less fished-out and the timber over Seagers Hill and immediate area was cut out years ago but

standing timber still supports the logging industry a few miles distant. A number of interesting gold prospects which could be of value in the future are scattered throughout the area and the increasing price of gold has revived mineral exploration in the region.

Seagers Hill was almost completely stripped of vegetation and soil cover during the early years of mineral exploration and mining and the now visible tree, brush, and moss population is a mere fifty years of age.

HISTORY

The early history of the Teddy Bear Valley Mines Limited prospecting and exploration programs has been reported and printed a number of times and may be found in J. Satterly's[3] report covering the Geology of the North Half of Holloway Township. There appears to be one rather glaring error in this report for historical events and Mr. Ross E. Hofmann[1] points out that both shafts were started in 1925 and that the 1935, second shaft of Satterly was in fact the old Number 1 Prospect Shaft which was sunk on the "Mammoth Vein" in 1925. Edward H. Orser's[4] summary report of 1935, appended to this report, is another source of historical information.

Four deep diamond drill holes drilled under the direction of W.C. Martin[5] were completed in 1945 attempting to cross section the area along

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[3] Satterly, J.
1953: Geology of the North Half of Holloway Township, Ontario Department of Mines, Vol. LXII, Part 7, pp. 33-36, Map 1953-4.

[4] Orser, Edward H.
1935: Summary Report as at November 28, Teddy Bear Valley Mines Ltd.

[5] Martin, W.C.
1945: Geology of East Part of Property, Teddy Bear Valley Mines Ltd.

the Holloway-Harker north-south boundary line southwest of Seagers Hill. Two of these holes failed to reach bedrock, a third intersected gold bearing float in the overburden and a fourth returned rather impressive values from two sludge samples collected from two reported separate sections in the hole. Logs of these holes or of the previous sixteen holes have not been seen by the author[2] but sections for holes 1 through 16 were located at the Kirkland Lake resident geologist's office. Assay certificates related to all previous sampling have not been seen by the author[2] but Mr. Hofmann[1] reports the existence of copies of old certicates covering some of the underground sampling and the available results have been plotted on plans of the underground workings prepared in his office. It would appear that, as mentioned previously, the only underground gold values of note were recorded at the north end of the second level.

A ground magnetic survey of the entire prperty was completed by C.S. Davidson in 1947 and the author[2] was briefly shown a drafted plan of the results but does not have a copy for our files.

Since Satterly's[3] report, the entire area was flown magnetically[6] and printed copies of the results may be obtained through any Ontario Geological map distribution office.

GENERAL GEOLOGY

As in the previous section on history, J. Satterly[3] has adequately described the geology of Holloway and Harker Townships and therefore it is considered necessary to describe in detail our findings over Seagers Hill.

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[6]Map 20,129G - 32D/12b - Ontario and Map 20,135G - 32D/12c - Ontario - Scale 1:25,000.

Seagers Hill is underlain by a Precambrian, Keewatin volcanic lava complex some 570 feet thick and this sequence stikes east-west and dips approximately 60° to the south with tops facing north indicating an overturned condition. These flows which have been clasified as felsic to intermediate in composition are in contact to the north with a rather thick sedimentary series consisting of greywackes, conglomerates, and perhaps slates. To the south they are in contact with a well defined 30 foot horizon of graphitic schist (intersected in old D.D.H.'s 5, 14, and 16) overlying another sedimentary series of mainly greywackes. The author[2] has not seen any rocks in the general area other than those exposed on Seagers Hill plus one small outcrop of greywacke located on the north side of Highway 101 some 3,000 feet west of the Seagers bush road.

The entire Seagers volcanic series has been carbonatized, highly fractured, bleached, and in several narrow units sericitized and silicified. The degree of carbonatization and alteration decreases as one moves north across the flow series and the rocks become increasingly basic in the same direction. An often well developed flow breccia, approximately 20 feet thick, more or less follows the trend of the south east-west trench and appears to separate the felsic, bleached, very fine grained dacitic to rhyodacitic flows to the south from the intermediate more massive, greenish-grey, coarser grained dacitic to andesitic flows to the north. Due to the intense carbonatization and alteration, the distinction between the felsic and intermediate flows has been very difficult in some instances and we have had to rely more on variation in grain sizes, silica content, degree of alteration and colour variations for identification in the cores. Perhaps

even thin section study would also prove to be inconclusive with respect to the original flow composition.

Shearing and faulting, which are in general related to a regional phenomenon known as the Destor-Porcupine Fault Zone, often follows the strike of the individual flows but has a vertical to northerly dipping attitude as is noted for the rather large north slope expression. This north slope zone is a normal fault with the south side up producing the fault block known as Seagers Hill. The intense fracturing is undoubtedly related, in part to the regional shearing but it bears an even stronger relationship to a local flexure or downwarping which has been outlined by our electromagnetic survey.

The myriad of minute quartz veinlets and small quartz veins are related to the fracture pattern which commonly strike 20° - 200° or 80° - 260° and dip east at a shallow angle or northeast steeply. A few larger veins are located towards the north slope area are parallel to or within the shearing and faulting systems and strike more or less east-west and dip vertically or steeply north.

The only sulphide mineral noted consistently was pyrite and it occurs as well developed cubes or fine grained pyrite-carbonate blebs found mainly within the south slope felsic lavas. Most of the quartz veinlets or veins contain little or no sulphide mineralization, are pure white in colour and contain no carbonates. A few greyish-white coloured veins that exceed one inch in width frequently contain small percentages of pyrite, calcite and tourmaline, are usually zoned indicating at least two generations of mineralization and have a slightly higher concentration of gold.

DISCUSSION OF RESULTS

(1) GEOLOGICAL MAPPING

Following the completion of the grid system, the cleaning and chaining of the trenches and the stripping of the outcrop areas, the author[2] proceeded to map Seagers Hill on a scale of twenty feet to the inch and the completed plan is attached under APPENDIX "B".

We found it very difficult to distinguish between the various narrow flow units due to the highly oxidized condition of the rocks exposed in the trenches and outcrop, however we were able to easily trace the flow breccia horizon across the hill without too much difficulty. The felsic outcrop exposed during the trenching and overburden removal operation south of the shaft area revealed many small quartz veins and veinlets and also confirmed our trench observations that the vein systems, in most cases, were dipping away from the attitude of the original diamond drilling. This, of course, would increase the probability of missing many of the veins plus enhance the apparent width of any intersected veins unless the core logger exercised care in estimating true widths.

During the mapping we included as many quartz veins and veinlets as the scale would allow and we also noted the direction and attitude of all observed shears, faults and fracture patterns. We did not sample any of the veins or veinlets exposed by the trenches since, in our opinion, after so many years the results would probably be too high in gold content and therefore completely misleading. Our Winkie diamond drill provided us with fresh samples in the area of the south and north slopes and Mr. Hofmann[1] had seventeen samples assayed which were collected in the trenches, from float sur-

rounding the trenches and from the veins and veinlets observed in the recently exposed bedrock south of the old Number 1 Prospect Shaft.

Perhaps the most startling result of the mapping program was the complete lack of quartz vein continuity in the south slope area where most of the previous exploratory work had been performed while the north slope, which in the author's[2] opinion was the more interesting of the two, had been virtually ignored other than being intersected at depth by a number of the original diamond drill holes and the north extension of the second underground level.

(2) DIAMOND DRILLING

Early in the re-examination program, the planned use of the Winkie diamond drill was for sampling in the vicinity of the original "Mammoth Vein" just south of the old Number 1 Prospect Shaft. However, after completing four short holes in this area we decided to expand the drilling program since our core recovery was excellent, the rock was relatively soft and did not rapidly wear our rather fragile thin-walled diamond core bits, and drilling water was readily available from any location on the hill. A series of eight (8) one hundred foot diamond drill holes were spotted and Mr. Paul Benard, our operator, completed the program on October 14th, 1980 and then moved the equipment and the core into our Kirkland Lake warehouse.

The drill core provided us with fresh surfaces for sampling and logging and with more detail than we could plot on the 20 scale plan, therefore only the trace of the holes has been drafted on our plan. For detail we refer you to the individual logs and sections found under APPENDIX "C".

We discovered that some of the small individual flows logged in

our drill holes did not agree compositionally with the surface mapping but the overall concept of felsic to intermediate from south to north remained intact and the width and position of the south slope flow breccia varied somewhat but still separated the two major flow divisions.

We sampled a great deal of the first four diamond drill holes primarily to satisfy ourselves as to the distribution of the gold in the vicinity of the old "Mammoth Vein". After careful analysis we decided that the gold values, if any, were related to the quartz-carbonate veins containing some visible pyrite mineralization and exhibiting a rather obvious zoned appearance. Sampling of the remaining eight holes, four of which intersected the south slope highly fractured and carbonatized zone and the last four explored the north slope fault and shear zone, was restricted to concentrations of quartz, sulphide mineralization, alteration or shearing.

Two of the middle group of four holes, TB-WK-80-7 and 8, were positioned to intersect a series of high gold assays some three hundred feet west of the Number 1 Prospect Shaft in the vicinity of the south trench as reported by T. Gledhill in 1933. Our results were very discouraging since we did not intersect any quartz veins with width nor any gold mineralization.

The small machine diamond drilling concept as a sampling tool proved to be highly effective but unfortuneately, the assay results were not very encouraging and perhaps any future diamond drill holes should be bored to a greater depth using a heavy machine with increased penetration and speed.

(3) GEOPHYSICAL DATA

We completed limited electromagnetic and magnetic surveys over the Seagers Hill area as an additional aid in structural interpretation and in positioning more accurately the more basic units of the volcanic flow series.

The electromagnetic surveying was originally attempted using a 50 metre (164 feet) coil separation but we discovered that the depth of overburden was somewhat more than 25 metres (82 feet) since our electrical response was negative. However a 100 metre (328 feet) separation proved effective and we were able to outline the graphitic horizon at depth on all full section lines. The electrical width of the graphitic material at subcrop, which will be slightly exaggerated, varied between 5 and 160 feet. A very small width on Section 3 + 00 West is probably not valid since the terrain to the north on this section line was very rough and irregular therefore producing a short cable effect and thereby reducing the overall negative value of the readings.

You will note on the plan attached under APPENDIX "D" A PRONOUNCED FLEXURE or downwarping of the overturned beds close to the centre of the hill on line 1 + 00 West. The graphitic schist horizon also has the greatest electrical width on this section line and perhaps illustrates the end result of plastic flow accompanied by probable strike shearing and slippage within the horizon. In our opinion, the fexture is undoubtedly present in all of the volcanic flows across strike in the vicinity of Seagers Hill and therefore the intense carbonatization, fracturing and open space filling by quartz or quartz-carbonate injections are related to this structural feature.

It would be most interesting to geophysically follow this graphitic horizon along strike in both directions hoping that one might discover an even more intense flexture

Our magnetic survey, illustrated under APPENDIX "E", proved to be somewhat disappointing. However it does suggest an increase in magnetic susceptibility or signature in a northerly direction which is confirmed by the appearance of more basic flows in our surface mapping and diamond drilling. The localized magnetic "highs" near the centre of the grid area are related to man-made objects such as steel water pipe, reinforcing steel, the Winkie diamond drill and drilling casing.

There is no expression over the graphitic schist horizon and therefore we assume that it is barren of sulphide mineralization, particularly magnetic pyrrhotite which is often a constituent of this rock unit.

MINERAL DEPOSITS

Within a radius of twenty miles of Seagers Hill there are no producing nor past-producing mines, however there are literally dozens of mineral occurrences and a few mineral deposits. By definition, mineral deposits are concentrations of sub-economic mineralization based within a specific cost and time frame, however should the price of a contained metal or product increase at a ratio greater than inflation or should additional exploratory work improve the metal or product grade then a mineral deposit becomes an ore deposit. Mineral occurrences are usually nothing more than a minimal concentration of sub-economic mineralization which would probably never develop into an ore deposit in themselves but may, in fact, lead to a related mineable ore deposit.

In our opinion, Seagers Hill may be classified as a mineral occurrence but, as of this date, does not contain any mineable tonnage of confirmed gold bearing ore. Perhaps at depth in the vicinity of the old Number 1 diamond drill hole north slope intersection or along strike in either direction one may encounter more encouraging gold values.

It is also suggested that the entire property area should be considered as having a base metal deposit potential.

CONCLUSIONS AND RECOMMENDATIONS

We have, from the moment of our engagement, suggested a cautious approach to any exploration programme centred on the old Seagers Hill reported gold mineralization occurrence and, in our opinion, the overall results catalogued in this report have justified or reasoning. As noted previously, our sampling failed to indicate any interesting gold values (see APPENDIX "F") and our mapping and inspection of dozens of quartz bearing veins, veinlets and float failed to reveal any visible gold mineralization. It seems incredible that the surface and underground development, noted in Orser's[4] report appended to this report, was based on the incidence of visible gold in the "Mammoth Vein" in the vicinity of the old Number 1 Prospect Shaft but not supported by meaningful ore intersections in any of the old diamond drill holes nor by any continuity of vein quartz in all of the rock trenches excavated south of the north slope.

The most interesting Seagers Hill structure is undoubtedly the north slope fault and shear zone which had been intersected by some of the old diamond drill holes (No. 1 thru 4 and No. 8) but with only one intersection of note being cut in the Number 1 hole assaying 0.610 ounces per

ton over 1.20 feet. Assays in the order of 0.190 ounces per ton were reported near the north end of the second underground level crosscut and were probably related to the north slope fault and shear zone.

We were unable to find any evidence to support the high gold content assays reported for the area between the centre and west trenches in or near the south trench. Two Winkie diamond drill holes were bored in this general area and the author[2] scoured the trench area but the results were unfortunately negative in both cases.

There is no doubt that the downwrping of the volcanic flows on the south side of Seagers Hill has been, at least in part, responsible for the intense fracturing and resulting carbonatization and quartz injection noted in the lavas in the vicinity of the hill. Therefore an electromagnetic geophysical approach may be the next logical step in outlining the exact configuation of the graphitic schist over a much greater strike length both to the east and west.

Our overall recommendations are twofold and they are as follows:

(1) Complete several longer and deeper diamond drill holes, drilled from north to south, in the vicinity of the interesting gold values reported in the old Number 1 diamond drill hole and the north end of the second underground level and;

(2) Extend the present baseline both to the east and west, cut section lines north and south for 500 feet at 100 foot intervals, chain at 25 foot centres and survey the resulting grid using a reliable horizontal loop electromagnetic system with a separation of at least 100 metres (328')

on frequencies in the order of 444 and 1,777 Hz.

Respectfully submitted,

TROOP EXPLORATION & DEVELOPMENT LIMITED

Andrew J. Troop, P.Eng.
President

REGISTERED PROFESSIONAL ENGINEERS
A. J. TROOP
PROVINCE OF ONTARIO

Toronto, Ontario, Canada.
October 31, 1980.

Appendix "C"

LEGEND

DIAMOND DRILL HOLE SECTIONS

AND	—	ANDESITE
DAC	—	DACITE
DAC AGG	—	DACITE AGGLOMERATE OR FLOW BRECCIA
RD	—	RHYODACITE
ALT	—	ALTERED
BL	—	BLEACHED
CA	—	CORE ANGLE
C	—	CARBONATIZED
FR	—	FRACTURED
Q, QV OR QVC	—	QUARTZ VEIN OR QUARTZ - CARBONATE VEIN
SER	—	SERICITIZED
SH	—	SHEARED
SIL	—	SILICIFIED
SP	—	SPECKLED OR NOTTLED

LIGHTVAL MINES LIMITED
TEDDY BEAR VALLEY MINES LIMITED OPTION

GEOLOGICAL LEGEND

A J TROOP

APPENDIX "C"

DIAMOND DRILL RECORD

NAME OF PROPERTY LIGHTVAL MINES LIMITED, TEDDY BEAR OPTION

HOLE NO. TB-WK-80-1 LENGTH 49.5 Feet

LOCATION Claim 10080, Seagers Hill, Holloway Twp., Ontario.

LATITUDE 0 + 55.8 South DEPARTURE 0 + 51.7 East

ELEVATION No. 1 Shaft Collar AZIMUTH 196° DIP -49°

STARTED September 22, 1980 FINISHED September 23, 1980

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. TB.WK.80.1 SHEET NO. 1

REMARKS Collared on bedrock

LOGGED BY Andrew J. Troop.

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ/TON	ASSAYS OZ/TON
0.00	3.80	RHYODACITE - Carbonatized, Pale Green with numerous ghosted quartz eyes most of whick include some cubes and blebs of pyrite. Several pure white quartz veinlets at cors angle of 60°.	TB-18		0.00	3.80	3.80			NIL	
3.80	9.25	RHYODACITE - Carbonatized, bleached, creamy to pale green with numerous cubes and blebs of pyrite. Occasional quartz veinlets with a varying core angle - 85° or 45° or 20°. Numerous rusty fractures - a near surface condition.	TB-19		3.80	9.25	5.45			NIL	
9.25	10.80	RHYODACITE & QUARTZ - Intimate mixture of both with visible pyrite mineralization. A ½" two generation quartz stringer with a 15° core angle.	TB-20		9.25	10.80	1.55			0.02	
10.80	13.90	RHYODACITE - Carbonatized, bleached, creamy to pale green. Seven narrow quartz veinlets from 1/4" to 1" in width with no mineralization but with visible pyrite in the wallrock.	TB-21		10.80	13.90	3.10			NIL	
13.90	18.80	RHYODACITE - Carbonatized, Bleached, speckled appearance, highly fractured, very minor pyrite. Numerous very narrow quartz stringers with a 55° core angle	TB-22		13.90	18.80	4.90			NIL	
18.80	21.30	RHYODACITE - As above. TB-22	TB-23		18.80	21.30	2.50			NIL	
21.30	23.10	RHYODACITE - Carbonatized and silicified, bleached, highly fractured. Numerous narrow quartz veinlets running in all directions. Pyrite mineralization in the wallrock and in several veinlets.	TB-24		21.30	23.10	1.80			0.01	
23.10	26.90	RHYODACITE - Carbonatized, bleached, pale green, and speckled	TB-25		23.10	26.90	3.80			NIL	
26.90	27.30	RHYODACITE & QUARTZ - Two small quartz veins with rhyodacite inbetween. Upper vein is dark grey with some pyrite and a true width of 1.25" and core angle of 25°. The lower is pure white with a true width									

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LIMITED,

DIAMOND DRILL RECORD

NAME OF PROPERTY LIGHTVAL MINES LIMITED, TEDDY BEAR OPTION

HOLE NO. TB-WK-80-1 SHEET NO. 2

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ TON	ASSAYS OZ TON
		of 1.25" and an 85° core angle.	TB-26		26.90	27.80	0.9			0.002	
27.80	31.55	RHYODACITE - Similar to section TB-24.	TB-27		27.80	31.55	3.75			0.002	
31.55	32.55	QUARTZ VEIN with some wallrock - Vein is obviously two generations white and grey quartz. The wallrock has some included black quartz. Core angle of the assemblage is 35° and has a true width of 0.6 ft.	TB-28		31.55	32.55	1.00			0.10	
32.55	37.30	RHYODACITE - Carbonatized, bleached, creamy, highly fractured with numerous minute quartz veinlets running in all directions. Minor pyrite mineralization.	TB-29		32.55	37.30	4.75			NIL	
37.30	42.30	DACITE - Carbonatized, pale green, speckled, and slightly fractured with a diabasic texture.	TB-30		37.30	42.30	5.00			NIL	
42.30	46.15	DACITE - As above but bleached.	TB-31		42.30	46.15	3.85			NIL	
46.15	46.65	QUARTZ VEIN - Carbonate sections and visible pyrite. C.A. - 75°.	TB-32		46.15	46.65	0.50			NIL	
46.65	49.50	DACITE - Similar to section TB-31.	TB-33		46.65	49.50	2.85			NIL	
		END OF HOLE									
		The Sixteen split core samples were taken to Swastika Assay Laboratory by Andrw J. Troop.									

REGISTERED PROFESSIONAL ENGINEER
A. J. TROOP

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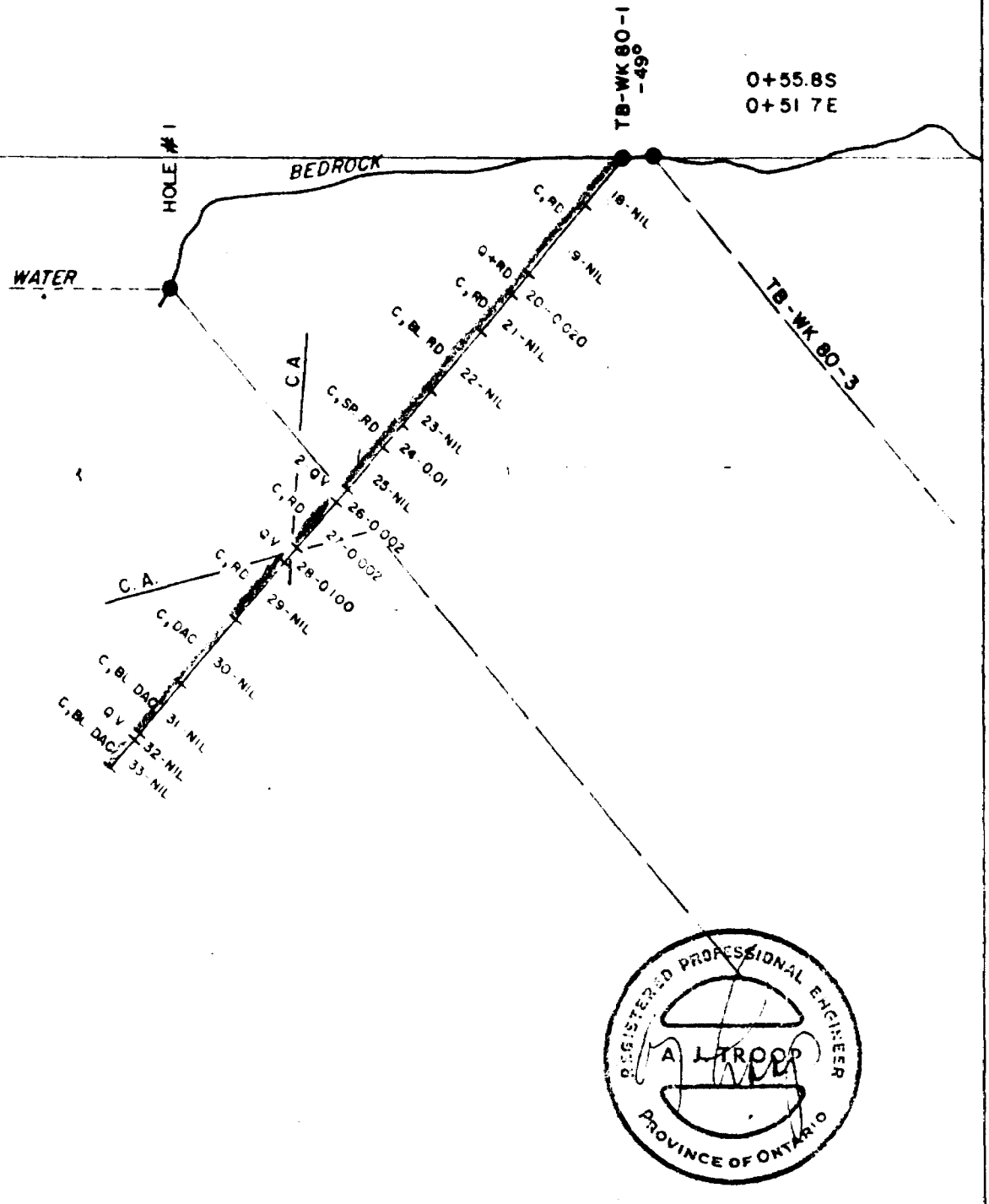

ROCK UNITS – ABOVE HOLE TRACE
SAMPLES – BELOW HOLE TRACE
NUMBER + ASSAY - Au IN OZ./TON

LIGHTVAL MINES LIMITED
TEDDY BEAR VALLEY MINES LIMITED OPTION

SECTION LOOKING WEST - 286°
D.D.H. TB-WK-80-1

0 10 20
FEET

A. J. TROOP

DIAMOND DRILL RECORD

NAME OF PROPERTY: LIGHTVAL MINES LIMITED, TEDDY BEAR OPTION
HOLE NO.: TB-WK-80-2 LENGTH: 55.50 Feet
LOCATION: Claim 10080, Seagers Hill, Holloway Twp., Ontario.
LATITUDE: 0 + 54.5 South DEPARTURE: 0 + 51.2 East
ELEVATION: No. 1 Shaft Collar AZIMUTH: 308° DIP: -50°
STARTED: September 23, 1980 FINISHED: September 24, 1980

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO: TB.WK.80.2 SHEET NO. 1
REMARKS: Collared on Bedrock

LOGGED BY: Andrew J. Troop.

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ/TON	ASSAYS OZ/TON
0.00	6.10	RHYODACITE - Carbonatized, creamy to pale green with numerous ghosted quartz-carbonate eyes most of which include minute blebs and cubes of pyrite. Occasional very narrow veinlets of white quartz with a 30° core angle.	TB-34		0.00	6.10	6.10			Tr	
6.10	10.55	DACITE - Carbonatized, creamy to pale green and speckled. Occasional small quartz eye and quartz veinlet.	TB-35		6.10	10.55	4.45			0.005	
10.55	11.10	QUARTZ VEIN - Slightly mineralized with pyrite at the contacts with country rock. Zoned with dark quartz near the edges and pure white in the centre. Core angle - 45°. Could be "Mammoth Vein".	TB-36		10.55	11.10	0.55			Tr	
11.10	17.10	RHYODACITE - Carbonatized, highly bleached and creamy with scattered quartz-pyrite eyes and the occasional quartz veinlet with core angles varying from 35° to 60°.	TB-37		11.10	17.10	6.00			Tr	
17.10	21.55	DACITE - Carbonatized, pale green, speckled diabasic texture with the occasional minute quartz veinlet.									
21.55	30.80	DACITE - Similar to section TB-35 24.80 - 24.90 Quartz vein 1" in width. 30.40 Bleb of Chalcopyrite.	TB-38 TB-39		21.55 26.55	26.55 30.80	5.00 4.25			0.005 Tr	
30.80	33.40	DACITE - Carbonatized, very fine grained, highly fractured and pale green. Minor quartz and pyrite.	TB-40		30.80	33.40	2.60			Tr	
33.40	43.40	DACITE - Carbonatized, massive, and pale green with a diabasic texture. Numerous fracture filling minute quartz veinlets which are inherent to the flow. Flow bottom is at 33.40 therefore tops face north. Slight pyrite mineralization from 33.8 to 34.5.	TB-41		33.80	34.50	0.70			Tr	

EM. 6-1168

LAN[illegible]GE LIMITED,

DIAMOND DRILL RECORD

NAME OF PROPERTY LIGHTVAL MINES LIMITED, TEDDY BEAR OPTION

HOLE NO. TB-WK-80-2 SHEET NO. 2

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ/TON	ASSAYS OZ TON	
43.40	50.00	DACITE - Carbonatized, slightly bleached, pale green with numerous minute quartz veinlets and scattered minor pyrite.	TB-42		43.40	50.00	6.60			Tr		
50.00	55.50	DACITE AGGLOMERATE OR FLOW BRECCIA - Fragments bleached and slightly epidotized and carbonatized. Elongation core angle 40°. 51.95 - 52.70 Mixture of quartz and fragments.	TB-43		51.95	52.70	0.75			Tr		
		END OF HOLE										
		The Ten split core samples were sent to the Bell-White Assay Laboratory by Ross E. Hofmann.										

REGISTERED PROFESSIONAL ENGINEER

A. TRICCA

LANGRIDGE – TORONTO – 366-1168

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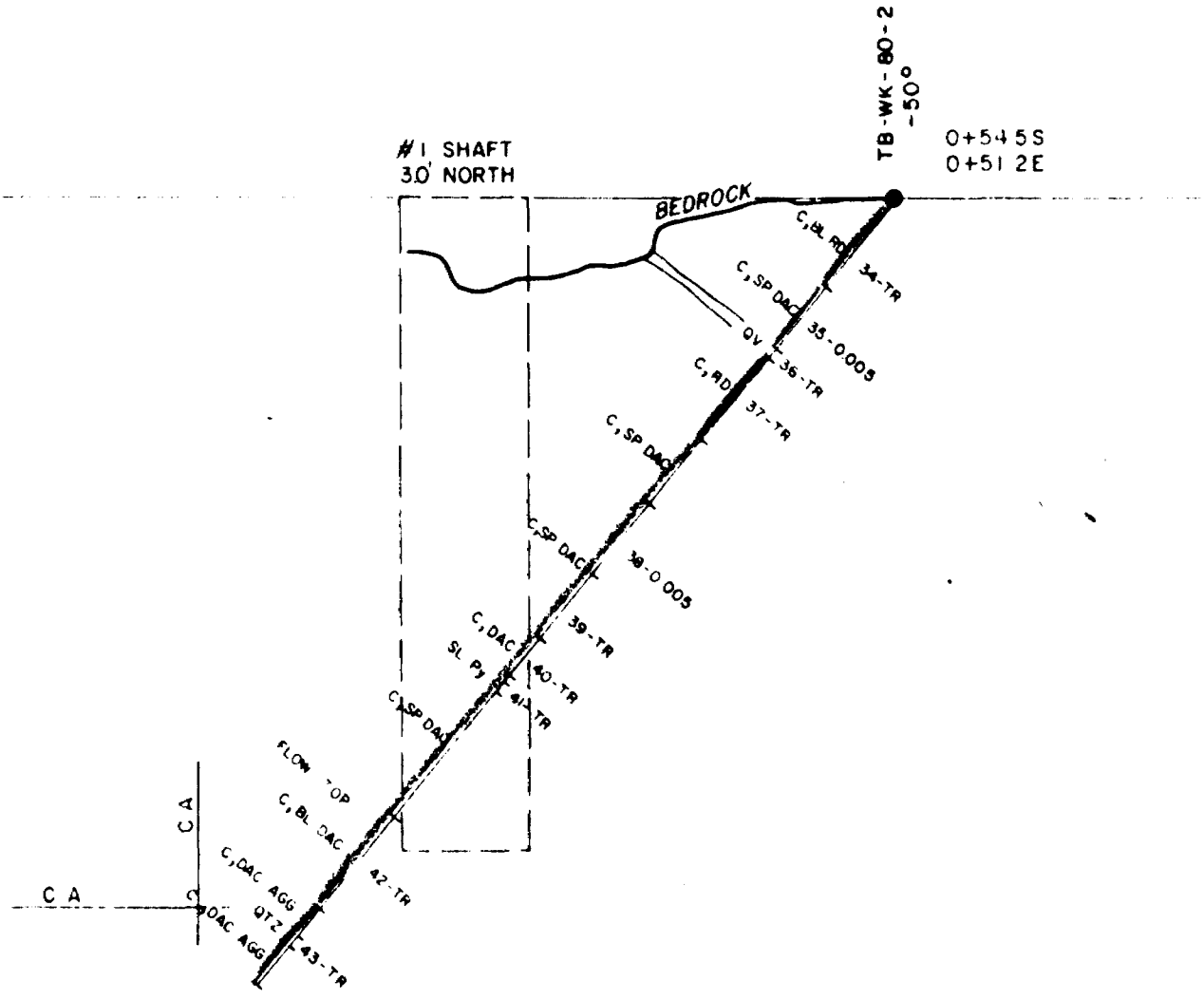


REGISTERED PROFESSIONAL ENGINEER
A. J. TROOP
PROVINCE OF ONTARIO

ROCK UNITS - ABOVE HOLE TRACE
SAMPLES — BELOW HOLE TRACE
NUMBER + ASSAY - Au IN OZ /TON

LIGHTVAL MINES LIMITED
TEDDY BEAR VALLEY MINES LIMITED OPTION

SECTION LOOKING NORTH - 38°
D. D. H. TB-WK-80-2

0 10 20
FEET

A. J. TROOP

DIAMOND DRILL RECORD

NAME OF PROPERTY: LIGHTVAL MINES LIMITED, TEDDY BEAR OPTION
HOLE NO.: TB-WK-80-3 LENGTH: 69.00 Feet
LOCATION: Claim 10080, Seagers Hill, Holloway Twp., Ontario.
LATITUDE: 0 + 54.0 South DEPARTURE: 0 + 51.5 East
ELEVATION: No. 1 Shaft Collar AZIMUTH: 345° DIP: -50°
STARTED: September 24, 1980 FINISHED: September 25, 1980

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. TB.WK.80.3 SHEET NO. 1
REMARKS: Collared on Bedrock

LOGGED BY: Andrew J. Troop

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS All oz/TON	ASSAYS oz/TON
0.00	9.80	RHYODACITE - Carbonatized, bleached, faintly speckled, creamy to pale green with occasional ghosted quartz-carbonate eyes most of which have pyrite cores. Seven minute quartz veinlets with core angles of 30° to 60°. At 4.00 - Cave.	TB-44		0.00	5.00	5.00			Tr	
			TB-45		5.00	9.80	4.80			Tr	
9.80	10.10	QUARTZ VEIN - Slightly zoned with dark grey quartz in the centre of the vein. No visible mineralization. Core angle at contact 70°. Could be "Mammoth Vein".	TB-46		9.80	10.10	0.30			Tr	
10.10	15.95	RHYODACITE - Similar to first section. Individual flow banding has a core angle of 50°.	TB-47		10.10	15.95	5.85			Tr	
15.95	17.35	DACITE - Carbonatized, medium green, speckled with a few irregular fracture filling quartz veins. Core angles of 20° or 65°. The 65° veinlets are probably related to the primary vein system and the low angle ones are secondary rib systems as seen on the exposed bedrock just west of the hole collar.	TB-48		15.95	17.35	1.40			Tr	
17.35	27.90	DACITE - Carbonatized, slightly bleached, green, speckled with the occasional small quartz veinlet. Flow banding core angle - 40°-45°.									
27.90	28.50	QUARTZ-CARBONATE VEIN - Hosted by a highly fractured, carbonatized, creamy rhyodacite. Vein is white in colour. Contact core angle is 50°.	TB-49		27.90	28.50	0.60			0.165	
28.50	30.35	RHYODACITE - Carbonatized, bleached, creamy and fractured. Scattered minute quartz veinlets.	TB-50		28.50	30.35	1.85			Tr	
30.35	32.60	DACITE - Carbonatized, pale green, and speckled with occasional very narrow quartz veinlets.									

EM. 6-1168

LANGIS LIMITED,

DIAMOND DRILL RECORD

NAME OF PROPERTY LIGHTVAL MINES LIMITED, TEDDY BEAR OPTION

HOLE NO. TB-WK-80-3 SHEET NO. 2

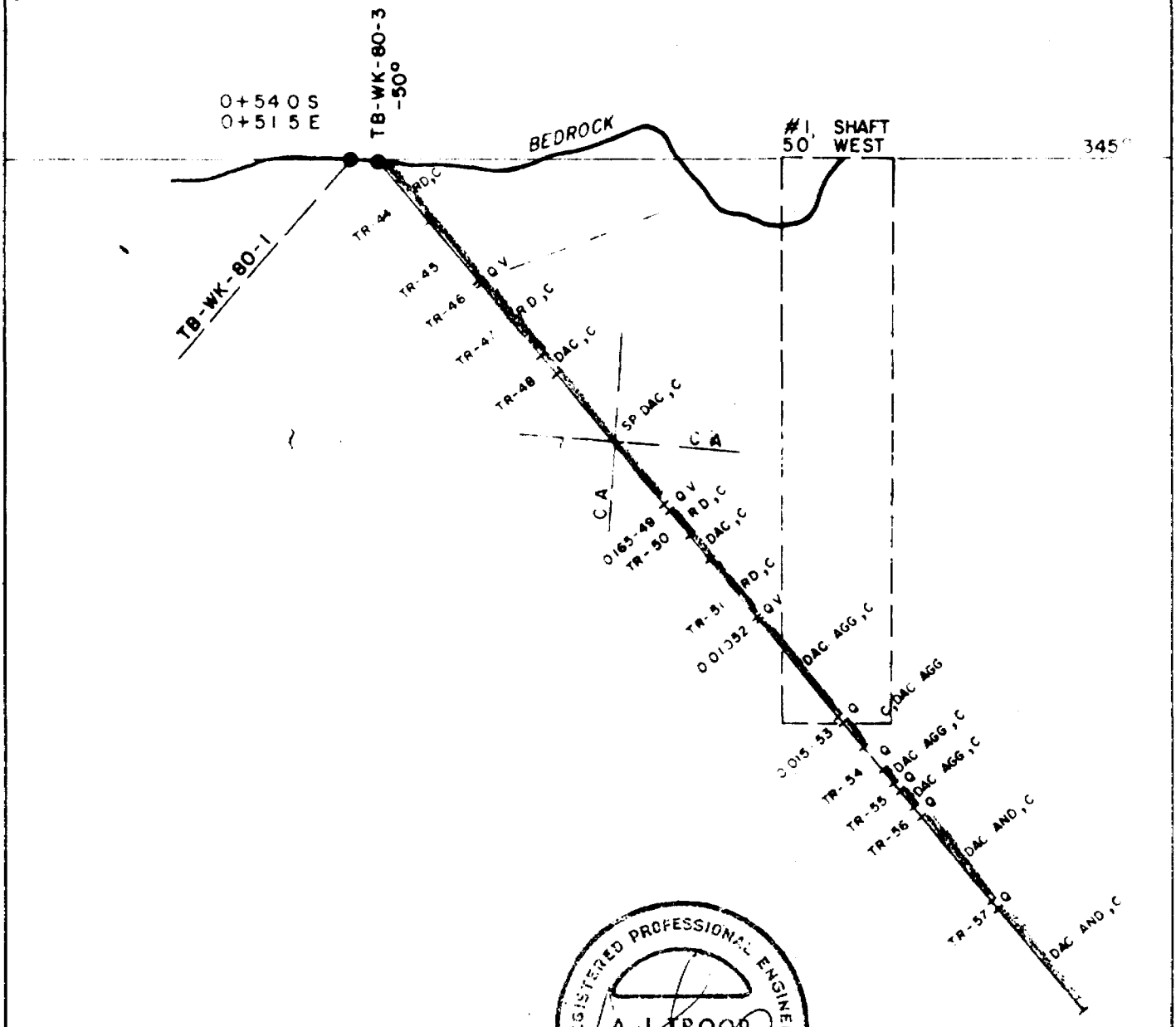
FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FP	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ TON	ASSAYS OZ TON
32.60	37.10	RHYODACITE - Carbonatized, slightly fractured, creamy coloured with scattered narrow quartz veinlets and the occasional quartz eye with a pyrite core.	TB-51		32.60	37.10	4.50			Tr	
37.10	53.00	DACITE AGGLOMERATE OR FLOW BRECCIA - Carbonatized with the odd pyrite cube. Fragments are bleached and slightly epidotized with a greenish yellow colour. There is also a small percentage of white quartz associated with this unit and five (5) samples were split out.	TB-52		37.10	37.60	0.50			0.01	
			TB-53		45.00	45.60	0.60			0.015	
			TB-54		47.70	49.25	1.55			Tr	
			TB-55		50.35	51.00	0.65			Tr	
			TB-56		52.30	53.00	0.70			Tr	
53.00	60.00	DACITIC ANDESITE - Carbonatized, medium green and slightly fractured Occasional quartz veinlet and bleb of pyrite.									
60.00	60.60	QUARTZ VEIN - Mixed with country rock and no mineralization.	TB-57		60.00	60.60	0.60			Tr	
60.60	69.00	DACITIC ANDESITE - Carbonatized, massive, medium green. Occasional speck of pyrite and very small quartz veinlet.									

END OF HOLE

The fourteen split core samples were sent to the Bell-White Assay Laboratory by Ross E. Hofmann.

REGISTERED PROFESSIONAL ENGINEER

A. J. TROOP



REGISTERED PROFESSIONAL ENGINEER
A. J. TROOP
PROVINCE OF ONTARIO

ROCK UNITS – ABOVE HOLE TRACE
SAMPLES – BELOW HOLE TRACE
NUMBER + ASSAY - Au IN OZ./TON

LIGHTVAL MINES LIMITED
TEDDY BEAR VALLEY MINES LIMITED OPTION

SECTION LOOKING WEST - 255°
D.D.H. TB-WK-80-3

0 10 20
FEET

A. J. TROOP

DIAMOND DRILL RECORD

NAME OF PROPERTY: LIGHTVAL MINES LIMITED, TEDDY BEAR OPTION

HOLE NO. TB-WK-80-4 LENGTH 51.60 Feet

LOCATION Claim 10080, Seagers Hill, Holloway Twp., Ontario.

LATITUDE 0 + 55.3 South DEPARTURE 0 + 50.9 East

ELEVATION No. 1 Shaft Collar AZIMUTH 278° DIP -50°

STARTED September 25, 1980 FINISHED September 26, 1980

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. TB.WK.80.4 SHEET NO. 1

REMARKS Collared on Bedrock

LOGGED BY Andrew J. Troop

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ/TON	ASSAYS OZ/TON	
0.00	6.80	RHYODACITE - Carbonatized, highly fractured, bleached, creamy to pale green with numerous very narrow quartz veinlets having a core angle of 45° to 60°.	TB-58		0.00	6.80	6.80			Tr		
6.80	7.35	QUARTZ VEIN - Blueish-black in colour with very slight pyrite mineralization at the contact. Has a core angle of 10° and a true width of 0.1'. Prpbably one of the rib veins that form at right angles to the "Mammoth Vein".	TB-59		6.80	7.35	0.55			Tr		
7.35	11.60	RHYODACITE - Similar to section TB-58 but having a few quartz-carbonate eyes with pyrite cores. Core angle of banding in the flow is 40°.	TB-60		7.35	12.35	5.00			Tr		
11.60	11.75	QUARTZ VEIN - Zoned with minor pyrite mineralization. C.A.- 80°.	TB-70		11.60	11.75	0.15			Tr		
11.75	22.55	RHYODACITE - Carbonatized, bleached, creamy to pale green with occasional small quartz-carbonate eyes cored with pyrite. Visible cubes of pyrite also occur near any small quartz veinlet. Flow could be slightly tuffaceous due to visible banding with a core angle of 50° to 60°. 17.35 - 17.65 Blue QUARTZ VEIN slightly mineralized with pyrite and chalcopyrite. C.A.- 30° and a true width less than ½". 22.45 - 22.55 Slightly mineralized with pyrite.	TB-61		12.35	17.35	5.00			Tr		
			TB-64		17.35	17.65	0.30			Tr		
			TB-62		20.80	22.55	1.75			0.04		
22.55	22.80	QUARTZ VEIN - Pure white with no mineralization.	TB-63		22.55	22.80	0.25			0.005		
22.80	28.80	DACITE - Carbonatized, creamy green, speckled with the occasional minute quartz veinlet.										

