

OMIP 89-10

REPORT ON THE

HAWKINS PROPERTY

HAWKINS TOWNSHIP, ONTARIO

FOR

AURLOT EXPLORATION LTD.

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1. SUMMARY

Aurlot Exploration Ltd. initiated an exploration program in May on their 261 claim group located in Hawkins Township about 10 km south of Oba, Ontario. The ground previously was explored by Goldfields who had discovered high grade (0.41 opt) gold in an outcrop on the western part of the property. The discovery outcrop (Main Showing) and surrounding area was stripped and over 50 channel samples taken from a sericite rich felsic tuff and intrusive equivalent and what was described as a metamorphosed cherty unit. A narrow siliceous zone (approximately 1.5m wide and 20 m long) was found to contain erratic but high grade gold. Assays as high as 1.5 oz. Au/ton were obtained over one metre widths. This mineralization was not tested by diamond drilling and the possible western and eastern extensions were not adequately explored. The new discovery was located almost on strike with the northern contact between the granodiorite intrusive and mafic volcanics which occur on the eastern part of the property. Shenango Gold Prospect, located on Falconbridge's property immediately to the east of the Hawkins Property, occurs in a sericitic felsic unit at the contact with the granodiorite intrusive. Therefore, a prime exploration target is a 7 kilometre long zone on the Hawkins property extending along the contact zone and west through the Goldfields gold zone to the western property boundary.

Aurlot Exploration Ltd. organized a comprehensive exploration program consisting of line-cutting, geophysical surveys, geological mapping, soil geochemistry survey, trenching, sampling over the most prospective part of the property, limited diamond drilling, program was conducted at the Main Showing.

Howard R. Lahti, the field manager was responsible for coordinating the work and the geological mapping, logging core etc. One field technician, Mike Jones was provided by Durham Geological Services to collect soil samples and split core.

The geological mapping confirmed the known geological setting of the Archean rocks of the area. The eastern part of the property is cored by a granodiorite intrusive. The granodiorite is elongated ENE parallel to the regional trend and intrudes a generally strongly folded amphibolitic mafic volcanic sequence comprising predominantly massive flows, tuffs and pillow lavas. The mafic volcanics are wrapped around the granodiorite and describes an antiform whose axis trends ENE and which is indicated to plunge steeply west. The mafic volcanic sequence is cut by ubiquitous felsite bodies.

Late diabase dykes have been identified trending northeast, northwest and east-northeast.

A mineralized northwest trending structural (fault zone?) has

been identified on the western part of the grid.

An induced polarization survey was completed over the grid and outlined nine target areas. The strongest chargeability anomaly trends northwest and is located in the west end of the grid from L17W/400s (open to the SE) to L20W/BL 0+00. The anomaly is coincident with a good VLF electromagnetic conductor and occurs in an area with low level gold concentrations in soils and rocks. A second chargeability anomaly also forms a discontinuous northwest trend extending from L13W-L14W near the tie line 400S through the base line between L16W and L17W and L19W to L20W at 400N.

Other chargeability anomalies are generally smaller and more discrete. These anomalies are located at: L16W/225N to 300N; Main Showing Area between L50E and L100W near the Base Line; L7E to L9E from 1200 S to 1500 S; L23E to L25E, at 0+50S; L27E to L30E at 0+50N; L35E to L36E along the Base Line; and L40E to L42E at 0+50N. The anomalies located between L23E and 42E are correlatable with a Sericite Schist Unit inferred to be the extension of the unit hosting Falconbridge's Shenango Gold Prospect. These anomalies are part of a quasi-continuous anomaly trend extending four kilometres from line 6E to 48E.

A magnetic survey was conducted over the grid and aided interpretation. Diabase dykes were traced across the grid. The contact between the Mafic Volcanics and Granodiorite Intrusive gave

a characteristic magnetic signature that identified the contact of the intrusive. The survey also defined a different magnetic signature between the northern mafic volcanics and the southern mafic volcanics on the western part of the grid.

A VLF survey identified numerous anomalies parallel to the regional trend and several north and northwest trending anomalies suggestive of cross-cutting structures.

To assist in screening chargeability anomalies and identify gold bearing sulphide zones a "site specific" systematic "B" horizon geochemical soil survey was conducted over the anomaly zones. The sample results indicate several areas with low level anomalous gold. On the western part of the property, gold in the range of 3-9 ppb is noted along the two northwest trending IP anomalies. An old exploration pit, just to the northeast of the easternmost IP anomaly (L16W/3+12N), two soil samples gave concentrations of 8 and 9 ppb Au. The gold in the bedrock at this site varied from 17-42 ppb. The mineralized quartz sericite schist zone is of very limited extent. Other gold anomalies are located on L8W/50-100N (weak IP); L3E 250-350S (weak IP); L3E/1350S +1500S (weak IP); and 4E/7+75S to 9+50S. Anomalies on L3E are the strongest obtained in the survey with values of up to 35 ppb. addition, low concentrations of gold were noted on the eastern part of the grid along the northern margin of the granodiorite intrusive near a sericite schist unit.

Copper is the only other element that appears to correlate with gold. This is also indicated in rocks where several samples with low level gold also have anomalous copper results.

Geochemical rock chip sampling was conducted during the geological mapping. This sampling identified target areas requiring further work. The target areas identified are: the chargeability anomaly south and east of L17W/400S where three samples returned assay values of 15-31 ppb Au, 400-3100 ppm Cu and 190-800 ppm Zn. A rock sample taken at L19W/350N had a gold concentration of 48 ppb. This sample was taken from the northern edge of a northwest trending series of chargeability and magnetic anomalies.

Bulldozer trenching was conducted at thirteen locations to check on strong chargeability and/or geochemical soil gold anomalies. Almost all chargeability anomalies could be explained by the sulphide content observed in bedrock. In some instances trenching could not be completed because of swampy ground or because of deep and wet overburden. Channel sampling, with a rock saw, was completed on mineralized intervals identified in the trenches. Low level anomalous gold and copper in narrow sulphide zones with up to 15-20% sulphides were obtained on line 17W in the area of 350 to 450 S.

Five drill holes totalling 1780 feet of drilling were

completed in the area of the "Main Showing". Four angle holes were drilled through the gold bearing sericite-quartz felsic unit to check on the grade and continuity of the mineralization. The first hole was drilled at 160 degrees and intersected 1.7 metres of 0.155 oz. Au/ton under the main showing. The section also contained 2.2 to 4.6 ppm Ag. A second hole was drilled from the same set-up at 125 degrees and intersected the same gold bearing unit. The best assay was 556 ppb over 0.95 metres. The intersection was slightly anomalous in Ag and Cu. A third hole was drilled at 160 degrees, 15 metres west of hole 1, and intersected the mineralized zone over The best assay was 630 ppb Au. A fourth hole was 2.45 metres. drilled at 160 degrees 25m west and 60m north of hole 3. Geochemically anomalous Au was found to be erratically distributed between 27.85m to 74.65m with values ranging from 3 ppb to 96 ppb. Drilling of the "Main Showing" suggests the higher grade gold mineralization is of limited lateral extent and occurs in a pipelike body plunging steeply west.