EM. 6-1168

LANG[illegible]E LIMITED,

DIAMOND DRILL RECORD

NAME OF PROPERTY LIGHTVAL MINES LIMITED, TEDDY BEAR OPTION

HOLE NO. TB-WK-80-4 SHEET NO. 2

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE SULPHIDE	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ TON	ASSAYS OZ TON
28.80	35.35	RHYODACITE - Carbonatized, quartz eyes with pyrite cores, creamy to pale green with scattered veinlets of white quartz and very minor pyrite mineralization.									
		28.80 - 30.60 Quartz veinlets with visible pyrite mineralization.	TB-65		28.80	30.60	1.80			0.005	
		32.20 - 32.70 Shear zone slightly mineralized with quartz and pyrite Core angle - 15°.	TB-66		32.20	32.70	0.50			Tr	
35.35	42.75	DACITE - Carbonatized, pale green, and speckled with the occasional narrow quartz veinlet.									
		40.00 - 40.50 Small QUARTZ vein slightly mineralized with pyrite.	TB-67		40.00	40.50	0.50			0.005	
		41.20 - 41.50 Small QUARTZ " " " " " .	TB-68		41.20	41.50	0.30			Tr	
42.75	45.20	DACITE - Carbonatized, pale green and highly altered with some quartz veining slightly mineralized with pyrite.	TB-69		42.75	45.20	2.45			Tr	
45.20	51.60	DACITE - Carbonatized pale to medium green with the occasional quartz-carbonate quartz eye cored with pyrite and a few very narrow quartz veinlets.									
		END OF HOLE									
		The Thirteen split core samples were sent to the Bell-White Assay Laboratory by Ross E. Hofmann.									

REGISTERED PROFESSIONAL ENGINEER

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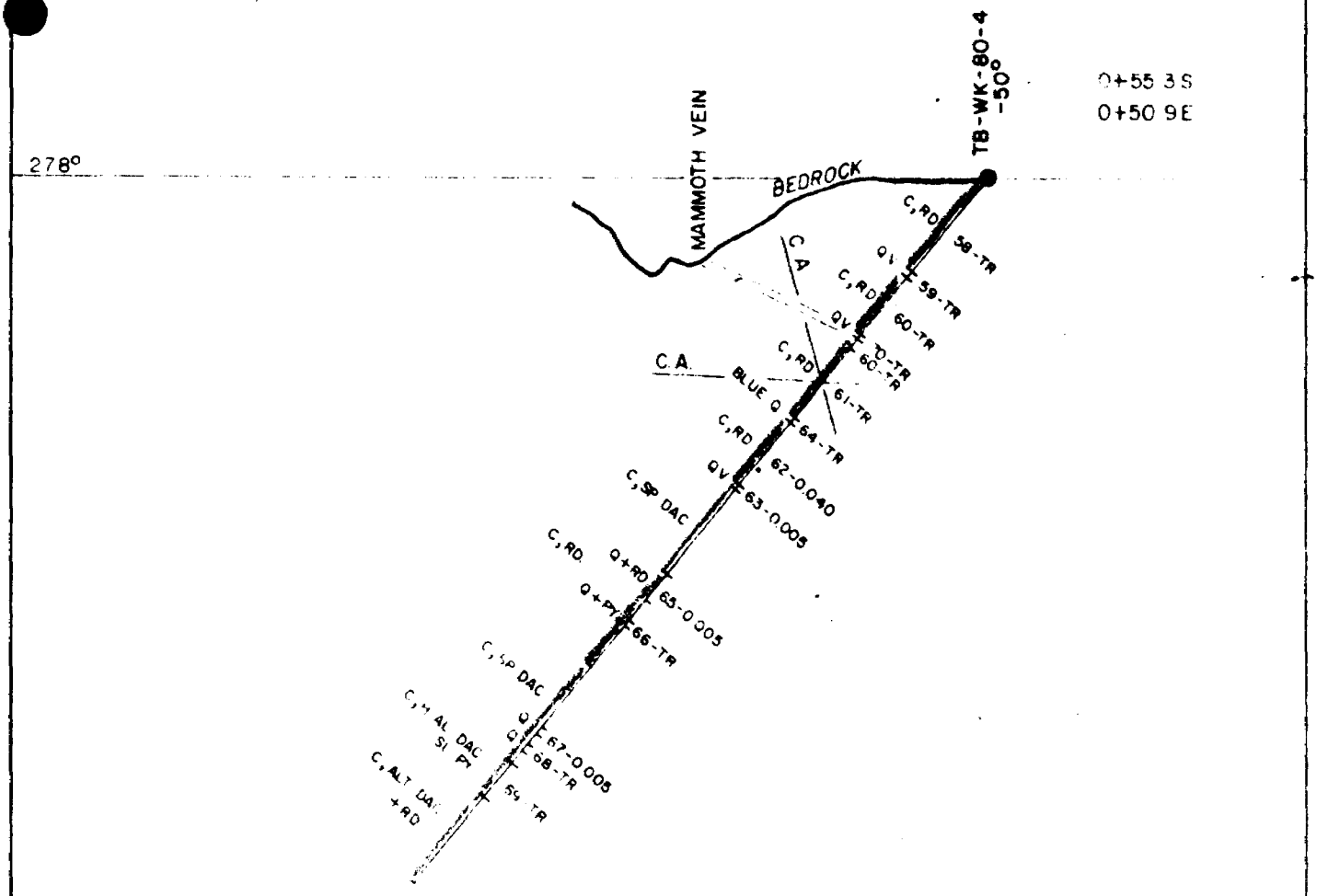


ROCK UNITS – ABOVE HOLE TRACE
SAMPLES – BELOW HOLE TRACE
NUMBER + ASSAY - Au IN OZ./TON

LIGHTVAL MINES LIMITED
TEDDY BEAR VALLEY MINES LIMITED OPTION

SECTION LOOKING NORTH - 8°
D.D.H. TB-WK-80-4

0 10 20
FEET

A. J. TROOP

DIAMOND DRILL RECORD

NAME OF PROPERTY: LIGHTVAL MINES LIMITED, TEDDY BEAR OPTION
HOLE NO.: TB-WK-80-5 LENGTH: 100.00 Feet
LOCATION: Claim 10080, Seagers Hill, Holloway Twp., Ontario.
LATITUDE: 0 + 12 South DEPARTURE: 1 + 18 West
ELEVATION: Not Determined AZIMUTH: 180° DIP: -45°
STARTED: September 26, 1980 FINISHED: September 28, 1980

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO: TB.WK.80.5 SHEET NO. 1
REMARKS: Collared on bedrock

LOGGED BY: Andrew J. Troop

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ/TON	ASSAYS OZ/TON
00.00	10.15	DACITE - Carbonatized, highly fractured, bleached, creamy to pale green with numerous irregular narrow quartz veinlets which are mostly white but a few are smoky. Scattered visible pyrite.	TB-71		0.00	5.00	5.00			0.002	
			TB-72		5.00	10.15	5.15			NIL	
10.15	11.05	QUARTZ VEIN - Greyish-white with fragments of highly altered dacite. Minor pyrite mineralization. Core angle of lower contact is 55°.	TB-73		10.15	11.05	0.90			0.005	
11.05	33.10	RHYODACITE - Carbonatized, bleached, creamy coloured with numerous ghosted quartz-carbonate eyes having pyrite cores. Occasional very narrow quartz veinlets at various core angles.									
33.10	34.10	QUARTZ VEINS - Five small veins in section , four white and one slightly smoky. No visible mineralization. Core angles -45° to 60°.	TB-74		33.10	34.10	1.00			0.010	
34.10	35.60	RHYODACITE - Similar to the second last section.									
35.60	37.30	QUARTZ VEINS - Two veins both white. No visible mineralization. First contains some amorphous tourmaline.	TB-75		35.60	37.30	1.70			NIL	
37.30	49.10	RHYODACITE - Carbonatized, fractured, creamy to pale green with scattered very narrow quartz veinlets with a core angle averaging 75°. 39.10 - 41.10 Series of quartz veinlets less than 1" in width. Degree of fracturing increases towards 49.10.	TB-76		39.10	41.10	2.00			0.010	
49.10	73.30	DACITE FLOW BRECCIA OR AGGLOMERATE - Carbonatized, highly altered with scattered narrow quartz veinlets at various core angles. Fragments are creamy to pale greenish-yellow and are probably related to the rhyodacite flows. Scattered pyrite mineralization. Average core angle of the flow structures is 55°. 73.00 - 73.30 Quartz Vein.	TB-77		73.00	73.30	0.30			0.002	

EM. 6-1168

LANGRIDGE LIMITED,

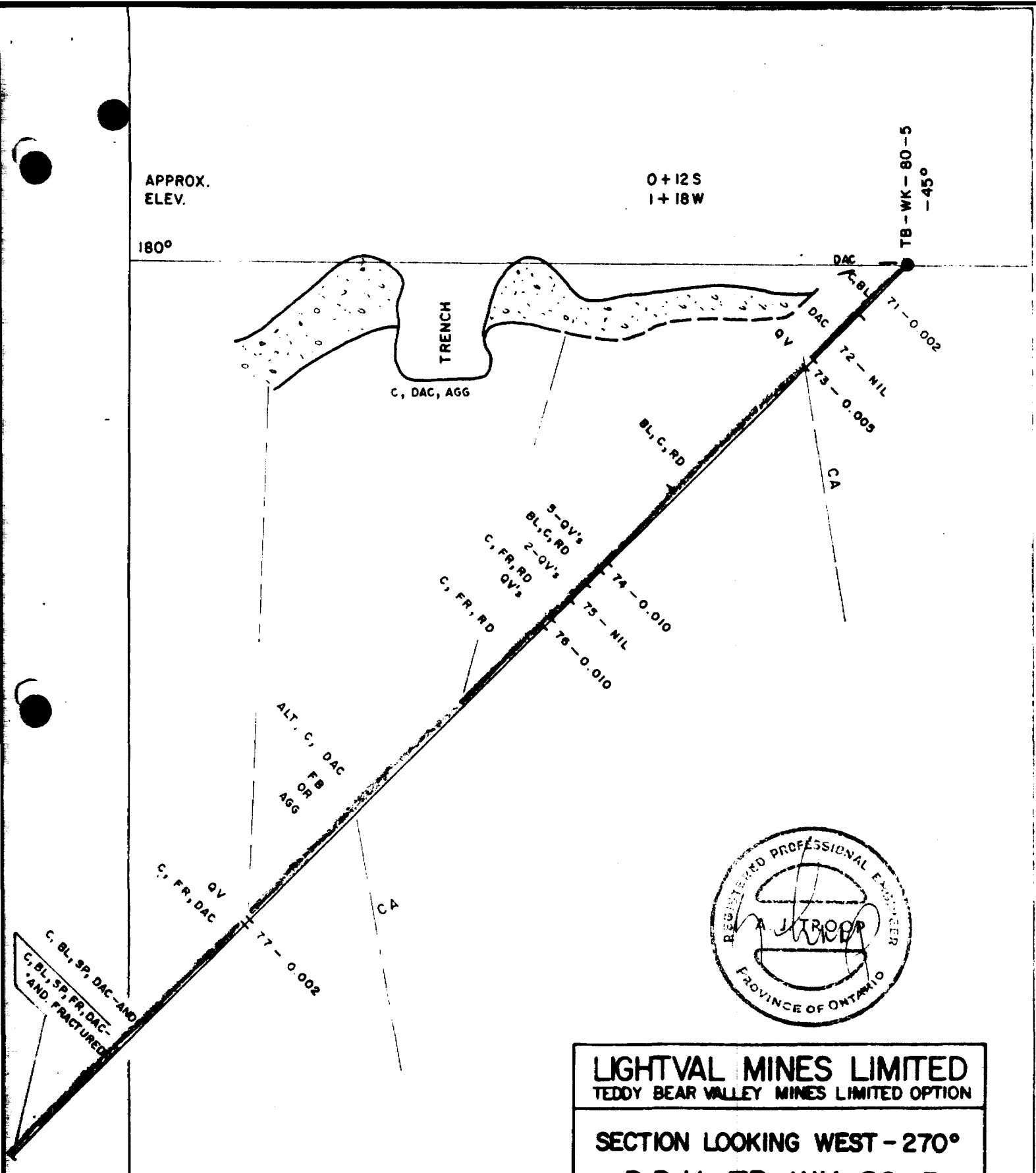
DIAMOND DRILL RECORD

NAME OF PROPERTY LIGHTVAL MINES LIMITED, TEDDY BEAR OPTION

HOLE NO. TB-WK-80-5 SHEET NO. 2

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ TON	ASSAYS OZ TON
73.30	76.50	DACITE - Carbonatized, highly fractured, pale green with scattered very narrow quartz veinlets.									
76.50	97.80	DACITIC ANDESITE - Carbonatized, parts speckled and bleached, medium grained with numerous very narrow quartz veinlets having an average core angle of 60°. Others vary and are probably ribs to the 60° veinlets. 87.40 A 0.025 inch pink carbonate veinlet slightly mineralized with pyrite.									
97.80	100.00	DACITIC ANDESITE - Similar to the last section but highly fractured and bleached to a very pale green. END OF HOLE The Seven split core samples were taken to the Swastika Assay Laboratory by Andrew J. Troop.									

REGISTERED PROFESSIONAL ENGINEER
A. J. TROOP
PROVINCE OF ONTARIO



REGISTERED PROFESSIONAL ENGINEER
A J TROOP
PROVINCE OF ONTARIO

LIGHTVAL MINES LIMITED

TEDDY BEAR VALLEY MINES LIMITED OPTION

SECTION LOOKING WEST - 270°

D.D.H. TB-WK-80-5

0 10 20
FEET

A J TROOP OCT. 28, 1980

ROCK UNITS - ABOVE HOLE TRACE
SAMPLES - BELOW HOLE TRACE
NUMBER + ASSAY - Au IN OZ./TON

DIAMOND DRILL RECORD

NAME OF PROPERTY: LIGHTVAL MINES LIMITED, TEDDY BEAR OPTION

HOLE NO. TB-WK-80-6 LENGTH 100.00 Feet

LOCATION Claim 10080, Seagers Hill, Holloway Twp., Ontario.

LATITUDE 0 + 12 South DEPARTURE 1 + 18 West

ELEVATION Not Determined AZIMUTH 145° DIP -45°

STARTED September 29, 1980 FINISHED September 30, 1980

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. TB.WK.80.6 SHEET NO. 1

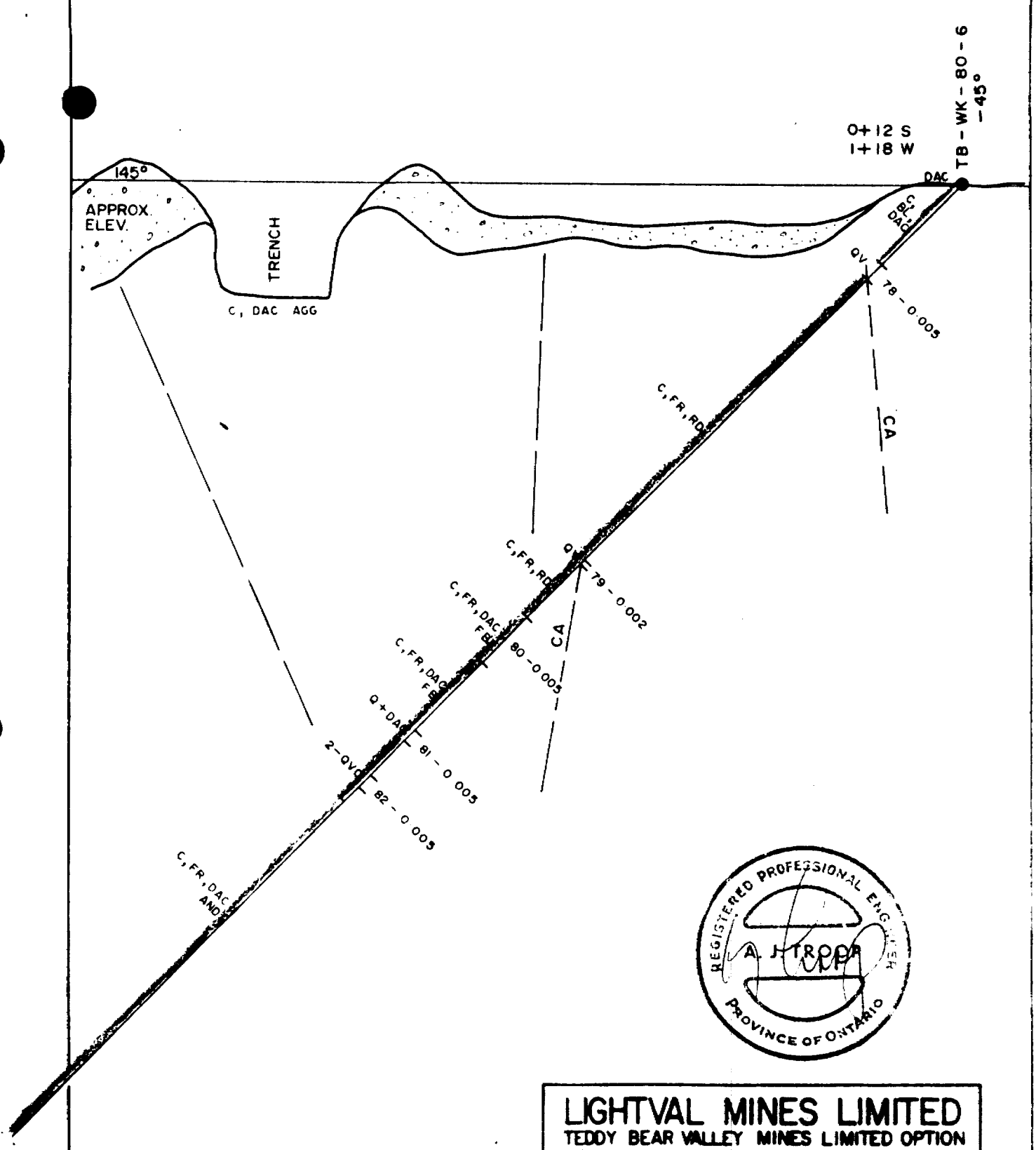
REMARKS Collared on bedrock

LOGGED BY Andrew J. Troop.

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au oz/TON	ASSAYS oz/TON	
0.00	8.50	DACITE - Carbonatized, highly fractured, creamy to pale green with numerous very narrow quartz veinlets at varying core angles. Commonly 75°. Occasional irregular mass of dark greenish-grey chlorite.										
8.50	10.00	QUARTZ VEIN - Greyish-white mixed with dacite at upper contact but sharp at the bottom. Upper core angle is 35° and the lower is 50°.	TB-78		8.50	10.00	1.50			0.005		
10.00	45.50	RHYODACITE - Carbonatized, slightly fractured, pale green with occasional ghosted quartz-carbonate eyes having pyrite cores. Some narrow quartz veinlets with varying core angles. Few narrow sections have been bleached to a creamy colour. 39.60 - 39.95 Quartz vein with a rosy-brownish colour and no mineralization. Core angle - 35°.	TB-79		39.60	39.95	0.35			0.002		
45.50	50.00	DACITE FLOW BRECCIA OR AGGLOMERATE - Carbonatized, highly fractured with pale greenish-yellow fragments in a medium green mattrix. 45.60 - 48.00 Scattered quartz veins up to a ¼" true width. 48.00 - 49.30 QUARTZ-CARBONATE VEIN - Core angle is 25°.	TB-80		45.50	50.00	4.50			0.005		
50.00	64.80	DACITE FLOW BRECCIA OR AGGLOMERATE - Carbonatized, slightly fractured with greenish-yellow fragments and a pale green to greyish matrix. Numerous minute quartz veinlet fracture fillings at varying core angles. Poor example of this rock unit. 57.00 - 58.20 A swarm of small quartz veinlets. 61.80 - 63.00 Two quartz veins with numerous minor veinlets in this section	TB-81		57.00	58.20	1.20			0.005		
			TB-82		61.80	63.00	1.20			0.005		
64.80	100.00	DACITIC ANDESITE - Carbonatized, fractured, medium green with numerous minute quartz veinlets running in all directions.										
		END OF HOLE Five split core samples taken to Swastika Laboratory by A.J. Troop.										

EM. 6-1168

LANGLEY PRINTING & STATIONERY CO. LIMITED, TORONTO



REGISTERED PROFESSIONAL ENGINEER
A. J. TROOP
PROVINCE OF ONTARIO

LIGHTVAL MINES LIMITED

TEDDY BEAR VALLEY MINES LIMITED OPTION

SECTION LOOKING WEST - 235°

D.D.H. TB-WK-80-6

0 10 20
FEET

A J TROOP — OCT. 26, 1980

ROCK UNITS – ABOVE HOLE TRACE
SAMPLES – BELOW HOLE TRACE
NUMBER + ASSAY - Au IN OZ./TON

DIAMOND DRILL RECORD

NAME OF PROPERTY: LIGHTVAL MINES LIMITED, TEDDY BEAR OPTION
HOLE NO. TB-WK-80-7 LENGTH 100.00 Feet
LOCATION Claim 10080, Seagers Hill, Holloway Twp., Ontario.
LATITUDE 0 + 48 South DEPARTURE 2 + 33 West
ELEVATION Not Determined AZIMUTH 160° DIP -45°
STARTED October 1, 1980 FINISHED October 3, 1980

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. TB.WK. 80.7 SHEET NO. 1
REMARKS Collared on bedrock

LOGGED BY Andrew J. Troop.

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS OZ/TON Au	ASSAYS OZ/TON
0.00	0.45	QUARTZ VEIN - Mottled appearance, zoned with no sulphide mineralization. Core angle - 50°.	TB-83		0.00	0.45	0.45			0.005	
0.45	30.00	RHYODACITE - DACITE - Carbonatized, bleached, creamy to pale green, scattered pyrite cubes with occasional very narrow quartz veinlets having varying core angles from 20° to 60°. 24.00 - 24.20 QUARTZ VEIN - White, no mineralization.									
30.00	32.70	QUARTZ VEIN AND RHYODACITE - Mineralized with pyrite. Vein which is found between 31.00 and 31.90 is zoned and has a white to mottled grey colour. Core angle - 55°.	TB-84		30.00	32.70	2.70			0.020	
32.70	34.00	RHYODACITE - DACITE - Similar to the second last section. Has a 1" white quartz vein at the lower contact.									
34.00	54.50	DACITE - Carbonatized, bleached, pale green to greyish, visible pyrite mineralization and scattered narrow quartz veinlets with a 60° core angle.									
54.50	69.90	DACITE AGGLOMERATE - Carbonatized, pale green, scattered pyrite cubes with very large fragments. Scattered narrow quartz veinlets having a 45° core angle. Poor example of this rock unit. 67.25 - 68.40 QUARTZ VEINS with host rock. Largest vein measures 0.45'. 68.80 - 69.90 MUD SEAM - LOST CORE with a core angle of 35°. At 68.80 wall of seam has a veneer of black tourmaline showing deep slickenside groves at 50°.	TB-85		76.25	68.40	1.15			0.005	
69.90	70.10	QUARTZ-CARBONATE VEIN - small percentage of black tourmaline, no sulphides, very porous, carbonates leached leaving a reddish-brown residue of limonite. Contact core angle - 35°.	TB-84		69.90	70.10	0.20			0.002	

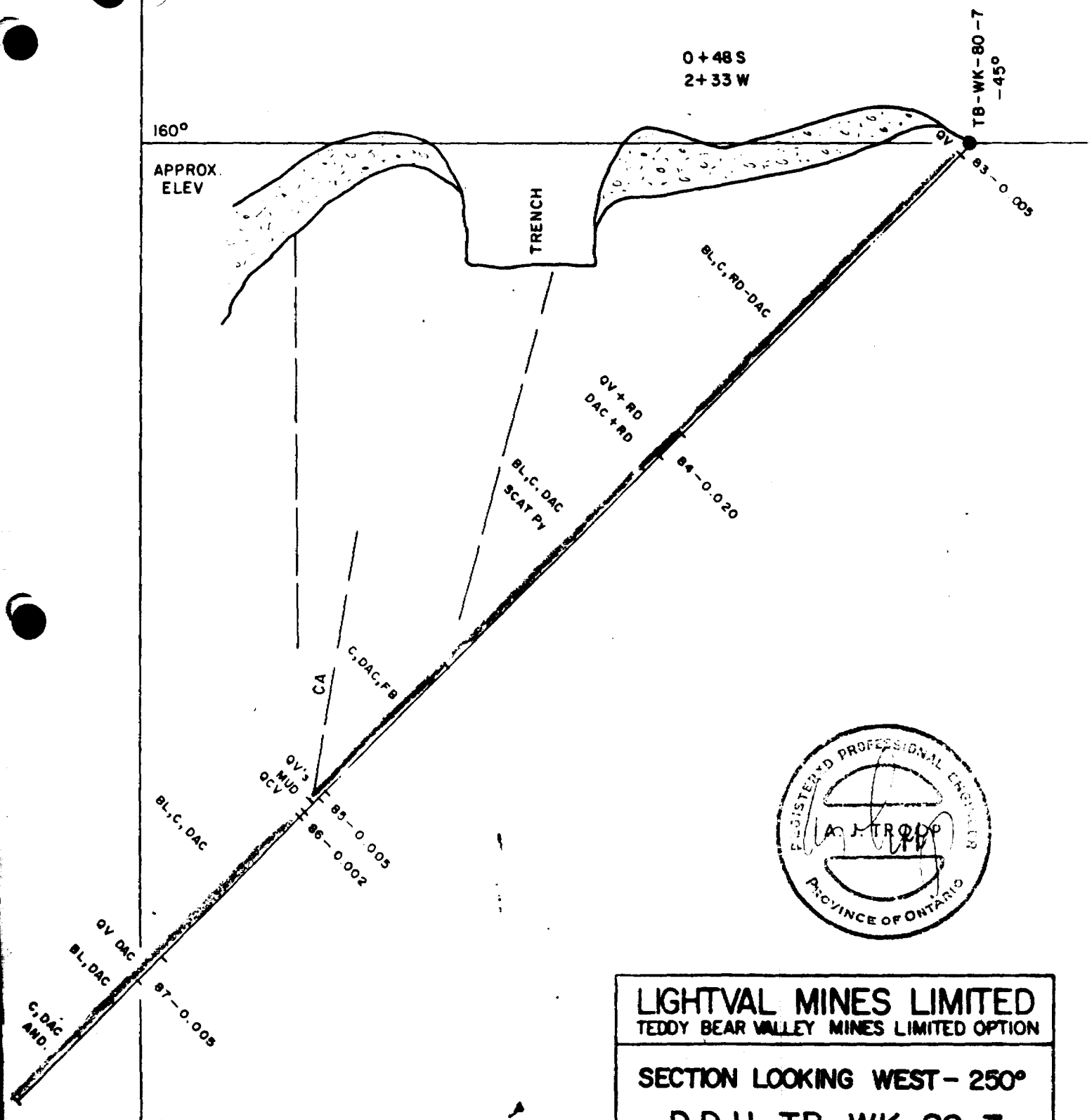
EM. 6-1168
LANGRIDGE LIMITED,

DIAMOND DRILL RECORD

NAME = PROPERTY LIGHTVAL MINES LIMITED, TEDDY BEAR OPTION

HOLE NO. TB-WK-80-7 SHEET NO. 2

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ TON	ASSAYS OZ TON
70.10	93.20	DACITE - Carbonatized, medium green, sections bleached to a pale green, minor pyrite cube mineralization with scattered narrow quartz veinlets having a core angle of 50°. 84.80 - 87.10 QUARTZ VEINS mixed with dacite. Minor tourmaline and zoning.	TB-87		84.80	87.10	2.30			0.005	
93.20	100.00	DACITIC ANDESITE - Carbonatized, dark green with scattered narrow quartz veinlets having a 10° and a 50° core angle.									
		END OF HOLE									
		The Five split core samples were taken to the Swastika Assay Laboratory by Andrew J. Troop.									



REGISTERED PROFESSIONAL ENGINEER
A. J. TROOP
PROVINCE OF ONTARIO

LIGHTVAL MINES LIMITED

TEDDY BEAR VALLEY MINES LIMITED OPTION

SECTION LOOKING WEST - 250°

D.D.H. TB-WK-80-7

0 10 20
FEET

A. J. TROOP OCT. 26, 1980

ROCK UNITS - ABOVE HOLE TRACE
SAMPLES - BELOW HOLE TRACE
NUMBER + ASSAY - Au IN OZ./TON

DIAMOND DRILL RECORD

NAME OF PROPERTY LIGHTVAL MINES LIMITED, TEDDY BEAR OPTION
HOLE NO. TB-WK-80-8 LENGTH 100.00 Feet
LOCATION Claim 10080, Seagers Hill, Holloway Twp., Ontario.
LATITUDE 0 + 48 South DEPARTURE 2 + 33 West
ELEVATION Not Determined AZIMUTH 200° DIP -45°
STARTED October 3, 1980 FINISHED October 4, 1980

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. TB.WK.80.8 SHEET NO. 1
REMARKS Collared on bedrock

LOGGED BY Andrew J. Troop

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ/TON	ASSAYS OZ/TON
0.00	0.30	QUARTZ-CARBONATE VEIN - Zoned with no sulphide mineralization. Core angle 50°.	TB-88		0.00	0.30	0.30			0.005	
0.30	21.75	RHYODACITE - DACITE - Carbonatized, fractured, creamy to pale greyish green with scattered very narrow quartz veinlets containing the odd speck of pyrite. Common core angle is 50° with a few at 10° or less. 0.30 - 2.65 Scattered quartz veins.	TB-89		0.30	2.65	2.35			0.010	
21.75	22.45	QUARTZ VEIN - Zoned, white and greyish with stylolites plated with tourmaline.	TB-90		21.75	22.45	0.70			NIL	
22.45	53.20	DACITE - Carbonatized, bleached sections, greenish-grey, speckled, visible pyrite cubes with scattered narrow white quartz veinlets usually having a 50° to 60° core angle. 23.95 - 24.30 LOST CORE 39.45 - 40.20 QUARTZ VEINS - Two veins with the widest (0.45') being zoned and having an upper contact that is rusty and prbably open.	TB-91		39.45	40.20	0.75			0.030	
53.20	70.80	DACITE AGGLOMERATE - Carbonatized with infrequent large fragments that are yellowish-green and have ghosted quartz-carbonate eyes with pyrite cores. There are also free pyrite cubes. Matrix is slightly fractured, speckled, greenish with numerous narrow quartz veinlets having an average core angle of 65°. 56.25 - 56.65 QUARTZ VEIN - Zoned with tourmaline stylolites. Core angle - 55°. 64.60 - 64.90 QUARTZ-CARBONATE VEIN - Zoned with tourmaline stylolites. Core angle - 65°.	TB-92		56.25	56.65	0.40			0.002	
			TB-93		64.60	64.90	0.30			NIL	

EM. 6-1168

LANGRIDGE LIMITED,

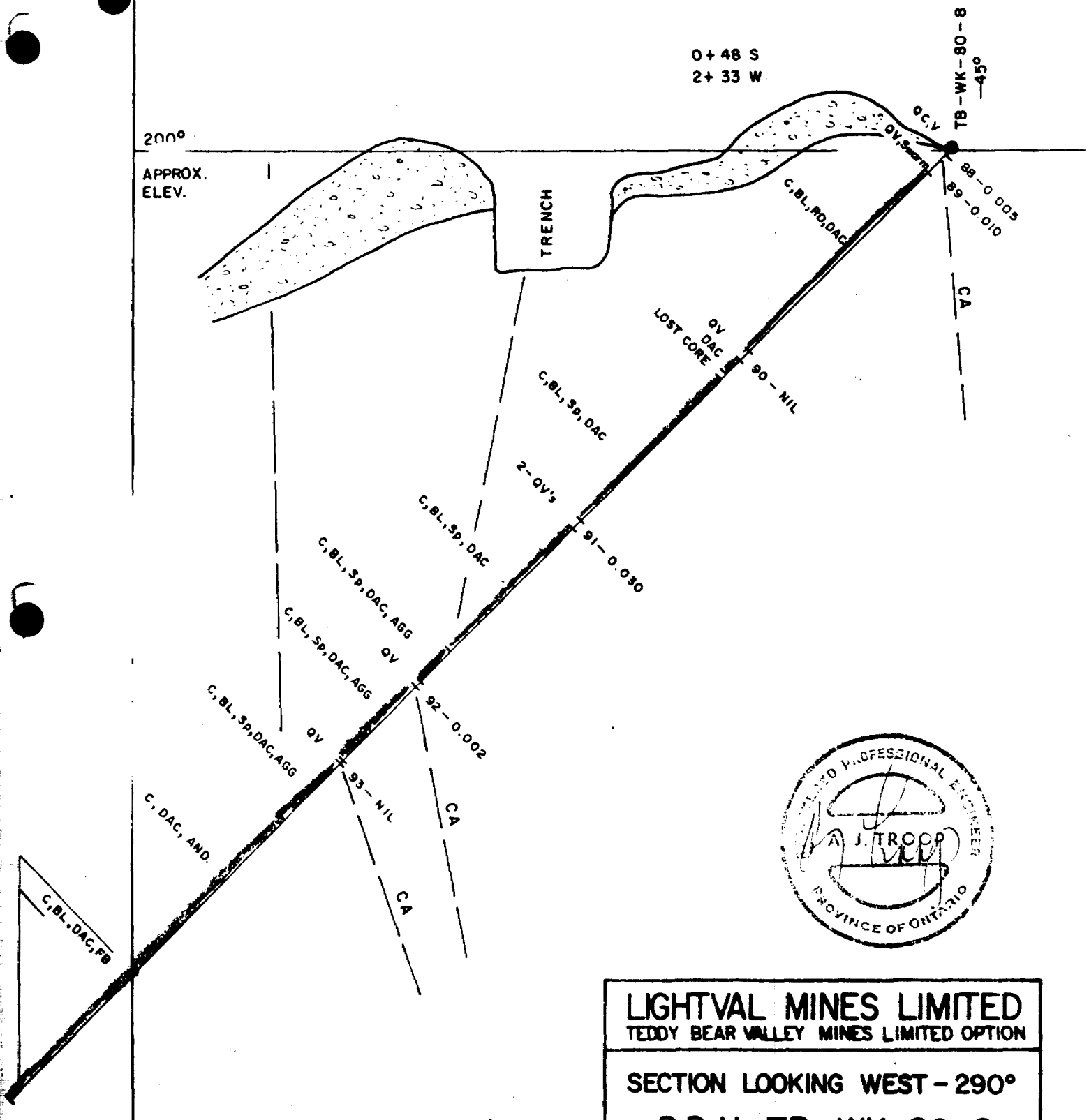
DIAMOND DRILL RECORD

NAME OF PROPERTY LIGHTVAL MINES LIMITED, TEDDY BEAR OPTION

HOLE NO. TB-WK-80-8 SHEET NO. 2

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION
70.80	97.80	DACITIC ANDESITE - Carbonatized, fine to medium grained, green with scattered narrow quartz veinlets having a 60° core angle.
97.80	100.00	DACITE FLOW BRECCIA - Carbonatized with irregularly sized fragments that are slightly bleached and greyish in colour. The matrix is green with occasional narrow quartz veinlets having a 60° core angle.
		END OF HOLE
		The Six split core samples were taken to the Swastika Assay Laboratory by Andrew J. Troop.

SAMPLE NO.	SULPH	FOOTAGE FROM	FOOTAGE TO	FOOTAGE TOTAL	ASSAYS		Au OZ/TON	OZ TON



LIGHTVAL MINES LIMITED

TEDDY BEAR VALLEY MINES LIMITED OPTION

SECTION LOOKING WEST - 290°

D.D.H. TB-WK-80-8

0 10 20

FEET

A J TROOP OCT. 28, 1980

ROCK UNITS - ABOVE HOLE TRACE

SAMPLES - BELOW HOLE TRACE

NUMBER + ASSAY - Au IN OZ./TON

TEDDY BEAR VALLEY MINES, LTD.

HISTORY

The Teddy Bear Valley Mines gold property is located on a block of 19 patented claims in the northwest section of Holloway Township and north east section of Harker Township, in the Lightning River area, District of Cochrane, Ontario. The country rock consists of Temiskaming sediments with mixtures of conglomerate, greywacke and slate together with fine grained basalt, impregnated with rusty-weathering iron carbonate and often with small crystals of iron pyrites.

Temiskaming sediments appeared with the discovery of the Dome and Hollinger Mines in the Porcupine area, 60 miles to the west of the Teddy Bear. They outcropped again 22 miles to the west of the Teddy Bear when the very rich free gold was discovered on the Croesus Mine. The gold deposits occur in intrusions of feldspar porphyry or quartz porphyry in or near the sediments.

Native gold in spectacular quantities was first discovered in quartz veins on the Teddy Bear in February 1922 by William S. Seagers. The original showing was in a large vein on a dome, or hill, of basalt that rises 35 feet above the surrounding country. It is centered on patented claim No. 10080 in Holloway Township. By 1924 the Seager's claims had been optioned to Abitibi Mines Ltd., formed specifically for their development.

Between 1924 and 1929 a considerable amount of exploration was done on the Hill and the surrounding claims. It was discovered that the entire property was intersected by numerous quartz veins, varying in width from fractions of an inch to over three feet, many of which carried native gold.

Numerous pits were blasted on top of the hill and on the south eastern face. Trenches were cut on the east, west and north sides of the hill. Two shafts were sunk on the east side over veins of concentrations of native gold. Eight holes were diamond drilled totalling 4,500 feet; all at 45°, running from south to north and averaging 560 feet in length. This drilling extended the potential ore bearing region to 3100 feet west and 1100 feet east of the Hill shafts (4,200 feet east to west total), as well as 2,000 feet north and 700 feet south (north south total 2,700 feet). The entire area was mapped topographically and geologically, establishing all the major faults and contact zones as well as the make-up of the rock formations. Surface mapping followed by the drilling showed a major fault plane lying east to west across the north flank of the Hill and extending for over 1,000 feet at each end, with minor planes breaking away and shearing the Hill. A contact between the acid rocks to the south and the basics on top of the Hill was established east to west along the entire south flank of the Hill.

After liberal panning of free gold on the surface, a considerable number of channel assays were taken, along with bulk assays of the rock that was blasted from the pits and trenches. On the southeast face of the Hill a quartz vein was opened up that was up to 20 feet in width and extended 80 feet in length from the hill brow at the north to south 25° west and dipping 45° east. Extremely rich native gold lay in a cross vein at the north end, assaying as high as 321.4 ounces gold to the ton of ore. The main vein gave channel assays of 2.5 ounces gold across 13 feet at the top and 0.53 ounces gold across 11.3 feet lower down. A shaft 35 feet deep was sunk on the main vein. A one ton bulk sample taken from the first five feet assayed 2.5 ounces. A bulk sample from the shaft bottom assayed 0.14 ounces. A second shaft was then sunk 100 feet north of the No. One shaft to a depth of 30 feet and gave good values on assay to that depth. It was found that the rock formation changed in the second shaft at 30 foot depth and the acids gave way to the basics, leading to the conclusion that the south face of the hill was a flow cap.

An average of 22 assays of the material taken from the pits and trenches on top of the Hill (excluding all high grade samples) gave a value of 0.49 ounces gold per ton. Testing of claim 10083 at 400 feet north of the Hill gave a value of 1.53 ounces. In assaying the core from the six diamond drill holes passing under the Hill it was found that the best values were at depths of 250 to 265 feet and in the sheer zone on the north side. The Number 1 drill hole, put down on the east end of the hill and passing under the two shafts, gave an average value of 0.61 ounces over 15 feet at this depth. The other holes all showed values at depth in the north sheer zone.

After this initial period of exploration, mapping and geological study the company sought additional financing to carry out a program of underground development and expansion. At this point C.E. Hofmann supplied the necessary funds and took over control of the company in 1929, with a syndicate of investors. The name was changed at that point to the Teddy Bear Valley Mines, Ltd.

During the depression years of 1930 through 1933 surface mapping, trenching and geological study continued. Underground development commenced in July 1934. The Number 2 shaft was sunk to a depth of 300 feet. A first station was cut at 151 feet and a second at 276 feet. On the first level crosscuts were made to the north, south and northeast, along with five drifts east and west. Total laterals cut at this level amounted to 922.9 feet. On the second level crosscuts were made north and south that totalled 186.7 feet.

A complete mining camp was set up - headframe, hoist, steam boiler plant, compressor, smith shop and storage buildings. Drilling was done in house and extended the exploration in all directions down to 600 feet below the surface. Seven holes totalling 2310.4 feet were drilled from the laterals underground, along with a 602 foot long hole from the surface 1300 feet west of the Hill to verify the extensions of the ore formation.

The extensive underground work done in 1934 through 1936 showed that the Hill consists of a series of parallel lava flows considerably broken by strong shears and faults at angles to the flow contacts. These fractures apparently have been channels for later ascending solutions that have carried quartz, calcite, pyrite, small amounts of chalco-pyrite, some hematite, specularite and tourmaline, along with the concentrations of gold with some silver. Most of the fractures strike east and west and dip north, but there are some breaks north and south and there are also dips south, east and west.

The detailed geology of the Hill area was mapped for 395 feet from south to north and extended by drilling for 628 feet north and 650 feet south of the Hill (a detailed north to south section of 1673 feet down to a depth of 600 feet). These sections proved that the potential ore body cetered on the Hill lies in a series of Keewatin lava flows and parallel Temiskaming sediments. The north and south contacts of the flows were located and their strike and dip determined. On the east to west line a strong series of sheer zones and faults was established to 500 foot depth and 1700 foot in length.

The next stage was the development of a plan to extend the underground drifting on both levels and to connect the far west trench along the south flank of the hill at the 150 foot level with the eastern drifts. An east to west trench was cut for a distance of 340 feet from the No. 1 shaft on the east to past the west trench. Another south to north trench was cut across the top of the Hill 120 feet east of the west trench. To extend the knowledge of the ore body to the south and west, four diamond drill holes were sunk on the Harker-Holloway Township line, 800 feet west of the shafts and from 1200 to 2200 feet south. Two holes did not get down to ledge due to overburden conditions. The No. 18 hole collared 1700 feet south of the shafts got velues of up to 1.14 ounces of gold per ton at depths of 347 and 647 feet. The number 19 hole got values of 0.25 ounces at ledge.

At this point further development was halted with the advent of World War II. Due to the low price of gold and the increasingly high cost of mining operations after the War no further work was done.

PRESENT OPERATIONS

As with certain other rich gold prospects that were semi-developed during the 1920s and 1930s, conditions for successful mine development had changed drastically by late 1978 for the Teddy Bear prospect.

1. Gold no longer sold for $20.00 per ounce. By 1980 it had reached a high of $800.00 and varied continually between $500.00 to the mid $600.00.

While mining and milling costs have risen considerably most gold mines of medium grade can operate profitably at costs of $90.00 to $120.00 per ton of rock mined and milled with full overhead applied. Ore that was formally rejected as unprofitable is now milled. Certain mines are augmenting the milling of richer ore with ore having value as low as 0.05 ounces gold per ton. Extremely profitable operations are being achieved with average ore values below 0.2 ounces per ton.

2. Exploration, geophysical techniques and equipment, diamond drilling and assaying methods have improved in efficiency in recent years, permitting much greater sophistication and accuracy in determining the size and average value of zones of ore.

3. For many of the mines in northeastern Ontario and northwestern Quebec, on the Timmins, Lightning River, Noranda, Val D'Or belt, transportation problems have been reduced drastically. In the case of the Teddy Bear a major east-west highway, Ontario 101, now passes through the middle of the property 1500 feet south of the shaft, connecting the mine with all Ontario and Quebec points by paved highways.

4. The technique of developing an ore body is changing where open pit methods are feasible. When properties were far removed from all-weather roads and heavy earth moving equipment unavailable the practice was to stay with the rock outcrops and sink shafts and underground drifts by hand labor. In 1980 with heavy tractors and back hoes on hand, many properties like the Teddy Bear are investigating large earth moving for open pit development, extending ore bodies on a wide scale from the surface, along with extensive diamond drilling, before going underground.

5. Milling capacity is still short, however certain of the older mines do have excess capacity and are turning to contract milling of ore from the newer mines. This permits production and cash flow during the prolonged period while a mill is being designed and constructed.

Starting in July, 1980 the Teddy Bear property will be under option to the Lightval Mines, Ltd. which holds 68 patented claims bordering on the Teddy Bear property on the west. Lightval is also a gold prospect and during the 1960s blocked out a large asbestos deposit in its northwest segment. A new geological-geophysical-engineering team has been assembled, including the engineering staff of Ross Hofmann, Associates.

Starting in July 1979 the Teddy Bear records from the 1920s and 1930s were carefully analyzed, including all available drill logs, geological and topographical data, maps, reports and assays. Composites were drawn from all the data on the Seagers Hill area, both surface and cross-section. The latest Ontario Government airborne magnetometer was compared with ground surveys and superimposed on an enlarged scale on the geolocial maps. The data was then checked during May and June 1980 by a field crew on site to ensure accuracy. Spot channel assys were taken to compare with the old ones.

In June major earth moving equipment was brought from Matheson, Ontario, 30 miles west of the Mine, and the overburden stripped from the eastern end of the south flank of the Hill on a test basis. Average depth of overburden is approximately 15 feet and consists of sandy soil with firm clay nearest the rock. By July a section 100 feet east to west and 100 feet north to south had been cleared with the rock faces hand cleaned and washed down by pressure pumping. Several new quartz veins were exposed that were south of the pre-War exposures. Depending on assay values and overburden depth to the south, it is planned to strip the entire south face of the hill in this manner to determine the practicality of an open pit mining operation for the south zone. A similar investigation will be made of the north faults.

The first phase of these investigations will involve under the Lightval option an expenditure of $350,000. during the period July, 1980 through June, 1981. It is designed to refine the determination of the size of the ore body on and immediately adjacent to Seagers Hill, along with the average value of the ore in each section.

In addition to surface stripping sophisticated geophysical surveying and diamond drilling will be used. The existing underground workings will be cleaned out and strengthened so that they can be carefully inspected. The practicality and value of extending them to the west on both the north and south zones will be evaluated.

When the quantity and value of the ore has been determined satisfactorily in the Hill area, the second phase of the work will be to determine how far the ore body can be extended on all four sides, particularly where the previous drilling established values. If the ore remains consistent to the previously indicated points and depths to the south and north of the Hill, it would mean the blocking out of a major deposit amounting to several million tons of good grade ore.

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ROSS HOLMANN, ASSOCIATES

PLANNING · DESIGNING · SYSTEMS ENGINEERING

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RESEARCH OF HISTORICAL RECORDS

AND FIELD CONFIRMATION OF FINDINGS

SEAGERS HILL ZONE

TEDDY BEAR VALLEY MINES LTD.

PERFORMED UNDER

THE LIGHTVAL OPTION

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MARCH 18, 1981

INTRODUCTION

In June 1980 the Directors of Lightval Mines Limited agreed to option the claims of Teddy Bear Valley Mines Limited. This block of nineteen patented claims is located along Highway 101, east of Matheson, Ontario in what has become known as the Lightning River area of Harker and Holloway Townships. Lightval in the late summer of 1980 employed the consulting engineering firm of Ross Hofmann, Associates to provide a research study of all the obtainable old records of the property, as well as to supervise a preliminary field examination of the section of the property on and around a basalt dome known as Seagers Hill, where a spectacular find of native gold had been located in 1922, and on which work had been performed through 1947.

The Consultant's task was to assemble enough verified and proveable information by December 31, 1981 to permit the Lightval Directors to come to a determination as to whether the Teddy Bear had the possibility of being developed into a gold deposit from its status as a prospect.

By September the Consultant had assigned a four person team of experienced engineers and draftsman. They were instructed to locate all the historical records that might be available on the property, to reconstruct and redraw any fragile graphics, to evaluate, as well as confirm from all possible outside sources, the early findings, to supervise 1980 testing and exploration of the Seagers Hill area by contracted field crews, to maintain a photographic record of the work from start to finish, and to evaluate any data that the 1980 field crews developed.

RESEARCH OF THE 1923 to 1947 RECORDS

The Teddy Bear and the Seagers Hill basalt dome has been described in Ontario Mining publications from the original spectacular

goldvalues recorded during the 1922 to 1924 period to the J. Satterly geological reports on both Harker and Holloway Townships that were issued in 1953 and 1954. It is typical of many Ontario gold finds: discovered by a lone prospector in early 1922; developed on surface and underground during the ensuing fifteen years by private syndicates and public stock sales until the depression dried up funding; and high graded of most of the visible surface gold by workers and outright thieves.

Research into the past history of such a prospect can be an excercise in frustration. Clues abound that during the course of 25 years of development a considerable amount of data was assembled: geological reports, both published and private, were written; countless drawings were made of surface work, underground development and diamond drill sections; hundreds of assays were made and certificates filed. To reconstitute all of the old records and to definitely confirm all of the original findings, both formally reported as well as rumoured, requires the detective ability of a Nero Wolfe, along with the persistency, intuition and luck of a Howard Carter locating a King Tut tomb. Records of small mining companies have enormous gaps in them through years of files having been transferred, or lost. Individuals still alive and available to confirm the findings are a scarcity.

The first publicly released report on the property was located in the Ontario Department of Mines Library in Toronto. It appears in Cyril Knight's 1923 report on the Lightning River area (Vol. XXXIII Part 3, Ontario Department of Mines). The first in-house report was issued by Col. R.P.Rogers on May 3, 1923. This was followed by a more detailed report written by Edward H. Orser, Mining Engineer and Geologist for the property, covering the work program he supervised under Col. Rogers from April 1925 through February 1927. An excellent collection of photographs was located covering the 1923-25 period.

Col. Rogers May 1923 report describes briefly the geology of Seagers Hill and the findings of the few outcrops a few hundred feet north of it. The report confirms the very rich ore that was exposed in the so-called"Mammoth Vein" on the south east corner of the hill. He describes the sinking of Shaft No. 1 to a depth of 32 feet and shaft No. 2 to a depth of 37.5 feet, the second shaft being 100 feet due north of the first. Surface exploration revealed that quartz veins and shears were plentiful on the hill and on claim 10083 immediately to the north. Further the main shears were traced on surface for at least a mile from east to west across the hill.

Assays were taken from channel samples from the surface, from small pits and trenches and from the two small shafts from top to bottom. The bulk of them were from the eastern end of the Hill. Except for the shaft locations, no map has been located that show the exact assay points. The small assays were done by Thos. Hayes & Sons, Toronto.* A one ton bulk sample was assayed from the Number 1 Shaft by the Temiskaming Testing Laboratories, Cobalt. It appears that 22 assays were made between May 20 and August 10, 1922. The average of the 22 small assays, excluding the very high grade samples, was 0.485 ounces per ton. The three high grade ran 7.89 ounces, 67.41 ounces and 321.39 ounces. The bulk sample ran 2.595 ounces.

Only two assays are recorded from the surface on claim 10083 to the north. One ran 1.53 ounce the other 0.2 ounce.

It is interesting to note that Rogers recommended serious prospecting of the ground on the north part of claim 10080 to and across the shearing on claim 10083. This despite the spectacular findings on the Hill itself. This suggestion appears to have been ignored from that date onward to the present.

* The researchers were unable to locate this firm.

The complete Orser reports of June 29, 1925 and February 24, 1926 were not located. However a mimeographed excerpt report was found that gave the following information.

The Seagers Hill and the surrounding claims were mapped geologically and all claim boundaries tied in accurately. For the first time underground exploration was started, to confirm the geological structure down to 600 feet under the Hill and to the east, west and north; particularly to identify the faults and shears running across and on each side of the Hill. During this period four holes averaging over 400 feet in the horizontal and from 420 to 634 feet in vertical depth were drilled from south to north under the Hill (SEE Historical composite map); Hole No. 5 was drilled from south to north 1200 feet south east of the number 1 Shaft on claim 10697 into claim 10082; Hole No. 6 was drilled 100 feet east of the Hill on a line with the first four and south to north; Hole No. 7 was drilled from south to north in the northeast corner of claim 10083 into claim 9863. Finally, reported February,1927, 500 ft.Hole No. 8 was drilled from south to north 100 feet west of Hole No. 1.

Sections of all eight holes, totalling 4500.6 feet, were located and redrawn. The only log located was for Hole No. 8. Assays were done by J.W.N.Bell at the Haileybury Assay Office with checks of every fifth sample run by the Temiskaming Laboratories at Cobalt. The report states that several sections carried "good" values. The only specifics the researchers could be certain of was a section from 361 to 376 feet in Hole No.1 that contained average value of .61 ounces over 1.2 feet of quartz and sulphides; and a five foot sample at the end of Hole No. 8 in fine shattered conglomerate that assayed at 0.08 ounces, along with a 10 foot sample at 375 feet and an 8.8 sample at 409 feet that both averaged 0.02 ounces. Despite a considerable search at Bell White Laboratories the original records of these assays were not located. The assayor feels that they were destroyed by fire or lost.

From early 1927 until mid 1933 virtually no work was done on the property. In the winter of 1933-34 Dr. T.L.Gledhill was engaged as Consultant and Harry Smeaton as Superintendent. A mining camp was set up with heavy equipment.Trenches were cut north to south on the east and west end s of the Hill, a short trench west to east was cut in the north west corner, and an east to west trench cut on the south end of the Hill. By November 1935 considerable small pits and trenches were cut into the Hill surface for sampling and the eastern end was explored under ground. The old Shaft No 2 was sunk to a depth of 300 feet; 922.9 feet of drifts and crosscuts were cuton a first level 151 feet below surface and 186.7 feet of crosscuts at a second level 276 feet below surface. Diamond drill holes no 9 through 15 were done underground, totalling 2,310.4 feet and hole No. 16 was drilled for a length of 602 feet on surface at 1300 feet west of the No. 2 Shaft.

Fairly complete maps,drawn by Orser, were located covering much of this work: Map 123 General Surface; No. 276 Mine Surface; No. 277 First Leveal Development: No. 278 Second Level Development; No. 279 Surface Seagers Hill; No. 280 Shaft No. 2 Section; No 275 Camp Buildings. Sections were drawn of Drill Holes 9 through 16. The prints were quite fragile and no original tracings were located. All of these graphics were redrawn accurately by the Consultant's team.

Assay material was intriguing, not so much for what it told, but rather what was missing. A large number of assays were run from December 1933 through October 1935 by J.W.N. Bell at the Haileybury Laboratories. Gledhill surface and channel assays from the west trench area show values of up to 5.38 ounces and up to2.72 ounces. However his maps do not pin down the exact locations from which they were taken. Samples 689 through 1091 were taken from the underground workings and the assay results were found at Bell White Laboratories. Drill logs were not found nor were the assay results.

The most complete report of the history of the property was written by Orser and issued November 28, 1935. It was located in its complete form.

All of the findings described above were placed on a composite map of the Seagers Hill area by the consulting team in the fall of 1980 with the available historical notes in a legend. The purpose was to provide an initial background graphic for the field crews that would be doing the preliminary examination of this area during the fall of 1980 and to provide points of reference for the Hill area.

In 1938 the field crew at the camp under Frank Flowers attempted to drill four deep holes on the Harker-Holloway Township line (Nos. 17,18,19 and 20). These were to section from south to north the entire distance from the bottom of claim 11171, through claim 11169 to the top of claim 10081. Due to heavy overburden varying from 80 to 120 feet in depth, only two of these holes reached ledge, but each produced interesting values at depth. The values and their depth location were learned from a 1945 map prepared by William C. Martin. The original logs and assays of the holes have not been located.

In 1945 a magnetometer was made of the western Teddy Bear claims - all in Harker Twownship-by C.S. Davidson. William C. Martin prepared a geological interpretation map of the entire property also in 1945. These maps were fragile in print form and were redrawn by the Consultant.

Finally a geological report on the entire property was prepared by Andrew Graham in 1947. This was located intact.

SUMMARY OF RESEARCH

As in many old properties the material located was heavy on geological interpretations and had serious gaps in the hard data of assay results which are of main interest to the engineer.

As the Consultants are engineers and economic evaluators rather than geologists, and as separate geological reports have been prepared on the ground covered in 1980 by the geologists and field teams that were employed for this function, we will not discuss the geological findings at this point.

The research findings that are of economic interest involve the drilling and assay results from the earlier work. They also show certain directions for the 1980 and future field work to follow to see if the assay results can be duplicated by modern methods; to see if there are correlations that can be determined visually, either by eye or by computer, between assay values and certain rock types and geological structures on the property; and to point in further exploration directions, either rehashing the work already done or heading into new areas that for various reasons were not covered in the past work.

What the research confirmed were the following:

1/. Extremely high assay values were developed from the large vein in the southeast corner of the Hill. Interesting values were located from channel samples, from pits and trenches at various points on the Hill, from the eastern to the western slope, from the southern slope and the nothern slope. The best values from the drilling under the hill were around the shear seen on the north slope and in the north east corner of the Hill.

2/. Values were apparently obtained on surface near the fault north of the Hill, but the exact location could not be determined. For some reason this area was never drilled to any extent except for the ends of the drill holes that crossed under the Hill from south to north and one long underground hole. The possibility of a mineralized zone north of the Hill in relationship to the shears apparently exists and it may have gold values. It should be explored.

3/. All drill holes for some reason were done from south to

north, though the geological structure would indicate that more accurate results would have been obtained by drilling in the reverse direction. Most of the drilling appears to have been done to satisfy geological curiosity rather than extend the determination of gold values.

4/. After 1944 it appears that the geologists desired to get away from the "tunnel vision" of concentrating on the Hill, Both Martin and Graham felt that their more modern geological interpretations led to the conclusion that the main values were west and south of the Hill along what has been described as the main Destor Porcupine fault in the vicinity of Highway 101 and either above it or below it. This appears to have been based on geologist's intuition rather than too many facts. With the heavy overburden south and west of the Hill a considerable amount of geophysical work will be necessary to outline what lies beneath this Abitibi clay and thin layer of surface float at the ledge.

5/. Despite the amount of work that was performed over a 25 year period and the amount of money that was spent, the results for any part of the ground were inconclusive based on the surviving records. The property can not be written off as non-commercial for there were too many high values proven, and these were spread over a wide area. On the other hand the surviving records do not give enough information to transfer the property from a "prospect" to a "deposit".

ON-SITE EVALUATION OF THE TEDDY BEAR PROPERTY

With the research of available historical records completed, the team entered the next phase of the work, the supervision of the 1980 exploration of the Seagers Hill area by specialized teams of geologists, line cutters and geophysical surveyors, mappers, prospectors and diamond drillers.

When the Hill was first visited by the field team it was found to be covered by 40 years of accumulation of large and small growth. It was difficult to spot the two shafts; most trenches were filled with small growth as were many of the pits.

The trenches and the area around both shafts were cleared first. This was followed by clearing down to bed rock, and then washing down the rock of all overburden and clay, an area on the south slope of the hill for a distance of seventy feet south and seventy feet east and west of the number 1 shaft. The purpose of this was to see how sharply the hill sloped down on the south, to test the depth of the overburden and its consistency, and to expose the southward continuation of the "Mammoth Vein" and to expose any other quartz veins south of the shaft to determine their type, direction and dips. This was followed by further clearing for another two hundred feet to the south to test the overburden depth on a plateau that is a southern continuation of the Hill. The major earth moving and large tree clearing was done by use of bulldozers and a back hoe, with the finishing work by hand labor. It was planned to perform the same clearing function along the north slope where the overburden tested to between 25 and 35 feet deep. However lack of time in the short season available prevented this second operation. It is recommended that it be done in 1981. The clearing of the hill tongue slopes to bed rock exposed a large area of rock that had never been uncovered in the past. It revealed a rather interesting structure of many quartz veins and clearly illustrated dip and strike characteristics.

The next step was to cut, picket and chain a 700 foot long base-line across the Hill between the two shafts with a 110° - 290° azimuth. This was followed by cutting, picketing and chaining on 25'centers 17 section lines totalling 8,450 lineal feet. This work was done by the Troop Exploration field crew who then proceeded to geophysically survey eight full section lines with an Apex Max-Min electromagnetometer and a Scintrex MF-2

fluxgate magnetometer. The Troop Exploration team then proceeded to geologically map the top surface of the Hill and the trenches and main pits that had been cleared.

The next step performed by Troop personnel was to diamond drill with a portable J.K.Smit Winkie machine a total of 12 shallow drill holes. Four were placed below the Number 1 shaft and above the No. 1 Drill hole from the same set up and averaged 60 feet in length each. Four more of 100 foot each were drilled from north to south along the south trench from the contact on the Hill above the trench to a distance of at least 30 feet past the south edge of the trench. Finally four north to south holes were drilled into the shear area from above the north slope. The core was examined by Andrew Troop, split and 96 samples sent to a combination of Bell White and Swastika Laboratories for assaying for gold content. Complete logs were made and sections drawn of these holes and their 1,028.9 feet of core.

Late in November Andrew Troop submitted a report dated October 31, 1980 providing the details of the work his group performed and enclosing as attachments his graphics consisting of the geological map, drill logs and section drawings, and his interpretations of his geophysical surveys.

A review of this submittal by the Consultants noted certain discrepancies and weaknesses, particularly in the geophysical interpretations. As a result F.L.Jagodits and Excalibur International Consultants Ltd. were employed to redraw and reinterpret the geophysical results.

The clearing of the trenches and certain small areas on top of the Hill revealed many of the shears and faults described in the Orser reports. The contacts that he listed were also well defined in certain areas, and revealed in the shallow small core Winkie drilling. Certain areas where good values had been reported in the past had heavy sulphide concentrations. After washdown these could be clearly seen surrounding the Number 1 shaft and in the country rock around what little was left of the almost completely stripped "Mammoth Vein". No spectacular

native gold was seen, though traces were found. It is recomended that during the next Phase of the work that the rock surfaces around the number 1 shaft be blasted to see what fresh rock faces will reveal. It is also recommended that much more sampling be done in this area and a computer program run to see if any correlation can be discovered between the sulphide deposits and gold values. The Winkie drill holes in this area cut through a layer at a depth of about 20 feet that was consistent in all four holes and that gave consistent values of 0.10 ounces per ton on assay. A mini computer "quick and dirty" program was run on these findings but the raw data was too sketchy and the results were inconclusive in the opinion of the Consultant.

Rogers, Orser and Gledhill had all suggested that both the south slope and the north slope of the Hill were potential ore zones. The visual examination and the Winkie holes do not support this conclusion, though admittedly the work was close to the surface. However the north slope, with its shear zones was heavily mineralized in places with sulphides. Drilling with heavy machines on a grid basis may reveal much more data. Alternatively heavy trenching of the north slope after overburden clearing and then bulk sampling for gold values may be even more revealing.

Another suggestion made in the 1930s was that as a result of the Kerr Addison experience the entire top surface of the Hill to a depth of 30 feet at least should be milled and that the operation would prove profitable. It would seem that a considerable amount of bulk sampling as well as drilling would have to be done before an operation of this type could be justified from the information available to date. Values at depths of 100 to 200 feet under the center of the Hill, as revealed by drill core examination, have not been spectacular. Too little work has been done to know what average values lie in the top 100 feet of rock.

On December 1, 1980 Heath & Sherwood Drilling Ltd. entered the property with a heavy wire line machine equipped to drill "BQ" core and were contracted to do six holes totalling approximately 3,000 feet. William Strauss was put in charge of supervising this work and spotting the holes, by the Consultant.

F.L.Jagodits outlined four of the holes to interesct what he considered worthwhile anomalies revealed by his geophysical interpretation and the Consultant outlined two holes on the north slope in an attempt to intersect the previous values reported in the 1925 Diamond drill Hole No. 1. Weather was a serious problem during this period with below normal temperatures. The work was completed as scheduled. The dip, azimuth, length and other details of these holes have been added to the Andrew Troop geological map and the Jagodits overlay for ease of identification.

The core from these holes was logged by David Bell, formerly of Dome Mines and 106 samples were sent to Bell White Laboratories for assaying. In general the assay values were low with the highs being in the 0.07 ounces range. The holes that crossed the Hill from north to south confirmed the geology described in the early reports. Further, the north slope areas showed what appeared to be excellent mineralization and heavy sulphide deposits. A separate report on the findings of these holes was prepared by David Bell.

The final action in this phase was to employ Alex McLennan of Timmins to survey and cut grid lines from north to south at 100 foot intervals, with pickets and chained stations every 50 feet. The Troop base line was extended east and west to a total distance of 4,500 feet. A second east west base line was cut 1700 feet south of this for a total distance of 5,200 feet. The north south lines were cut for a total of 17 to the east of the Troop zero line and 28 west of that point. In total 30 miles of line were cut, chained and picketed. These will be used as the grid for geophysical readings in Phase II.

REFERENCES

Report of Abitibi Mines, Col. R.P.Rogers, May 3, 1923

Report of Abitibi Mines, Edward H. Orser, PE, February 26, 1926

Teddy Bear Valley Mines Limited Summary Report, Edward H. Orser, November 28, 1935

Geological Report, Teddy Bear Valley Mines Ltd., Andrew H. Graham Geologist, April 15, 1947

Report on Geology, Geophysics and Diamond Drilling of the Seagers Hill Area of the Teddy Bear Valley Mines Limited Option, Troop Exploration and Development Limited, October 31, 1980

Composite Map of History and Geology of Seagers Hill, Teddy Bear Valley Mines limited, Ross Hofmann Associates, November 30, 1980

Photographic Record of Work Progress 1980, Seagers Hill, Teddy Bear Valley Mines Ltd., Ross Hofmann Associates

Geophysical Interpretation Seagers Hill Teddy Bear VAlley Mines Ltd., Frank L. Jagodits, PE, December 1, 1980

Preliminary Geological Interpretation, Seagers Hill, Teddy Bear Valley Mines Ltd., David Bell, February 6, 1981

RECOMMENDATIONS

GEOPHYSICAL SURVEYS:

The grid that was cut and picketed at the end of Phase I will permit the taking of readings by geophysical instruments over a total of 30 miles of line. The lines cover all of Claims 10080, 10081, 10085, 10696, 10735, 11168, 11169, 11171 and 11671; the southern third of 10082, 10083 and 10084; and the western edge of 11170 and 10697.

Simple magnetometer readings are not too useful in much of this ground, where the overburden is suspected to be from 80 to 120 deep in many sections and presents in addition the peculiar problems associated with Abitibi clay. The Consultant agrees with the recommendations of the Lightval geologists and geophysicists - that the surveys should involve multiple readings with various instruments. As a start readings would be taken with (a) a VLF Electromagnetometer and (b) a MaxMin II Magnetometer, with a coil separation of 300 feet and at frequencies of 444 Hz and 1777 Hz.

The recommendation is that the readings be taken on every other survey line (every 200 feet) initially, and with station intervals of every 50 feet. Readings would start on line 17 East and cover the entire property to 28 West for the whole grid from north to south. If, after recording the readings at 200 foot spacings there are areas with rapidly changing magnetic or resistance readings, closer readings of 100 foot, or even 50 foot, spacings from east to west could be taken.

EXPLORATION OF THE NORTHERN ZONE:

The Consultant feels that more information should be developed on this area. A first step would be to extend the grid lines and pickets at least another 700 feet north from the 00 Base

Line and to take readings identical in form to those from the rest of the grid, ensuring they are all comparable. The area of interest appears to be from line 17 East to 25 West:with the clues from the old work covering from 2 East to 10 West for the area that is 500 or more feet above the Base Line.

The historical reports and the data from the log of Drill Hole No. 11 (October 27, 1935), give clues to the type of shears, rock and mineralization that will be found in this area. It appears to be made up of a series of shallow ridges for a distance of 700 feet north of the Hill, mostly covered with shallow overburden and heavier clay in between the rises. The outcrops are not plentiful. To assist in ground exploration of this area,the judicious of a bulldozer over a two week period to expose bed rock would be very helpful.

After the geophysical readings and the surface exploration of this zone have been completed, it is recommended that at least 3,000 feet of BQ core (in five to six holes) be drilled to determine whether the area has the potetial that was felt by Col. Rogers in the 1920s.

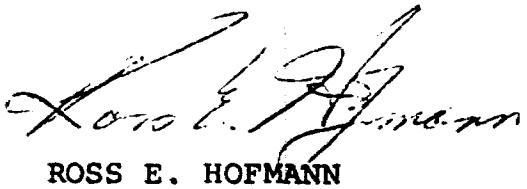
EXPLORATION OF THE SOUTHERN AND WESTERN ZONES:

Interesting gold values were found at depth in the two drill holes that reached ledge on the Harker-Holloway Township Line. The best areas were from 1,000 to 1,500 feet south of the Hill. With the scarcity of hard information on this area it is impossible to judge where the most profitable exploration by drilling should take place. Hopefully the geophysical surveys will give some clues. As minimum they should outline the graphite bands known to be in the area and the major faults that were revealed by the Ontario Airborne magnetomter surveys. In addition plug drilling and chemically testing the clay overburden may reveal some useful information as to mineral locations. A considerable and intelligent amount of information should be collected on the area before a drilling program is commenced.

The drilling program for this area could be costly. It must be flexible and it should be on a mathematical grid basis that follows to geophysical and chemical-metallurgical testing of the bedrock and the overburden. This means a program of sufficient size to adequately test the zone. Based on experience in other similar areas, the initial program could exceed 40,000 lineal feet. As much of this will be in fairly heavy overburden the cost per foot will be above average. It is believed that a computer program for spotting holes would save considerably in the overall approach.

March 18, 1981

ROSS HOFMANN, ASSOCIATES



ROSS E. HOFMANN
PRESIDENT

DIAMOND DRILL RECORD

050

NAME OF PROPERTY Lightval Mines Limited, Teddy Bear Option

HOLE NO. WK-80-9 LENGTH 100 ft.

LOCATION Claim 10080 Seagers Hill, Holloway Twp. Ontario.

LATITUDE 0 + 75 North DEPARTURE 3 + 40 West

ELEVATION Not Determined AZIMUTH 180° DIP -50°

STARTED October 4/80 FINISHED October 6/80

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

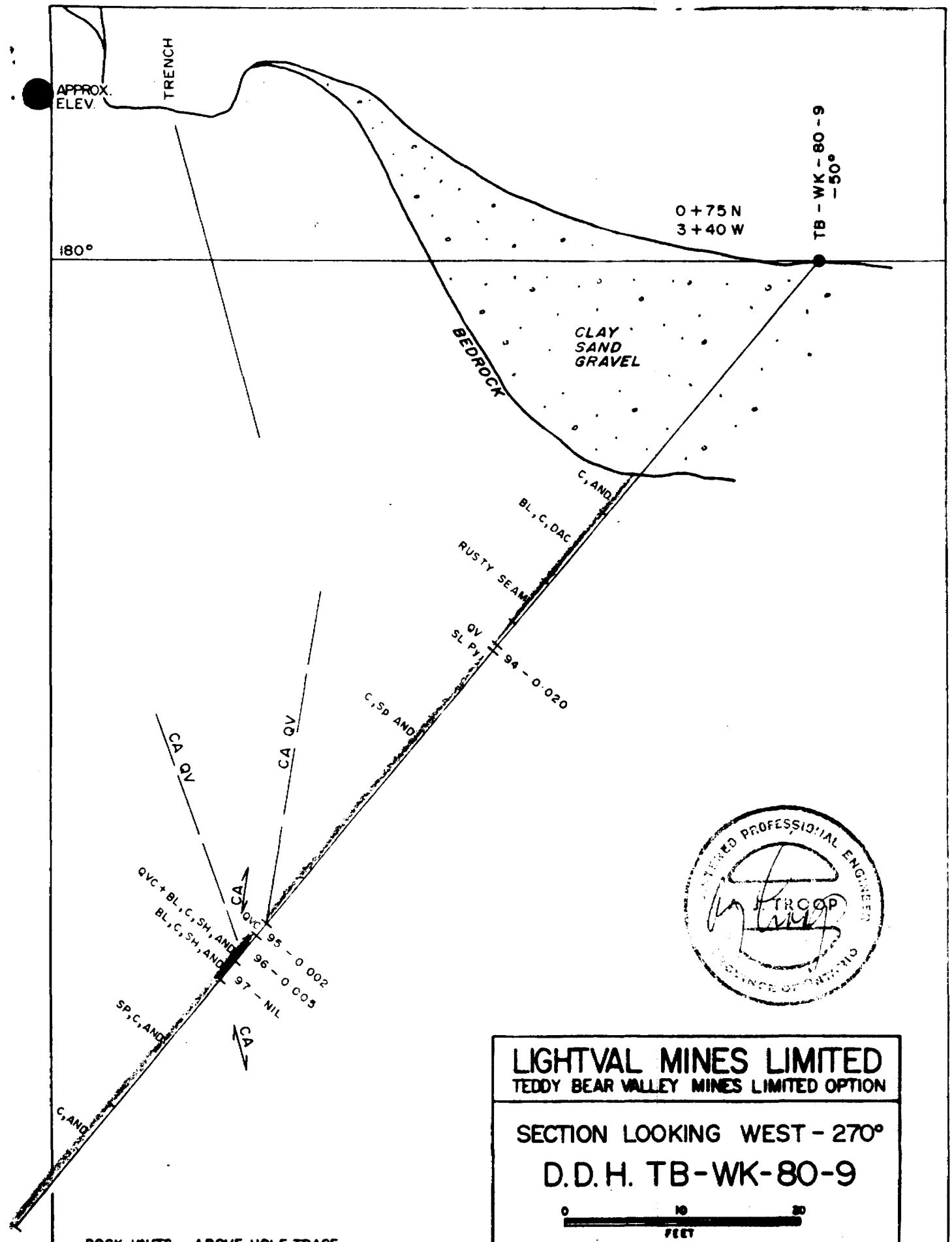
HOLE NO. WK-80-9 SHEET NO. 1

REMARKS

LOGGED BY D. R. Bell

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS OZ/TON 40	ASSAYS OZ/TON
0	22.0	CASING (Overburden)									
22.0	40.5	BLEACHED BASALT FLOW (Carbonated) Patch buff to mottled light grey green, carbonated fine grained basalt flow. Scattered qtz.-cal. fractures with occasional streaks black tourmaline. 1-2% qtz.-cal., 65° -85° to Core Axis, Tr. py.			22'	27'	5.0				
		6-7% qtz. -cal. (4" mottled waxy white vein 30° to Core Axis @ 31.5'). 0.5 -1.0% disseminated py.	193		27'	32'	5.0			.005	
		½", 1", ½" qtz.-tourmaline fractues 80° to Core Axis, 6" rusty zone 33.0' -33.5', Tr.-0.5% disseminated py.	194		32'	37'	5.0			.005	
		4" qtz., ½" qtz.-cal., 0.5-1.0% disseminated py.	195		37'	40.5'	3.5			.015	
40.5	100.0	BASALT FLOW MASSIVE (Carbonated) Mottled to patch light green-med. green, medium grained to fine grained massive basalt flow. Numerous irregular white narrow qtz.-cal. fractures 55° -85° to Core Axis generally barren to Tr. py.									
		100 ft. END OF HOLE									

Manager & Field Operations



ROCK UNITS – ABOVE HOLE TRACE
SAMPLES . – BELOW HOLE TRACE
NUMBER + ASSAY - Au IN OZ./TON

LIGHTVAL MINES LIMITED
TEDDY BEAR VALLEY MINES LIMITED OPTION

SECTION LOOKING WEST - 270°

D.D.H. TB-WK-80-9

0 10 20
FEET

A J TROOP OCT. 26, 1980

REGISTERED PROFESSIONAL ENGINEER
A. J. TROOP
PROVINCE OF ONTARIO

DIAMOND DRILL RECORD

NAME OF PROPERTY Lightval Mines Limited, Teddy Bear Option
HOLE NO. WK-80-10 LENGTH 99.3 ft.
LOCATION Claim 10080, Seagers Hill, Holloway Twyp. Ontario
LATITUDE 0 +91 North DEPARTURE 2 + 93 West
ELEVATION Not Determined AZIMUTH 180° DIP -50°
STARTED October 6, 1980 FINISHED October 9, 1980

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. WK-80-10 SHEET NO. 1
REMARKS

LOGGED BY D.R. Bell

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS OZ/TON	ASSAYS OZ/TON
0	65.0	BLEACHED FELSPATHIZED PILLOWED TOP OF BASALT FLOW (Carbonated) Patchy buff to grey-green fine grained, felspathized carbonated top to basalt flow unit. One chloritic pillow selvage (minor scattered narrow selvages) suggests pillow flows. Numerous scattered irregular white qtz.-cal. veins 40° -85° to Core Axis with disseminated & patchy py. Bleaching intence about fractures.									
		3-5% white qtz. -cal., 80° to core axis, Tr.-0.5% dissimated py.	206		0	5.0'	5.0			Trace	
		5-7% white qtz. -cal., 70-80° to core axis, intence bleaching, 0.5-1.0% disseminated py.	207		5.0'	10.0'	5.0			.015	
		2-3% qtz.-cal., 70-80° to core axis, Tr.-0.5% disseminated py., bleached.	208		10.0'	15.0'	5.0			.02	
		2-3% qtz.-cal., 70-80° to core axis, 1" rusty seam @ 80° (17') 5-6% disseminated & patchy py. bleached	209		15.0'	20.0'	5.0			.045	
		1-2% narrow white qtz.-cal. 80° to core axis, Tr. py.			20.0'	25.0'	5.0				
		Tr. qtz., Tr. py.	210		25.0'	30.0'	5.0			.005	
		8-10% qtz.-cal., (8" mottled waxy white-grey qtz. vein) 2-3% disseminated py.	211		30.0'	35.0'				.035	
0	65.0	2-3% irreg. qtz. -cal. (70° -80° to core axis) Tr.-0.5% disseminated py.	212		35.0'	40.0'	5.0			.002	

Manager of Operations

LANGRIDGE TORONTO – 366-1168

FORM 1

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

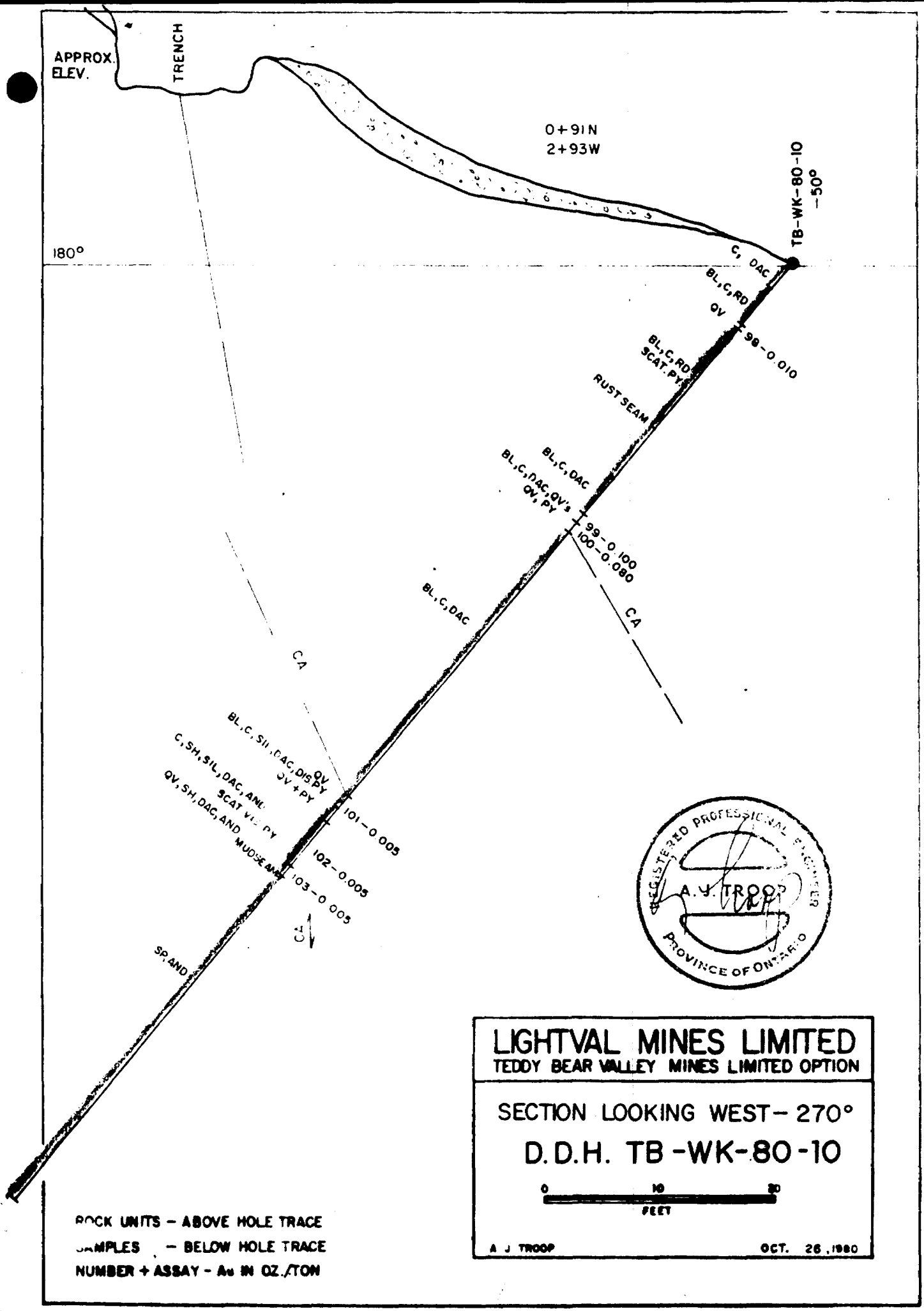
FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. WK-80-10 SHEET NO. 2

REMARKS _____

LOGGED BY _____

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS OZ/TON	ASSAYS OZ/TON
		Tr. qtz. -cal., Tr. py., bleached.	213		40.0'	45.0'	5.0			Trace	
		" " " " "	214		45.0'	50.0'	5.0			Trace	
		" " " " "	215		50.0'	55.0'	5.0			Trace	
		10", 8" waxy white qtz. veins with bleached rocky inclusions, 3-5% disseminated patchy py. Bleached.	216		55.0'	60.0'	5.0			Trace	
		5-7% irregular qtz.-cal., 2-3% disseminated py.	217		60.0'	65.0'	5.0			.005	
65.0	99.3	BASALT FLOW MASSIVE (Carbonated)									
		Patchy mottled light-medium green, fine-medium grained massive basalt flow. Moderate reaction HCL. Fine feldspar lathes concontred towards upper contact phasing into bleached felspathized flow. Scattered white qtz.-cal. fractures 2-3 per foot with tr. py. 65-80° to core axis. Occassional white feldspar fracture.									
		99.3 ft. END OF HOLE									



REGISTERED PROFESSIONAL ENGINEER
A. J. TROOP
PROVINCE OF ONTARIO

LIGHTVAL MINES LIMITED

TEDDY BEAR VALLEY MINES LIMITED OPTION

SECTION LOOKING WEST - 270°

D.D.H. TB-WK-80-10

0 10 20
FEET

ROCK UNITS - ABOVE HOLE TRACE
SAMPLES - BELOW HOLE TRACE
NUMBER + ASSAY - Au IN OZ./TON

A. J. TROOP OCT. 26, 1980

DIAMOND DRILL RECORD

NAME OF PROPERTY: Lightval Mines Limited, Teddy Bear Option

HOLE NO. WK-80-11 LENGTH 102 ft.