A fifth hole was drilled, on a strong chargeability anomaly, coincident with a Au-Cu soil anomaly, located south of the Main Showing. Trenching on the surface showed sulphide rich shear zones in mafic volcanics, some of which are epidotized and contain chalcopyrite. The hole collared in sulphide mineralization which extends intermittently to 29 metres where the hole intersects a diabase dyke. No diabase was seen in the trench over the chargeability anomaly. The diabase in the drill hole can only be

explained if the diabase dyke dips shallowly to the south. Assay results gave 47 to 1250 ppm copper but only very low gold values.

The geophysical and geochemical surveys, geological mapping, trenching and sampling have identified several zones prospective for gold in mafic volcanics and in the sericite schists on strike extension with the Shenango gold area located to the east of the property. Several selected geophysical-geological targets are recommended for diamond drilling and are as follows:

LINE	<u>STATION</u>	<u>AZIMUTH</u>	DIP	DEPTH (M)
19+50W 16+60W 16+00W 13+00W 8+70E 29+00E 36+00E	0+00 0+50N 4+00S 3+00S 12+75S 1+00N 0+50N	200 200 200 200 210 165 165	-45 -45 -45 -45 -45 -45	125 150 150 150 150 100 200
				1025

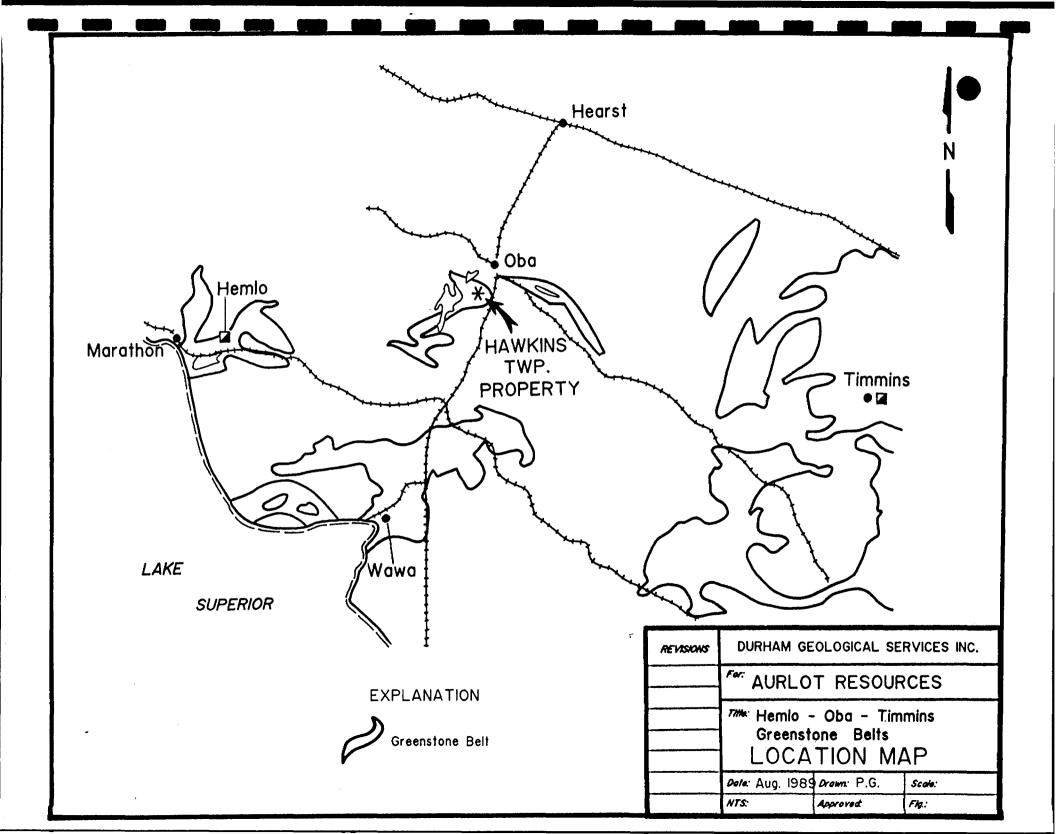
2. <u>INTRODUCTION</u>

Under an agreement with Goldfields, Aurlot Explorations Ltd. undertook exploration work on the Hawkins Property located in Hawkins Township in Ontario. Work began in May 1989 and the first phase was completed in July 1989. The work consisted of cutting 115 kilometres of picket lines and conducting an integrated exploration program utilizing ground geophysical geochemical soil sampling, geological mapping and trenching, to prioritize target areas for diamond drilling. Some drilling was preliminary investigation of the gold the mineralization at the "Main Showing" discovered by Goldfields. The objective of the exploration work was to identify targets on or near the "Main Showing", evaluate the northern contact between the Mafic Volcanics and the Granodiorite intrusive and explore the ground to the west of the main showing.

3. LOCATION, ACCESS AND PHYSIOGRAPHY

The Hawkins Property is located in Hawkins Township 10km SSW of Oba, (30km by forestry roads) and 120 km SSW of Hearst, Ontario Access to the property is via paved Highway 533 for (Fig. 1). about 10 km and then 110 km by good gravel forestry haulage roads. Other access to Oba is by CN and the Algoma Central Railways. area covered by the survey grid is primarily over high ground, generally with outcrops and thin overburden. There is only one extensive swampy area that is located in the south-eastern portion of the grid. The area underlain by the granodiorite intrusive is rarely exposed and constitutes the majority of the low ground on the south-eastern part of the grid. There are few small streams on the property and only one small pond. The western part of the grid has been cut over and is now a forestry plantation area. area along the base-line has good stands of mature poplar and locally pine and spruce.

The soils are well developed in areas with good drainage. In the swampy areas there is a variable thickness of black organic matter over glacial till. The majority of the area is covered by glacial till and locally, especially along the Oba River, there are deposits of sand and gravel.

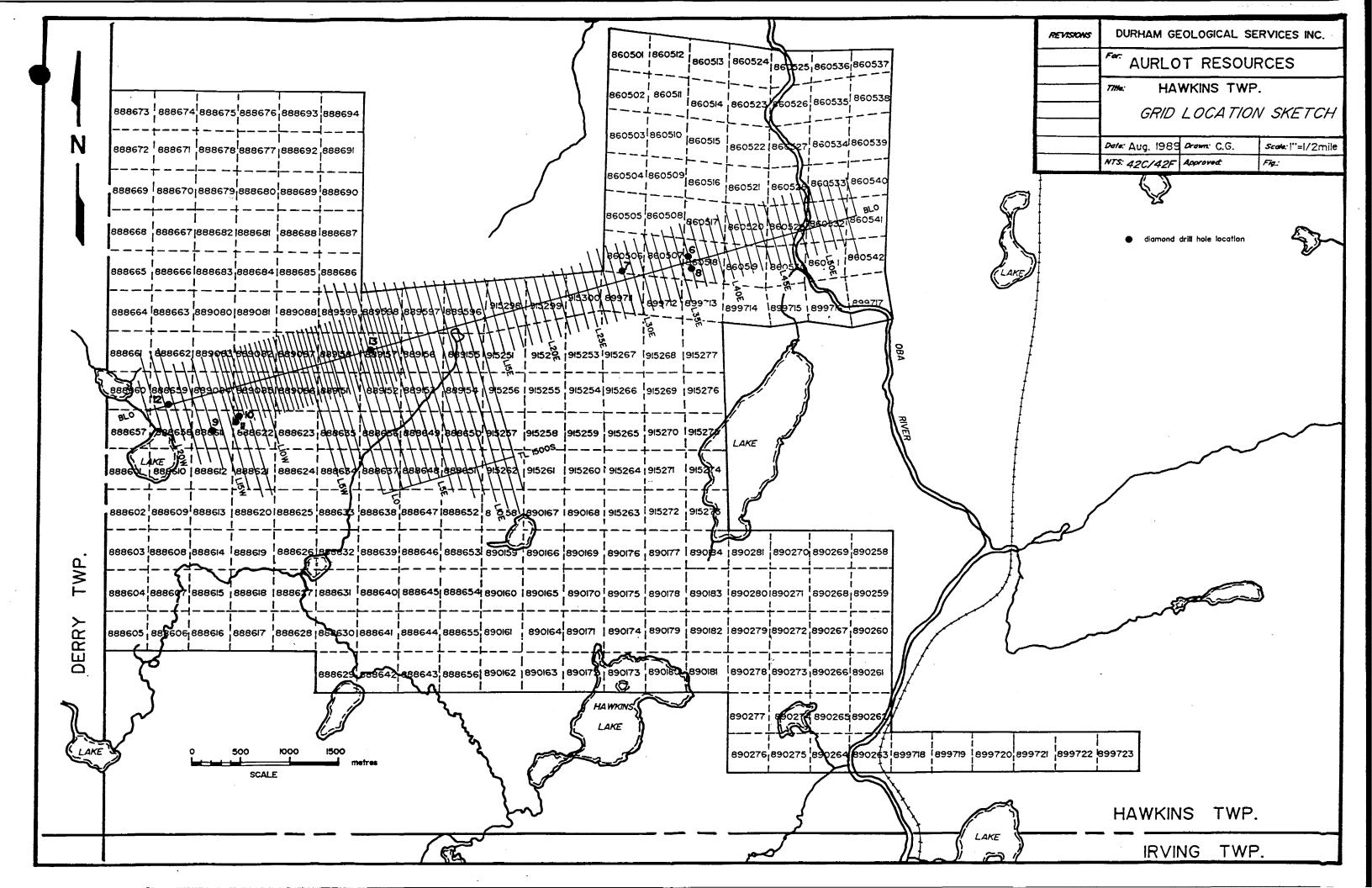


4. PROPERTY DESCRIPTION

The Hawkins Property consists of 251 unpatented mining claims comprising 10,040 acres in Hawkins Township (Figure 2). The claims are registered with the Ontario Ministry of Northern Development and Mines under the following claim numbers:

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P 860501 - P 860542 inclusive
P 888601 - P 888694 inclusive
P 889080 - P 889088 inclusive
P 889151 - P 889158 inclusive
P 889596 - P 889599 inclusive
P 890158 - P 890184 inclusive
P 890258 - P 890281 inclusive
P 899711 - P 899723 inclusive
P 915251 - P 915277 inclusive
P 915298 - P 915300 inclusive
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Hawkins Township is part of the Sault Ste. Marie Mining Division of Algoma. The prefix "P" indicates that the claim was formerly registered in the Porcupine Mining Division.



5. PREVIOUS WORK

Early gold discoveries in the area were found to be spatially related to a felsic unit found along the margin of a granodiorite intrusive (trondjhemitic) within mafic volcanic rocks. The auriferous-felsic horizon is locally sericitized with concentrations of sulphides, primarily pyrrhotite but also with minor concentrations of pyrite and chalcopyrite. Also within the felsic horizons are found subvolcanic porphyries and aplitic intrusives.

The first reported gold discovery was by G. Taylor in 1923. Other parties who explored and developed gold discoveries were: Hollinger Gold Mines Ltd., 1935; Shenango Mines Ltd., 1935-39; the Johnson-Barnes Syndicate, 1946; Magi Gold Mines Ltd., 1972-74; St. Joseph Explorations (then Sul-petro), 1979-81; Cleyo Resources Inc.; Hawk Resources Inc; Golden Range Resources., 1984-present; Falconbridge Ltd., 1983-present; Goldfields 1986-1987.

Major prospects and the better results of rock samples and drill core in the area in oz/ton:

Taylor Prospect -0.66/20' Surface, G. Taylor

-0.67/20" D.D.H., Hollinger Gold Mines Ltd.

Shenango Mine -0.34/8' Surface

Shenango Gold -0.17/8', 0.22/15', 0.18/20', 0.14/30' Mines

Ltd. D.D.H

-46,000 tons at 0.14/ton outlined.

Falconbridge Ltd.

-1984: drilled 3500' in 5 D.D.H. -1985: D.D.H. 60-33: 0.22 opt Au over 23.3' (with interval sections of 0.237 opt/10.2' and 0.398 opt/6.6'); D.D.H. 60-41:

0.288 opt Au over 6.6'; and D.D.H. 60-42: 0.187 opt Au over 13.1'.

1986: the results have not been released

These D.D.H. intersections are reported from an auriferous felsic horizon in an area that includes the former Shenango Mines Property.

Johnson-Barnes Showing

-0.24/35' Surface; value reported from an area now covered by CFCM claims.

Goldfield

-1986-87: Initial discovery outcrop grab sample 0.48 opt, Channel sampling with these selected assays: 1.31 opt/3', 0.74 opt/5', 0.42 opt/2'; 0.40 opt/2'; 0.21 opt/6' and 0.11 opt/2'

The Hawkins Property was explored by Aurlot Explorations Ltd. on the basis of the possible westward extension of the auriferous horizon on to the Hawkins Property, and the know spatial relationship between Au mineralization with the contact between the granodiorite and mafic volcanics.