LOCATION: Claim 10080, Seagers Hill, Holloway Twp. Ontario

LATITUDE 1 + 79 North DEPARTURE 2 + 00 West

ELEVATION Not Determined AZIMUTH 180° DIP -50°

STARTED October 10/80 FINISHED October 13/80

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. WK-80-11 SHEET NO. 1

REMARKS

LOGGED BY D.R. Bell

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS OZ/TON	ASSAYS OZ/TON
0	14.0	CASING (Overburden)									
14.0	41.0	AGGLOMERATE BASALT (Carbonated) Light green (bleached) to medium green, fine grained basalt sub angular - angular fragments in a chloritic mafic volcanic matrix. Scattered qtx.-cal. fracturing with bleaching about fractures towards 41 ft. Diss. py. in fracturing. Moderate reaction to HCL.									
41.0	68.0	BLEACHED BASALT FLOW (Carbonated) Patchy buff to light green bleached (carbonated-silicified) fine grained basalt flow. (felsathized top to basalt flow) Scattered qtx.-cal. fracturing with disseminated py. and disseminated py. in buff zones.									
		2-3% irregular qtz.-cal., fracturing, minor bleaching Tr.-0.5% disseminated py.	196		40.5	45.5	5.0			.002	
		1½", 1", ¼", irregular white qtz.-cal., Tr. tourmaline, Tr.-0.5% disseminated py.	147		45.5	52.0	6.5			.005	
		4-6% irregular qtz.-cal., heavily bleached buff zone, 3-5% fine disseminated py.	198		52.0	57.0	5.0			.005	
		10-12% irregular qtz.-cal. fracturing with streaky chlorite and py., heavily bleached zone with 8-10% disseminated & streaky fine grained py.	199		57.0	62.0	5.0			.02	

Manager & Field Operations

ANGLOCES – TORONTO – 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

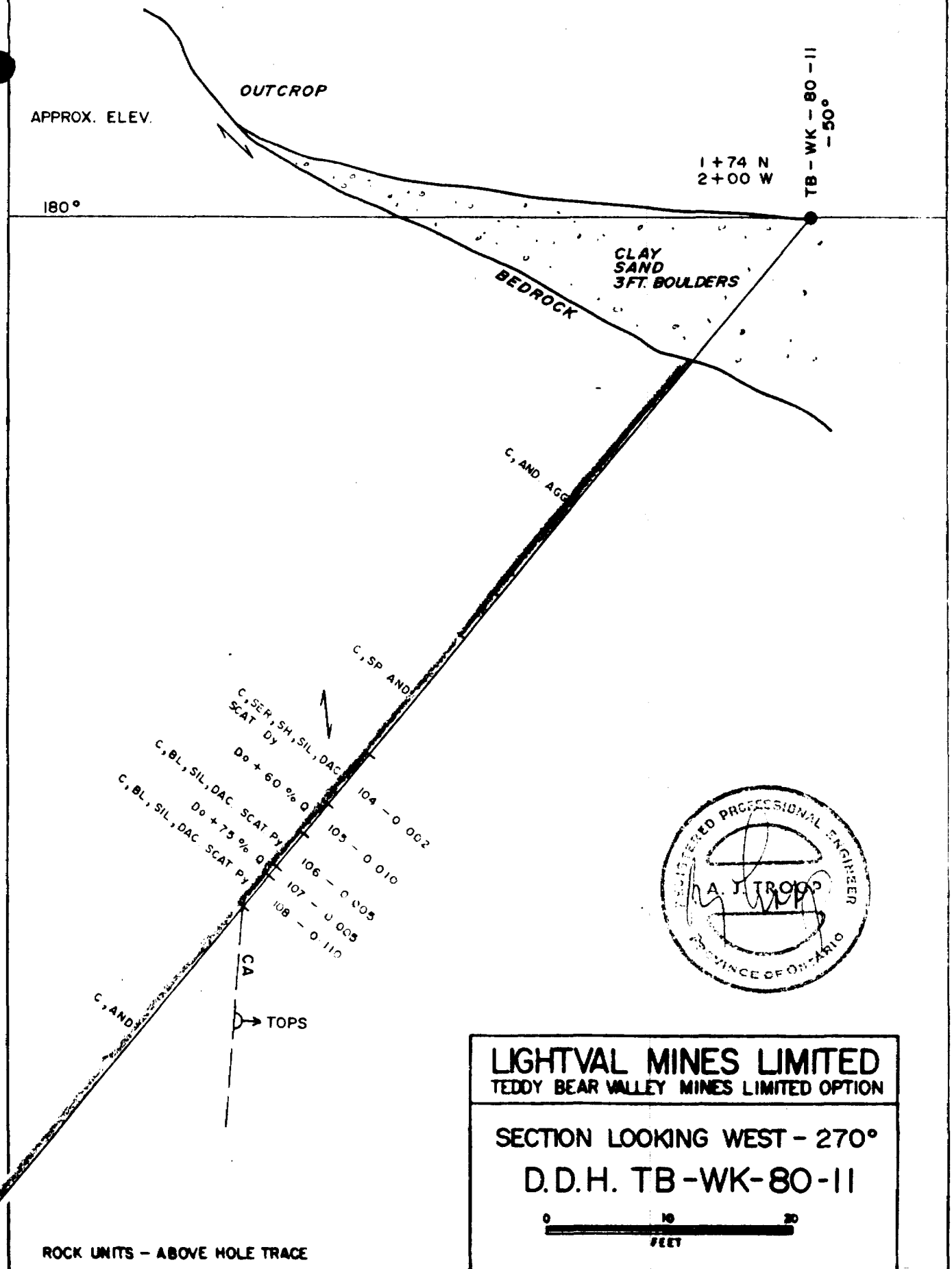
FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. WK-80-13 SHEET NO. 2

REMARKS _____

LOGGED BY _____

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS OZ/TON (AU)	ASSAYS OZ/TON
41	68	15-20% white waxy to mottled grey qtz.-cal. in heavily bleached zone, 10-12% fine disseminated to coarse patchy py.	200		62.0	67.5	5.5			.015	
68.0	102.0	BASALT FLOW MASSIVE (Carbonated) Medium green, fine grained, massive basalt flow with minor bleaching scattered with few veins. Weak to moderate reaction HCL. Scattered white qtz.-cal. qtz. gash veins 5-6%. 83.5' 1½" qtz.-cal. feldspare vein @ 70° to core axis with 5-7% patchy py.									
		3-5% irregular white narrow qtz.-cal. fractures, minor light green bleaching. 0.5-1.0% disseminated py.	201		97.0	102	5.0			.005	
	102.0	102 ft. END OF HOLE									



ROCK UNITS – ABOVE HOLE TRACE
SAMPLES – BELOW HOLE TRACE
NUMBER + ASSAY - Au IN OZ./TON

REGISTERED PROFESSIONAL ENGINEER
A. J. TROOP
PROVINCE OF ONTARIO

LIGHTVAL MINES LIMITED
TEDDY BEAR VALLEY MINES LIMITED OPTION

SECTION LOOKING WEST - 270°
D.D.H. TB-WK-80-11

0 10 20
FEET

A J TROOP OCT. 26, 1980

DIAMOND DRILL RECORD

NAME OF PROPERTY: Lightval Mines Limited, Teddy Bear Option
HOLE NO. WK-80-12 LENGTH 102 ft.
LOCATION Claim 10080, Sagers Hill, Holloway Twp. Ontario
LATITUDE 1 + 88 North DEPARTURE 1 + 50 West
ELEVATION Not determined AZIMUTH 180° DIP -50°
STARTED October 14/80 FINISHED October 18/80.

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. WK-80-12 SHEET NO. 1
REMARKS
LOGGED BY D.R. Bell

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS AV OZ/TON	ASSAYS OZ/TON
0	47.0	CASING (Overburden)									
47.0	62.0	BASALT FLOW (Carbonated)									
		Medium green, fine grained, massive basalt flow with scattered qtz.-cal. fractures, minor carb. bleaching Tr. py.									
		20% irregular qtz.-calcite, bleached green wall rock, Tr.-0.5% py.	109		47.0	49.0	2.0			.005	
62.0	97.0	BASALT FLOW (Bleached) CARBONATED									
		Patch buff bleaching about qtz. fracturing in a light green fine grained massive basalt flow.									
		8-10% irregular white qtz.-cal. fractures, streaks chlorite, trace tourmaline, 2-3% disseminated & patchy streaks py. (bleached)	202		66.0	71.0	5.0			.07	
		4-6% irregular white qtz.-cal. 1-2% diss. py. (bleached)	203		71.0	75.0	4.0			.002	
		1-2% narrow white qtz.-cal. gashes, minor bleaching, Tr. 0.5% py.	204		83.0	85.0	2.0			Trace	
		3" qtz.-tourmaline vein (7-10% irreg. narrow white qtz. calcite fracturing) bleaching, 2-3% disseminated py.	205		85.0	90.0	5.0			.005	
		2½" irreg. qtz. fracture with 6" bleaching, 1-2% narrow irreg. qtz.-cal. gashes. Tr.-0.5% disseminated py.	206		90.0	95.0	5.0			Trace	

Manager of Field Operations

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

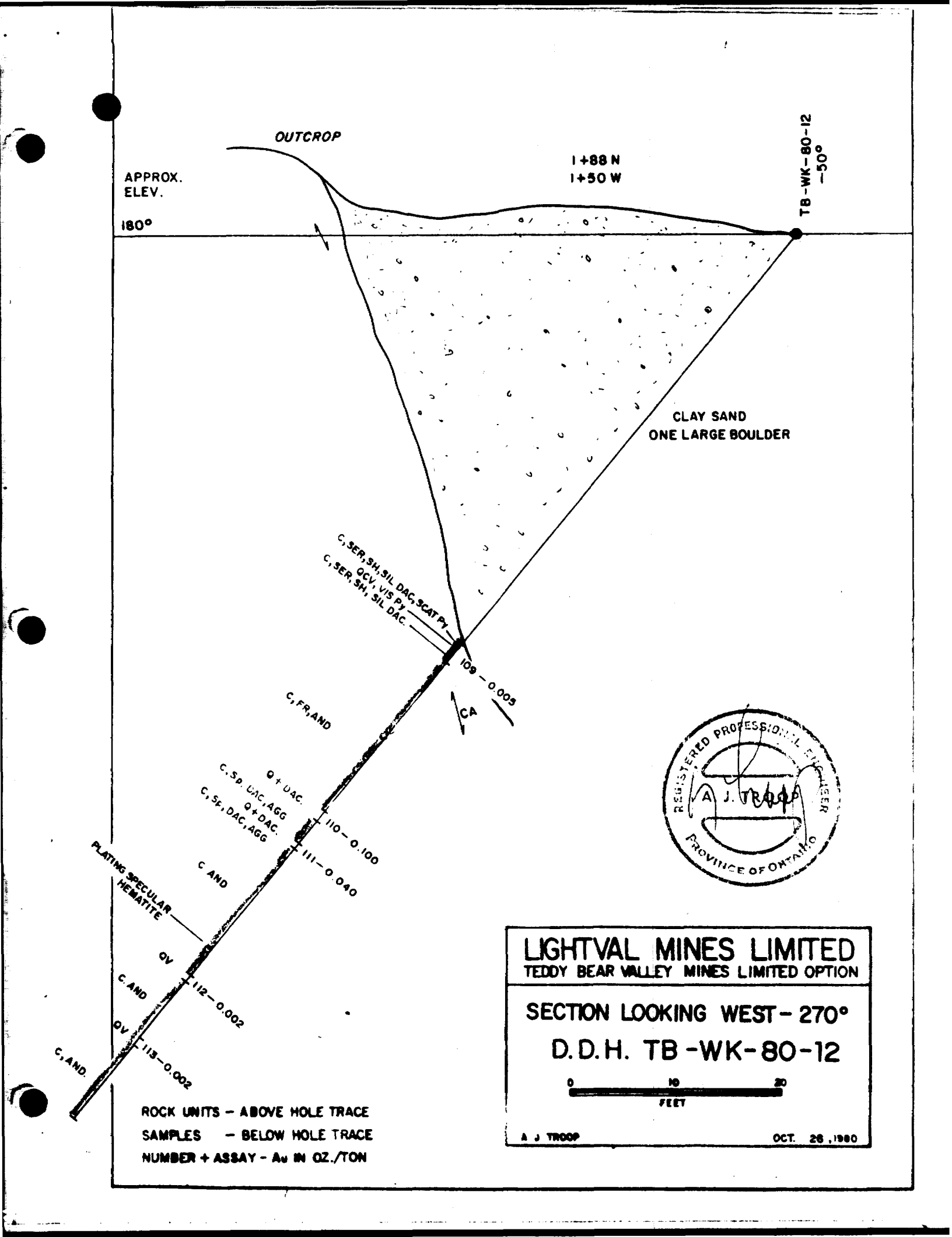
FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. WK-80-12 SHEET NO. 2

REMARKS _____

LOGGED BY _____

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS % AU	ASSAYS %	ASSAYS OZ/TON	ASSAYS OZ/TON	
97.0	102.0	BASALT FLOW (Massive) CARBONATED Dark-med. green fine grained, basalt flow, narrow qtz.-cal. fracturing, Tr. magnetism.										
	102.0	102.0 ft. END OF HOLE										


OUTCROP
APPROX. ELEV.
180°
1+88 N
1+50 W
TB-WK-80-12
-50°
CLAY SAND
ONE LARGE BOULDER
C, SER, SH, SIL DAC, SCAT PY
QCV, VIS PY
C, SER, SH, SIL DAC.
109 - 0.005
CA
C, FR, AND
Q + DAC.
C, SP, DAC, AGG
Q + DAC.
C, SP, DAC, AGG
110 - 0.100
111 - 0.040
PLATING SPECULAR HEMATITE
C AND
QV
C AND
112 - 0.002
QV
113 - 0.002
C, AND.
ROCK UNITS - ABOVE HOLE TRACE
SAMPLES - BELOW HOLE TRACE
NUMBER + ASSAY - Au IN OZ./TON
REGISTERED PROFESSIONAL ENGINEER
A. J. TROOP
PROVINCE OF ONTARIO
LIGHTVAL MINES LIMITED
TEDDY BEAR VALLEY MINES LIMITED OPTION
SECTION LOOKING WEST - 270°
D.D.H. TB-WK-80-12
0
10
20
FEET
A J TROOP
OCT. 26, 1980

DIAMOND DRILL RECORD

NAME OF PROPERTY Lightval Mines Limited, Teddy Bear Option

HOLE NO. #20 LENGTH 527 ft.

LOCATION Claim 10080 - Seager's Hill, Holloway Twp., Ontario

LATITUDE 1 ± 45 N DEPARTURE 2 ± 90 W

ELEVATION not determined AZIMUTH 110° Geog. DIP -55°

STARTED 12-8-80 FINISHED 12-12-80

Geographic

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	55	110°			
250'	55	not determined			
520'	55	"			

HOLE NO. 20 SHEET NO. 1

REMARKS

LOGGED BY D.R. Bell

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS AU OZ/TON	ASSAYS OZ/TON	
0	27.0	CASING Overburden										
27.0	103.0	BASALT (Massive) (Carbonated) Medium to light grey green, massive, uniform basalt flow. Bleaching due to silicification and carb. alteration especially around qtz./carb. fracturing. Magnetism slight around larger qtz. fractures. Qtz./carb. (calcite) fracturing are narrow 1/8"-½" irreg. gashes with occasional 1"-2" qtz. veins. Fine diss. & streaky py. and minor po. common around qtz. veins. 5-7% irregular qtz. stringers, 3-4% disseminated & streaky py./po. 2" qtz. @ 64.3' 50° to core axis (rusty), bleached.	114		63.5	66.5	3.0			0.01		
		2-3% irregular qtz./carb. gash veins, 0.5-1.0% diss. py.	115		66.5	71.0	4.5			trace		
		15-20% irregular qtz. stringers, 5-6% streaks & blebs py. Tr. po.	116		76.0	77.5	1.5			trace		
103.0	117.0	AGGLOMERATE (Basalt) Medium to dark green sub angular basalt fragments in basalt flow and minor qtz.-calcite cement. Epidote common in qtz.-calcite fracturing.										
117.0	128.0	BASALT (massive) (Carbonated) Dark green, massive, fine grained, basalt flow. Slight mag. attraction. Scattered qtz.-calcite gashes. Tr. py. and hematite.										

Manager, Field Operations

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. #20 SHEET NO. 2

REMARKS _____

LOGGED BY _____

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS AU OZ/TON	ASSAYS OZ/TON
128.0	138.5	AGGLOMERATE (Basalt) As before with sub angular basalt fragments, some slightly bleached due to supper cooling. 128.0' - 130.5' Intence qtz.-calcite fracturing 70-90° to core axis. Minor agglomeritic fractures, badly broken ground, 7-10% fracturing scattered fine grained pyrite.									
		8-10% irregular qtz.-calcite stringers, 1-2% diss. & streaky fine grained (dusty) pyrite.	117		147'	152'	5.0			Trace	
		Badly broken ground, 5-6% fine irregular qtz.-cal. 0.5% pyrite.	118		152'	157'	5.0			Trace	
		15-20% qtz.-cal. fracturing, 3-5% fine disseminated py.	119		176.5'	178.5	2.0			Trace	
		191.0' 1" qtz. vein 75° to core axis, no mineralization.									
		196.5' 1½" broken qtz./chlorite vein, 75%/C.A., Tr. py.									
		194.5' Pillow selvage.									

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. #20 SHEET NO. 3

REMARKS _____

LOGGED BY _____

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS AU. OZ/TON	ASSAYS OZ/TON
		Altered bleached (carbonated) basalt ½", ¼" irregular qtz. stringer 3-5% fine disseminated py.	120		202.5	206.0	3.5			Trace	
		224.5' 1" qtz. 65° to core axis, no mineralization.									
		237.0' ¼" qtz.-calcite 25° to core axis, Tr. py.									
		240.5' 1½" " " 75° " " " " " & hematite.									
		240.0' - 257.0' 5-7% irregular green epidote-qtz. fractures.									
		1', 1½', ¼", 1/8" irregular qtz.-calcite epidote, 3-5% coarse py.	121		248'	253'	5.0			0.002	
		272.0' - 295.0' Medium grained, massive, uniform phase of basalt flow. Scattered qtz.-calcite epidote fractures.									
299.5	329.0	AGGLOMERATE FLOW BRECCIA(Basalt) CARBONATED Bleached light-medium green sub angular to angular basalt fragments in a epidote-qtz.-calcite breccia cement. Scattered irregular qtz. stringers, Tr. py.									
		313.5' 3" qtz - calcite vein, Tr. py.									
		10-15% qtz. cement in flow breccia, 1-3% py. in cement.	122		324.5	326.0	1.5			Trace	

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. #20 SHEET NO. 4

REMARKS _____

LOGGED BY _____

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ/TON	ASSAYS OZ/TON
329.0	495.0	BASALT Massive, weak-med. reaction HCL., dark green, fine grained basalt flow, massive, uniform. Weakly magnetic. Scattered irregular qtz-calcite-epidote fractures, Tr. py. spotty leucoxene. 365.5' 1½" qtz-calcite, 80° to core axis, Tr. py. 365.9' ½" " " 75° " " " 1-2% py.	123		365	366	1.0			0.002	
		381.0' ½' " " 35° " " " Tr. py. 398.0'- 399.0' 20-25% qtz-calcite (vugy) Tr. py. 406.0' - 423.0' 5-6% irreg. qtz-calcite stringers, vugy, Tr. py. 443.0' ½" qtz-calcite, 70° to core axis, Tr. py. 449.0' - 452.0' 10-12% irreg. qtz-calcite-epidote, hematite staining, Tr. py. 459.0' 1" qtz-calcite 60° to core axis, no Min. 469.5' 1" " " 70° " " " Tr. py. 477.0' ½" qtz-calcite-epidote, 65° to core axis, Tr. py.									

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

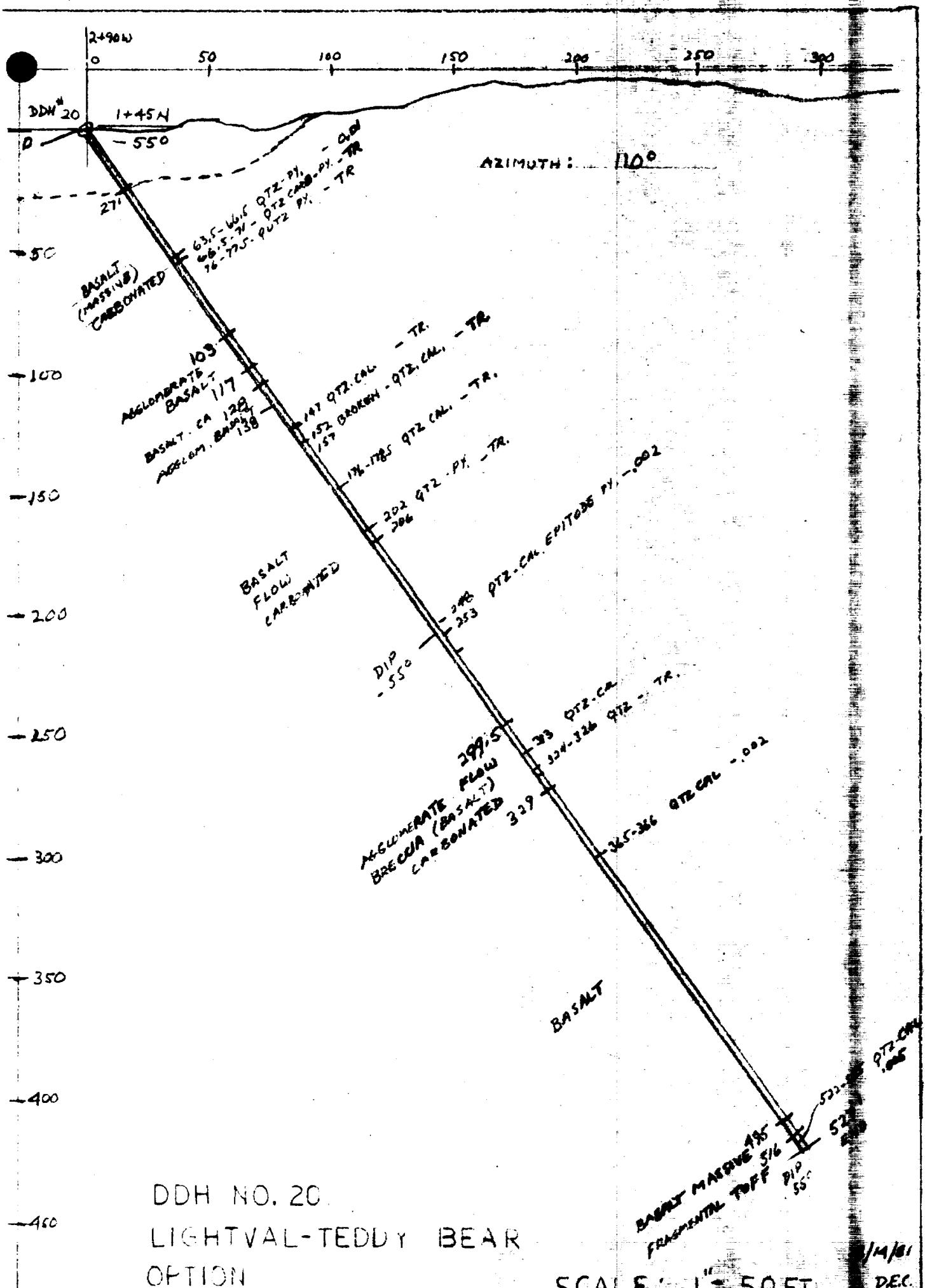
HOLE NO. #20 SHEET NO. 5

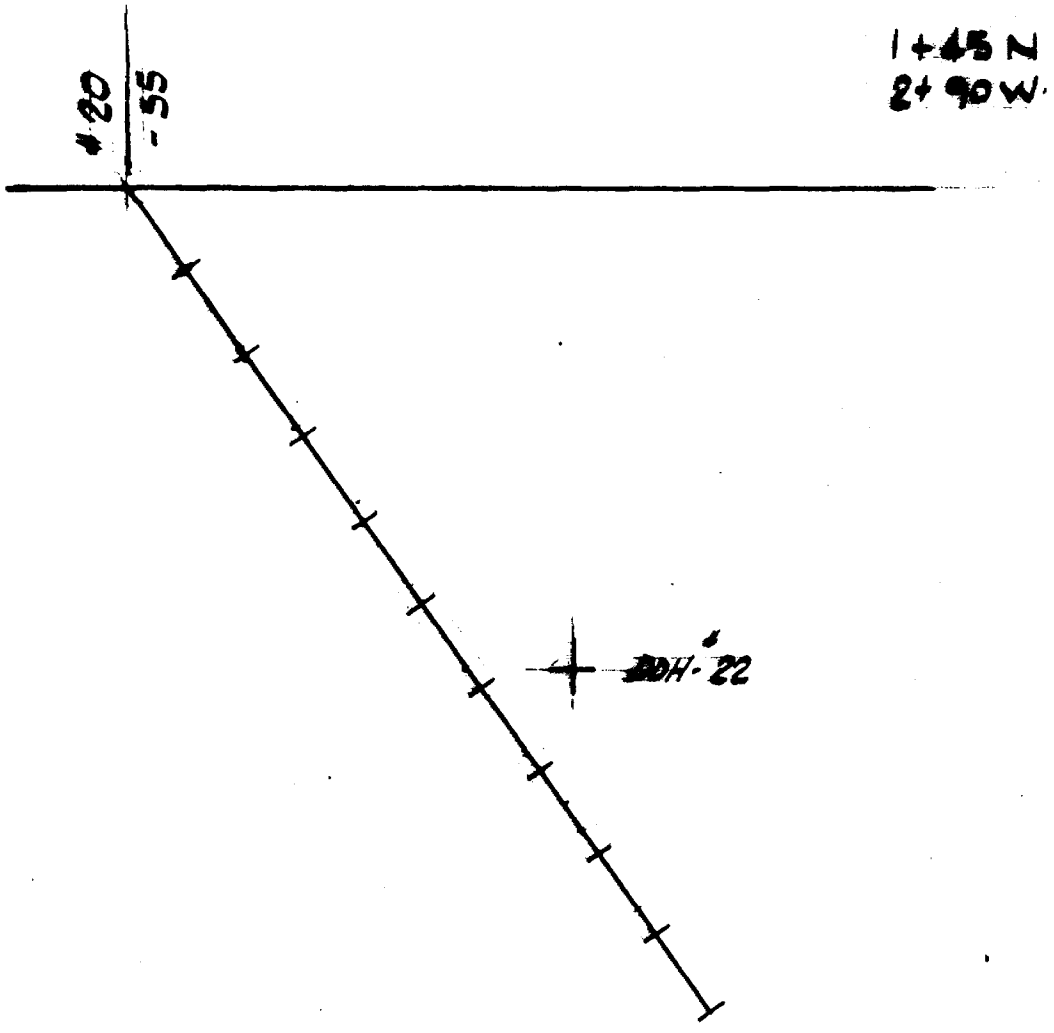
REMARKS _____

LOGGED BY _____

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS AU OZ/TON	ASSAYS OZ/TON
495.0	516.0	BASALT MASSIVE Medium green, fine grained with coarse angite crysts, phasing from medium grained @495' to fine grained basalt. Scattered qtz-calcite fractures with fine shattering of black tourmaline.									
516.0	527.0	FRAGMENTAL TUFF Light - medium green, fine grained, chloritic (basalt) tuff, fractured inclusions of black tourmaline, scattered angular syenite fragment. 552.5' - 555.2' 20-25% qtz-calcite fracturing, 10-15% black tourmaline inclusions, 2-3% disseminated fine grained py. 527 ft. END OF HOLE	124		552.5	555.2	2.7			0.005	

OM36-PE32-P-80





LIGHTVAL MINES LTD

DDH-20

0 100 200

FEET

DIAMOND DRILL RECORD

NAME OF PROPERTY: Lightval Mines Limited, Teddy Bear Option

HOLE NO. #20-B LENGTH 423ft.

LOCATION claim 10080-Seagers Hill-Holloway Twp., Ontario

LATITUDE 1 + 35 N DEPARTURE 2 + 65 W

ELEVATION Not determined AZIMUTH 110° geographic DIP -55°

STARTED 1-17-81 FINISHED 1-18-81

Geographic

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	55	110°			
210	53°	unknown			
420	52°	"			

HOLE NO. #20-B SHEET NO. 1

REMARKS D.R. Bell

LOGGED BY

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ/TON	ASSAYS OZ/TON
0	23.0	CASING (Overburden)									
23.0	173.0	BASALT FLOW MASSIVE (carbonated) Medium-dark green, fine grained, massive basalt flow, moderately carbonated, weakly magnetic. Scattered irreg. white qtz-calcite fractures 50-80° to core axis.									
		8" bleached broken qtz.-carb. vein, 55-60° to core axis, 3-4% disseminated & streaky py.	125		56.0	57.5	1.5			0.025	
		62.0' - 83.0' 5-6 narrow qtz-calcite gash veins 70-80° to core axis, Tr. py.									
		24" mottled grey qtz-calcite vein 40-50° to core axis, chloritic streaks, 2-3% disseminated & patchy py.	126		89.0	92.0	3.0			0.002	
		5-7% irregular qtz-calcite fractures, carb. bleaching, 1-2% disseminated py.	127		92.0	95.0	3.0			0.005	
		98.0 - 138.0' 15-20% narrow white qtz.-calcite gash veins 65-80° to core axis, Tr. py. Badly broken core.									
		105.0' - 106.0' LOST CORE									
		114.0' LOST CORE									
		118.0' - 122.0' Badly broken very soft muddy section.									
		151.0' 2" qtz.-calcite feldspar 65° to core axis, Tr. py.									

Manager of Field Operations

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. #20-B SHEET NO. 2

REMARKS _____

LOGGED BY _____

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS AU OZ/TON	ASSAYS OZ/TON
23.0	173	156.0' - 173.0' 5-7% irregular qtz.-calcite stringers 35-80° to core axis, Tr. py.									
173.0	423.0	BASALT PILLOWED FLOW Dark green, fine grained, pillowed basalt flow with epidote-siliceous pillow selvages. Numerous feather-like green epidote fracturing. 207.5' 1" qtz.-calcite 70° to core axis, Tr. py. 212.0' - 213.0' 40% irregular white qtz.-calcite, 0.5% py. 228.0' ¼" qtz.-calcite 10° to core axis, Tr. py.									
		10-15% broken qtz.-calcite, epidote, 2-3% diss. py.	127		244	246	2.0			0.005	
		12-17% irregular qtz.-calcite and pillow selvages with 2-5% disseminated py.	128		257	262	5.0			0.005	
		8" white qtz.-calcite vein 55° to core axis, Tr. py.	129		262	265	3.0			0.005	
		4" siliceous grey ppt. pillow selvage with spotty white carb., 3-5% coarse py.	130		279.3	280	0.7			0.002	
		288.5' 1" qtz.-calcite-epidote, 85° to core axis, Tr. py.									

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

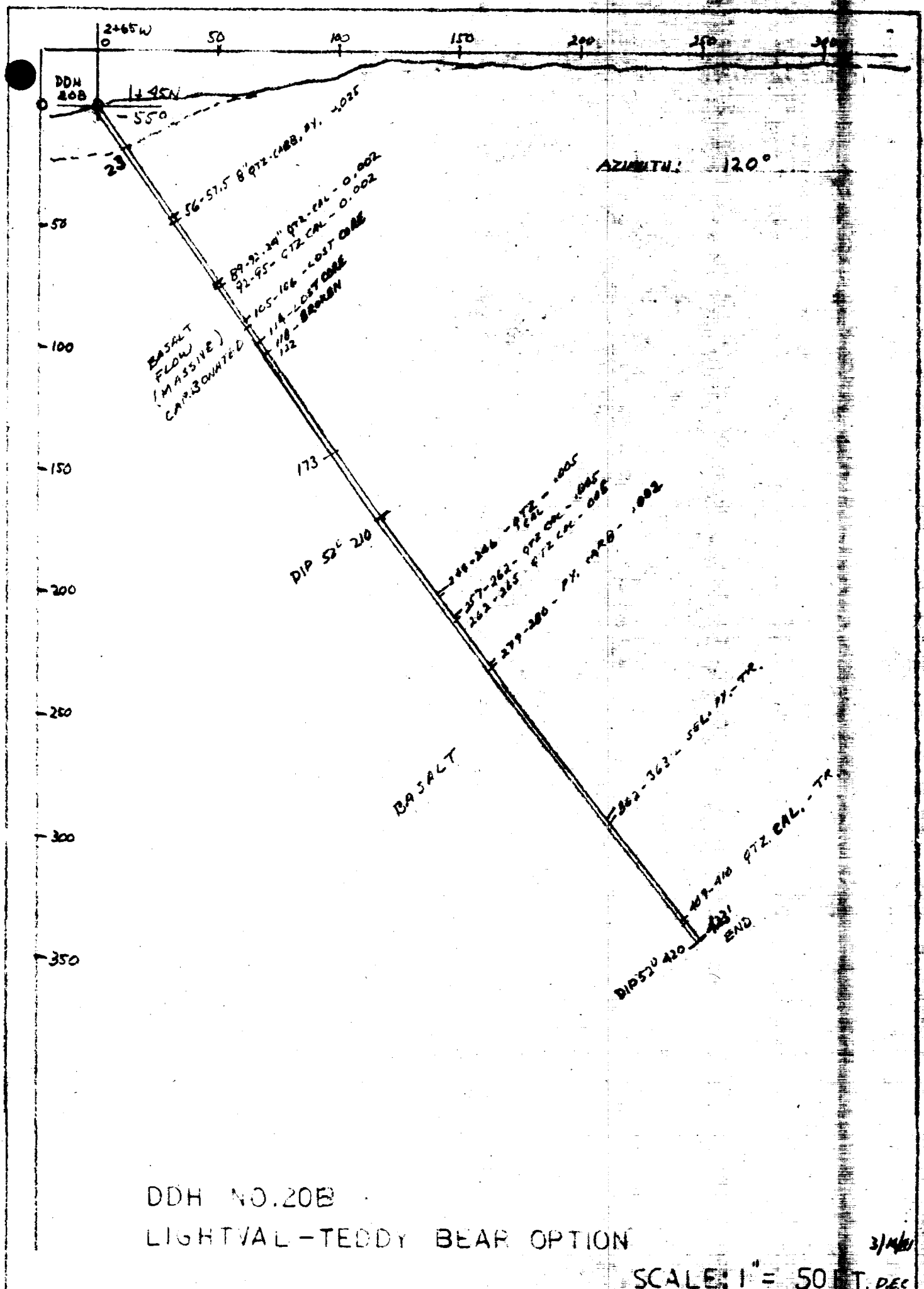
FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO #20-B SHEET NO. 3

REMARKS _____

LOGGED BY _____

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS OZ/TON Au	ASSAYS OZ/TON
		298.0' 1½" qtz.-calcite 75° to core axis, Tr. py.									
		317.0' - 327.0' Medium grained phase massive basalt flow.									
		350.0' - 357.0' 7-10% qtz.-carb. fractures, Tr. py.									
		2" siliceous selvage with 5-7% patchy py.	132		362	363	1.0			Trace	
		394.0' ½" qtz.-calcite 70° to core axis, no mineralization.									
		4" qtz.-calcite (vugy) vein 50° to core axis, 1-2% fine disseminated. py.	131		409	410	1.0			Trace	
	423'	423 ft END OF HOLE									

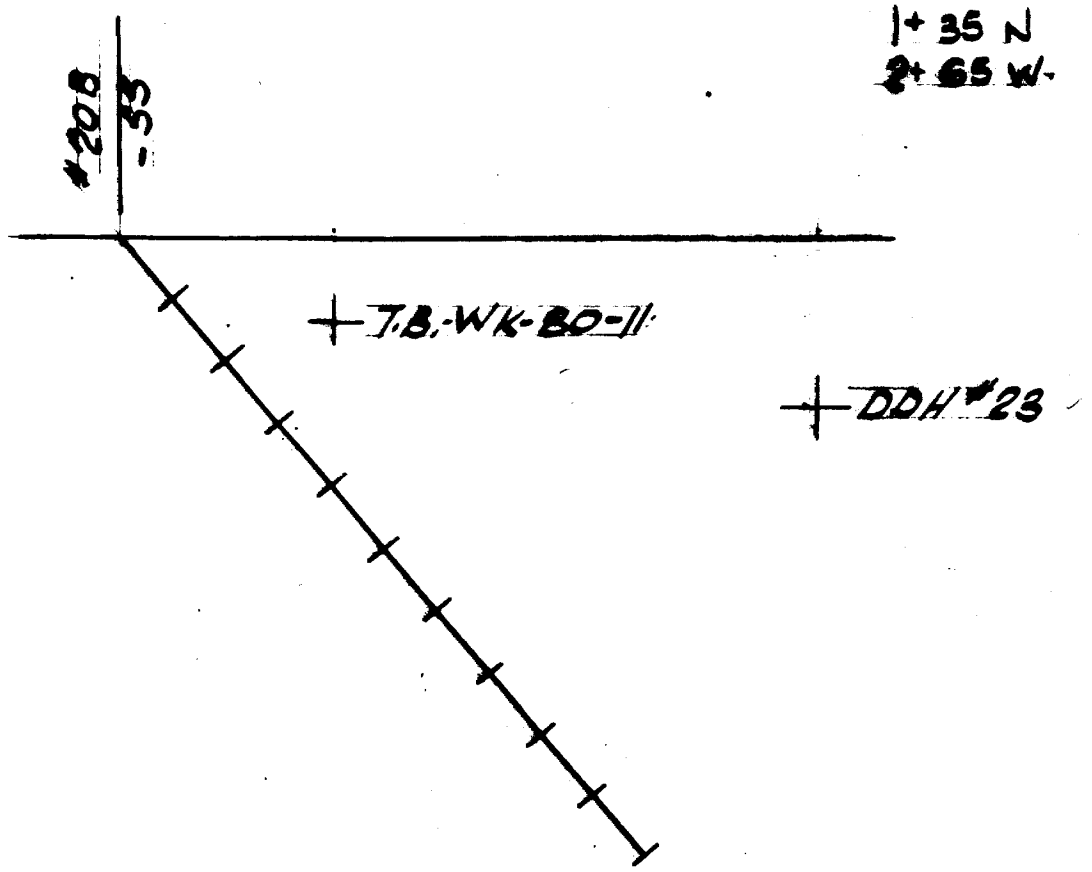


DDH NO. 20B

LIGHTVAL - TEDDY BEAR OPTION

3/1961

SCALE: 1" = 50 FT. D.E.C



LIGHTVAL MINES LTD.

D.D.H.# 20B

0 100 200

FEET.

DIAMOND DRILL RECORD

NAME OF PROPERTY Lightval Mines Limited, Teddy Bear Option
HOLE NO. #21 LENGTH 457 ft.
LOCATION Claim 10080 - Seager's Hill - Holloway Twp. - Ontario
LATITUDE 130 N DEPARTURE 2 + 50 W
ELEVATION not determined AZIMUTH 174° Geographic DIP -45°
STARTED 12-14-80 FINISHED 12-18-80

Geographic

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0'	45°	174°			
240'	48°	not determined			
457'	43°				

HOLE NO. #21 SHEET NO. 1
REMARKS
LOGGED BY D.R. Bell

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS Au %	ASSAYS %	ASSAYS OZ/TON	ASSAYS OZ/TON
0	22.0	CASING (Overburden)									
22.0	41.0	BASALT (Massive) CARBONATED Dark green, fine grained, massive mafic flow, intensely fractured 10-15% narrow white qtz.-calcite gash veins 75-90° to core axis, Tr. py.									
41.0	46.0	SILICEOUS CARBONATED FLOW TOP Buff grey to creamy siliceous broken flow top, strong reaction HCL highly carbonated. Intensely fractured by narrow white qtz.-calcite 15-20%. Fine diss. & streaky py. 2-3%.									
		1-2% disseminated py. 8-10% qtz.-calcite fractures.	133		40'	43'	3.0			0.002	
		Siliceous flow, 3" barren white qtz. @ 75° to core axis, 4-5% disseminated & streaky py.	134		43'	47'	4.0			0.005	
		Bleached creamy basalt 2-3% qtz.-calcite fractures, Tr. py.	135		47'	49.5'	2.5			0.005	
46.0	139.0	BASALT FLOW (Massive) Carbonated Light - med. green, fine grained, massive carbonated basalt flow. Scattered irregular qtz.-calcite fractures with varying degrees of bleaching about veins.									
		3-5% qtz.-calcite fractures, Tr.-0.5% patchy py.	136		68'	73'	5.0			trace	

Manager & Field Operations

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. #21 SHEET NO. 2

REMARKS _____

LOGGED BY _____

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ/TON	ASSAYS OZ/TON
		12-15% white qtz. fractures 65-70° to core axis, Intence bleaching, strong reaction HCL. 5-6% diss. & patchy py.	137		73'	76'	3.0			0.065	
		Bleached flow 2-3% qtz.-calcite, 1-2% disseminated py.	138		76'	81'	5.0			0.005	
		Bleached 2-3% qtz.-calcite, 2-3% disseminated py.	139		81'	86'	5.0			0.005	
		86.0' - 139.0' Dark green, fine grained massive basalt flow, gentle phase from bleached zone to dark green zone.									
		5-7% qtz.-calcite fractures, 2" vein @ 133.5' 25° to core axis 2-3% disseminated py.	140		127'	134'	5.0			trace	
		40% qtz. veins @ 40° to core axis. Minor siliceous carb. possible top of flow. 3-5% diss. & streaky py.	141		137'	139'	2.0			0.005	
139.0	182.5	AGGLOMERATE FLOW (Basalt Carbonated) Med. green sub angular basalt fragments in a dark green fine grained basalt matrix. Intensely fractured by narrow white irregular qtz.-calcite fracturing 10-15% Tr. py.									
		182.2' - 182.5' Siliceous carbonated flow (fractured ankerite ?) 5-7% disseminated py.	142		182'	183.5	1.5			0.015	
182.5	201.0	BASALT FLOW MASSIVE (Altered) (Carbonated) Dark green, fine-med. grained massive basalt flow with spots of white leucoxene alteration. Scattered qtz.-cal. fracturing. Tr. py. Scattered weak mag. moderate reaction to HCL.									