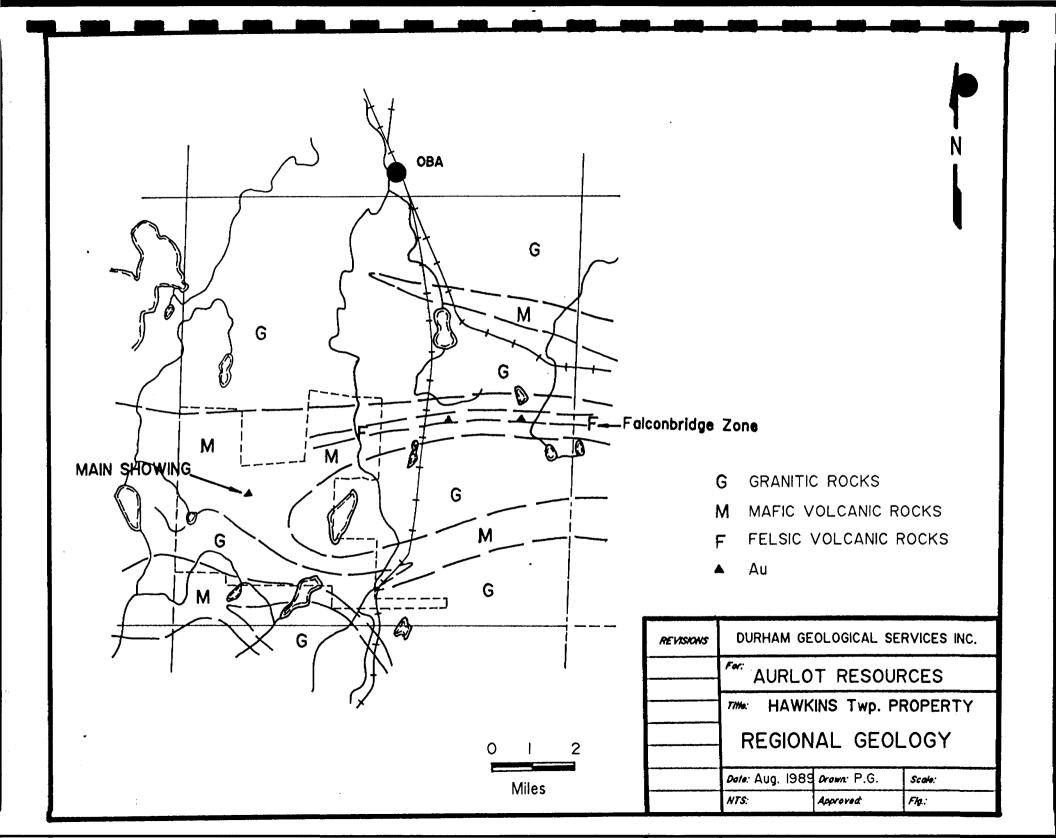
6. **GEOLOGY**

6.1 <u>General</u>

The area is underlain by rocks of the Wawa Subprovince in the Superior Province of the Canadian Shield. The rocks within the Hawkins Property are primarily mafic meta-volcanics belonging to the Kabinakagami Lake Greenstone Belt (Fig. 3). The flanking belt to the north and south are granite and granite gneiss complexes (Goldfield Report 1987). Within the mafic volcanics are lens of sericite schist, felsic tuffs and epiclastic sediments. All rocks are cut by felsic to aplitic and large diabase dykes.

A large granodiorite (trondhjemitic) intrusive is located in the south central to east part of the Hawkins Property.

The area is regionally metamorphosed to the upper amphibolite greenschist facies with hornblende the primary metamorphic mineral. Locally, rocks metamorphosed to lower greenschist facies have survived but overall constitute a small percentage of the volcanic rocks. Structurally, the whole metavolcanic belt is complex with drag folds, kink folds and boudinaged units. A very strong regional foliation of about 075 degrees has developed that locally is disrupted by the granodiorite intrusive, diabase dykes and faulting.



6.2 <u>Hawkins Property</u>

6.2:1 Geology

A grid with a base line of 7.6 km long with an azimuth of 075° was cut. Lines were cut every 100 metres except between L 14W and 5E where lines were cut at 50m intervals. All lines were chained and pickets placed every 25 metres. A total of 115 km of lines were cut and chained to facilitate the geological mapping. The primary geology units identified by detailed mapping are as follows: mafic volcanics, pillowed, tuffs, fine grained flows, amygdaloidal units, massive coarse grained amphibolite units, and the large granodiorite (trondhjemitic) unit located in the centralsouth to east portion of the property (Geology Map 2). important rock units are the sericite schist lens in the central east part of the grid and the felsic aplite extrusives following the same trend. Northeast and northwest trending diabase dykes cut across the property. Within the amphibolite facies mafic volcanic rocks is a small area of andesite (north-east part of grid) that has primarily remained at the greenschist facies of metamorphism.

DESCRIPTION OF LITHOLOGIES

MAFIC TO INTERMEDIATE VOLCANICS (Amphibolitized Equivalents)

Massive Flows

They are typically dark green to black, fine grained and weathered grey to green black. The flows are well foliated but locally can be medium to coarse grained. The predominate minerals are hornblende and feldspar. Minor quartz veining and minor epidotization is also found in this unit.

Pillowed Flows

Good pillow structures are preserved throughout the claim block, but all show some deformation making top determination more difficult. The younging direction was determined to be to the north. The pillow selvages are usually conspicuous because of the contrast in colour (black to rusty red and/or brown biotite with the core). Both across strike and along the strike in areas of more intense deformation the pillows are stretched up to one metre or more. With more intense deformation the rock takes on a banded appearance with the stretched pillow becoming fragmented or boudinaged.

Tuffs

These rocks are interbedded with the above units. Good texture was observed in the southern part of the claim block where they can form the predominant rock type. Graded bedding and tuffs with large fragments were observed. Elsewhere tuffs appear as a finely laminated (black and white) rock.

FELSIC PYROCLASTICS AND INTRUSIVE EQUIVALENTS

Quartz Sericite Schist

This band of rock is mapped as sericite schist or felsic rocks (undifferentiated). These rocks are well exposed in the Main Showing area and vary from banded tuffs to quartz feldspar porphyries to siliceous aphanitic rocks. Pyrite and pyrrhotite are commonly associated with these rocks. The unit is usually narrow discontinuous highly deformed and altered. Thin cherty bands are found in the Main Showing area within the felsic rocks.

GRANODIORITE INTRUSIVE

A large granodiorite body is found in the east-central part of the claim block. It is metamorphosed and has developed a strong foliation (regional). Except in the western edge of the intrusive outcrops are rare. The outer margin has picked up fragments of the volcanics giving the intrusives a more mafic composition. The few outcrops seen away from the altered margin vary from granodiorite to granite. The contact zone with the mafic rocks is highly sheared with minor quartz veining. The granodiorite body has formed a anticlinal structure with the axis moving out from the western nose of the intrusive.

MAFIC INTRUSIVES

<u>Diabase Dykes</u>

1 to 30m thick, fine grained at contacts, core medium to coarse

grained, shows good texture, variable amounts of pyrrhotite making the rock magnetic.

6.2:2 <u>Alteration</u>

Within the amphibolite facies mafic volcanics and felsic tuffs are zones of silicification accompanied by sulphide enrichment and less frequently epidotization and sulphide enrichment. The felsic lens have been sericitized and occasionally contain sulphides. The main rock units to be silicified are the highly sheared pillowed mafic volcanics, tuffs, felsic tuffs and cherts. Along with the silicification is а less intense and more localized mica alteration. The mica found near the gold mineralization is brown to pinkish-brown and is a variety of biotite or phlogopite. Pervasive carbonatization does not occur but there is some banded carbonate enrichment in zones of silicification.

The felsic extrusive, intrusive equivalents and quartz feldspar porphyries have varying degrees of sericitization depending on the degree of deformation and shearing. Rarely, pink garnets are found in tuffs of tuffaceous sediments on the Hawkins Property. Epidotization with silicification occurs commonly near the contact of the diabase dykes. Chalcopyrite, pyrite and some pyrrhotite are found in the alteration zone.

6.2:3 Faulting and Shearing

All rocks excepting the diabase dykes and infrequent intermediate to felsic dykes are sheared. The less competent rocks are those most likely to be sheared and folded. The intense deformation can be seen in most trenches where the above rocks are There are also later faults which are sand and clay exposed. filled (D.D.H. HK-89-1). The predominant directions of faulting is NE-SW and NW-SE. Jointing in the diabase dykes have preferred Some tension gashes are seen in the more direction of NNW-SSE. competent rocks. The diabase dykes generally follow the major faulting direction.

6.2:4 Folding

There is a large anticline with the fold axis centred at the nose of the granodiorite intrusive. This anticline is related to doming effect of the intrusive forcing the mafic volcanics upward and wrapping the rocks along the margin of the intrusive. Large megafolds were not seen on the property.

The majority of folds occur over 10's of metres but extend down to kink folds that can be seen under a hand lens. There are drag folds especially in the tuffs but folds due to differential shearing also occur. Deformation is very severe locally causing fragments of mafic volcanics to be broken off and incorporated into the felsic units. More competent units and even quartz veins when folded, are boudinaged.

Areas of severe deformation with numerous recumbent folds are economically important for concentrating gold and sulphide mineralization. The folds axis trends about ENE-WSW and plunge to the west steeply at (65-85 degrees). There can be a large variation in the plunge due to folding in the third dimension.

6.3 <u>Mineralization</u>

6.3:1 Main Showing

In 1986 Goldfield undertook an exploration program that led to the discovery of the "Main Showing". The original sample grading 0.42 opt came from a silicified-sericitized outcrop of felsic tuff or intrusive equivalent with 10-15% pyrrhotite. Subsequent to this discovery Goldfield stripped 210,000 sq. feet over and adjacent to the discovery site. Over 50 channel samples were taken by using a diamond saw. The channel samples with the best grades are shown on Map 3, the Geology of the Main Showing.

The gold, pyrrhotite and minor chalcopyrite are concentrated along the sericitized felsic tuff-schist and/or felsic intrusive. The horizon is silicified and the mineralized band occurs within a broad silicified zone with bands of brown-pink micaceous mineral. The best mineralization was found in the nose of fold just to the west of L50W/0+15 S. The intensive channel sampling program showed the gold to be erratically distributed along the "felsic-tuff-chert" horizon.

There are other felsic rocks with pyrrhotite on strike and along the flanks of the "main zone". No ore grade mineralization was discovered. Similarly, mafic volcanics with silicification and 1-15% sulphides occur in the vicinity of the "Main Showing" but only low levels of gold were found.

In June 1989 Aurlot Exploration drilled four diamond drill holes to do a preliminary evaluation of the "Main Showing". One hole went under the area with the best gold mineralization, (0.155 opt/1.7 metres) and intersected an approximately 4 metre silicified zone with up to 15-20% pyrrhotite and trace chalcopyrite. Other drill holes to the east and west intersect the same or a similar silicified sulphide rich zone but the highest assays were less than 650 ppb.

The drilling was guided from IP results over the "Main Showing" area so the areas with the highest sulphide concentration and high could be tested. This was done because the IP survey showed a positive correlation between high chargeability, resistivity and the ore grade gold mineralization found at the surface. These preliminary drilling results indicate the gold mineralization to plunge steeply to the west with a restricted strike length.

6.3:2 Quartz Sericite Schist

Geological mapping indicates that this unit is on strike with similar rocks along the northern margin of the granodiorite intrusive found on the Falconbridge Property at Shenango just to the east of the Hawkins Property. High grade gold was found in silicified felsic rock with quartz veins and erratic sulphides. The proximity of the Shenango Gold Prospect in felsic rocks, to the granodiorite suggested a long strike length on the northern margin of the granodiorite intrusive that is highly prospective. About 4.5 km of strike length is on the Hawkins Property.

The combination of I.P., geological mapping, soil and rock sampling identified a Sericite Schist Unit along the northern contact area with the granodiorite intrusive. Along this belt areas of strong I.P. chargeability and resistivity were identified. Soil sampling and limited rock chip samples show sulphide rich sericite schist to have slightly anomalous gold and copper. Geological mapping has identified this Sericite-Schist Zone to have been extensively, if superficially, explored since the 1920's. With the limited amount of work done it is not possible to estimate the economic potential for gold mineralization. The quality of the geophysical anomalies and soil geochemistry results indicate the best targets should be tested by trenching and drilling. The best targets are listed below:

TABLE 1

DRILL TARGETS IN SERICITE SCHIST UNIT

- 1- I.P. target between L40E to L42E just above the base line
- 2- I.P. target between L35E to L37E along the base line
- 3- I.P. target between L27E to L30E along and just above the base line
- 4- I.P. target between L24E and L25E just north of the base line

An old pit located during geological mapping at L16W/3+12N was tested by five channel samples. The results gave values between 15-49 ppb, geochemically anomalous but far from the concentration level required to be economical. Part of an I.P. anomaly coincident with the old pit excavated in sericite schist was evaluated by trenching. The gold mineralized zone proved to be located in the nose of a fold and of very limited extent. Accompanying the gold mineralization is anomalous concentrations of Cu (55-490ppm) and Zn (170-1100ppm).

6.3:3 <u>Chalcopyrite-Pyrite Mineralized Shear Zones</u>

There are several areas with Au-Cu-Py mineralization found in the mafic volcanic rocks. The principle target areas are listed below.

TABLE 2

DRILL TARGETS IN MAFIC VOLCANICS

- 1- An 800m long zone extending from L21W/0+75N to L17W/400S and open to the SE.
- 2- A NW-SE trending anomaly at L19W to L20W and open to the NW.
- 3- A good IP anomaly extending from L14W to L17W along and above the baseline.
- 4- A less intense anomaly on L13W at L14W and open to the SW.
- 5- A strong IP anomaly on L7E to 9E, 1200S to 1500S and open to the S.

This type of mineralization occurs in intense shear zones with silicification and can have extensive epidotization. The predominant mineralized is pyrite but locally chalcopyrite can be

observed. Channel sampling and grab samples taken from the trenches show numerous geochemically gold anomalies. These areas give good I.P. chargeability anomalies.

The area with the greatest economic potential is centred between L16W to L18W with the focus at L17W, 400-450m south of the baseline. The prospective ground is open to the south and extends NW to L22W and then off the grid. An irregular parallel zone to the east has the best target area located just north of the Base Line on L17W (see Geophysical Compilation Map). The latter zone was trenched but it is thought the best sulphide mineralization is just to the west under thick clay and therefore could not be

sampled.

The I.P. anomaly extending from south of L16W 500 S (off the grid) to L22W in the NW corner of the grid has been exposed by trenching at three locations: L17W - L16W 400S to 4+50S, L17W L0+00 to 30N and L19W, 235N to 300N. The best gold and base metal mineralization is tabulated below:

TABLE 3
BEST RESULTS FROM TRENCH 2

Assay No.	<u> Au</u>	<u>Cu</u>	<u>Zn</u>
19445	27	670	
19447	4	420	220
19470	<3	140	450
19471	4	140	450
19472	4	70	490
19473	<3	78	380
19474	<3	68	300

Note; Au in ppb and Cu and Zn in ppm

Another example of this type of mineralization is located at L10+15E/1500S where a grab sample with visible chalcopyrite assayed 45 ppb Au and 320 ppm Cu. This is near a good I.P. anomaly on L8E, 1400-1500 S and is to be further evaluated. The mineralization is in a massive fine grained amphibolite (Mafic Volcanic) and is very close to the southern contact of the granodiorite intrusive. Goldfield has explored the ground further to the north and east and

missed the areas with the I.P. chargeability anomaly.

6.3:4 Gold-Copper-Zinc Mineralization

This type of mineralization is located south of the 400S Tie Line between L13W and L14W. It is similar to the type of mineralization found at the "Main Showing" and in the sericite schist found at L16W/312N but the copper-zinc concentrations are much higher. For example grab sample 19458 gave assay results of 15 ppb Au, 3100ppm Cu and 800ppm Zn and grab sample 19481 gave results of 1450ppm Cu and 1710ppm Zn and 1ppb Au. Sample 19459 has a Au concentration of 20 ppb with 400ppm Cu and 150ppm Zn. The high Cu-Zn mineralization in silicified and sheared mafic tuffs and felsic rocks suggesting there is a potential for a base metal mineralization with significant gold values.