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. #21 SHEET NO. 3

REMARKS _____

LOGGED BY _____

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au oz/ton	ASSAYS oz/ton
201.0	229.0	AGGLOMERATE FLOW									
		As other (see 139'-182.5') But with only scattered qtz.-calcite fracturing 2-3%, Tr. py.									
		½" qtz. vein 65° to core axis with 3-4% patchy py.	143		211'	121'	1.0			trace	
229.0	457.0	BASALT FLOW MASSIVE									
		Dark green, fine-medium grained massive basalt flow with occasional coarse creamy augite crysts. Scattered irreg. white qtz.-calcite fractures.									
		8" ragged qtz.-calcite vein, chloritic inclusions, Tr.- 0.5% disseminated py. Minor bleaching.	144		248.8'	249.8	1.0			0.005	
		6" banded qtz., chloritic & tourmaline banding 75° to core axis, Tr. - 0.5% disseminated py.	145		265.5'	267'	1.5			0.03	
		5" banded qtz., chloritic inclusions, streak of green fuchsite, 0.5-1.0% streaky py.	146		283'	284'	1.0			trace	
		288.0' - 300.0' 7-10% white qtz.-calcite veins ¼"-1" 60-75° to core axis, Tr. py. occasional streak of black tourmaline.									
		Medium - coarse grained basalt from 284' - 457'.									
		12% qtz. stringers 30-40° to core axis, 0.5-1.0% py.	147		321'	324.5'	2.0			trace	
		3", ½", qtz. stringers, Tr.-0.5% disseminated py.	148		332'	334'	2.0			0.005	

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

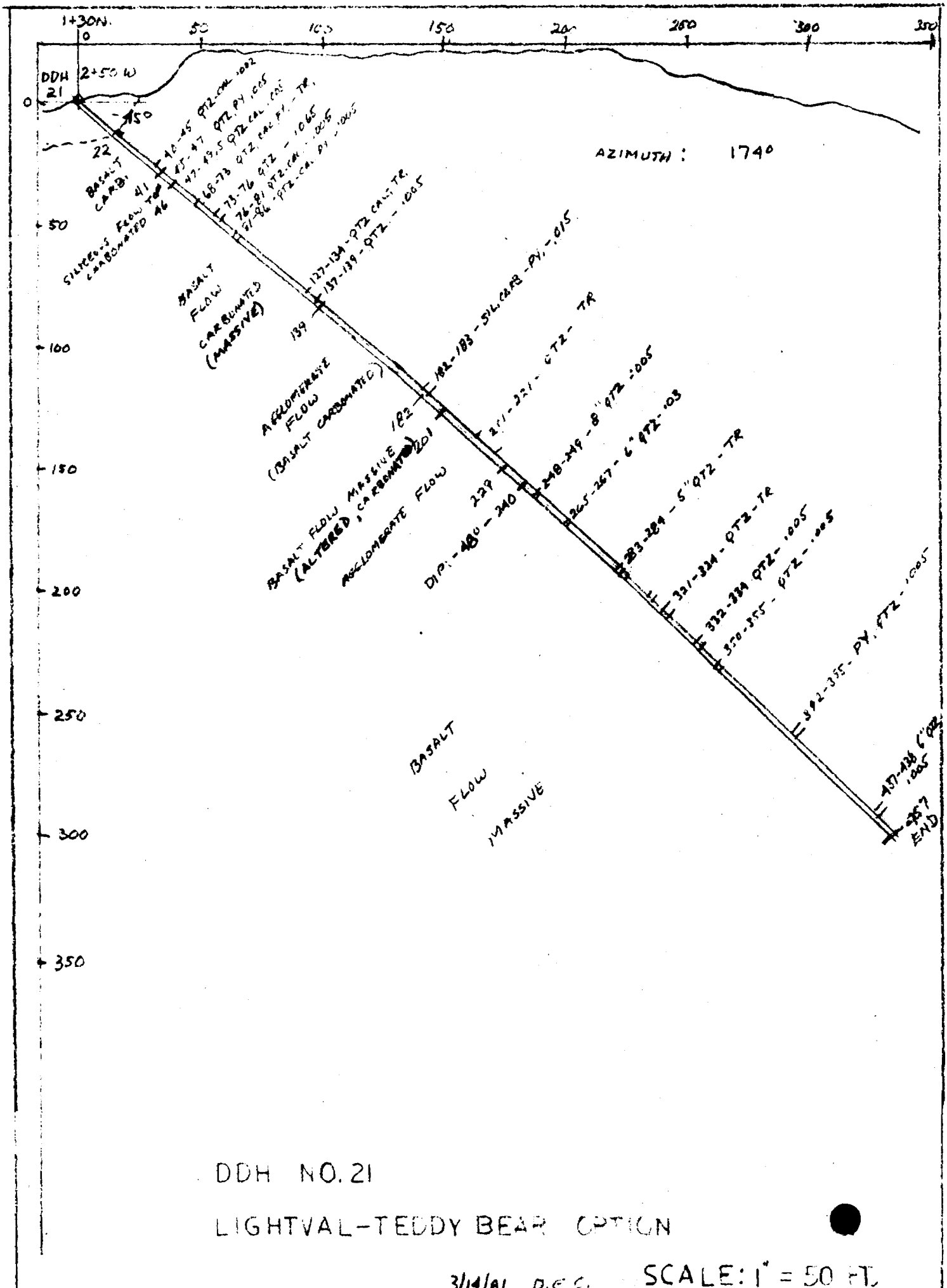
FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. #21 SHEET NO. 4

REMARKS _____

LOGGED BY _____

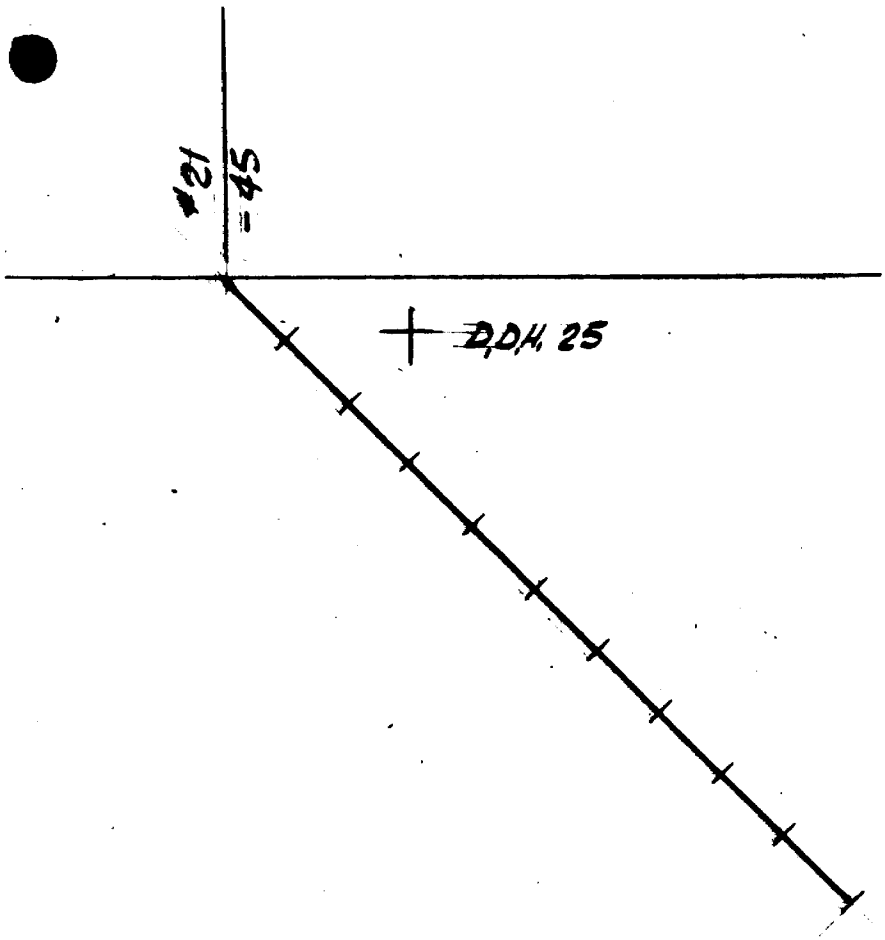
FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ/TON	ASSAYS OZ/TON
		8-10% scattered irreg. white qtz.-calcite, 0.5-1.0% py.	149		350'	355'	5.0			0.005	
		381.5' 2" banded qtz.-chlorite, Tr. py., 70° to core axis.									
		1" massive coarse py., 1½" qtz. py. band 55-60° to core axis.	150		392'	395.5	3.5			0.005	
		400.5' 1" qtz. @ 35° to core axis, no mineralization.									
		419.5' 2" qtz.-calcite 70° to core axis, no min.									
		431.0' 1½" white qtz. 50° " " " " "									
		6" banded qtz.-calcite vein 50-60° to core axis, 1.0% streaky py.	151		437'	438'	1.0			0.005	
		455.5' 2" white qtz.-calcite 75° to core axis, Tr. py.									
	457'	457 ft. END OF HOLE									



DDH NO. 21

LIGHTVAL-TEDDY BEAR OPTION

3/14/81 D.E.C. SCALE: 1" = 50 FT.



LIGHTVAL MINES LTD.

D.D.H. #21

0 100 200

FEET

DIAMOND DRILL RECORD

NAME OF PROPERTY: Lightval Mines Limited, Teddy Bear Option

HOLE NO. 22 LENGTH 362 ft.

LOCATION: Claim 10080 - Seagers' Hill - Holloway Twp. Ont.

LATITUDE 2 + 35 N DEPARTURE 0 + 50E

ELEVATION Not determined AZIMUTH 252 Geographic DIP -60°

STARTED 1-6-81 FINISHED 1-8-81

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0'	60°	252°			
180'	59°	Not determind			
362'	54°	"	"		

HOLE NO. #22 SHEET NO. 1

REMARKS

LOGGED BY D.R. Bell

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ/TON	ASSAYS OZ/TON
0	38	CASING Overburden									
38.0	55.0	BLEACHED BASALT FLOW (Carbonated) Light green to patchy buff creamy fine grained, massive basalt flow. Fractured by numerous white qtz. stringers ½"-8" 60-80° to core axis with scattered irregular disseminated & streaky py. and disseminated py. in bleached halo about veins.									
		¼", ½", 1", ½" white qtz veins, 20-25% bleaching, 2-3% fine disseminated & streaky py.	152		38'	43'	5.0			0.015	
		2-3% narrow qtz. -calcite stringers, 8-12% patchy bleaching 1-2% disseminated py.	153		43'	47.5'	4.5			0.005	
		25% qtz. stringers, 8" mottled grey banded tourmaline vein @ 51.8', 5-6% patchy & disseminated py.	154		47.5'	52.5'	5.0			0.02	
		5-7% irregular qtz. stringers, 10-15% bleachine, 0.5-1.0% py.	155		52.5'	55'	2.5			Trace	
55.0	267.0	PILLOWED BASALT FLOW (Carbonated) Dark green, fine grained, massive pillowed basalt flow, chloritic-epidote pillow selvages with minor qtz. infilling. Scattered irregular narrow qtz.-calcite fractures, Tr. py.									

Manager of Field Operations

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. #22 SHEET NO. 2

REMARKS _____

LOGGED BY _____

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS OZ/TON (AU)	ASSAYS OZ/TON
		142.0' - 145.0' 15-20% irregular white qtz.-calcite, Tr. py.									
		8-10% irregular qtz.-calcite fractures, py. development within pillow selvages. 6" crennlated shear (possible fault) @ 166', 0.5-1.0% py.	156		162'	167'	5.0			0.02	
		167.0' - 198.0' Medium grained, massive basalt flow.									
		207.0' 3" qtz. vein @ 35° to core axis, Tr. py.									
		224.5' ½" qtz. - calcite, 80° to core axis, Tr. py.									
		3" & 5" siliceous carbonated pillow selvage, 1-2% py.	157		248.5	253.5	5.0			trace	
		1" & 3" siliceous qtz. - calcite-epidote selvage, 1-2%py	158		253.5	259'	5.5			0.005	
267.0	335.0	BASALT FLOW (Massive)									
		Dark green, fine-medium grained phase of basalt flow. More massive unit with little evidence of pillow margins Scattered qtz.-calcite-epidote fractures.									
		271.0' 1" qtz.-calcite-epidote @ 40° to core axis, TR. PY.									
		290.5' 1½" white qtz. vein, 45-50° to core axis, no mineralization.									

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

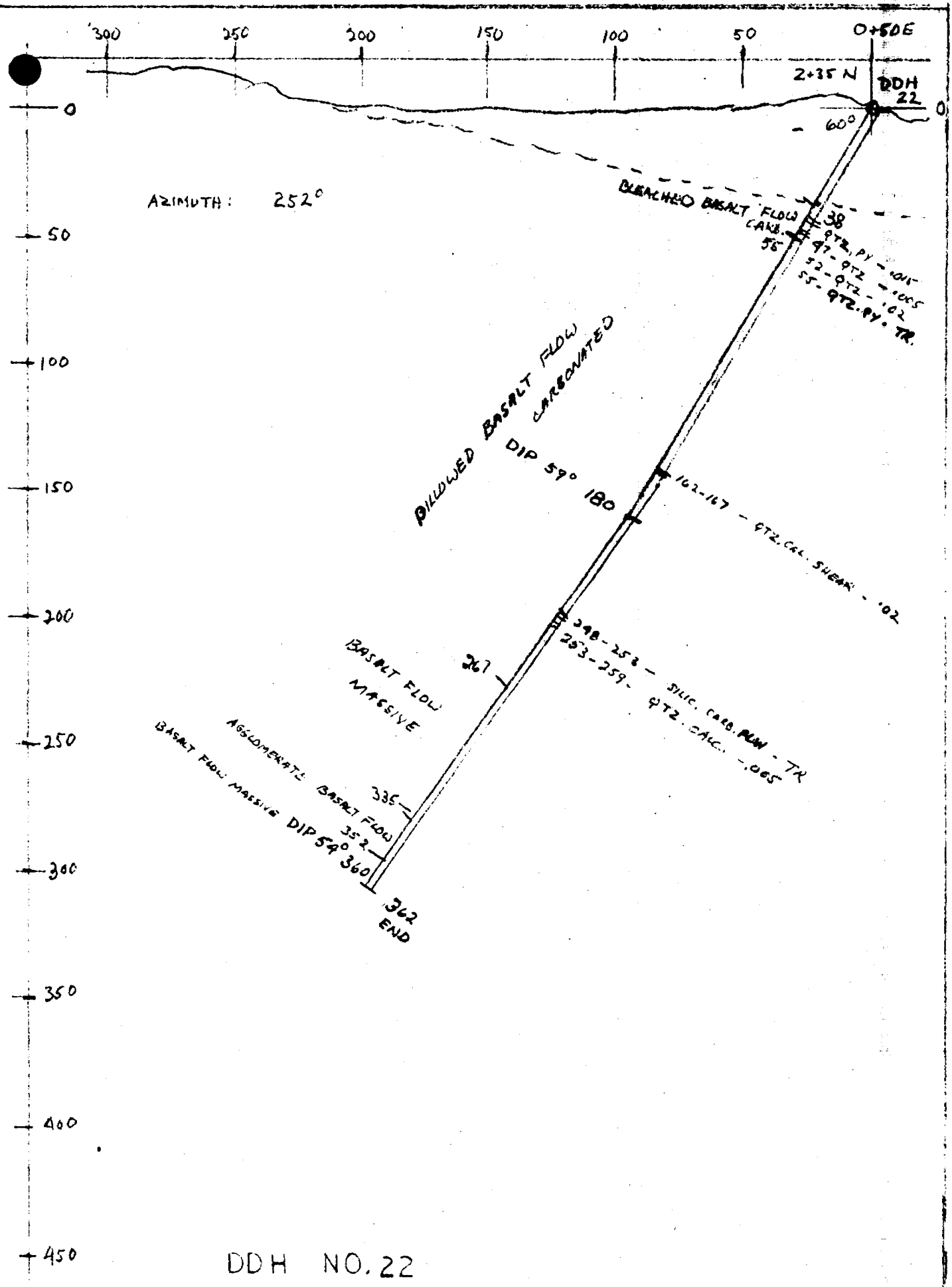
FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. 22 SHEET NO. 3

REMARKS _____

LOGGED BY _____

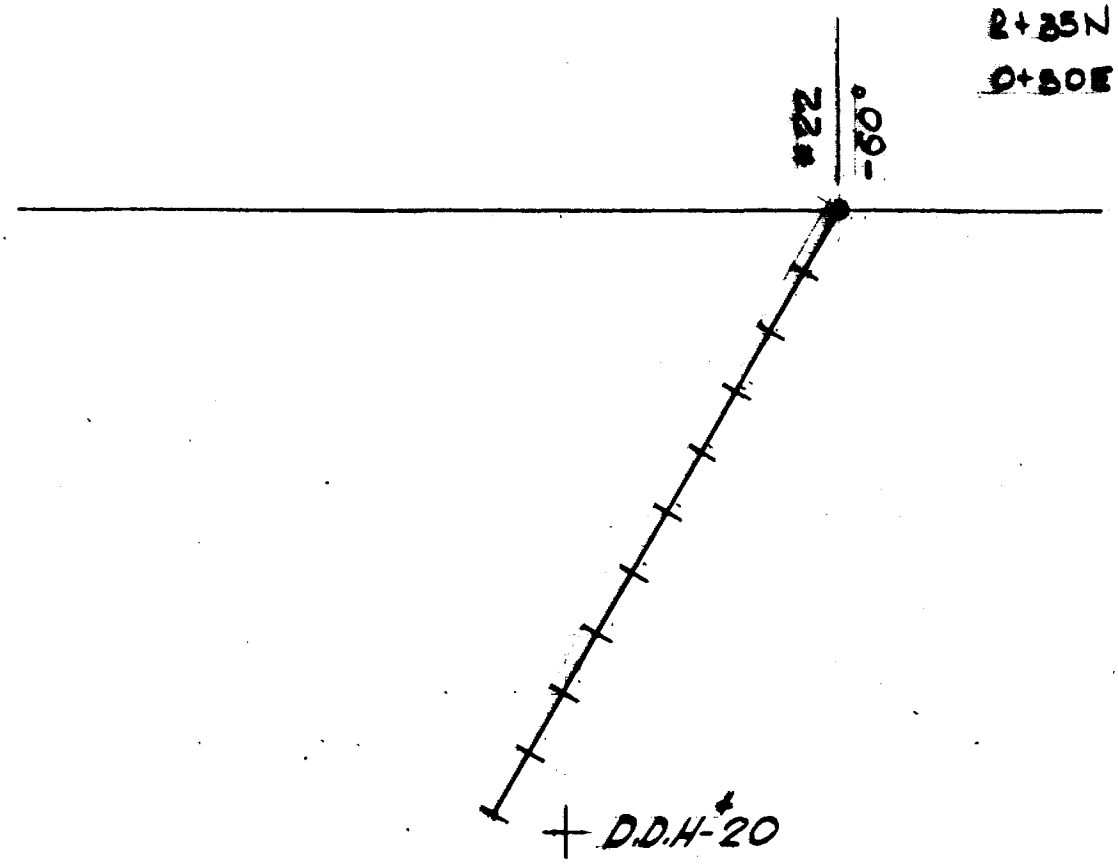
FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS Au %	ASSAYS %	ASSAYS OZ/TON	ASSAYS OZ/TON
		320.0' - 322.0' ½", 1½" qtz. - calcite-epidote fractures, Tr. py.									
		323.0' 1½" ragged qtz.-calcite-epidote fracture, Tr. py.									
335.0	352.0	AGGLOMERATE BASALT FLOW									
		Dark green fine grained sub angular basalt fragments in medium green fine grained basalt matrix. Occasional scattered qtx.-calcite fractures.									
		350.0' 2 qtz. lenses 25o to core axis, Tr. py.									
352.0	360.0	BASALT FLOW MASSIVE									
		Dark green fine grained, massive basalt flow slightly carbonated. Numberous narrow qtz. epidote fractures, and epidote inclusions. Tr. py.									
		358.5' 2" grey siliceous qtz.-calcite-epidote fracture, 1-2% disseminated py.									
	360'	END OF HOLE 360 ft.									



DDH NO. 22

LIGHTVAL - TEDDY BEAR OPTION

3/14/81 D.E.C. SCALE: 1"=50 FT.



LIGHTVAL MINES LTD.

D.D.H. #22 HOLE

0 100 200

FEET

DIAMOND DRILL RECORD

NAME OF PROPERTY: Lightval Mines Limited, Teddy Bear Option
HOLE NO. 23 LENGTH 468 ft.
LOCATION Claim 10080 - Eagers Hill - Holloway Twp. - Ontario
LATITUDE 1+50N DEPARTURE 1+ 100 E.
ELEVATION Not determined AZIMUTH 200° geographic -45°
STARTED 1-9-81 FINISHED 1-10-81

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	45°	200°			
230	44°	Not determined			
468	38°	"	"		

HOLE NO. #23 SHEET NO. 1
REMARKS
LOGGED BY D.R. Bell

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ/TON	ASSAYS OZ/TON
0	8.0	CASING (Overburden)									
8.0	42.0	CLASTIC AGGLOMERATE BASALT FLOW (Carbonated) Light green sub angular to angular, contorted basaltic fragments in a dark green chloritic mafic matrix. Scattered white irregular qtz-calcite fractures. 35% irregular mottled grey-white qtz. with 2-3% diss. & streaky py.	159		11.5'	12.5	1.0			Trace	
42.0	57.0	BASALT FLOW (Carbonated) MASSIVE Medium green fine grained, grading into a medium grained basalt massive flow towards 57'. 4", 3", 2" ½" qtz.-calcite veins 65-75° to core axis with minor chloritic banding, 1-2% disseminated py.	160		44.5'	49.5	5.0			Trace	
57.0		BASALT FLOW (Massive) Dark green medium grained, massive uniform basalt flow, scattered qtz.-calcite fracturing with Tr. py. 69.5' 1", ½" white qtz.-calcite, Tr. py. 82.0' 1", qtz.-calcite, chloritic inclusion, Tr. py. 87.0' - 98.0' 3-5% spotty leucoxene alteration, 4-5% narrow qtz.-calcite fracturing, Tr. py.									

Manager of Field Operations

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. #23 SHEET NO. 2

REMARKS _____

LOGGED BY _____

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ/TON	ASSAYS OZ/TON
		20-25% irregular qtz.-calcite fracturing, bleached wall rock with patchy streaks apple green fuchsite. 5-6% fine disseminated & streaky py.	161		98'	103'	5.0			0.002	
57.0		8-10% irregular qtz.-calcite fracturing with 2-3% fine disseminated py.	162		103'	106.5	3.5			Trace	
		118.0' ½" qtz., 25° to core axis, no mineralization.									
		132.0' ½" qtz.-calcite, 75° to core axis, Tr. py.									
		141.0' 3" " " feldspar, epidote, 70o to core axis tr. py.									
		145.0' - 155.0' 10-12% qtz.-calcite fractures, 65-75° to core axis, Tr. py.									
		6" bleached qtz.-calcite-feldspar vein 65° to core axis, Tr. py.	163		152.5	153.5	1.0			0.005	
		162.0' 1½" white qtz.-calcite chloritic inclusion, 65° to core axis, Tr. py.									
		173.5' 1" grey mottled qtz., 55° to core axis, Tr. py.									
		184.5' ½" qtz.-chlorite 55° to core axis, Tr. py.									
57.0	467.0	200.5' 2" qtz.-calcite, 45° to core axis, no mineralization.									
		203.0' 4" borken qtz.-calcite, Tr. py.									

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

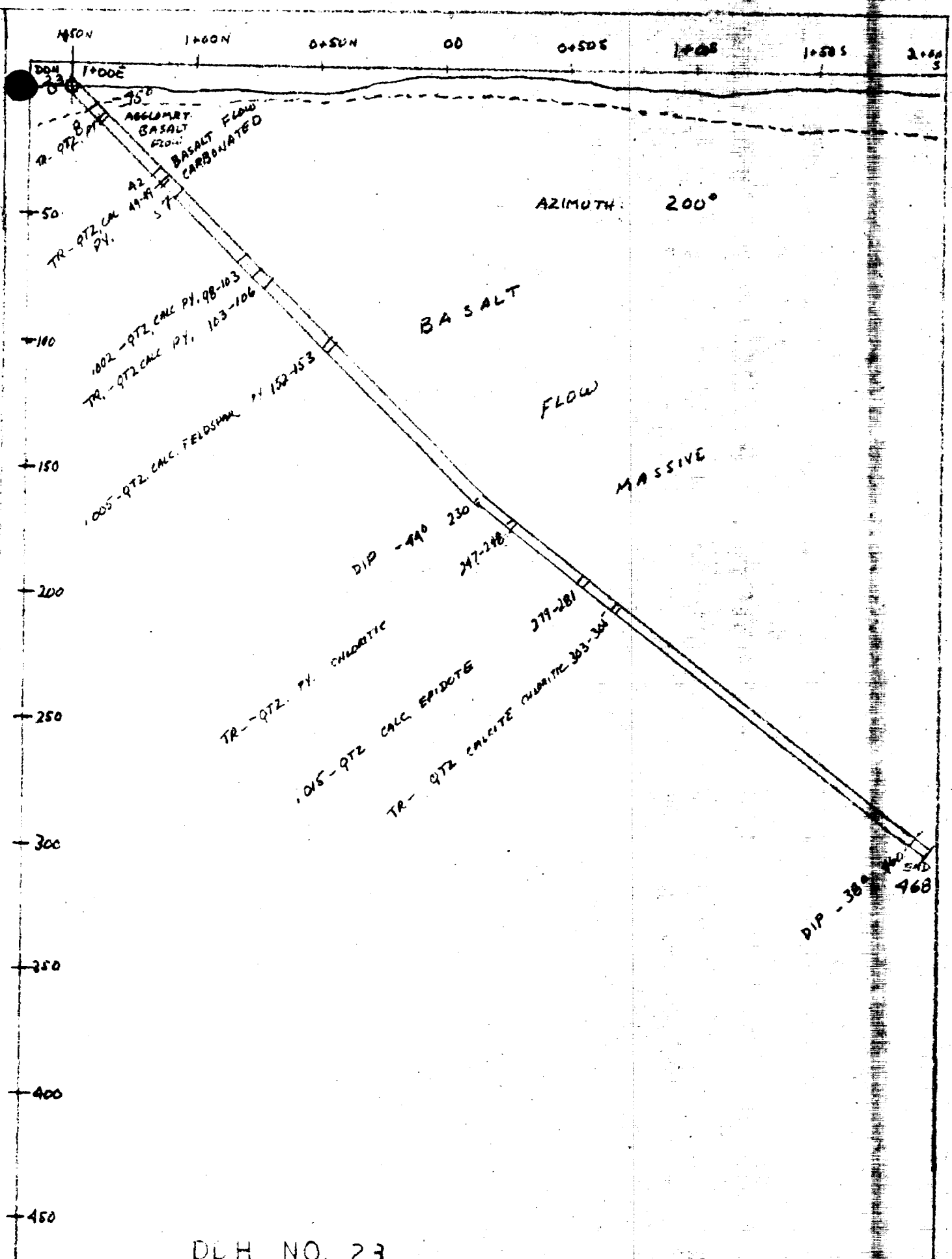
FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. #23 SHEET NO. 3

REMARKS _____

LOGGED BY _____

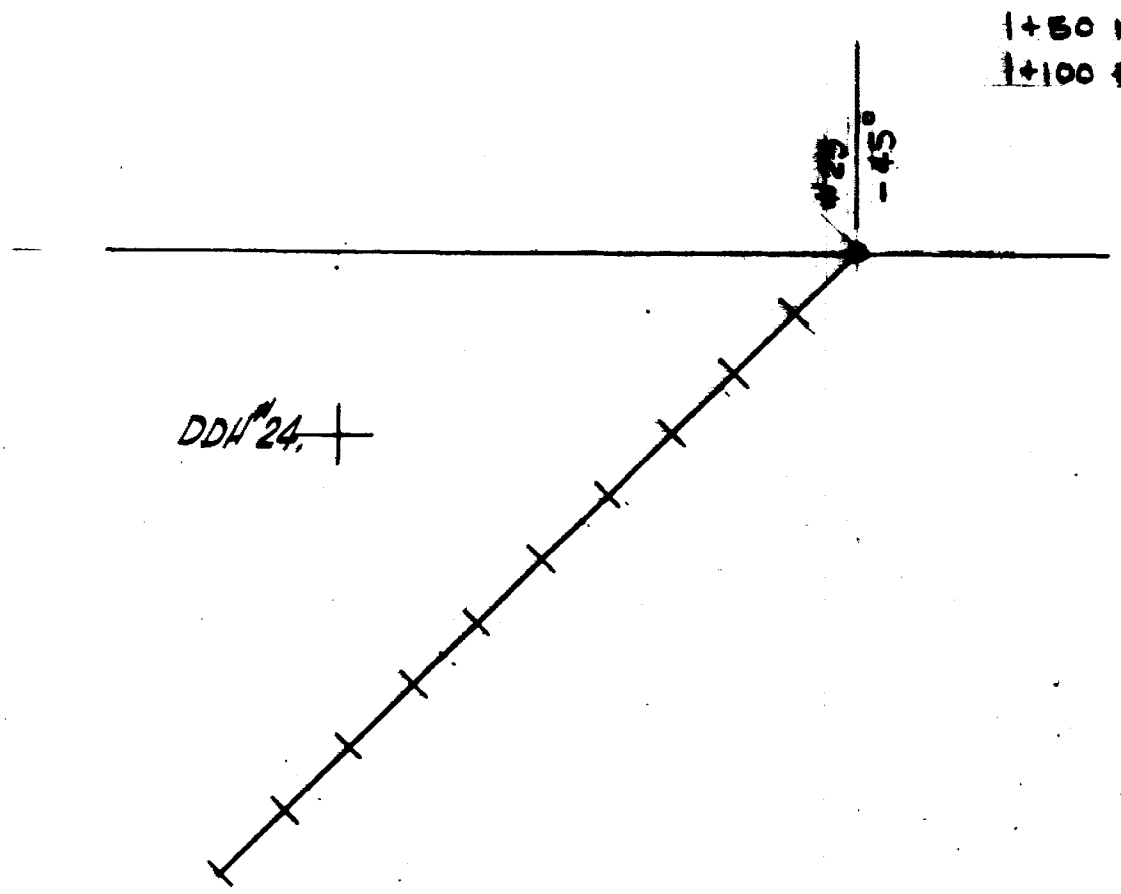
FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS OZ/TON	ASSAYS OZ/TON
		2½" white qtz., chloritic streaks, minor wall rock bleaching 1-2% disseminated & streaky py. 70° to core axis.	164		247'	248'	1.0			Trace	
57.0	467.0	4" mottled qtz.-calcite-epidote vein 35° to core axis, 1-2% py.	165		279.5	281.0	1.5			0.015	
		302.0' - 308.0' 2-3% qtz.-calcite veins, 65-75° to core axis, Tr. py.									
		20-25% irregular qtz.-calcite chloritic inclusions, Tr py.	166		303'	305'	2.0			Trace	
		310.0' ½", ¼" qtz.-epidote 45-50° to core axis, Tr.-0.5% py.									
		342.0' 1" qtz. 50° to core axis, Tr. py. & cp.									
		364.5' 1" qtz.-calcite, 85° to core axis, Tr. py.									
		388.5' ½" " " 35° " " " Tr. py. & Cp.									
		390.0' - 397.0' 15-20% irregular qtz.-calcite-epidote feldspare fracturing, Tr. py.									
		8-10% irregular qtz.-calcite, 1-2% py. & cp.			436.5	437.5	1.0				
		459.5' 2" qtz.-calcite, Tr. py. 80° to core axis.									
	467.0	END OF HOLE 467 ft.									



DDH NO. 23

LIGHTVAL-TEDDY BEAR OPTION

3/14/81 D.E.C. SCALE: 1" = 50 FT.



LIGHTVAL MINES LTD.

D.D.H. #23 HOLE

100 200

FEET

DIAMOND DRILL RECORD

NAME OF PROPERTY Lightval Mines Limited, Teddy Bear Option
HOLE NO. 24 LENGTH 467 ft.
LOCATION ~~Claim 10080 - Seager's Hill - Holloway twp. - Ontario~~
LATITUDE 0 + 50 S DEPARTURE 1 + 25 E
ELEVATION not determined AZIMUTH 219° geographic DIP -50°
STARTED 1-12-81 FINISHED 1-14-81

Geographic

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	50	219			
230	44°	not			
467	38°	deter-mined			

HOLE NO. #24 SHEET NO. 1
REMARKS
LOGGED BY D.R. Bell

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ/TON	ASSAYS OZ/TON
0	14.0	CASING (Overburden)									
14.0	80.0	BASALT FLOW (Massive) CARBONATED (Bleached) Light grey green to bleached grey green, fine grained, massive basalt flow. Fractured by numerous white narrow qtz.-calcite stringers. 23.0' 3" banded chloritic qtz. vein 20° to core axis, Tr. py. 15-20% irregular qtz.-calcite fractures, light green bleaching, 3-4% disseminated & patchy py.	167		69'	71'	2.0			trace	
		2-3% narrow irregular qtz. stringers, Tr.-0.5% py.	168		71'	75'	4.0			0.002	
		3-5% narrow qtz. stringers, 0.5-1.0% py.	169		75'	80'	5.0			trace	
80.0	133.0	MASSIVE BASALT FLOW As above, light-medium green, minor bleached section (119'-124') with scattered irregular white narrow qtz.-calcite fractures, 70-85° to core axis. 1",½" qtz.-calcite-epidote fractures 35° to core axis, Tr. py.									
		Bleached (pale green-grey) fractured 7-9% qtz.-calcite, 65-75° to core axis, 2-3% py.	170		119'	124'	5.0			0.005	

Manager of Field Operations

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____ _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. #24 SHEET NO. 2

REMARKS _____

LOGGED BY _____

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS OZ/TON AU	ASSAYS OZ/TON
133.0	162.0	AGGLOMERATE BASALT FLOW (Carbonated) Light green, bleached, angular to subangular basalt fragments in a dark to light green chloritic-mafic matrix. 144.0' - 146.0' Large massive light green fragments or broken flow. Qtz.-calcite fracturing 60-70° to core axis, 1-2% py. 155.0' 3" qtz. vein 60° to core axis, Tr. py.	171		144'	146'				0.01	
162.0	186.0	BASALT FLOW Fine-medium grained, dark green, scattered coarse buff angite crysts. Contact 35° to core axis.									
186.0	213.0	BASALT FLOW (Massive) CARBONATED) Medium green, fine grained gradational contact, massive basalt flow. Irregular scattered white-qtz.-calcite fracturing, Tr. py. (3 ft. lost core @ 197 ft.)									
213.0	259.0	BLEACHED MASSIVE BASALT FLOW (Carbonated) Light-medium green, slightly buff patchy appearance fine grained massive basalt flow. Irregular grey to white patchy qtz.-calcite fractures with disseminated & patchy streaks py. 8-10% irregular patchy grey qtz.-calcite fractures, 0.5-1.0% py.	172		213'	218'	5.0			trace	

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. #24 SHEET NO. 3

REMARKS _____

LOGGED BY _____

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ/TON	ASSAYS OZ/TON
213'	259'	12-15% irregular qtz.-calcite fractures, 2-3% diss. to patchy py.	173		218'	221'	3.0			trace	
		1-2% narrow white qtz.-calcite, Tr. py.			221'	226'	5.0				
		1-2% qtz.-calcite fractures, Tr. py.	174		226'	231'	5.0			trace	
		4" bedded qtz.-calcite @ 232' 50° to core axis, 4" banded qtz.-tourmaline vein @ 235'. 235.4'-236' bleached fragments in qtz.-calcite matrix. 2-3% diss. & streaky py.	175		231'	236'	5.0			0.005	
		12-15% irregular white qtz.-calcite fractures 65-80° to core axis, 3-4% disseminated py.	176		236'	241'	5.0			0.005	
		10-12% white qtz. fractures, 65-80° to core axis, Tr.- 0.5% py.	177		241'	247'	6.0			0.002	
		1" irregular qtz.-calcite 20° to core axis, 1-2% diss. & streaky py.	178		256.5'	258'	2.5			0.002	
259.0	467.0	BASALT FLOW (Massive)									
		Medium-dark green, fine - medium grained, massive basalt flow with scattered qtz.-calcite-epidote fractures.									
		265.0' 1" qtz. 70° to core axis, Tr. py.									
		274.5' 1½" qtz.-calcite-epidote, 70° to core axis, Tr. py.									
		301.0' 2" qtz. with banded chlorite, 80° to core axis, Tr. py.									

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. #24 SHEET NO. 4

REMARKS _____

LOGGED BY _____

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS AV OZ/TON	ASSAYS OZ/TON
259'	467'	302.0' ½" qtz., 80° to core axis, Tr. py.									
		320.5' ½" qtz.-tourmaline, 90° to core axis, no mineralization.									
		321.5' ½" qtz., wispy fuchsite, Tr. py.									
		345.0' - 347.0' Qtz.-calcite, epidote-feldspar irregular fracture, Tr. py.									
		357.5' ½" qtz.-calcite, 30° to core axis, Tr. py.									
		366.5' 1" " " 75° " " " " "									
		7-9% irregular white qtz.-calcite fracturing, mottled green chlorite inclusions, 2-3% disseminated & streaky py.	179		378'	381.5	3.5			trace	
		383.0' 1½" irregular qtz.-calcite-epidote feldspar fracture, Tr. py. 40° to core axis hematite alteration.									
		385.0' 1" qtz.-calcite-epidote, 40° to core axis, no mineralization.									
		395.5' 1" qtz.-calcite, 40° to core axis, Tr. py.									
		407.0' - 467.0' Scattered irregular patchy siliceous black tourmaline fracturing (3-5%).									
		407.0' - 415.0' 8-10% irregular qtz.-calcite-tourmaline fracturing, Tr. py.									

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

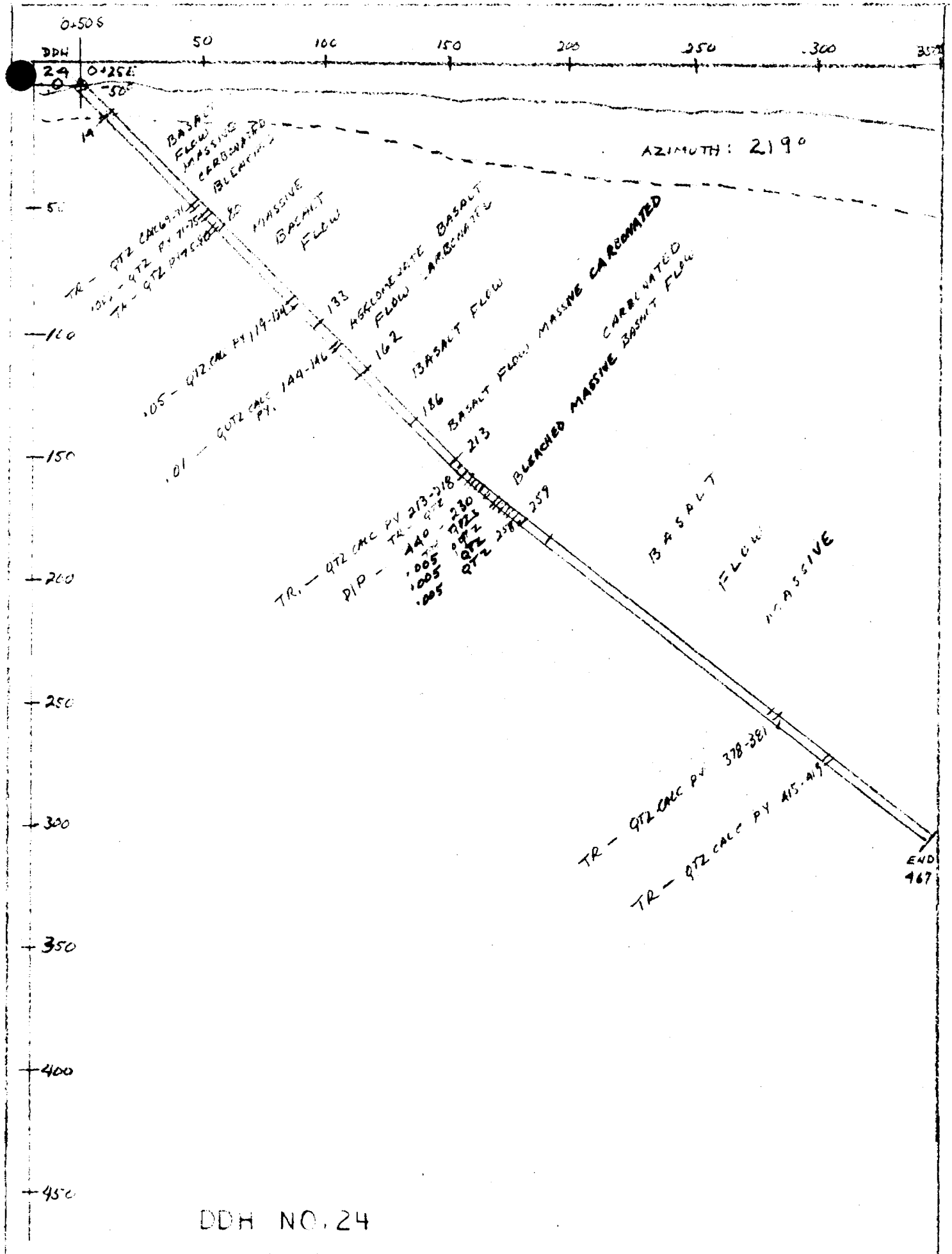
FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. #24 SHEET NO. 5

REMARKS _____

LOGGED BY _____

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ/TON	ASSAYS OZ/TON
		10-12% irregular qtz.-calcite-tourmaline fracturing 0.5-1.0% disseminated to streaky py.	180		415.5	419.5	4.0			trace	
		438.5' 1½" qtz.-calcite chloritic inclusion, 20° to core axis, Tr. py.									
	467'	END OF HOLE 467 ft.									