6.3:5 Quartz Veins

Numerous quartz veins of different ages were observed during mapping of the grid area. Several white quartz veins were sampled but the level of gold concentration was less than 3 ppb. The widest vein mapped was about 20cm and only a few metres long. The quartz veins do not appear to have any potential for gold mineralization on the Hawkins Property.

7. **GEOPHYSICS**

7.1 <u>Magnetics</u>

The whole grid was surveyed by MPH Consultants from Toronto in June 1989. The survey was done with readings taken every 12.5 Significant anomalies were plotted on a geophysical metres. interpretation map (Map 3, scale 1:5000). The salient features identified were a system of diabase dykes, the outer fringe of the granodiorite intrusive and the contrasting magnetic signatures of the northern mafic volcanics from those south of the 400S Tie Line. The magnetic anomalies of economic interest are those associated with I.P. chargeability anomalies. The magnetic signatures of some I.P. anomalies indicate most of the sulphide is pyrrhotite known to carry economic concentrations of gold (e.g. Main Showing). Magnetic I.P. chargeability anomalies with high resistivity are considered better targets as silicification can cause the increase in resistivity and the Main Showing has high silica content where the best gold mineralization occurs. The important magnetic I.P. anomalies are listed below. (For location refer to Geophysical Compilation Map)

TABLE 4

IMPORTANT MAGNETIC, I.P. ANOMALIES

(from MPH Report July, 1989)

- Anomaly A Delineates sulphide mineralization in a Northwest trending shear zone, containing anomalous Au and Copper.
- Anomaly B Composed of features B1 and B2, delineating a NW trending horizon of weakly to strongly disseminated mineralization coincident with anomalous copper and Au mineralization in trenches along strike.
- Anomaly E Coincident with the Main Showing and appears to delineate the associated disseminated sulphide mineralization. The IP/resistivity data indicates the mineralization continuous east of an NE trending diabase dyke that cuts of the eastern extent of the known showing.
- Anomaly F Defines a relatively continuous horizon of elevated chargeabilities in interbedded mafic and felsic rocks which surrounds the trondhjemitic granodiorite intrusion. Along the horizon are several portions which are strongly anomalous indicating sulphide concentrations. The strongest are between L27+00E to L30+00E.

7.2 <u>VLF-Electromagnetic Survey</u>

A VLF survey was completed over the complete grid in June 1989. The Seattle and Annapolis transmitting stations were used so measurements could be taken to identify conductors with any orientation. Few conductors were attributed to sulphides but the good I.P. chargeability zone furthest to the west was found to be a good conductor. This is a prime exploration target as rock chip

sampling and geochemical soil sampling has indicated widespread, if low-level, gold mineralization in the western part of the grid.

Another significant feature identified by the VLF technique is a large low-level conductor trending about N-S just east of the "Main Showing" area. It is interpretated as representing a large fault with little lateral displacement. The exact nature of the conductor could not be checked on the ground as the conductor lies under swampy ground devoid of outcrop.

7.3 <u>Induced Polarization</u>

During May and June an Exsics Exploration Geophysics crew conducted a dipole-dipole IP survey over the Hawkins Grid. The equipment used was : Transmitter-Scintrex IPC-9; Receiver-EDA IP-2. The pulse time was 2 seconds off, the delay time was 500 ms and a "a" spacing of 25m was used. The I.P. gradient array survey progressed through several stages from early May to late June. During the first stage the I.P. survey was to cover the central part of the grid, L3E to L3W at 50m, the western portion at 200m and the east at 200 metre line spacing. However, due to the success of the I.P. to pick up zones of high chargeability and resistivity the program was changed to have the survey cover all the lines at 100 metres in the western part of the grid and 200 metres in the east. Fill-in lines were done in the east at 100m intervals where warranted. The significant I.P. anomalies are listed below.

TABLE 5

IP CHARGEABILITY ANOMALIES

- 1- South of L16W to 100m N on L21W (NW-SE Trend)
- 2- Discontinuous Foci at L13W-L14W near 400S Tie, along baseline L16W and L17W and L19W-L20W northern end (NW-SE Trend)
- 3- L16W; 225N to 300N
- 4- Main Trench Area
- 5- North of 1500 S Tie Line between L7E to L9E extending to 1200S
- 6- L23E to L25E 50m south of Baseline
- 7- L27E to L30E 50m north of Baseline
- 8- L35E and L36E along Baseline.
- 9- L40E to L42E 50m north of Baseline.

TABLE 6 IP ANOMALIES WITH MAGNETICS

IP RESISTIVITY AND VLF

Chargeability Anomaly	Resistivity	<u>VLF</u>	Mag
1	low	yes	no
2		no	yes
3		no	weak
4	high	no	weak
5	high	no	
6	high	weak	weak
7	high	partially	weak
8	high	no	weak
9	moderate	weak	weak

All of the above IP anomalies are potential drill targets

8. **GEOCHEMISTRY**

8.1 Objective and Technique

The geochemical soil sampling program was designed to be site specific. The sampling was to be only done over significant IP chargeability anomalies (those related to sulphides). The purpose was to assist in determining which I.P. anomalies were likely to reflect gold mineralization. This type of survey restricts the amount of samples to be collected and therefore, speeds up the survey and eliminates the vast number of samples taken in areas with little chance of containing economic gold deposits. At the onset of the project it was known that the best Au targets would have pyrrhotite and other sulphides and the possibility of finding economic concentrations of Au related to quartz veins was very remote.

Before the geochemical soil sampling was started the grid area was first examined to determine the nature of the overburden e.g. how thick was the overburden? what was the composition of the overburden? and what was the soil development? A small orientation survey over and adjacent to the "Main Showing" confirmed the viability of taking 200gm soil samples from the "B" horizon. The majority of samples collected were from a loamy well developed "B" horizon developed in most areas in a thin till cover. A special auger proved particularly efficient in collecting the samples.

The sampling over narrow IP anomalies was done with a sample spacing of 12.5 m with samples taken on either side for 50 to 100m at 25 to 50 m intervals. Each geophysical anomaly was considered individually so as to maximize the effectiveness of the soil sampling.

8.2 Analysis

The soil samples were sent to Barringer Ltd., Mississauga, Ontario for analysis. A 0.5gm sample of -80 mesh fraction was digested in a multi acid solution and copper, arsenic and zinc was determined by Atomic Absorption. To determine Au at the 3 ppb level Fire Assay/Atomic Absorption (2/3 assay ton) was used. Arsenic was determined by Hydride Atomic Absorption. Rock chip samples and channel samples were analyzed by the same analytical techniques and only the sample preparation followed a different procedure (The analytical data is located in appendix 1).

8.3 Results Of Soil Survey (see Geochemistry, Soil Maps 5 to 11)

The results of the soil survey indicate four general areas with low level anomalies Au values. It was not known with certainty what the relationship was between grade and size of the gold deposit to the amount found in soil samples. However, since the majority of determination are below 3 ppb any values at the 3ppb level or higher indicates possible dispersion from a mineralized source (orientation study at the "Main Showing").

The main use of the Au analysis was to identify areas of the

grid with higher levels of Au from the area with background (<3 ppb Au) concentrations. The small size of the mineralized zone and low Au concentration does not allow for a more specific interpretation.

The main areas showing gold enrichment in the soils and over or proximal to IP chargeability anomalies are listed below.

TABLE 7
GEOCHEMISTRY-GEOPHYSICAL ANOMALIES

Anom#	Geochemistry	IP Chargeability	Resistivity	<u>VLF</u>	<u>Magnetics</u>
1	Au, Cu	strong	low	уев	only south end L17W
2	Au, Cu (Zn)				
	(As)	moderate to			
	, ,	strong	low	no	yes (Irregular)
3	Au	weak	low	no	no
4	Au, Cu	moderate	high	no	no
5	(Au) (Cu) As	strong	high	no	strong
6	(Au)	moderate	high	weak	weak
7	(Au)	strong	high		moderate
8	(Au)tr	moderate	high	no	moderate
9		moderate	high	weak	no

(Zn) weak and erratic

(Au)tr very weak and erratic

Note: location of the IP anomalies found in Table 5

The low level and erratic distribution of Au in the soils cannot be used to confidently evaluate the economic importance of the underlying mineralization. It serves the important function of determining which IP chargeability anomalies have a gold association or not. The other metals Cu, Zn, and As did not locate any significant base metal anomalies or is there a direct one to one correlation with Au. However, there is an association between Cu and Au but Cu alone cannot be relied upon to outline areas with significant Au mineralization. There are various types of potential gold deposits, so geochemistry could be used at the early

exploration stage when broad areas have to be assessed rapidly, and not during any later follow up programs when erratic anomalies may not contribute significantly to identifying drill targets. More work is required to determine the full effectiveness of the soil survey.

In addition to the above association between geochemical anomalies and good IP chargeability targets four significant Au anomalies were identified and are listed below.

Anomaly No.	<u>Location</u>
1	L8W/50-100N
2	L3E/150-200N
3	L3E/275S-350S
4	L3E/1350-1500S (very low concentration)

The first three have been trenched and sampled with no significant mineralization found in the bedrock. More samples should be taken from Anomalies 1,2, 3 to further check on the Au concentration in shear zones.

8.4 Results of Rock Sampling

Concurrent with the geological mapping rock chip samples were taken over IP anomalies or other locations if warranted. The significant samples are listed below.

33 TABLE 8

ROCK CHIP RESULTS

Sample No.	Location	<u>Channel</u>	Grab	<u>Au</u>	<u>Cu</u>	Zn	<u> </u>
HKR-19403	Rd. NW Side of Property	0.63m		5	125	600	0.2
HKR-19406	as above	0.25m		21	130	60	0.8
HKR-19407	as above	0.64m		26	470	42	0.6
HKR-19423	L16W/120 s		×	5	170	58	0.3
HKR-19424 HKR-19433 HKR-19437 HKR-19445 HKR-19447 HKR-19458 HKR-19459	L16W/0+00 B L10+25E/1500 S L19W/350 N L17W/500 S L16+60w/400 S L13+47.5/413 S L13+45W/414.5 S L13+90W/400 S	0.52m 0.89m	* * * * * * * * * * * * * * * * * * *	7 45 48 27 4 15 20 31	56 820 40 670 420 3100 400 1450	270 46 800 190	0.3
HKR-19482	L3E/300 S		х	<3	410	280	

All the channel and rock chip (grab) samples analysis are found in Appendix I.

The rock chip sampling identified several areas of enhanced Au and base metal concentrations. The most important target areas are between L16W-18W on and south of the base line, between L13W to L14W and at L10+50E, north and south of the 1500 S Tie Line. These are discussed elsewhere in the report under mineralization.

9. TRENCHING AND SAMPLING

After evaluating the geophysical, geochemical and geological data thirteen trenches were excavated. The trenching was done to identify if possible in the bedrock, the cause of the IP chargeability anomaly and Au-base metal mineralization if indicated by soil sampling and/or from grab samples taken from outcrop along the survey line. The results of the trenching is summarized in Table 9. Sketches of the trenches are located in Appendix 2.

A D-8 Caterpillar Bulldozer was rented from J. Raymond Poulin Ltd. rather than a back hoe because of difficult access to some of the trenches. However, in areas of wet clay and deep overburden the bulldozer could not excavate as deep as a back hoe. All trenches were excavated over a seventeen day period.

Overall, the trenching verified the IP chargeability anomalies to be related to sulphides. Occasionally, diabase dykes were found to be coincident with parts of the IP anomaly. No large sulphide zones were discovered but small parallel sulphide shear zones gave a chargeability response over 30 millisec's. In many of the trenches the rugged relief along the trench meant that not all of the bedrock could be exposed by the D-8 bulldozer.

Although trenching is a quick and relatively cheap method of evaluating IP and geochemical soil sample anomalies it is of

limited use in areas of thick overburden or swamps.

TABLE 9

RESULTS OF TRENCHING

TRENCH NO.	LOCATION	TARGET	RESULTS
1	L8W/30N to 100N	Geochem Au Soil Anomalies	-Several small shear zones in mafic volcanic exposed; channel sampling gave negative results for Au.
2	L17W/350S to 425S	Very strong IP; mag, weak Au in rock sample high Cu +py-po	-Areas with highest IP could not be exposed rest of trench; silicified shears with low level Au conc., anomalous Cu, py-po. sulphide zones narrow.
3	L16+90W-L16+60W 3+95S -4+25 S	IP Chargeability Anomaly	-only weak shear in mafic volcanics exposed weakly silicified-parts of trench not exposed deep overburden-minor sulphides.
4	L16+50W-L16+30W 420S to 440S	IP Chargeability Anomaly	<pre>- narrow sulphide rich silicified shear zone exposed, main part of IP anomaly not exposed due to overburden</pre>
5	Tieline 1500 S 9+85E-10+25E	IP+ Anomalous Geochem Grab Sample (45 ppb Au) and 820 ppm Cu)	- no significant min., shear zone found. mainly massive amphib. with po and py; east part of trench did not reach bedrock
6	L9E/1500 S to 1445 S	Moderate IP visible rusty zones in OTC	- no wide sulphide zones were exposed, no signif. Au. mineralization was found
7	L7E/13855 to 1450 S	Weak IP, Rusty zones found during mapping	 narrow weakly pyritized zones; no significant Au.

TABLE 9 continued

TRENCH NO.	LOCATION	TARGET	RESULTS
8	L7E/1225 S to 1250 S	On point Au soil Anomaly, rock grab sample with 6 ppb Au. 560 ppm Cu.	- no major sulphide shear zone uncovered narrow zones with py cpy & mica, part of trench exposed OTC.
9	L17W/0+00 to 0+35N	Strong IP anomaly weak Au soil anom.	-only background levels of Au found; geochem analysis: in Cu(70-346ppm) and Zn(180-920ppm) in narrow severely folded sulphide zones.
10	L16W/265N to 325 N	Anomalous Au in rock samples (17-49 ppb) Au soil anomaly good IP anomaly	-minor narrow sulphide shear zones uncovered felsic-sericite schist unit with Au. very limited extent - above units anomalous in Cu. and Zn
11	L19W/235N to 300 N	IP Anomaly on strike from Au soil anomalies	-poorly exposed Ep. rich breccia zone with tr. cpy; minor sulphide zones; areas with highest sulphide possibly hidden under deep overburden.
12	L57W/125 S to 300 S, (old grid) Between L0+50W/ L1+00W about 100M S of B.L.	Very strong IP anomaly Au-Cu anomaly in soil	-wide spread sulph. py, po, cpy erratic distrib. Ep + cpy float dug up sample gave weak geochem. anomalous Au (3ppb)
13	L3E/240 S to 300 S	Good Au Soil Anomaly 5-25 ppb high background IP anomaly	-no major alteration or shear zone uncovered. weak sulphide mineralization.