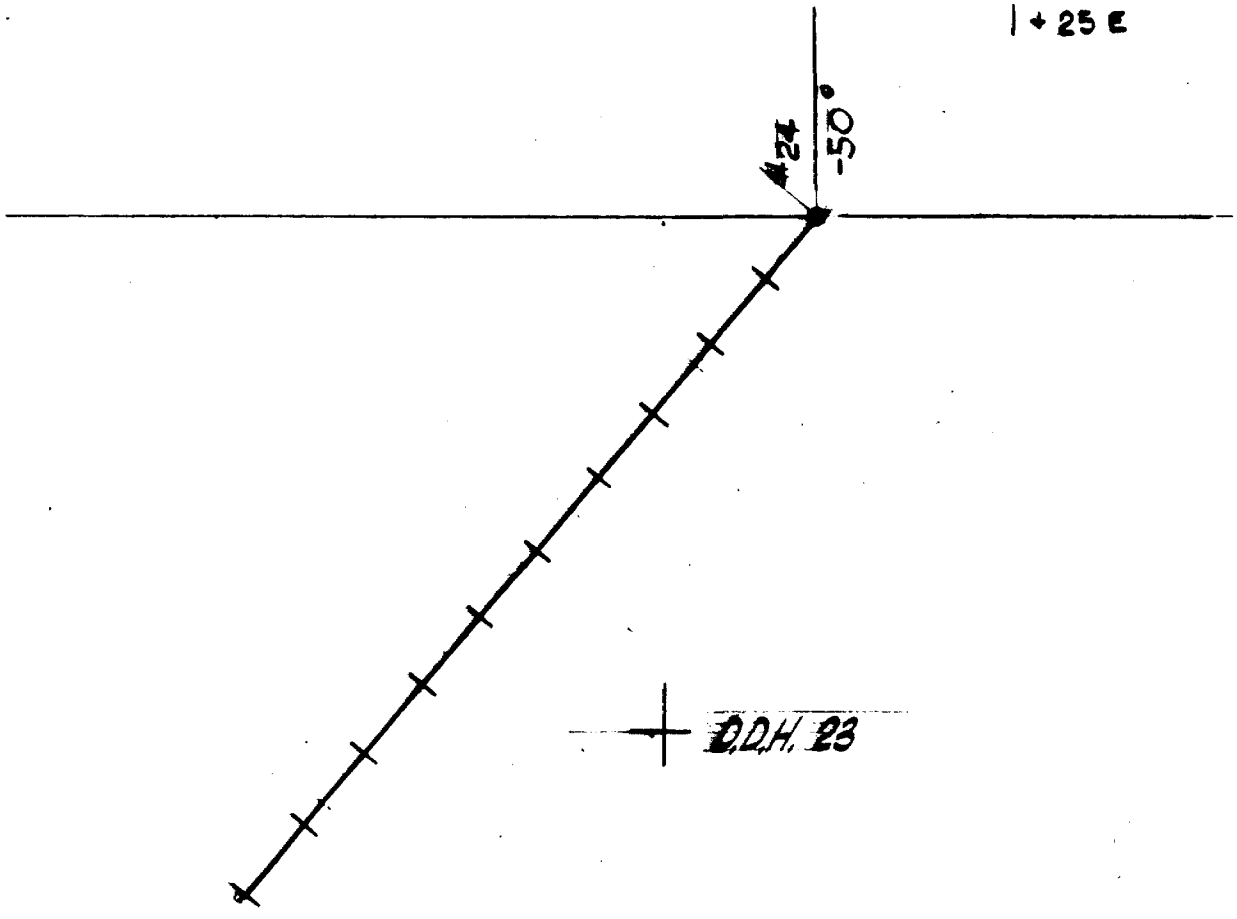


DDH NO. 24

LIGHTVAL - TEDDY BEAR OPTION

3/14/81 D.E.C SCALE: 1" = 50 FT.

0+50 S
1+25 E



LIGHTVAL MINES LTD.

D.D.H. #24 HOLE

0 100 200

FEET

DIAMOND DRILL RECORD

NAME OF PROPERTY: Lightval Mines Limited, Teddy Bear Option
HOLE NO.: 25 LENGTH: 460 ft.
LOCATION: Claim 10080-Seagers Hill-Halloway twp. Ontario
LATITUDE: 0+60N DEPARTURE: 1 + 75W
ELEVATION: not determined AZIMUTH: 232° Geog. DIP: -45°
STARTED: 1-15-81 FINISHED: 1-16-81

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	45°	232			
230	44°	not determined			
460	40°	"			

HOLE NO. #25 SHEET NO. 1
REMARKS:
LOGGED BY:

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ/TON	ASSAYS OZ/TON
0	10.0	CASING (Outcrop setups)									
10.0	162.0	CALE - ALKALINE RICH (Basalt) FLOW MASSIVE									
		Light grey, mottled green, fine-medium grained felsic rich top of a massive basalt flow unit. 5-8% spotty leucoxene alteration, weak-moderate reaction with HCL. Fractured by numerous qtz.-calcite stringers 60-80° to core axis with streaks & inclusions black tourmaline, scattered py.									
		10.0'- 30.0' 5-7% ¼"-2" white qtz.-calcite veins 70-80° to core axis, Tr. py.									
		2", 1" qtz.-calcite @60-80° to core axis, 1-2% diss. py.	181		33'	37'	4.0			Trace	
		10% white qtz.-calcite, 70-80° to core axis, 0.5-1.0% py.	182		44.5'	46.5	2.0			0.002	
		12-15% qtz.-calcite tourmaline, 1.0-2.0% py.	183		46.5	50.0	3.5			0.005	
		3" white " " 1-2% fine grained py. (dusty)	184		53.5'	55.0	1.5			0.005	
		3" qtz.-tourmaline 60° to core axis, Tr. -0.5% py.	185		67'	68'	1.0			0.005	
		85.0'- 102.0' Dark green, medium grained phase of mafic volcanic flow. 5-7% white qtz.-calcite stringers, 75-80° to core axis, 2-3% disseminated py.									
		1", 1½" white qtz., 80° to core axis, 2-3% diss. py.	186		110.5'	111.5	1.0			0.005	
		18" banded qtz.-calcite tourmaline vein 40° to core axis. 0.5% dusty py.	187		121'	123'	2.0			0.015	

Manager of Operations

ANGRIDGES - TORONTO - 366-1168

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. #25 SHEET NO. 2

REMARKS _____

LOGGED BY _____

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS OZ/TON AU	ASSAYS OZ/TON
		132.0' 3" irregular white qtz. Tr. py.									
		1" - 5" white banded qtz.-calcite tourmaline vein, heavily bleached between with wispy fuchsite (?) 3-5% fine dusty wisps of py. 40-50° to core axis.	188		158'	161'	3.0			0.05	
162.0		BASALT FLOW MASSIVE (Carbonated) Dark green, fine-medium grained, massive, uniform basalt flow. Moderate reaction with HCL.									
		181.0' 1" qtz.-calcite chloritic inclusion, 40° to core axis, Tr. py.									
		10" white qtz.-calcite with chlorite inclusions, Tr. py 35° to core axis.	189		186'	187'	1.0			Trace	
162.0	273.0	219.5' 1" qtz.-calcite, 65° to core axis, no mineralization.									
		237.0' 1½" qtz.-calcite vein with ¼" vug with white calcite crystals, Tr. py.									
		241.0' 3" white qtz.-calcite, 60° to core axis, Tr. py.									
		259.5' 2" qtz.-calcite, corite, feldspar, epidote, 55° to core axis, Tr. py.									
		270.0' ½", ¼" white qtz.-calcite 35° to core axis, 1-2% fine cubic disseminated py. Slight vugy appearance.									
		274.5' ½", 1½" qtz., 55-60° to core axis, 1-2% py.									

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. #25 SHEET NO. 3

REMARKS _____

LOGGED BY _____

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au OZ/TON	ASSAYS OZ/TON
273.0		BASALT FLOW MASSIVE Dark green, fine grained, massive, uniform, basalt flow, weak reaction to HCL. Numberous narrow green epidote fractures. Contact gradational. 285.5' 1" qtz.-calcite epidote fracture, Tr. diss. py 287.5' 2" mid.-green epidote vein, 35° to core axis. 300' 2" mottled qtz.-calcite streaky tourmaline, 65° to core axis, Tr. py.									
273.0	460.0	15-17% irreg. narrow grey-white qtz.-calcite veins, with 3-5% disseminated & streaky py.	190		317'	321'	4.0			Trace	
		½" qtz.-epidote fracture 10° to core axis, with 25-30% coarse grained py.	191		329'	330'	1.0			0.005	
		351.0' ½" qtz.-calcite 50° to core axis, Tr. py. 356.0' - 367.0' 5-7% irregular qtz.-calcite tourmaline fractures, down hole structure 10-20° to core axis, Tr.-0.5% py. 7" banded qtz.-calcite chlorite vein 55° to core axis with wispy py. 1" & ½" white qtz. 75-80° " " " 0.5% disseminated py.	192		375.5	378'	2.5			0.01	

DIAMOND DRILL RECORD

NAME OF PROPERTY _____

HOLE NO. _____ LENGTH _____

LOCATION _____

LATITUDE _____ DEPARTURE _____

ELEVATION _____ AZIMUTH _____ DIP _____

STARTED _____ FINISHED _____

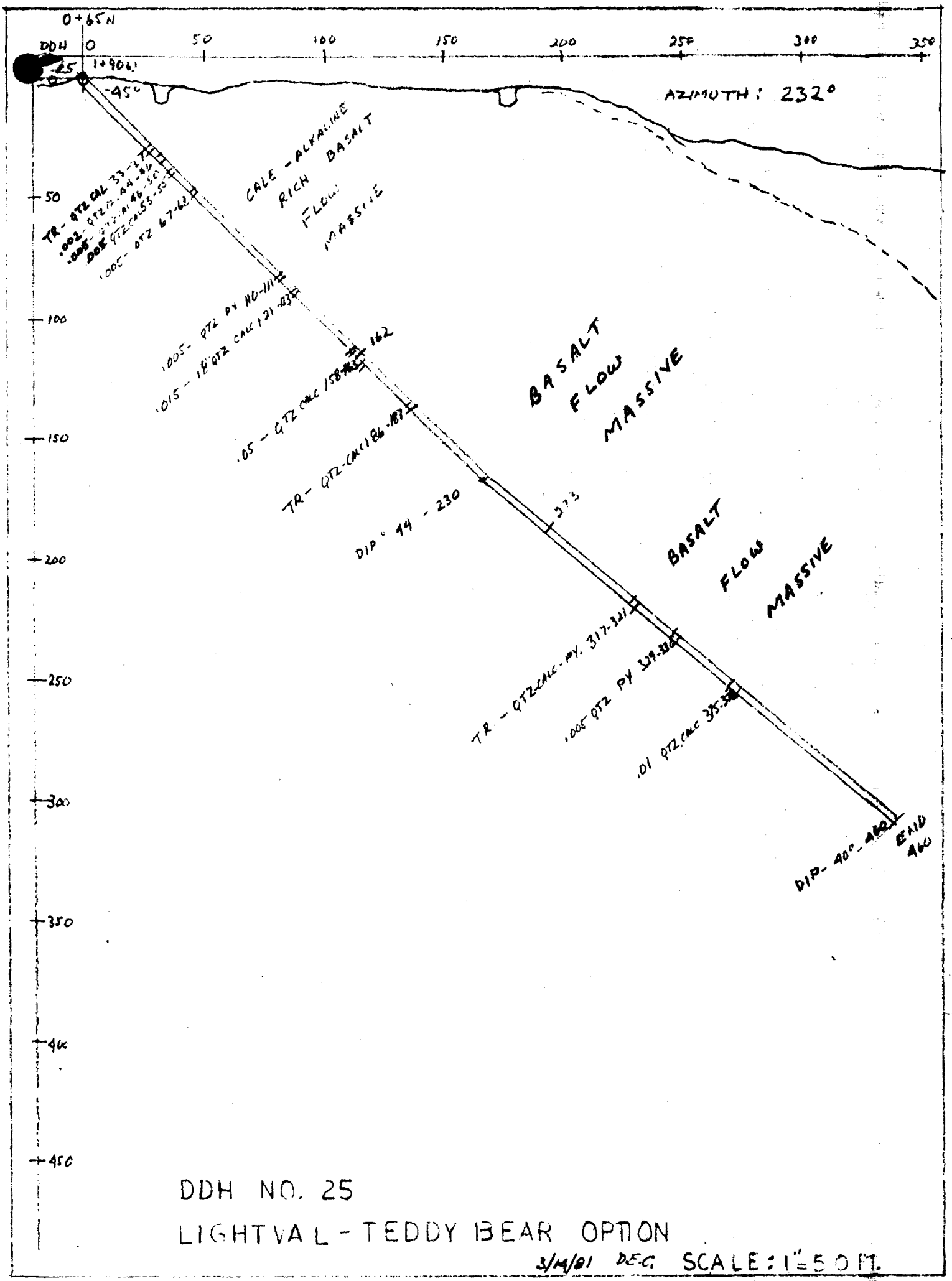
FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH

HOLE NO. #25 SHEET NO. 4

REMARKS _____

LOGGED BY _____

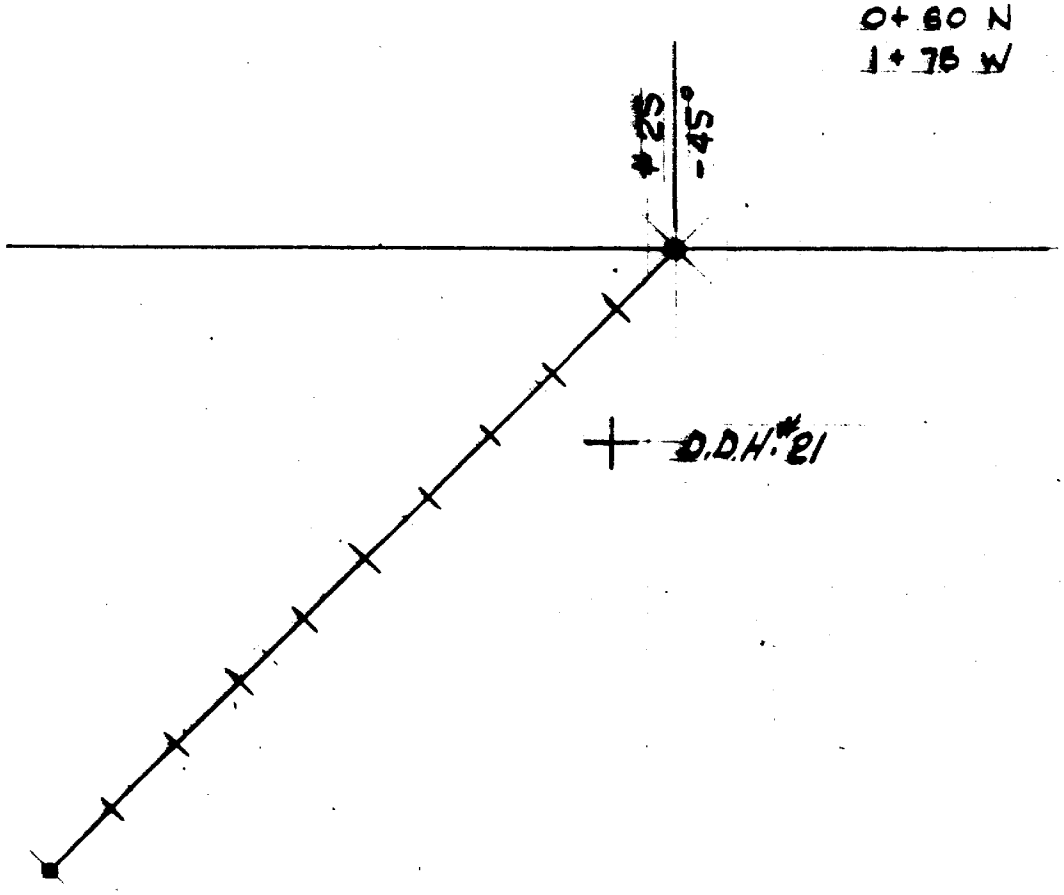
FOOTAGE		DESCRIPTION	SAMPLE					ASSAYS				
FROM	TO		NO.	% SULPHIDES	FOOTAGE FROM	FOOTAGE TO	FOOTAGE TOTAL	%	%	OZ/TON Au	OZ/TON	
		390.0 - 460.0' Four - five narrow white qtz.-calcite fractures per foot 65-80° to core axis, ¼" - 1" wide, Tr. py.										
		END OF HOLE 460 ft.										



DDH NO. 25

LIGHTVAL - TEDDY BEAR OPTION

3/14/81 D.E.G. SCALE: 1"=50 M.



LIGHTVAL MINES LTD.

D.D.H. #25 HOLE

0 100 200

FEET

OM36-PE32-P-80

SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0
TELEPHONE: (705) 642-3244
ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 50367 Date: Oct.23, 1980

Received Oct.16, 1980 7 Samples of split core

Submitted by A.J. Troop Exploration & Development Ltd., Toronto, Ont.

SAMPLE NO.	GOLD Oz./ton
TB-71	0.002
TB-72	NIL
TB-73	0.005
TB-74	0.01
TB-75	NIL
TB-76	0.01
TB-77	0.002

Per G. Lebel
G. Lebel, Manager

ESTABLISHED 1928

OM36 - PE32 - P-80

SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0
TELEPHONE: (705) 642-3244
ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 50412 Date: Oct.29, 1980

Received Oct.20, 1980 26 Samples of split core

Submitted by A.J. Troop Exploration & Development Limited, Toronto, Ontario

SAMPLE NO.	GOLD Oz./ton
TB-78	0.005
TB-79	0.002
TB-80	0.005
TB-81	0.005
TB-82	0.005
TB-83	0.005
TB-84	0.02
TB-85	0.005
TB-86	0.002
TB-87	0.005
TB-88	0.005
TB-89	0.01
TB-90	NIL
TB-91	0.03
TB-92	0.002
TB-93	NIL
TB-94	0.02
TB-95	0.002
TB-96	0.005
TB-97	NIL
TB-98	0.01
TB-99	0.10
TB-100	0.08
TB-101	0.005
TB-102	0.005
TB-103	0.005

Per G. Lebel

G. Lebel, Manager

by Troop

ESTABLISHED 1928

OM36-PE32-P-80

SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0
TELEPHONE: (705) 642-3244
ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 50417 Date: Oct.29, 1980

Received Oct.21, 1980 10 Samples of split core

Submitted by A.J.Troop Exploration&Development Limited, Toronto, Ont.

SAMPLE NO.	GOLD Oz./ton
TB-104	0.002
TB-105	0.01
TB-106	0.005
TB-107	0.005
TB-108	0.11
TB-109	0.005
TB-110	0.10
TB-111	0.04
TB-112	0.002
TB-113	0.002

Per G. Lebel

G. Lebel, Manager

ESTABLISHED 1928

GEOLOGICAL REPORT

TEDDY BEAR VALLEY MINES LTD.

Harker & Holloway Tp.

By

Andrew R. Graham
Geologist

24 King St. West, Toronto, Ont.
April 15th, 1947.

The President & Directors,
Teddy Bear Valley Mines,Ltd.,
Toronto, Ont.

Gentlemen;

Re: Geological Report on the Teddy Bear Valley Mines Property, Harker & Holloway Tps, Ontario.

During the last four years, I have worked extensively in the Lightning River Gold Area and have made several examinations of your property. It has always impressed me with the possibility of developing into a major mine. Since this area has been recognized as the eastern extension of the Porcupine Gold Belt, numerous other properties have been under development by prominent Canadian mining companies. The most activity has been ~~concentrated~~ centered on properties along the so-called Porcupine-Beattie fault zone along which your property is also situated. Companies which have been carrying on diamond drilling are Dome Gold Mines, Wright Hargraves Gold Mines, Hoyle Gold Mines, Inspiration Mining, Moneta Porcupine Gold Mines, Anglo Huronian Mining Co., Mining Corporation of Canada, Consolidated Smelters, and Broulan Porcupine Mines. Encouraging results have been found by Wright Hargraves and Dome Mines in Garrison Township and by Hoyle Gold Mines in Michaud and Hislop Townships. A modern motor highway is under construction into the area. Your property covering almost two and a half miles of the favorable fault zone is a promising geological prospect.

The property consists of forty patented claims whose total area would approximate 1500 acres. Surface and underground development has been concentrated for a number of years on a quartz carbonate stockwork in which short shoots of spectacular gold ore were discovered. In addition to diamond drilling, a 300 ft. shaft was put down in this area and 1100 ft. of lateral work was completed mostly on the first level. When results were inconclusive, a drilling program was started to cross section the ground to the south of the shaft area in the Teddy Bear valley. The overburden is heavy in this section and after some difficulty four holes were completed; two of these holes contained excellent values with much lost core. Since that time a geophysical survey was made of the portion of the property situated in Harker Tp. Surface development of a large part of the property has

been difficult because of the extensive covering of overburden consisting of stratified clays and gravel. Rock outcrops are not numerous in the valley. This geophysical survey has been of much assistance in indicating the rock formations underlying the property. It also established the presence of the main fault zone crossing the property a short distance to the south of the two favorable drill holes mentioned above. A definite structural reason exists for the presence of the gold values in this area and the possibilities for further development is greatly enhanced.

The most promising geological features of your property are its location across the Porcupine-Beattie fault and the presence of Temiskaming sediments in a major block fault. The Porcupine-Beattie fault strikes approximately northwest-southeast. To the north of the fault, are the Keewatin series of interbedded sediments and volcanic flows. They strike about 15 degrees south of east. The beds face north and the whole series has been overturned with a 70 degrees dip to the south. Lying above and to the north of the Keewatins are Temiskaming sediments. They are unconformibly enfolded in the Keewatin volcanics. The total thickness of these sediments is at the most 1200 ft. Further Keewatin volcanics occur north of the Temiskaming sediments. All these rocks butt against the massive plug of basic gabbros that form the Lightning range of mountains. Also, all the sediments and volcanics between the major fault along Teddy Bear valley and the gabbro plug of Lightning mountain are extensively sheared and schisted.

To the south of the Porcupine-Beattie fault, are found a series of massive andesite and rhyolite flows which have been intruded by dikes and bosses of gabbro, diorite, syenite, porphyry and granite. There is a major unconformity between these volcanics and the series to the north of the fault. The southern series strike north 70 degrees east and dip about 75 degrees to the southeast. Consequently, the uncoformity between these two series to the north and south of the fault is quite pronounced. There is also strong evidence that in addition to the Porcupine-Beattie fault there is a major north and south block fault. It has been through the down thrust of this block fault that the Temiskaming sediments remain in this area. The block fault is post in time to the Porcupine-Beattie fault. Volcanics and sediments within the block fault will be deep-seated and gold deposits in this area should go to great depth.

The conditions under which gold has been found varies on either side of the fault. To the north, gold has been found in large quartz carbonate stockworks in the sediments and volcanics. Sulphides are finely distributed through the rock which is generally altered by the ore solutions to a reddish colour in the case of the sediments and to a greenish colour in the case of the volcanics. The greenish quartz carbonate zones in the volcanics bear a marked similarity in appearance and structural relationship to the Kerr-Addison Gold Mine ore bodies. There is the possibility that like the Kerr ore bodies the zones on your property will improve with depth. Visible gold has been found in spectacular

amounts in the quartz stringers but the overall grade of these large zones has so far been found to be low on and near to surface. To the south of the main fault, gold has been found in narrow quartz veins along flow tops in the greenstones and in fracture zones in the rhyolite.

In view of the favourable location and geology, your property warrants extensive development by diamond drilling. It will require cross-sectional drilling to explore the large area of likely ground along the main fault. It is suggested

(1) to check the good values in the last drilling south of the shaft area.

(2) there are indications of a second area of carbonates in the greenstones between the two sedimentary bands. This occurs three quarters of a mile west of the shaft in claim L 10536.

(3) the block fault should be explored where it crosses through claim L 10695.

(4) deep drilling in the shaft area may improve the values since there are strong indications that the gold is deep-seated.

With these numerous recommendations of favourable structures, a drilling programme of not less than ten thousand feet is fully warranted to complete this cross-sectional drilling on your property.

Yours very sincerely,

Andrew R. Graham,
Consulting Geologist.

Toronto, April 15th, 1947.

CERTIFICATE

NAME ..Andrew R. Graham.....

ADDRESS ...24...King St. West...Toronto.....

PROFESSION .....Consulting Geologist.....

DEGREE .Masters in Geology, University of Toronto

PERIOD IN PRACTICE .....18 years.....

FINANCIAL INTEREST OR SHARES IN COMPANY ...3000 shares...

DATE OF EXAMINATION OF PROPERTY ...Sept 26th 1946.....

Dated at Toronto.... this ....9th.... day of ..May..1947..

A. R. Graham

070

TEDDY BEAR VALLEY MINES

LIMITED

SUMMARY REPORT

As at November 28th

1935

Edward H. Orser
Consulting Mining Engineer
and
Geologist

TEDDY BEAR VALLEY MINES LIMITED

The Lightning River Area was brought to public notice as a possible gold producing field by an interesting gold find made in 1917 by Messrs. Howey, Cocheneur and Willans, who were prospecting in what was later the townships of Harker and Holloway. This ground had not been surveyed at the time and the boundaries were not run until 1918. The occurrence was in a quartz vein in a fault plane adjacent to the contact between a basalt and a rhyolite flow.

A short time after this, William Seagers staked claims north of the Teddy Bear River and uncovered a series of quartz veins on a low hill on Claim No. 10080. He interested the Canadian Mining Syndicate who optioned the group together with several adjoining claims.

Camps were built and a program of surface exploration started. This work resulted in the opening up in 1922 of a very spectacular find on the Seager's Hill of coarse free gold in the quartz veins previously located. Many hundreds pounds of very high grade ore were taken from this outcrop, shipped to Toronto and later exhibited at the Canadian National Exhibition that year.

The Syndicate decided to incorporate and the Abitibi Mines Ltd. was formed to take over the several holdings. At this time, the ground west of the Abitibi group was held by the Teddy Bear Syndicate, a separate organization.

During the course of arrangements it was found that the original syndicate had not completed the option agreements on the Seager's group and the new company was in danger of losing this valuable property. Mr. C. E. Hofmann of Toronto came to the rescue, advanced the necessary funds to satisfy the option and saved the property for the shareholders.

With succeeding years Mr. Hofmann became more actively interested and increased his holdings extensively in the project. An amalgamation of Abitibi Mines Limited with the Teddy Bear Syndicate group was arranged and a new company, the Teddy Bear Valley Mines Limited, was formed. This organization now owns 37 patented claims in one compact block covering approximately 1500 acres in Harker and Holloway townships.

In April 1925 I was retained by Abitibi Mines Limited to plan and supervise further exploration of the property. To that end, a program of diamond drilling was projected and carried into effect during that year, 4500 feet being put down in eight holes from the surface. A preliminary geological survey was also made of the Abitibi group.

The results obtained by this exploration and the data furnished by the survey were embodied in my reports to the company under dates of June 29th, 1925 and February 24th, 1926. A program of underground development was suggested therein at that time which has been carried out, in part, by Teddy Bear Valley Mines in 1934 and 1935.

In 1926 plans were formulated to provide finances for more active and extensive work but these did not materialize and no serious work was done upon the property until 1933. During this period the reorganization of affairs took place through which the property passed into the hands of Teddy Bear Valley Mines Limited.

In 1933 active operations were again resumed with Harry Smeaton as Superintendent and Dr. T. L. Gledhill as Consultant. Gasoline compressors and drilling equipment were purchased and brought in. Two heavy rock trenches were cut across

the opposite ends of Seager's Hill and sundry other pits dug around the outcrop. The management decided to sink a vertical shaft from the top of the hill on the site of the old No. 2 Abitibi shaft which was down about 37 feet. A wooden headframe was erected and a hoist and compressor house and a smith shop built. A steam plant was purchased and brought in from Ramore in April 1934 and set up. The shaft was started on July 18th and was down to the present bottom on September 28th, 1934. Two stations were cut, one at 151 feet and another at 276 foot below the surface collar. Development started on the First Level and crosscuts were driven north and south from the shaft. Similar procedure was followed on the Second Level later.

In December 1934 I was again called in and retained and visited the property over the year's end. I found the development as indicated above underway. The crosscuts on the first level had been driven north 175 feet and south 200 feet. On the Second Level the north crosscut was in 35 feet and the south 19 feet. Underground development since that time is as shown below. See level plans Nos. 277 and 278.

Summary of Development as at October 17th, 1935.

Shaft No. 1	32.5 feet		
Shaft No. 2	300.0 feet	Total,	332.5 feet
First Level			
Main Crosscut North	175.5 feet		
Main Crosscut South	219.4		
No. 1 Drift East	67.7		
No. 1 Drift West	184.4		
No. 2 Drift East	102.2		
No. 2 Drift West	22.4		
No. 3 Drift East	22.0		
No. 3 Crosscut N.E.	129.3	Total,	922.9 feet
Second Level			
Main Crosscut North	124.6 feet		
Main Crosscut South	62.1	Total,	186.7 feet
	Total Development Footage,		1442.1 feet
Shafts,	332.5 feet		
Drifts	398.7		
Crosscuts	710.9		

A program of diamond drilling was planned and carried out, thereby extending exploration north, south and west of the No. 2 Shaft area and downward to a depth of about 300 feet below the Second Level or 600 feet from surface. On surface No. 16 hole was put down under the outcrop of rock in the centre of Claim No. 10085 about 1300 feet west of Seager's Hill.

A crew was maintained sufficient to operate the plant and take care of repairs.

We have now completed the work in hand at this date and are preparing to carry forward with further exploration on the basis of the information and data accumulated.

Exploration and Development

The exploration of a property of the size, extent and physical character of Teddy Bear is a problem that can not be attacked in any casual, haphazard manner and it is also one that can not be solved overnight. Our work must be regarded as a series of operations because of the distances involved. The geological features and the general topography make this a necessity [illegible] of

rock exposure surrounded by extensive stretches of overburden which may be of some depth. The property seems to be divided into the following sections for exploration,-

(A) The Northern Area, through which we have a series of outcrops along a ridge running westward from the Mining Corporation claims to the Teddy Bear Syndicate old camp. This ridge passes through Claims Nos. 10083, 10084, 10478 and 10538.

(B) The Central Area, where we have a series of outcrops of underlying rock, one on each claim, on Nos. 10697, 10082, 10080, 10085 and 10608½. That on 10080 is Seager's Hill.

(C) The Southern Area, which takes in the southern portion of the property to and around the Teddy Bear River.

(D) The Western Area, that ground lying west of the old Teddy Bear Syndicate camps.

These different areas must be worked over individually and each will have to be a problem in itself until sufficient field work has been done on all sections to enable a coorelation of data.

The property is big enough for several separate mining operations.

The Central Area

The Seager's Hill was, of course, the first point of attack because of the splendid gold showing. This was really an exceptional find and attracted great attention.

The gold was associated with white quartz veins along a fracture zone adjacent to the contact of two lava flows, an occurrence somewhat similar to that of the first district find on the Howey-Willans-Cochenour claims to the south. Trenching and stripping along the hill has shown this fractured zone to cross the hill and gold has been found throughout but not in such spectacular quantities. Values have been found by assay and panning all over the hill through quartz vein matter of which there is a large amount. The rust gossan tops of veins and shears pans nicely. Assays had by different managements run up to hundreds of dollars per ton on some of this high grade material.

With such a showing as this to start with, the old Abitibi Company rightfully felt that the property was well worth intensive exploration. Operations were chiefly concentrated at this point although some small amount of trenching and stripping was carried out on adjacent outcrops.

My preliminary geological mapping showed the hill to consist of a series of parallel lava flows. These have been very much shattered and broken by a series of strong shears and faults at an angle to the flow contacts, so much so that the entire hill is a shattered and fractured mass of rock, considerably altered and changed. These fractures and breaks have been channels for later ascending solutions carrying quartz, calcite, pyrite, small amounts of chalco-pyrite, some hematite, specularite and tourmaline and gold. A large amount of vein matter has been deposited through the hill. The large percentage of fractures strike generally east and west and dip north but breaks north and south and dips south, east and west have been mapped underground.

There are several possibilities of ore deposition here, viz.,

(1) the large sheared zones and faults, all of which show sections of included vein matter,
(2) the flow contacts and ropy tops of flows. Many portions of these contacts have strong developments of quartz and pyrite throughout and parallel,

vein matter of value has recemented the whole.
(4) Individual large sections of vein matter of appreciable width.

With the above in mind the problem becomes one of elimination.

The first drilling program in 1925 was carried through to prove the extention of surface conditions underground. Holes Nos. 1, 2, 3, 4 & 6 were put down from the south side of the hill and dipping north under it. All these holes proved the downward extention of the strong fault system to at least 300 feet below surface. No. 1 Hole crossed a very strong sheared zone and fault between 361 and 376 feet in the hole and 1.2 feet of quartz and sulphides vein matter in this section gave .59 ounces of gold per ton ($20.65 at $35.00) on assay. A check on this sample returned .61 ounces per ton, ($21.35 at $35.00). The location as plotted of this intersection showed it to be around the second level horizon and, as indicated by development on this level, it would appear to be a section of the strong fault 'K' to which it corresponds in size and character. The intersection would lie west of the main north crosscut as No. 1 hole has swung considerably off its course.

Development has proven that this fault system is continuous through and across the face of the mine and that these faults carry through with depth. No. 1 has a dip of about 70 degrees south at the first level. It was again cut on the second level in place as to dip and location. In Drill Holes Nos. 12 and 13 under the mine it was again intersected and in line. Please see Shaft Section No. 280. We have now proven this structure to exist from the surface to over 500 feet in depth and for over 600 feet in lateral extent with drilling. The other planes parallel or intersect this fault.

The extent of exploration and development at this date is shown on the surface and level plans accompanying this report. It will be seen that we have crosscut the property by development openings for 395 feet through the lava flows and by drilling have extended our knowledge north and south into the sediments for distances of 628 and 650 feet respectively, making a total section of 1673 feet. There is a gap between the end of No. 11 and the collar of No. 7 hole which remains to be drilled. No. 7 cross sectioned the north ridge for a horizontal distance of 600 feet parallel the Mining Corporation boundary. Adding this in, the total cross section of the property, in a north and south direction through the mine area, would be 2273 feet.

The fault zones have been drifted on for a total distance of 325 feet on the First Level. No drifting has been done upon the lower level.

Heavy flows of water were encountered on No. 1, No. 2 and 'K' faults but on opening up the lower level it was noticed that the flow above diminished considerably.

Mapping on surface has shown that north and south of the mine we have outcrops of sedimentary rocks of Temiskaming age. No actual greenstone and sediment contacts have been found as yet on surface and the mine development has to date been all in Keewatin greenstones. Definite points of contact have however been obtained in the drill holes and all holes Nos. 1, 2, 3, 4, 6, 9, 10, 11, 12 and 13 crossed into the sediments.

For exploration purposes, No. 11 Hole was carried into the Temiskaming conglomerate and greywacke northward for 562 feet. Unfortunately we could not get out further with it as it ran to surface under the overburden which must be very deep over the end of this hole.

To explore the country south Holes Nos. 14 and 15 were drilled from the Second Level. No. 14 reaches out 650 feet horizontally and crosses through the Keewatin flows into fine fragmental rocks, some of which are of Temiskaming age. These also dip south and strike east and west.

No. 5 Hole which lies about 1000 feet east of the mine and No. 16 Hole located about 1300 feet west of the mine also give definite points on this south contact. A valuable horizon marker in this area is the band of graphitic schist which occurs near the contact and which was picked up in all three holes (5,14 and 16).

From a geological standpoint the results of the exploration have been very satisfactory. We have proven that the mine lies in a series of Keewatin lava flows and parallel Temiskaming sediments and we have located the north and south contacts of the flows and determined their strike and dip. For a reasonable distance we have outlined the existance of a strong series of shear zones and faults underground to a depth of over 500 feet vertically and for about 600 feet horizontally. Accepting the evidence of No. 5 and No. 16 we can extend this 1700 feet horizontally. We have cross sectioned the property about on the No. 2 Shaft section in a north and south direction for about 2300 feet.

This data has been shown on the accompanying plans and sections.

Our search for values has uncovered interesting data during exploration but as the development has just got underway and systematic sampling started definite results are not available as yet. Cross-cuts have been driven on both levels and a small amount of drifting done upon the upper level but no drifting has been carried on below. On the Second Level it was intended to drive over to the ore intersection in No. 1 Drill Hole. Possible ore zones have been cut on all cross-cuts on both levels.

Sampling of similar structures on surface over the top of the hill gave results in places indicating mineable ore and rusty tops of these same zone pans free gold liberally. The shear zones do carry gold values throughout and as far as our work has progressed to date.

Another important structure and one upon which no development has as yet been done, is the contact zone of the two flows crossing the hill east and west through No. 1 Shaft and on to the west trench. The original gold showing lay in this zone at the shaft. Free gold and very encouraging assays up to 2.7 ounces per ton have been had in the west trench. The contact of a basic and acid flow is a favorable location for ore in this area and the deposition of a large amount of quartz and sulphides adds weight to the possibility. This zone has been cut by all drill holes from the south side of the hill and shows strong vein matter throughout.

We have therefore located two different structures sections of which indicate ore. To date we have only been able to give our attention to one of them as the working possibilities of our plant are limited. It is extremely important that the other structure be investigated thoroughly.

The Northern Area

Since earlier days no exploration has been carried out upon the northern section of the property and it certainly deserves a good working over. Surface results on the Mining Corporation ground were very encouraging as channel samples ran up to .37 ounces and selected material up to 1.15 ounces of gold per ton. The same geological conditions continue westward into our property as was determined

by my field mapping in 1925 and shown on Surface Plan No. 123 attached. Some trenching was done on the strong shear in the north east corner of Claim No. 10083 and a shallow drill hole put down later, No. 7. The outcrop drops under the overburden a short distance west of the boundary. The ridge again appears west of the mine camp and continues to the old Teddy Bear Syndicate camp three claims westward. Acid and basic flows were mapped along this ridge as shown on the plan and I located outcrops of a sheared rock which appeared to be feldspar porphyry.

This section should be carefully mapped in detail and prospected. It should be explored systematically by drilling.

The Southern and Western Areas

These portions of the Teddy Bear Valley property require careful prospecting and mapping. Several interesting outcrops of vein matter have been located which show ore possibilities but no serious work has been done to open them up. The extention of the Temiskaming sedimentary belt will certainly pass through the western claims and also the lava flows which parallel it on the north and south. Very interesting assays are reported from samples of vein matter taken by former owners from old work.

It was not possible during the past season for us to do anything in the way of field work to outline geology or locate outcrops accurately by surveys on this ground. It is hoped that we may be able to expand the outside field program the coming year.

In concluding this description of our exploration it must be again stressed that the work done to date is only a start on a program which should be carried on to cover the entire property. We have on Teddy Bear a very interesting and important block of ground as within its boundaries lie two belts of PreCambrian sediments associated with Keewatin lava flows and cut by intrusive rocks. It is under such conditions that all our important gold camps have been developed throughout Ontario and Quebec.

General Geology

The general geology of the area is well covered in the reports of the Ontario Department of Mines as follows,-

1919, Abitibi-NightHawk Gold Area, Knight, Vol. XXVIII, Part II,
1924, Lightning River Gold Area, Knight, Vol. XXXIII, Part III,
1925, Lightning River Gold Area, Gledhill, Vol. XXXIV, Part VI,

Mine Operation

Plant

The plant as it exists at this date has proven satisfactory for the work it has done. The hoist compressor and boiler have done good service and have been well handled.

Twenty buildings have been erected in the mine area and include the following:-
Hoist and Compressor house, Boiler House, Smith Shop, Oilshed, Storehouse, Main explosives Magazine, 2 Auxiliary Magazines, Thaw, Office, 2 bunkhouses, Cookery and Dining room, Stables, 4 toilets, Water tank, Residence.

There is also a storehouse at Lightning River Landing and the old camp buildings on the Teddy Bear Syndicate claims.

Machinery consists of a hoist, compressor, boiler, two portable compressors, Drill sharpener, oil furnace, forge, sinking pump, air receiver, 3 steam pumps, gas pump for tank, 2 large air drills, 3 small air drills, drill press, anvil, mine cars, miscellaneous small tools, rails, pipe, fittings, mine tools, etc., all in a fair state of repair.

Three teams of horses were purchased but one team sold last spring leaving two on the property at this time.

The bunkhouses were properly equipped with double deck steel beds, camp stoves and home made furniture. The cookery was well fitted to take care of a fair sized crew with the dining room and kitchen separated.

An inventory of total plant, equipment and supplies was taken at the close of the summer and is on hand.

Transportation

All outlying mining camps have this problem to contend with and the method of handling it varies with the location and season. Summer and winter traffic is handled differently.

In summer access to the property has been from LaReine in Quebec, across Abitibi Lake to Lightning River Landing and thence by mine road to the camp. We have made use of several boats that are owned by residents of the district but it would be more efficient in every way if the Company owned its own equipment and employed its own men.

Good land roads for summer travel are not available at this time and would have to be constructed.

In winter, land haulage is possible. During past years the road to Ramore in Ontario has been used after the freeze-up but a new right-of-way has just been cut out from Kirkland Lake northway to the Consolidated Smelters property in Garrison township and this will likely be the best for Teddy Bear to use hereafter. It crosses the old Ramore road at a point about midway on the south boundary of Garrison township. We would have to break and maintain a road to that point and south but with Smelters and probably others using it the maintenance should be considerably lightened. I am given to understand that the new road will make for good winter travel as it passes through timbered country for a greater part of the way.

Power

Steam power has been in use to the present and is necessary for some time yet but the question of diessel power should be investigated to replace the old plant for more extensive work. By its use, operating costs would be materially reduced on a plant of any size and greater efficiency obtained.

Electric power is available at Ramore and Kirkland Lake, each about 30 miles distant, and can be tied in when operations warrant the installation.

Boiler fuel will be wood at present, of necessity, and of this there is plenty. As clearing for fire protection must always be done in bush country, the wood cut is made use of as boiler fuel as it would otherwise be wasted. A boiler will always be necessary in this country, if only for heating purposes.

Engineering

During the past year a regular system of survey was set up at the mine. Permanent monuments have been put in on surface and underground and all development and exploration properly surveyed and mapped. On surface the system permits expansion by triangulation and instrument traverse outward over the property.

Systematic sampling has been started and a certain amount of this work done but is not completed over the development openings underground as yet.

All diamond drill core has been checked and classified and all vein matter and core with any mineralization of importance has been sampled and assayed.

Proper records have been kept of all work. Survey and sampling data has been recorded and also shown on maps, plans and sections of all work. A complete set of diamond drill core specimens have been retained. Proper logs of drill core have been prepared.

No microscopic work was done to date and rock classification has been a field one.

Assaying has been done efficiently by J. W. N. Bell of Haileybury and the Swastika Laboratories.

Photographs have been taken showing the progress of all work during the past year.

Summary

The foregoing report summarizes the work done to date and the standing of the property at this time. The development work done upon Seager's Hill has proven up information of great value and it establishes a foundation upon which to build further exploration. Without such work we would still be in the dark as to much important data on the character, mineralization, extent and value of the structures we have encountered. We have proven that they are extensive and, if ore shoots can be developed in them, we will have a reasonable tonnage to mine.

We have only touched one small portion of the property whereon, if exploration is successful, it may be possible to develop several mining operations because of the size of the group. To do this, work must be energetically and efficiently carried on with perseverance and courage and all areas of promise carefully investigated.

General district geological conditions are favorable for ore deposition and similar to other areas in the province where producing mines have been brought into being. In addition to this we have found actual ore occurrences.

Operations to date have been possible because of the interest taken by Mr. Hofmann in the project, his sincere belief in the possibilities of the property and the sacrifice of his time and money to meet the increasing demands of the mine management.

Recommendations

On Seager's Hill we have been investigating only one phase of ore deposition. We should give serious attention to another important feature, namely, the fracture contact zone in which the original gold discovery was made. This work can be carried on both from surface and underground now that the plant is installed and power available.

The old mining injunction "stay with the ore" always holds in prospecting and should be followed whenever possible. Weather conditions permitting, I would prefer to attack this work on the surface where we have definite structure and values by sinking a small prospect shaft downward through the zone at a point in the west trench. As this zone possibly follows the flow contact which dips south at about 60 degrees, the shaft would be inclined and, if conditions are favorable, could be carried through to the first level.

Underground development could also be done on the same structure by driving westward along it on the first level and then making connection with the new shaft under the west trench. We would then have horizontal and vertical faces exposed for sampling. These, with the surface outcrop, would give valuable data on the value and extent of the zone.

Both operations could be carried on simultaneously if the necessary mining equipment was available. An auxiliary hoist would be required for the new shaft, taking power from the surface plant.

The surface outcrop should also be opened up by light drilling and blasting and carefully sampled.

The new drift underground would make it possible to diamond drill with flat holes north and south across the hill. This would be valuable exploration and checks could be had on the older drill holes.

Some construction is necessary preliminary to the above program. A new smith shop should be erected. The old shop has served its purpose, is small and not very efficient as to layout and arrangement of equipment. We should make provision for machine repairs and general repair work and this can be done under one roof. A sketch of a proposed shop is attached.

A new dry and change house is required to take care of all labor and provide first aid facilities. See attached sketch.

A proper office and warehouse is indicated at the mine where all stores and spare equipment can be housed. The present arrangement is not efficient from the point of management of work or storekeeping. A sketch is attached herewith showing a combined office and warehouse.

The boilerhouse should be extended another 20 feet to provide fuel storage. Wood trucks should be constructed to run on track from the outside wood piles which should be located in the flat south of the power plant.

A new oil storage building will be necessary to replace the present temporary one which would be dismantled to make room for the new smith shop.

If a tractor is purchased a garage should be built for it.
A small headframe will be necessary for the new shaft.
No. 2 shaft headframe should be enclosed for winter work.
Steam and water lines must be laid and boxed to all buildings.

The purchase of a tractor for winter haulage is advisable to replace the teams on this work. It should be fitted with a plow and capable of hauling a loaded tender. Time will be saved and good loads carried. One team could be sold and one retained for general surface work if desired. The wood contractor would likely take these over.

The new road must be inspected and put in shape for winter travel. This should be done at once so that all bad spots can be attended to before the heavy snows. A tractor needs a good bottom on the road. Stopping places must also be arranged and shelters built.

The wood contract should be let and storage started in the mine yard. The storage piles must be located so as to be handled efficiently to the boilerhouse by the wood trucks.

The program outlined above will carry over into next summer. Modifications and adjustments would no doubt be made as the work develops and new conditions arise. The details of a mining operation must be dealt with as the development indicates from day to day.

A further surface diamond drilling program should be considered to extend information beyond the Seager's Hill area. This should be done systematically and exploration carried forward from known to unknown territory. The general trend of the drilling would be along the belt of sediments and the contacts of them with the parallel greenstones. We could project holes at this time that would use up about 10,000 feet of drilling to advantage.

Plans

The following plans are attached,-

(1)	No. 123	General Surface	Scale 200 ft.
(2)	276	Mine Surface,	20
(3)	277	First Level Development,	20
(4)	278	Second Level Development	20
(5)	279	Surface, Seager's Hill	100
(6)	280	No. 2 Shaft Section	50
(7)	275	Camp Buildings,	50
(8)	281	Section on No. 9 Drill Hole	50
(9)	282	do. No.10 do.	50
(10)	283	do. No.11 do.	50
(11)	284	do. Nos. 12 & 13 do.	50
(12)	285	do. Nos. 14 & 15 do.	50
(13)	286	do. No.16 do.	50
(14)	274	Proposed Change House	
(15)	290	Proposed Smith Shop	
(16)	291	Proposed Office & Warehouse	
(17)	292	Proposed location new buildings	

Diamond Drilling Data

The logs of Holes Nos. 9 to 16 are herewith attached and form, with the above sections and the assayers reports, the complete written record of the drilling. A complete set of core specimens has been preserved at the mine. The tubes of the acid tests for dip are also preserved at the mine.

Total footage drilled on the property to date follows,-

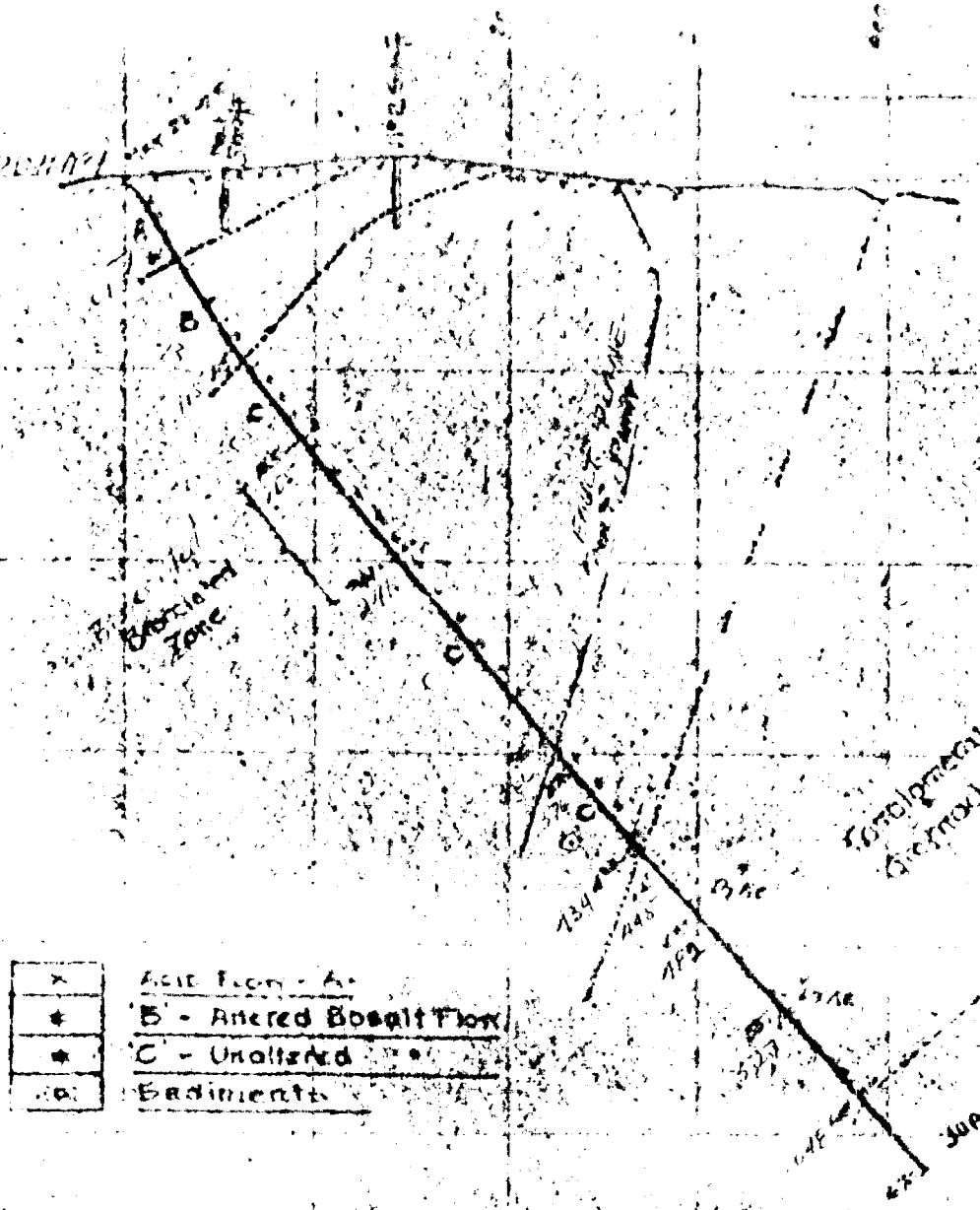
1925	Holes Nos. 1 to 8,	Surface	4500.6 feet
1935	Holes Nos. 9 to 15,	Underground	2310.4
	Hole No. 16,	Surface	602.0
		Total	7413.1 feet

Respectfully submitted,

(Signed) EDWARD H. ORSER (SEAL)

Consulting Mining Engineer
and
Geologist

Swastika, November 28th, 1935.



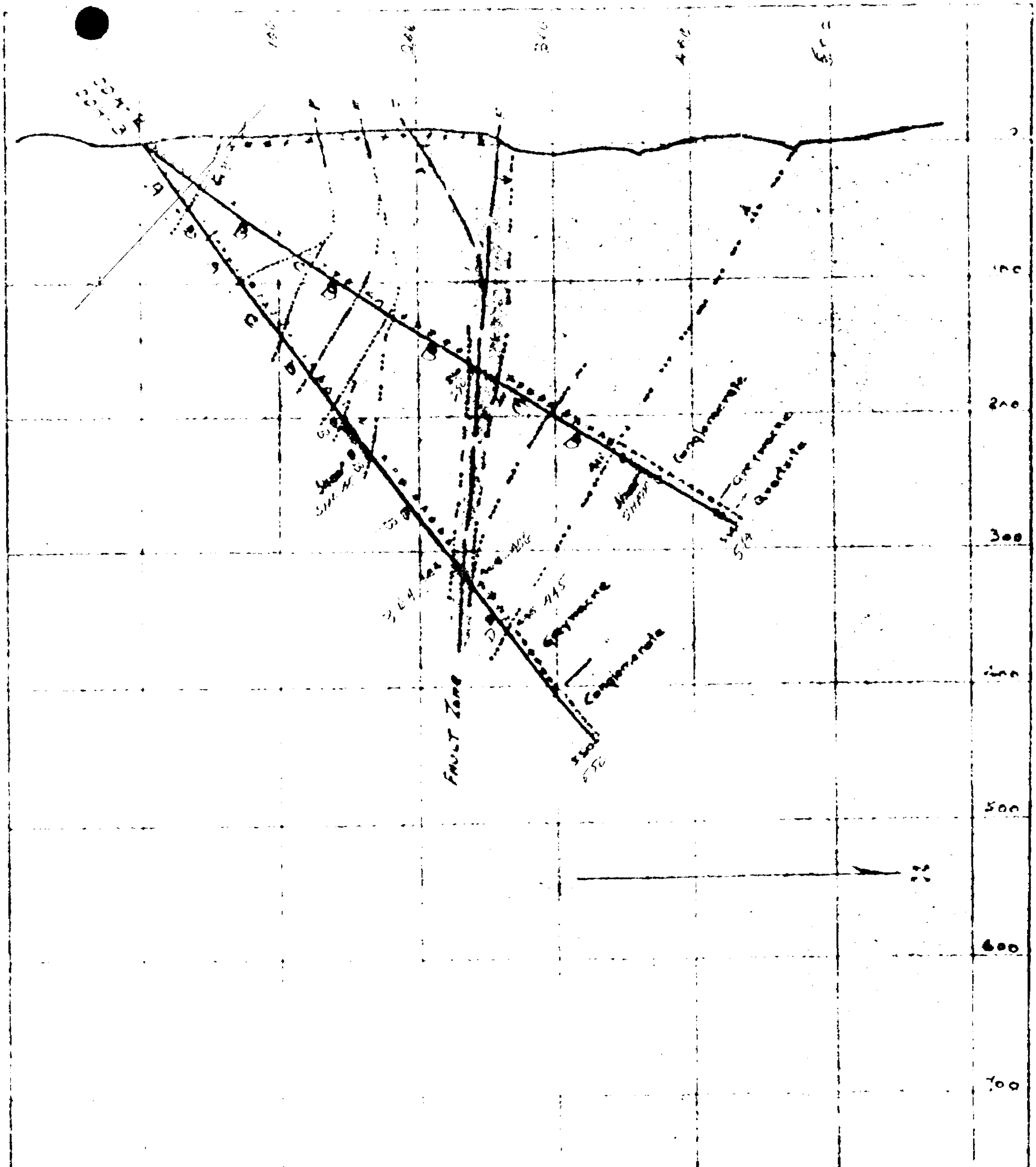
EDWARD M ORSER
CONSULTING MINING ENGINEER

Diamond Drill Section A DDH #1
ABITIBI MINES, ONT.
CLAIM No 10080 - Holloway Tp
SCALE - 1 inch = 100 FEET

APPROVED June 29-25

11

OMB - PE32 - P 80

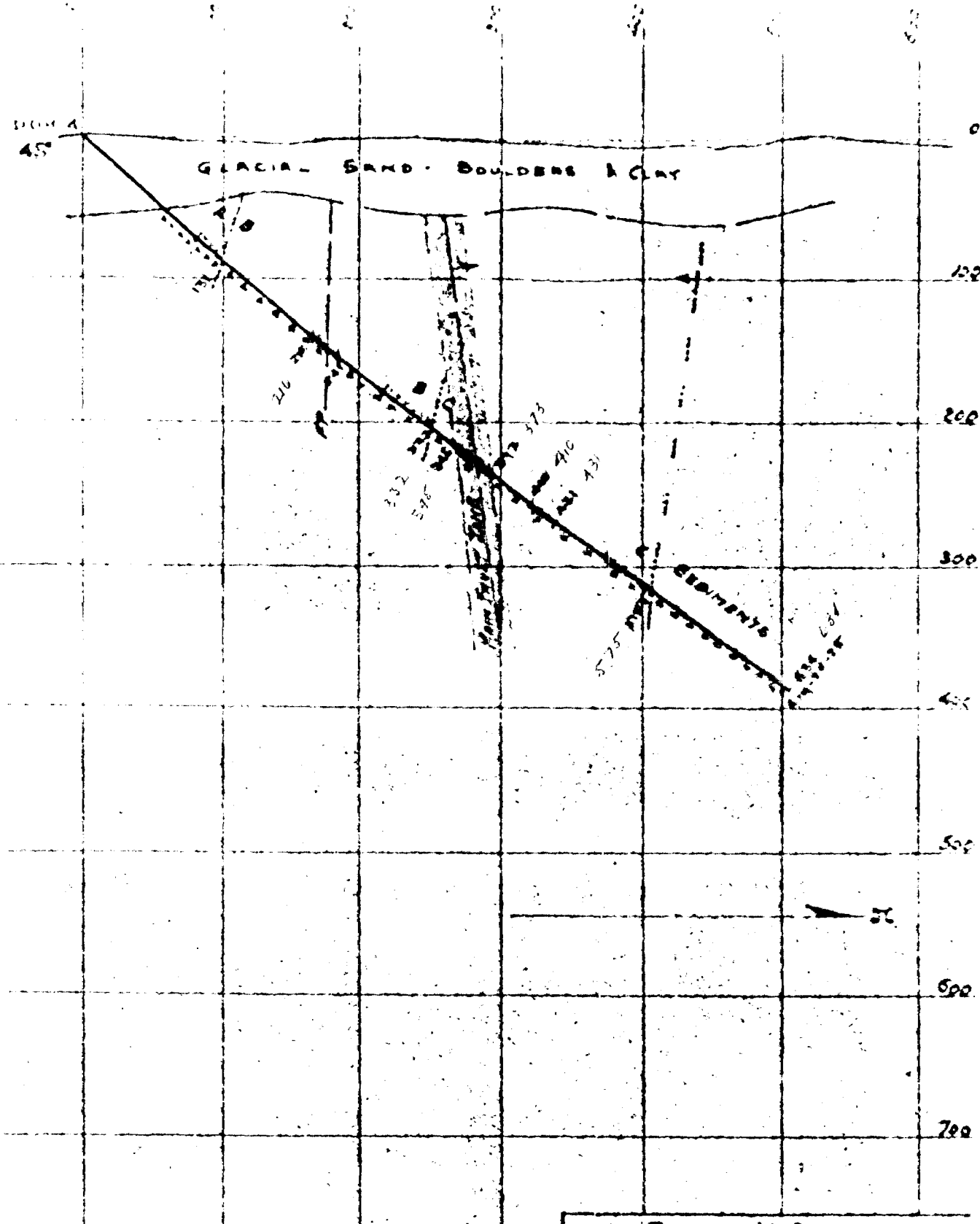


EDWARD H. ORSER
CONSULTING MINING ENGINEER

Diamond Drill Section "3" DDH 2&3
ABITIBI MINES, LIMITED
Claim No 10080 - Holloway Tp
Scale – 1 inch = 100 feet

APPROVED · Aug 10-25

113

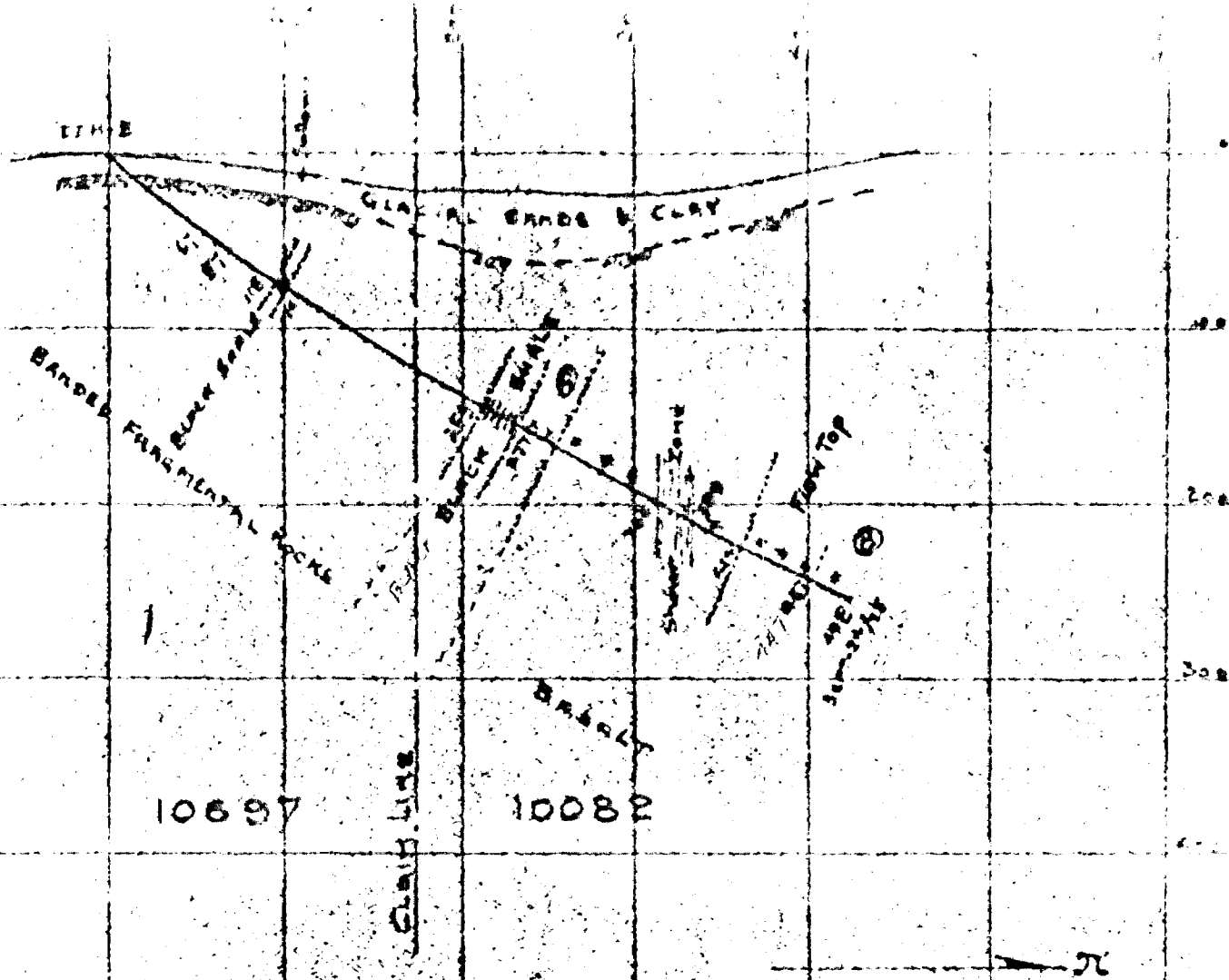


EDWARD H. ORDER
CONSULTING MINING ENGINEER

Diamond Drill Section "C" DDH 4
ABITIBI MINES. LTD.
Claim No. 10080 - Holloway Tp.
Scale - Inch = 100 FT.

Drawn at Swastika Office
Approved - Sept. 10-25

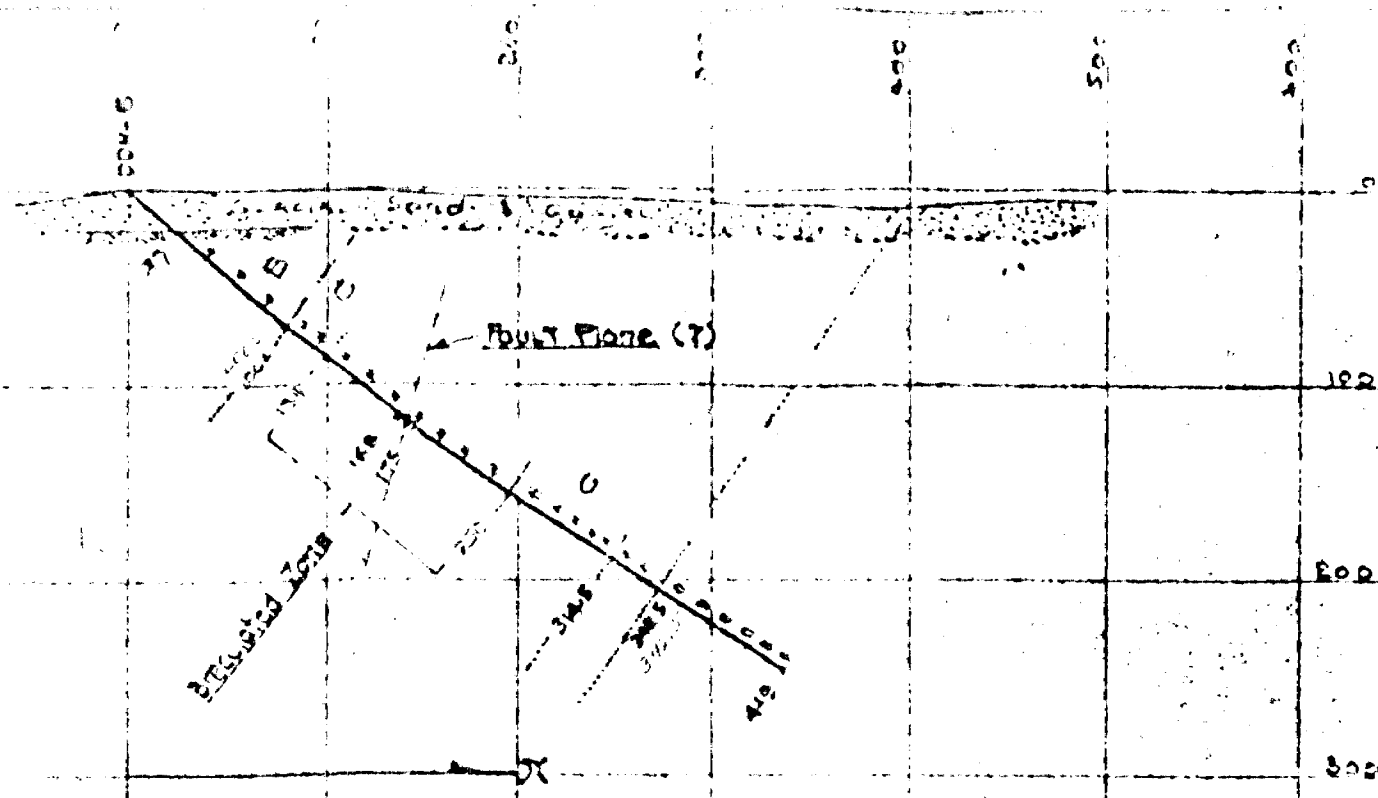
115



EDWARD H. ORSER
CONSULTING MINING ENGINEER

Diamond Drill Section "E" DDH's
ARCTIC MINES LIMITED
CLAIM No. 10697
Scale - 1 inch = 100 FEET
Plan of Swastika Office
Approved - Oct. 3 25

SH. 116

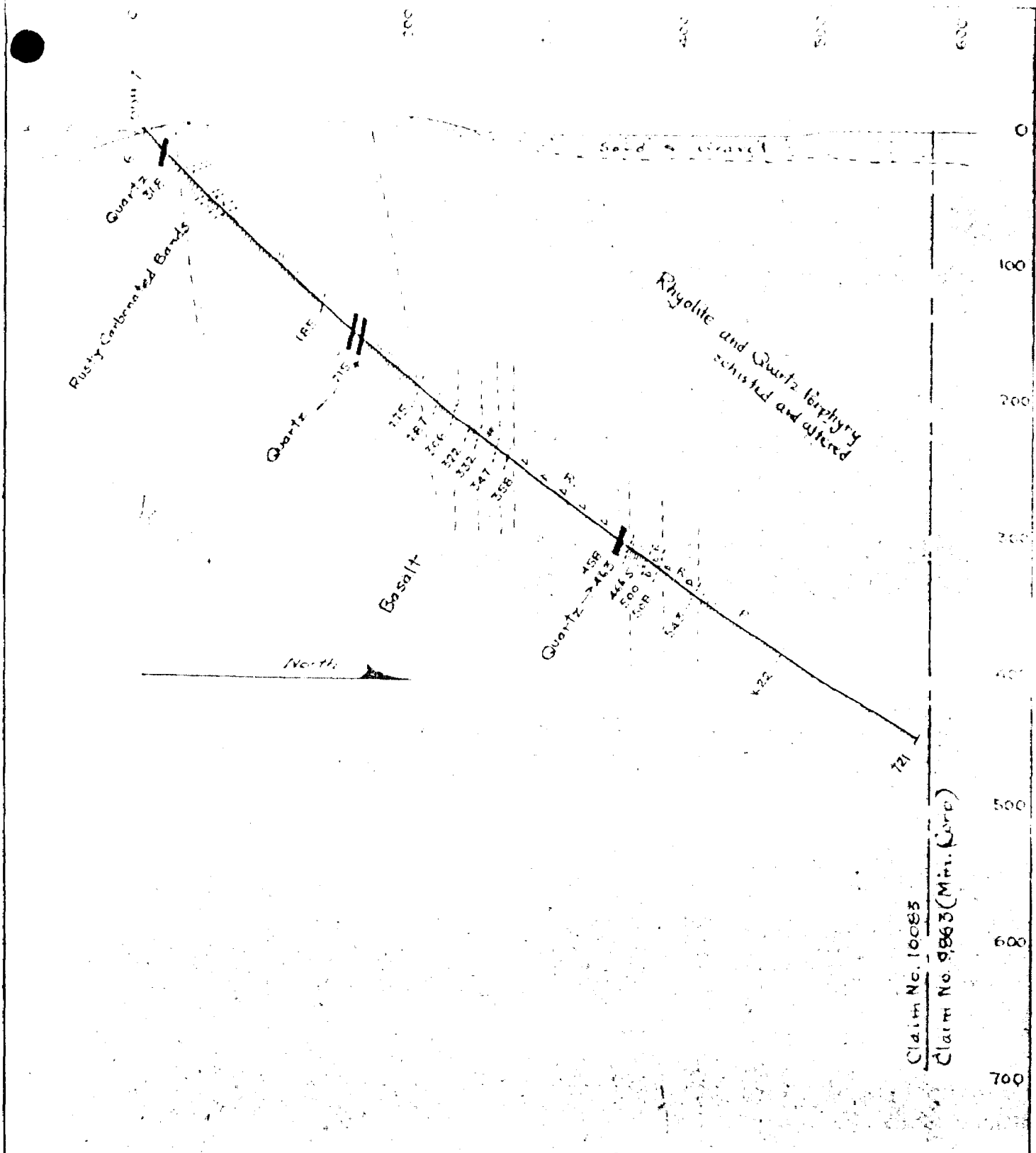


EDWARD M. ORSER
CONSULTING MINING ENGINEER

Diamond Drill Section "D" Plan "C"
ARIT-FI MINES LIMITED
Claim No 10080 - Holloway Tp.
Scale - 1 inch = 100 feet

Approved - Feb 4-26

124



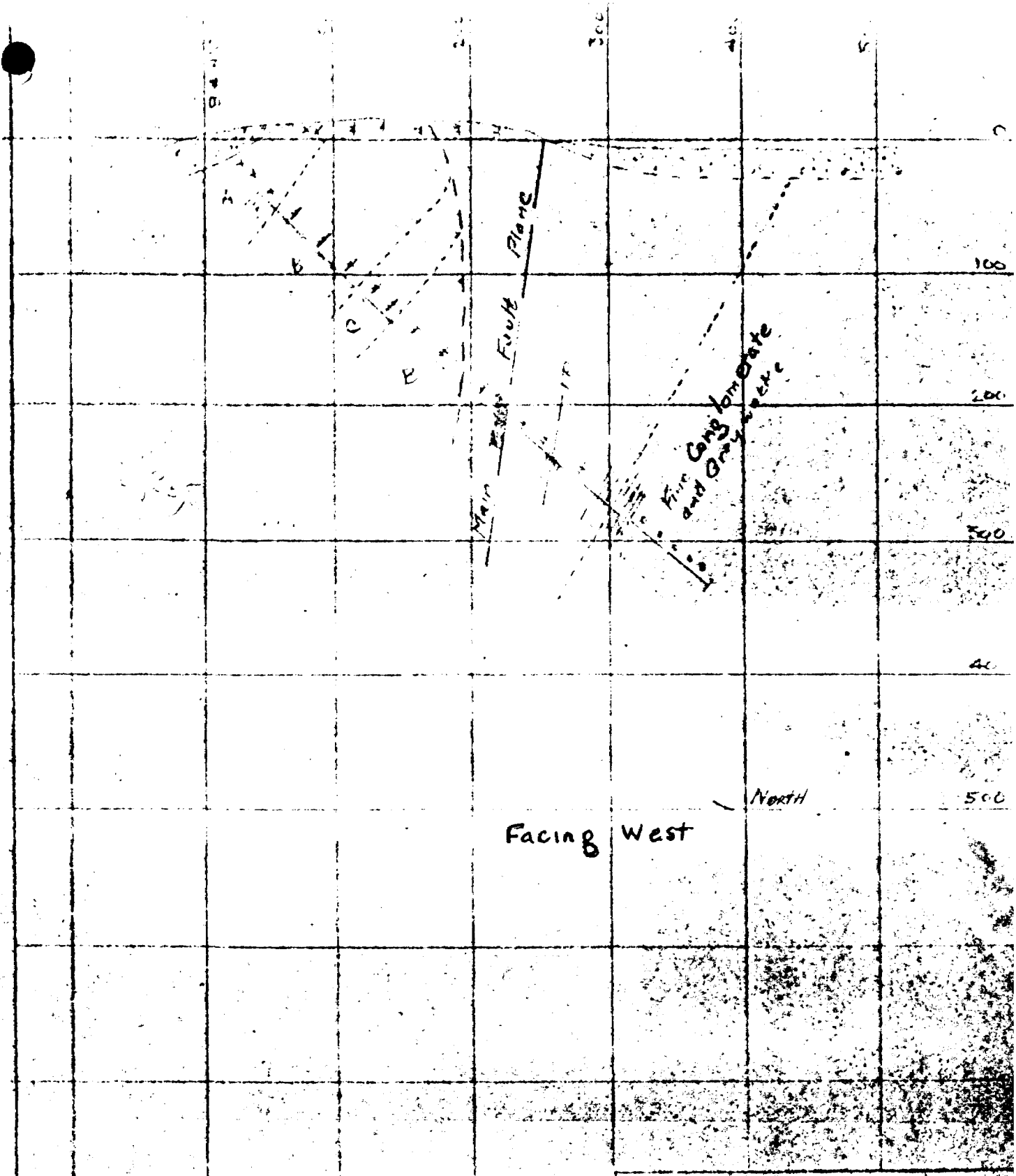
EDWARD H. ORSER
CONSULTING MINING ENGINEER

Diamond Drill Section "F" DDH #7
ABITIBI MINES LIMITED.
CLAIM No. 10083 Holloway Tp.
Scale 1 inch = 100 feet

Drawn at Swastika Office
Approved Feb. 4, 1926

125

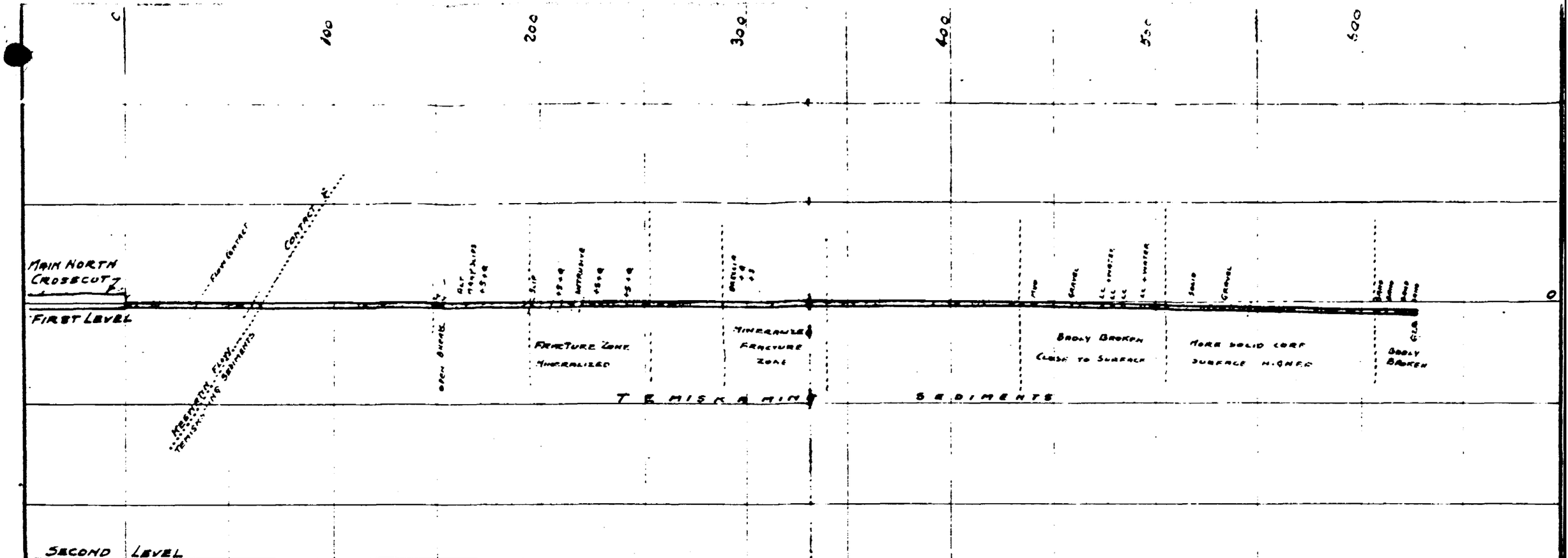
Copied by J. Sutherby Feb. 24, 1950.



L.D. WATSON JR. ENGINEER
CONSULTING MINING ENGINEER
Diamond Drill Section "C"
ARNTIBI MINES LTD.
Claim NO. 100BC-Mallo... TP.
Scale 1 inch = 100 feet
Drawn Swastika
Approved Nov 23-26

162

Copied by J. Sutherland Feb. 20/5



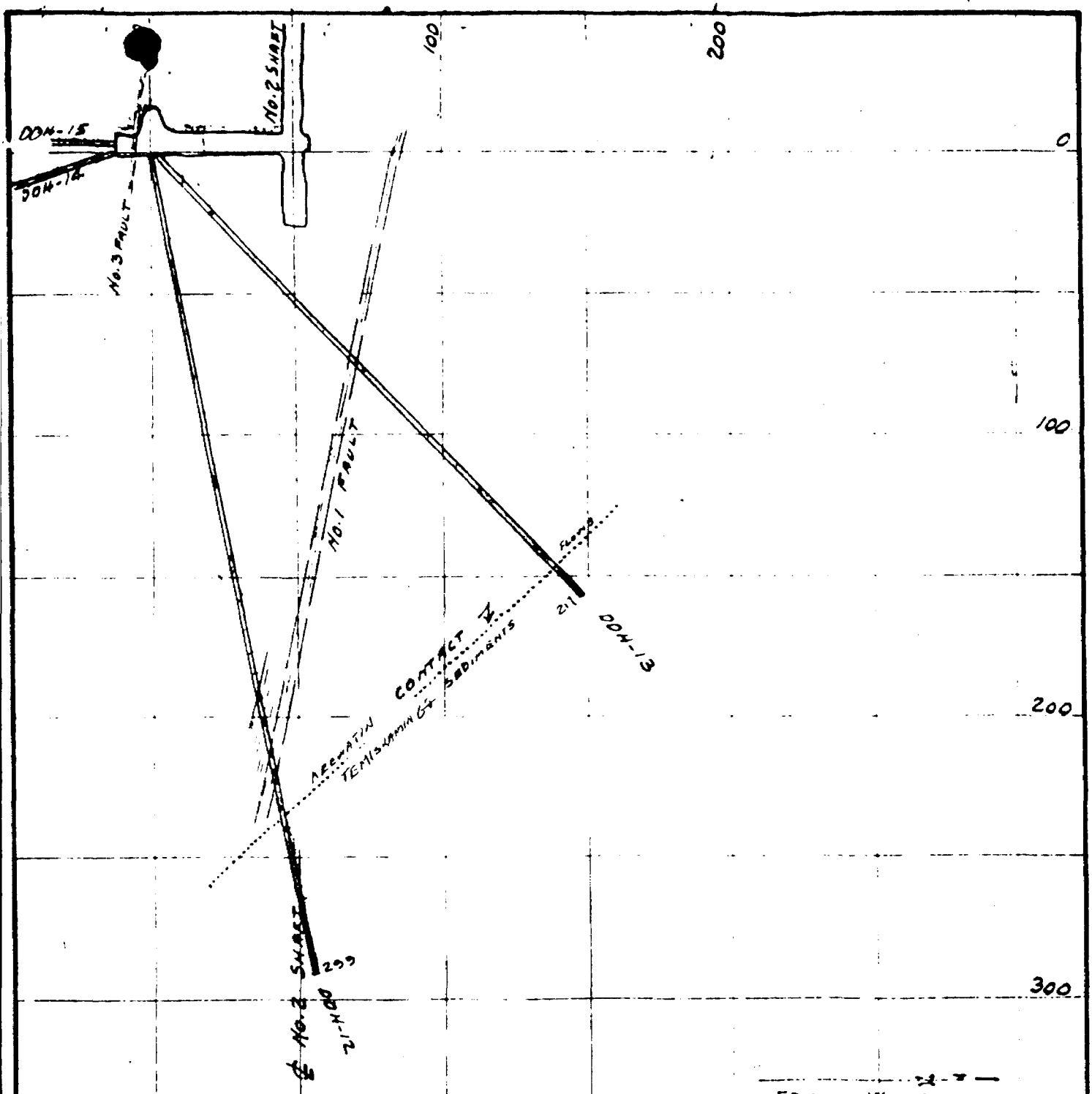
EDWARD H. ORSER
CONSULTING MINING ENGINEER

TEDDY BEAR VALLEY MINES
SECTION ON DRILL HOLE No. 11
SCALE — 1 INCH = 50 FEET

Drawn

SWASTIKA-OCT-27-35

283



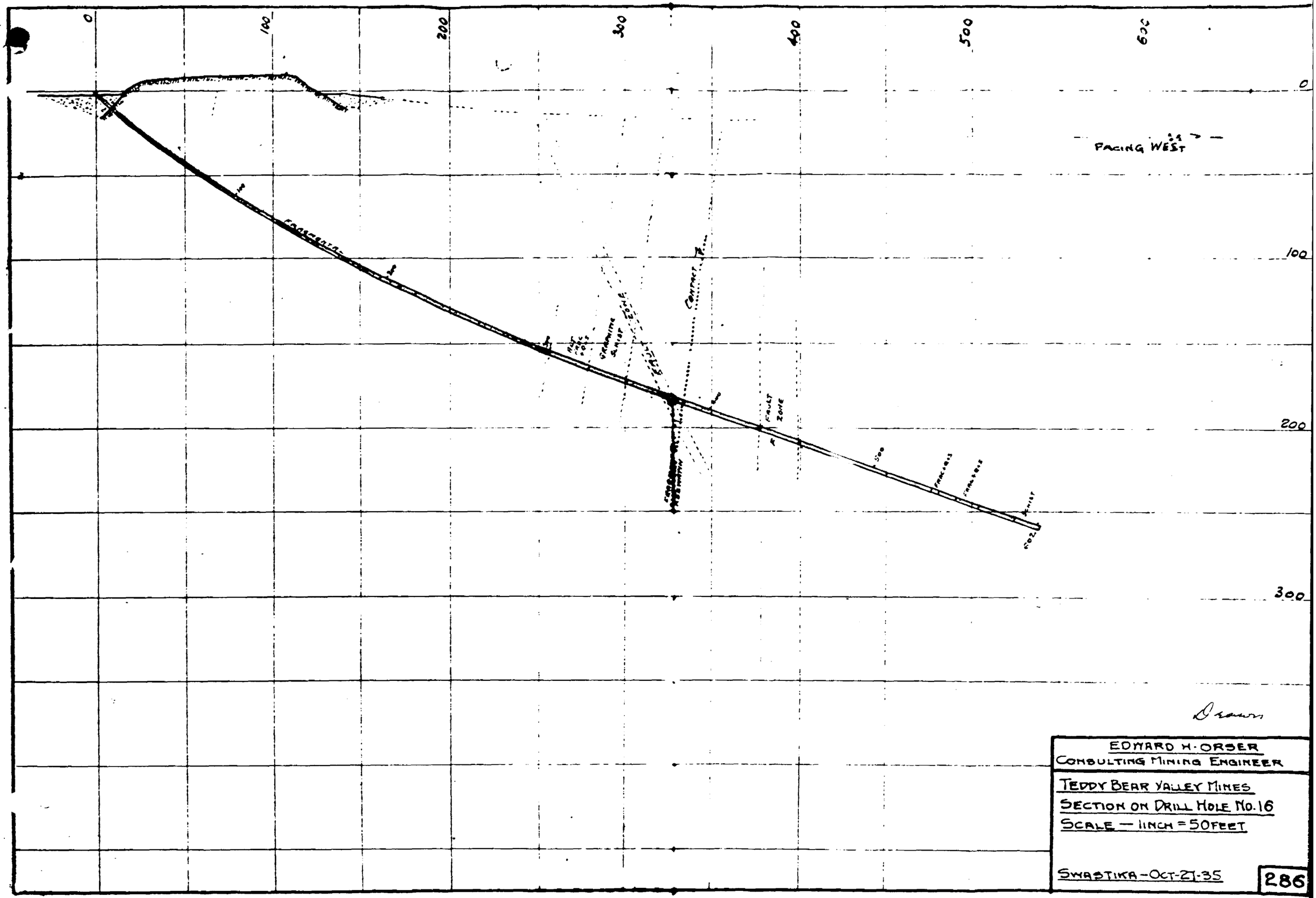
EDWARD H. ORSER
CONSULTING MINING ENGINEER

TEDDY BEAR VALLEY MINES
SECTION ON DRILL HOLES NOS 12 & 13
SCALE - 1 INCH = 50 FEET

SWASTIKA - OCT-27-35

284

X



Drawn

EDWARD H. ORSER
CONSULTING MINING ENGINEER

TEDDY BEAR VALLEY MINES
SECTION ON DRILL HOLE NO. 16
SCALE — 1 INCH = 50 FEET

SWASTIKA – OCT-21-35

286

Sheet ____ of ____

CLIENT IDENTIFICATION A
ASSESSMENT FIL
GEOSCIENCE INFORM

900

Client Name: D Robinson

Company: _____

Address: 96 Parklea Dr

Toronto, Ont.

_____

Postal Code: M4G 2J8

Telephone: Home ( ) _____

Bus: ( ) _____

(fill in one of above)

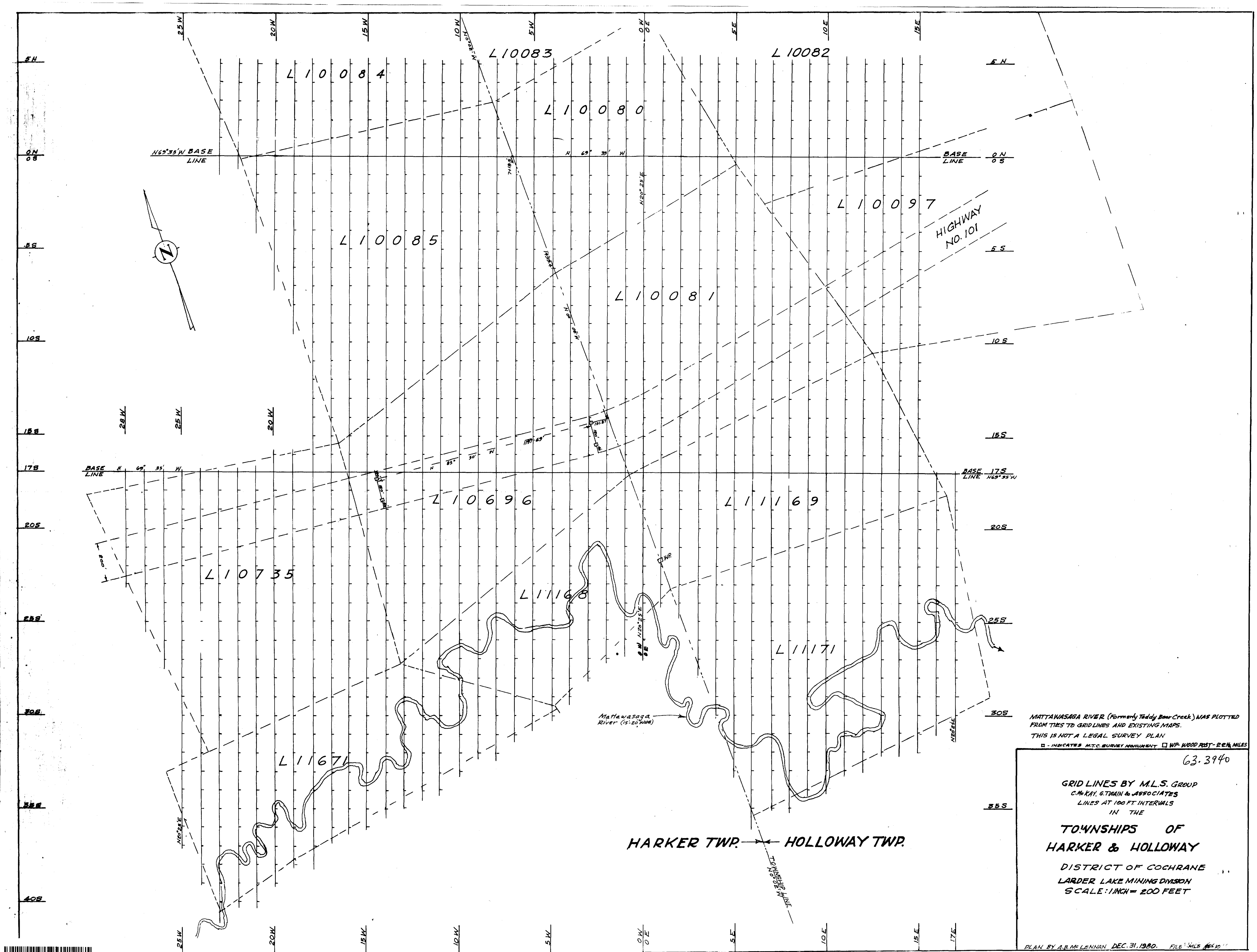
Harker / Holloway

DATES AND FILES REQUESTED

please use one column per date of visit
if overflow use next column and repeat date

PLEASE RETURN ALL ASSESSMENT FILES MATERIAL TO ASSESSMENT FILES PERSONNEL

(Date/Month)	(Date/Month)	(Date/Month)	(Date/Month)	(Date/Month)
63.5208	63.4486			
63.4460				
63.4007				
~~63.3940~~				
~~13~~ ✓				
~~63.4299~~ ✓				
2.3606 ✓				
~~63.3806~~				
~~2.3140~~ ✓				
~~63.1110~~				
~~63.226~~ ✓				



OM36 - PE32 - P-80

32D12SE9334 63.3940 HARKER

200

BASE LINE 0+00 290°

2 N

1 N

1 S

2 S

3 S

4 S

3+50W

3+00W

2+50W

2+00W

1+50W

1+00W

0+50W

0+25W

0+00E

0+25E

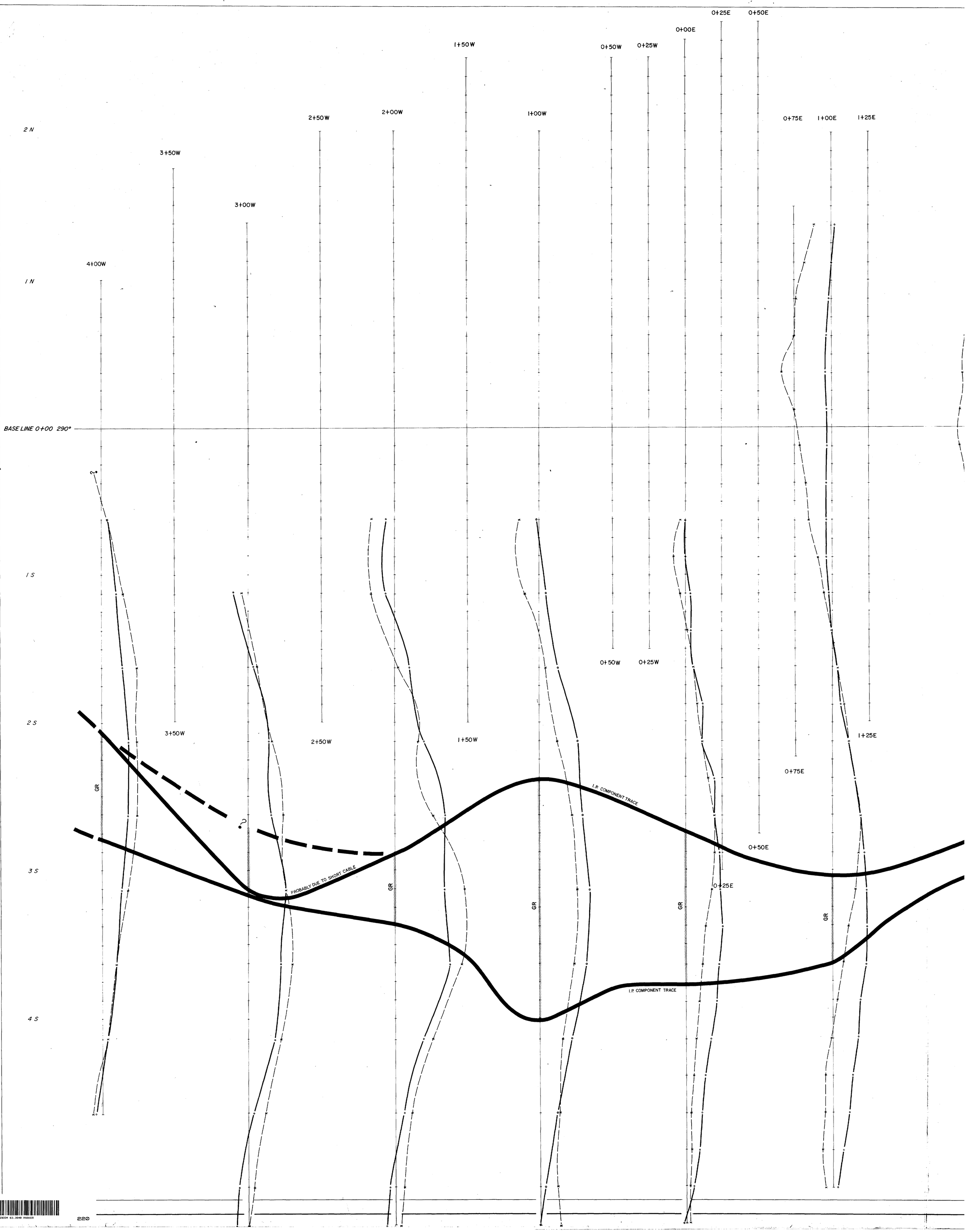
0+50E

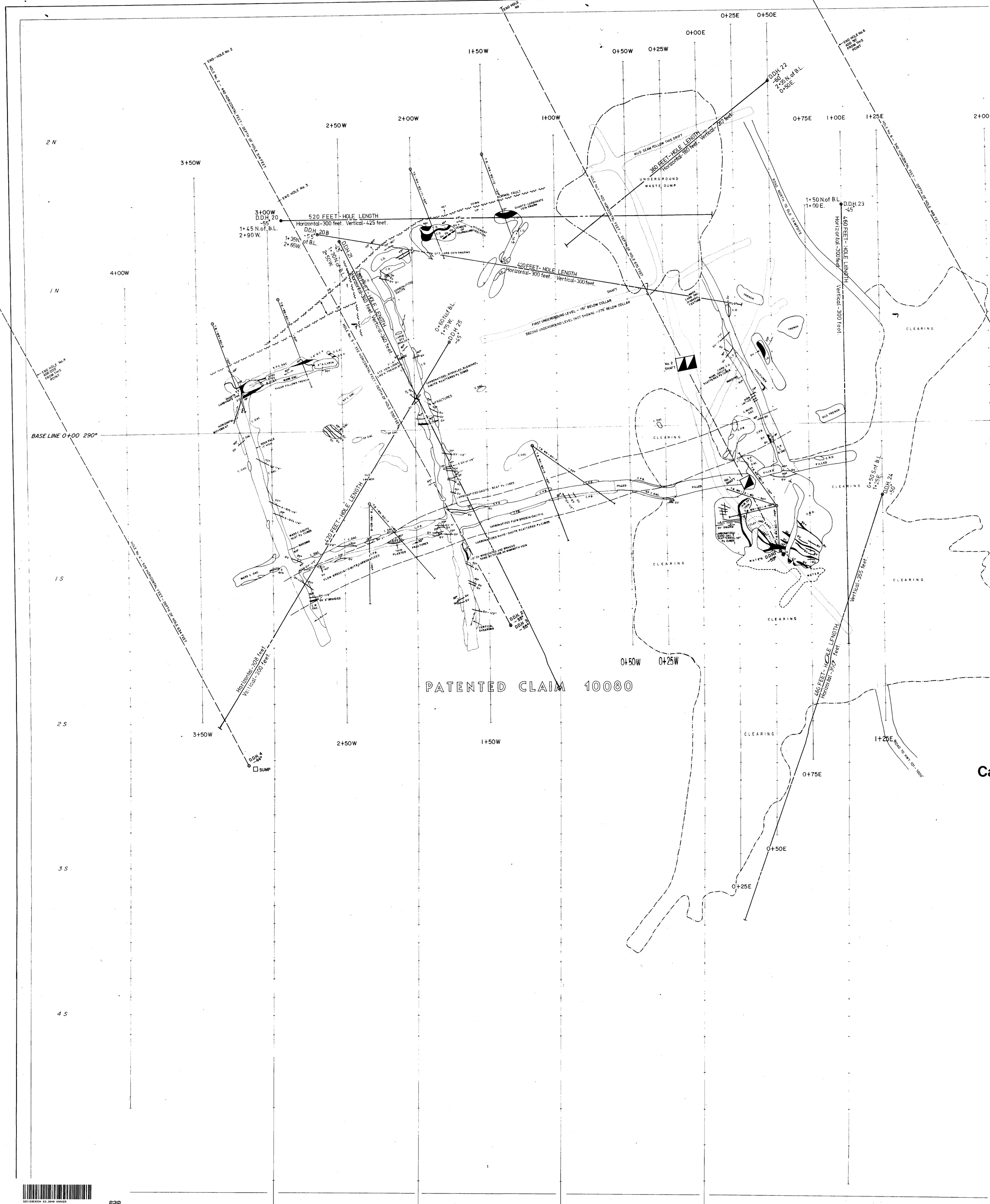
0+75E

1+00E

1+25E

4+00W





ASSAYS – Oz. PER Ton.

NO. 1 SHAFT:-
0'-5'- 1 TON BULK SAMPLE – 2.64 Oz. (THIS EXCLUDED HIGH GRADE VEIN SAMPLES OF 321 TO 67.4 Oz.)
18' - .02 Oz.
22' - .04 Oz.
35' - .14 Oz.

SURFACE SAMPLES:
1.- AVERAGE OF 22 SAMPLES, FROM MILL OVER AN AREA 200' SOUTH TO NORTH AND 150' EAST TO WEST (HIGH GRADE EXCLUDED) - .484 Oz.
2.- NORTH PIT/TRENCH SAMPLING: 01 Oz.
3.- WEST TRENCH SAMPLING: .01 TO 2.51 Oz.
4.- EAST TRENCH SAMPLING: .01 TO 2.0 Oz.
5.- 50' SOUTH TO NORTH LINE SAMPLING 40' EAST OF WEST TRENCH STARTING 140' SOUTH OF NORTH-WEST TRENCH 10 SAMPLES, ONE EVERY 5'

A.- .02 Oz.	F.- .04 Oz.
B.- .03 Oz.	G.- .03 Oz.
C.- .51 Oz.	H.- .02 Oz.
D.- .32 Oz	I.- .01 Oz.
E.- 2.72 Oz.	J.- .02 Oz.

ASSAY OF 7 SURFACE VEINS 1925
ALL CARRIED IN EXCESS OF 0.25 Oz.

VEIN NO. 3 - PIT SUNK-VALUE AT 8 FT. LEVEL - 0.31 Oz.

VEIN NO. 4 - 12 TO 20 FT. WIDE VALUE ACROSS 13 FT. - 2.5 Oz.
VALUE ACROSS 11.3 FT. - 0.55 Oz.

VEIN NO. 5 (OVER NO. 1 SHAFT) SOUTH 22.5° W, DIP 45° EAST, WIDTH 2" TO 20", LENGHT 80 FT. VALUES UP TO 320 Oz./TON.
VEIN NO. 6 - IN SCHIST - 0.18 TO 0.32 Oz.
VEIN NO. 7 - ACROSS 4 FT. 0.84 TO 1.9 Oz.
VEINS 1 & 2 - 0.04 TO 0.09 Oz.

UNDERGROUND SAMPLES:
D.D.H. NO. 1-361'-376' (260 FT. ON VERTICAL) 0.61 AVG.
D.D.H. NO. 8-375'-0.20 408.9'- 0.20, 499.9 - 0.80

HISTORICAL NOTES

1925 - 1944 TOTAL CROSS SECTIONS DRILLED:
- EAST-WEST - 2300 FT.
- NORTH-SOUTH - 3100 FT.

1944 - D.D. HOLES # 17, 18, 19, 20

1936 - PITS BLASTED SOUTH SIDE OF HILL

1934-1935 - SHAFTS - TOTAL 332.5 FT.
- CROSSCUTS - TOTAL 710.9 FT.
- DRIFTS - TOTAL 398.7 FT.
D.D. HOLES # 9, 10, 11, 12, 13, 14, 15 UNDERGROUND - 2310.4 FT.
GEOLOGICAL SURVEYS - NO 16 SURFACE - 602.0 FT.

1933 - EAST AND WEST TRENCHES CUT
2 PITS ON SOUTH SLOPE + 2 SMALL TRENCHES
1 PIT ON NORTH SLOPE

1925 - D.D. HOLES # 1, 2, 3, 4, 5, 6, 7, 8 - 4,500.6 FT. TOTAL
GEOLOGICAL SURVEY - OUTCROP SMALL PITS OPENED.
1 SHAFT - 32.5 FT. + PIT - OPENING MAMMOTH VEIN
2 SHAFT - 37.0 FT.

LEGEND

- DIAMOND DRILL HOLE (UNDER-GROUND)
- 1st. FLOOR LEVEL (UNDER-GROUND)
- 2nd FLOOR LEVEL (UNDER-GROUND)
- STRIKE & DIP
- CONTACTS, DEFINED
- CONTACTS, UNDEFINED.
- OUTCROPS
- SURFACE PITS & TRENCHES
- SWAMP & MARSH.
- WAGON ROADS
- DIAMOND DRILL HOLE
- CREEKS
- SHAFTS.

63.3940

TEDDY BEAR VALLEY MINES LTD.

CLAIM No. 10080 (SEAGERS HILL)

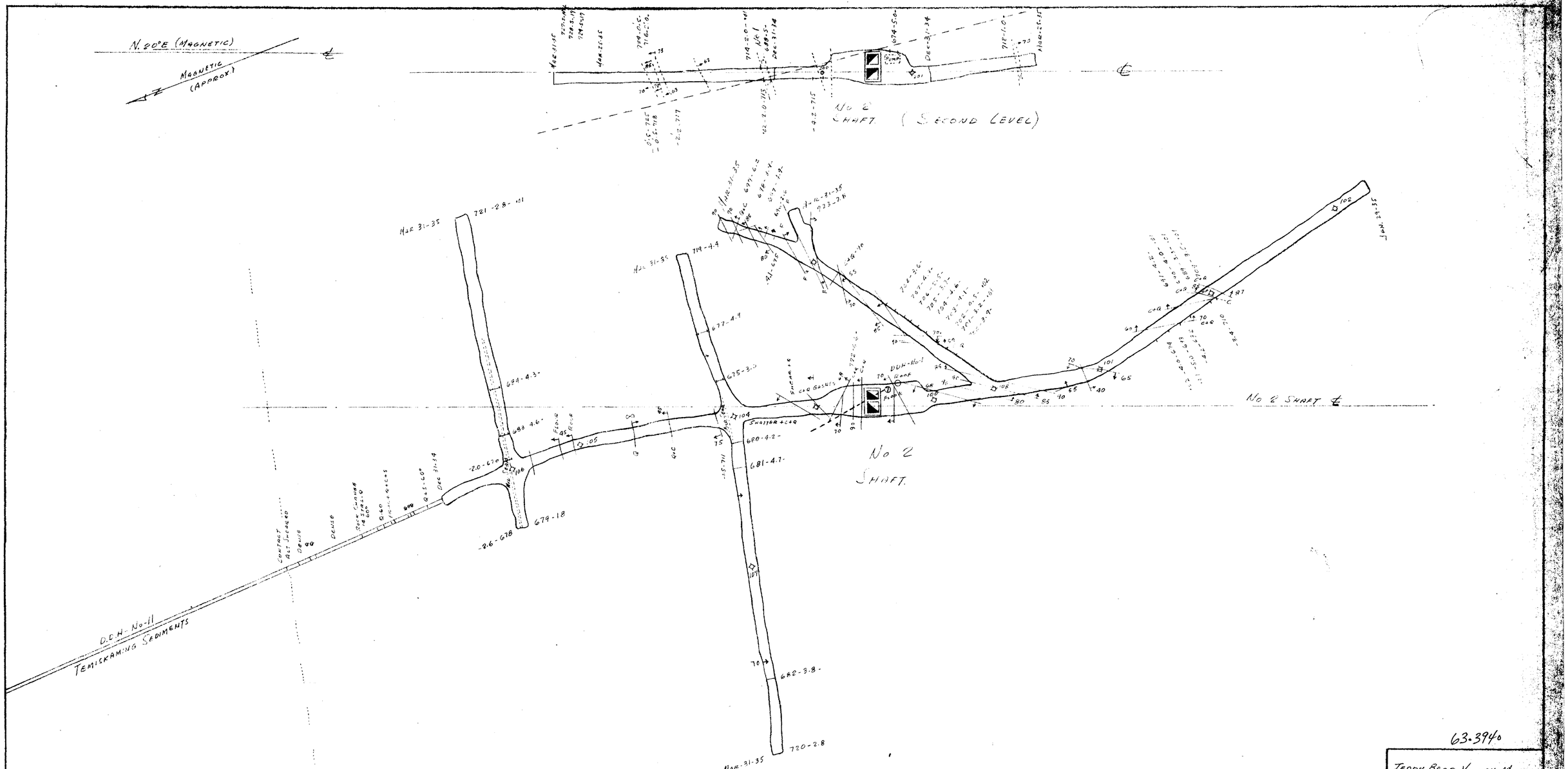
SURFACE MAPPING AND UNDERGROUND WORKINGS WITH DIAMOND DRILL HOLES.

SCALE: 1" = 20 FEET

COMPOSITE OF MAPS AND LOGS 1926 THROUGH 1935.
D.E.C. - MARCH 14, 1980.

32D12SE9334 63.3940 HARKER

250



#1

#2

?

?

?

LEGEND 63-3940

APPROXIMATE LIMIT OF MAGNETIC UNIT

AXIS OF MT. DAGGETT DIKE

MYLONITIC SHEAR OR FAULT FROM GEOLOGY

(?) OUTLINE (APPROX) OF CULTURAL INTERFERENCE

APPX. LOCATION OF RT CORRIDOR AXIS

DEC. 9, 1980 R.L. DAVIDSON

OM80-056

270

10538

10478

10084

10083

10476

10080

10082

10536

10608½

10085

10696

10081

10697

11388

10735

11671

11168

11169

11170

19197

11321

11171

11614

HARKER TWP

HOLLOWAY TWP

TOWNSHIP OF HARKER

TOWNSHIP OF HOLLOWAY

CAMP

STRONLY SHEARED AND CARBONATIZED GREY WACKE SLATE

STRONGLY SHEARED

STRONG SHEAR

FAULT

MINING CORPORATION

TEDDY BEAR

RELATIVELY MASSIVE

CGL

ORE DUMP

1ST LEVEL

DH 11

CONTACT PROJECTED TO SURFACE

1ST LEVEL CUTS

HIGHLY CARBONATIZED

CONTACT PROJECTED TO SURFACE

CARBONATIZED TRENCH

SHAFT

TRENCH

FLOW TOP FACING NORTH

(2ND LEVEL)

DH 14

SHEARED WITH NUMEROUS QTZ-CARB STRINGERS

SHEAR (REPORTED)

20 45 DID NOT GET DOWN TO LEDGE

19 88' OVERBURDEN SAMPLE AT LEDGE OR FROM LOOSE RAN $9.80

18 118' OVERBURDEN 780' DEEP SLUDGE SAMPLE AT 307' 050 OZ. $17.50 647' 1.14 OZ. $39.50 19½ LOST CORE REPORTED (627.5'-647')

17 DID NOT GET DOWN TO LEDGE

HIGHWAY No 101

PORCUPINE DUPARQUET

F

LEGEND

Sy SYENITE

G GABBRO, DIABASE

Cg DOME GROUP (TEMISKAMING) CONGLOMERATE, GREYWACKE AND SLATE

UNCONFORMITY

An MUNRO GROUP (KEEWATIN) ANDESITE, PILLOW LAVA

Gw HOYLE GROUP (KEEWATIN) GREYWACKE AND SLATE

F PORCUPINE DUPARQUET FAULT ZONE LOCATION INDICATED BY MAGNETOMETER SURVEY

63.3940

TEDDY BEAR VALLEY GOLD MINES LTD

HARKER AND HOLLOWAY TWPS

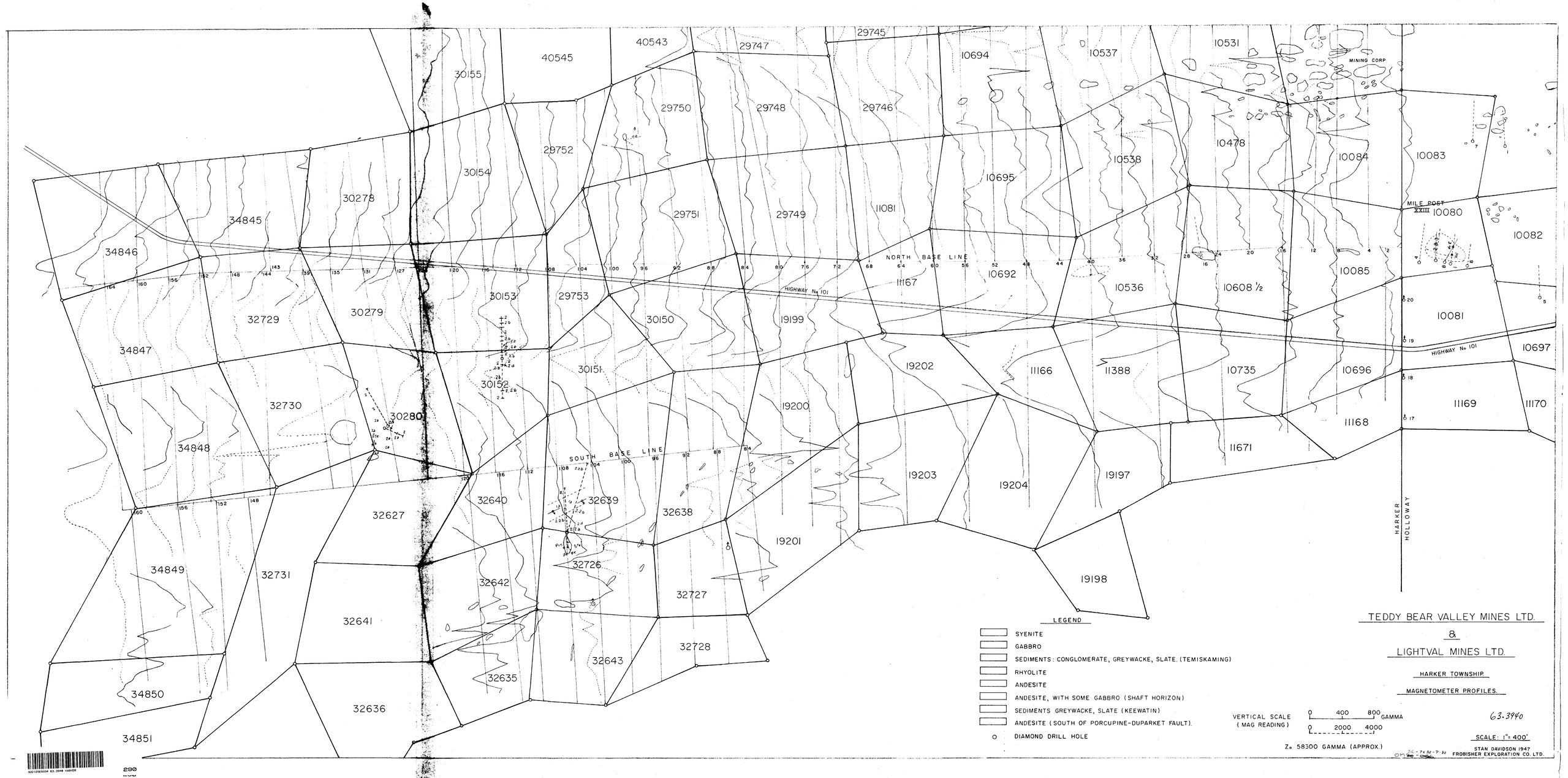
ONTARIO

GEOLOGY OF EAST PART OF PROPERTY

SCALE: 1"= 200'

GEOLOGY BY W.C. MARTIN AUG 1945

OM 36-PE32-P-80



LEGEND

- SYENITE
- GABBRO
- SEDIMENTS: CONGLOMERATE, GREYWACKE, SLATE. (TEMISKAMING)
- RHYOLITE
- ANDESITE
- ANDESITE, WITH SOME GABBRO (SHAFT HORIZON)
- SEDIMENTS GREYWACKE, SLATE (KEEWATIN)
- ANDESITE (SOUTH OF PORCUPINE-DUPARKET FAULT)
- o DIAMOND DRILL HOLE

VERTICAL SCALE (MAG READING) 0 400 800 GAMMA; 0 2000 4000

Z₀ 58300 GAMMA (APPROX.)

TEDDY BEAR VALLEY MINES LTD.
&
LIGHTVAL MINES LTD.

HARKER TOWNSHIP

MAGNETOMETER PROFILES.

63.3940

SCALE: 1"= 400'

STAN DAVIDSON 1947
FROBISHER EXPLORATION CO. LTD.

TEDDY BEAR CAMP

To IMPERIAL RESERVE and HARKER GOLD MINES.

10531 | 9862 | 9863 | 9864

10083

To L. KENDS CAMP.

10477

ABITIBI MINES CAMP

PROJECTED CONTACT

10476

(MINING CORPORATION)

10478

10538

10084

PICKET LINE

10534

10080

10082

SEDIMENTS

10536

SEDIMENTS

10085

10608 ½

(TEDDY BEAR)

HIGHWAY No 101

11388

10696

10735

10081

10697

10696

11417

To McDERMOTT MINES

11169

11170

11671

11168

11321

11171

11614

To HARKER GOLD MINES

TOWNSHIP OF HARKER

TOWNSHIP OF HOLLOWAY

1000 2000 3000 4000 5000 6000

1000 2000 3000 4000

LEGEND

- DIABASE
- FINE SEDIMENTS
- CONGLOMERATE
- AGGLOMERATE
- SCHIST
- RHYOLITE
- QUARTZ-PORPHYRY
- ANDESITE
- BASALT

- STRIKE & DIP
- CONTACTS, DEFINED
- CONTACTS, UNDEFINED
- OUTCROPS
- SURFACE PITS, & TRENCHES
- SWAMP & MORSH
- WAGON ROADS
- DIAMOND DRILL HOLE
- CREEKS
- PROPERTY BOUNDARY
- CLAIM BOUNDARY & POSTS
- BUILDINGS
- SHAFTS.

63.3940

EDWARD H. ORSER.
CONSULTING MINING ENGINEER

SURFACE PLAN OF LIGHNING RIVER GROUP
ABITIBI MINES-LIMITED.

TO ACCOMPANY REPORT - R-18-25

SCALE - 1 INCH = 200 FEET
DRAWN BY - O. AT SWASTIKA OFFICE
DATE - JAN-21-'26.
APPROVED - E.H. ORSER

123

1+50W
0+50W
0+25W
0+00E
0+25E
0+50E
2+00W
1+00W
0+75E
1+00E
1+25E
2+00E
3+00E
2N
1N
BASE LINE 0+00 110°
1S
2S
3S
4S
1+50W
0+50W
0+25W
1+25E
0+75E
0+50E
0+25E

N

READINGS IN GAMMAS
CONTOUR INTERVAL AS DRAFTED

25 gamma contour
50 gamma contour
250 gamma contour
1000 gamma contour
Depression

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LIGHTVAL MINES LIMITED

TEDDY BEAR VALLEY MINES LIMITED OPTION

SEAGERS HILL · HOLLOWAY TWP.
MATHESON AREA, ONTARIO

MAGNETOMETER SURVEY

SCINTREX MF-2 EXTERNAL POWER SUPPLY

FEET
0 20 40 60 80

TROOP EXPLORATION AND DEVELOPMENT LTD.

Oct 27,1980

2+00W 1+50W 1+00W 0+50W 0+25W 0+00E 0+25E 0+50E 0+75E 1+00E 1+25E 2+00E 3+00E

2N

1N

BASE LINE 0+00 110°

1S

2S

3S

4S

I.P. COMPONENT TRACE

I.P. COMPONENT TRACE

GR GR GR GR GR

GRAPHITIC SCHIST
VERY LITTLE SULPHIDES

x——x I.P. IN-PHASE
o- - -o O.P. OUT-OF-PHASE

VERTICAL SCALE 1 INCH = 10%

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LIGHTVAL MINES LIMITED

TEDDY BEAR VALLEY MINES LIMITED OPTION

SEAGERS HILL · HOLLOWAY TWP.
MATHESON AREA, ONTARIO

ELECTROMAGNETIC SURVEY

MAX-MIN II 1,777 Hz. 100m CABLE

FEET 0 20 40 60 80

TROOP EXPLORATION AND DEVELOPMENT LTD.

Oct 27,1980

G12 SE - C36
0436 - PE32 - P-80

END HOLE No. 1

END HOLE No 6 ADD 90' FROM THIS POINT

0+25E 0+50E 0+00E

1+50W 0+50W 0+25W

1+00W

0+75E 1+00E 1+25E 2+00E 3+00E

2N

1N

D.D.H. 22 -60° 2+35 N. of B.L. 0+50E.

HOLE No 6 - 340 HORIZONTAL FEET - DEPTH OF HOLE 459 FEET

MUD SEAM FOLLOW THIS DRIFT

360 FEET - HOLE LENGTH Horizontal - 180 feet. Vertical - 312 feet.

UNDERGROUND WASTE DUMP

HOLE No 1 - 420 HORIZONTAL FEET - DEPTH OF HOLE 670 FEET

ROAD NORTH TO OLD CAMPSITE

1+50 N. of B.L. 1+00 E. D.D.H. 23 -45°

460 FEET - HOLE LENGTH Horizontal - 300 feet. Vertical - 300 feet.

T.B. - WK - 80 - 12

NORMAL FAULT

DOWN UP

QUARTZ - CARBONATE VEIN SWARM

VENEER OF TOURMALINE

DIRECTION OF MOVEMENT

QTZ - CARB VEIN SWARMS

420 FEET - HOLE LENGTH Horizontal - 300 feet. Vertical - 300 feet.

SHAFT

FIRST UNDERGROUND LEVEL - 151' BELOW COLLAR

SECOND UNDERGROUND LEVEL (NOT SHOWN) - 276' BELOW COLLAR

MASS CARB. DAC. DOLOMITIC TEXTURE

TRENCH

0+60 N. of B.L. 1+75 W. D.D.H. 25 -45°

CARBONATIZED, SPECKLED, BLEACHED, DACITE SCATTERED Py CUBES

FRACTURES

No. 2 SHAFT

MASS CARB. DAC. SCATTERED Py CUBES

FRACTURES

BANDING

C. MASS DAC.

OLD TRENCH

CLEARING

C.DAC.

C.F.B.

C.R.D.

FILLED

S.P.C. DAC.

S.P.C.R. DAC.

No. 1 SHAFT

T.B. WK - 80 - 6

T.B. WK - 80 - 5

T.B. WK - 80 - 3

T.B. WK - 80 - 4

TOP OF RAMP

JUNCTION

CLAY AND SAND

CARBONATIZED RHYO - DAC. SCATTERED Py CUBES

WATER

DDH 4 -45°

DDH 5 -55°

CARBONATIZED FLOW BRECCIA - SCAT. Py CUBES

CARBONATIZED RHYO - DACITE SCATTERED Py CUBES

4.0' QV BRECCIATED AND BRAIDED SAME ATTITUDE AS MAMMOTH VEIN

VERTICAL SHEARING

DDH 2 -35° DDH 3 -55°

0+50W 0+25W

PATENTED CLAIM 10080

1+50W

0+50 S. of B.L. 1+25 E. DDH. 24 -50°

460 FEET - HOLE LENGTH Horizontal - 390 feet. Vertical - 355 feet.

1+25E ROAD TO HWY 101 - 1000'

Camp

0+75E

0+50E

0+25E

DDH. 6 -44°

BASE LINE 0+00 110°

1S

2S

3S

4S

Legend

	C.R.D.	CARBONATIZED RHYO-DACITE
	C.F.B.	CARBONATIZED FLOW BRECCIA-DACITE
	S.P.C.D.	SPECKLED CARBONATIZED-DACITE
75°	Q.V.	QUARTZ VEIN
45°	Q.C.V.	QUARTZ-CARBONATE VEIN
		OLD DIAMOND DRILL HOLE
		FIRST UNDERGROUND LEVEL
		GEOLOGICAL CONTACT
		DIRECTION & ATTITUDE - SHEARING
		GLACIAL STRIAE
		ASSUMED FAULT ZONE
		CLEARING LIMIT
		WASTE DUMP LIMITS

REV. A. NOV. 28, '80. Diamond Drill Holes 20 - 25.

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MATHESON AREA, ONTARIO

GEOLOGY AND TERRAIN FEATURES

FEET 0 20 40 60 80

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NOV. 4, 1980

01136 - TE32 - P - 80
01180-036