10. DIAMOND DRILLING AND RESULTS

Four holes were drilled on the "Main Showing" to do a preliminary evaluation of the grade and extent of the mineralization. The location of the drill holes (HK-89-1 to 4) are found on the detailed geology map of the "Main Showing" stripped area (Map 3). The first hole was planned to intersect the area with the best mineralization at a depth of about 15m. Because of the variable plunge and strike of the mineralized zone the high grade section was cut at a somewhat shallower depth. of the assays from HK-89-1 is found in Table 10. The geological logs are found in Appendix 3.

TABLE 10
ASSAY RESULTS FOR HK-89-1

ASSAY #	INTERVAL (M)	LENGTH (M)	AU(PPB)	<u>AG</u>	CU	<u>zn</u>
16201	14.35-14.80	0.45	29	0.8	49	67
16202	14.80-15.30	0.50	30	4.0	150	48
16203	15.30-16.16	0.35	7870	4.6	310	48
16204	16.16-16.50	0.34	622	2.2	250	50
16205	16.50-17.00	0.50	3080	4.4	220	58
16206	17.00-17.80	0.80	19	1.2	62	42
16207	17.80-19.10	1.30	7	1.2	85	40
16208	25.14-25.91	0.77	6	0.8	160	56
16209	25.91-26.15	0.74	11	0.6	330	51
16210	26.15-26.80	0.65	7	0.4	170	150
16211	26.80-27.20	0.40	10	0.4	230	140
16212	27.20-28.20	1.0	6	<0.2	88	36
16213	35.5-36.4	0.8	7	<0.2	140	41
16214	36.4-37.5	1.1	3	<0.2	68	49
16215	37.5-39.67	2.17	<3	<0.2	84	86
16216	39.67-41.4	1.73	<3	<0.2	62	54
16217	41.4-43.0	1.6	<3	<0.2	110	74
16218	43.0-44.3	1.3	<3	<0.2	75	84
16219	44.3-45.55	1.25	<3	<0.2	120	110
16220	45.55-47.20	1.65	<3	<0.2	86	70
16221	47.20-47.95	0.75	<3	<0.2	11	36
16222	47.95-50.0	2.05	<3	<0.2	85	25
16223	50.0-51.1	1.1	<3	<0.2	110	20
16224	51.1-52.1	1.0	<3	<0.2	170	19

The Main Zone has a width of about 1.7m and a grade of 0-155 ounces per ton. This is within the range of assays found in channel samples collected by Goldfields over the main showing. The gold values are located in a specific zone and the immediate surrounding country rock has only 7 to 30 ppb Au. There is a slight enrichment in Ag And Cu but both do not add substantially to the value of the mineralized zone.

There doesn't appear to be a direct correlation between Au and Ag or the basemetals Cu and Zn. Even the concentration of pyrrhotite does not give a good indication of the Au concentration. More work would have to be done to determine what other, if any, element(s) have a direct relationship with the silicified-pyrrhotite rich zone bearing economic grade Au.

A second hole was drilled from the same set up as HK-89-1 but with an azimuth of 130 degrees to test the ground east of HK-89-1 up to a large diabase dyke. The results are given below.

TABLE 11
ASSAY RESULTS FOR HK-89-2

ASSAY #	INTERVAL	LENGTH (M)	AU(PPB)	<u> </u>	<u>CU</u>	<u>ZN</u>
16225	15.05-16.00	0.95	556	1.4	190	135
16226	23.90-25.15	1.25	3	<0.2	49	79
16227	25.15-26.20	1.05	28	<0.2	77	70
16228	26.20-26.80	0.60	<3	<0.2	40	140
16229	26.80-27.56	0.76	<3	<0.2	13	52
16230	27.56-28.40	0.84	<3	<0.2	7	14
16231	33.3-34.80	1.5	<3	<0.2	80	140
16232	34.80-36.80	2.0	127	0.2	200	130
16233	36.80-37.44	0.64	3	<0.2	225	80
16234	37.44-37.6	0.16	46	0.2	200	49

TABLE 11 continued

ASSAY #	INTERVAL	LENGTH (M)	<u>AU(PPB)</u>	<u> </u>	<u>CU</u>	<u>zn</u>
16235	37.6-40.1	0.5	5	<0.2	83	255
16236	40.1-40.5	0.4	3	<0.2	235	80
16237	41.5-42.75	1.25	1.2	<0.2	92	57
16238	42.75-44.20	1.45	5	<0.2	100	145
16239	44.20-45.0	0.8	5	<0.2	98	59
16240	68.0-68.95	0.95	<3	<0.2	90	64
16241	68.95-70.7	1.75	<3	<0.2	200	31
16242	70.7-71.35	0.65	<3	<0.2	90	62

The first sample intersected the main gold bearing silicified sulphide zone but only a few metres to the east of the intersection in HK-89-1. In this short distance the concentration of gold has dropped to 556 ppb or by a factor of 15. There was only about 2% sulphides in this sample suggesting Au came after the sulphides and the concentration of Au appears to be in part independent of the absolute sulphide content. The actual ore forming mechanism is not known at this time.

HK-89-3 was located to cut the main mineralized zone about 13 metres to the west of HK-89-1 at a depth of 30 metres. The hole actually intersected the mineralization at a depth of about 20 metres indicating the "Main Zone" is not only plunging to the West but raking to the North. Although the apparent intersection is wider than that in HK-89-2 the grades are similar and not of economic concentration. The results from this hole are tabulated below.

TABLE 12

ASSAY RESULTS FROM HK-89-3

ASSAY #	INTERVAL	LENGTH (M)	AU (PPB)	<u>AG</u>	<u>CU</u>	<u>zn</u>
16243	13.6-15.7	2.1	4	0.2	86	98
16244	15.7-17.2	1.5	6	0.4	59	210
16245	21.4-22.4	1.0	36	0.6	97	150
16246	22.4-23.95	1.55	7	0.4	62	71
16247	25.7-26.77	1.07	108	3.0	190	200
16248	26.77-27.0	0.28	630	5.0	350	210
16249	27.0-28.1	1.10	294	1.4	95	185
16250	28.1-29.3	1.2	13	0.8	99	83
16251	29.3-30.4	1.1	9	0.6	89	100
16252	30.4-32.0	1.6	3	0.2	60	78
16253	32.0-32.75	0.75	10	0.6	95	100
16254	32.75-32.90	0.15	13	0.6	92	86
16255	32.90-33.70	0.80	5	0.6	93	79
16256	33.70-35.30	1.6	5	1.0	83	83
16257	35.3-36.30	1.0	13	0.4	51	68
16258	43.5-44.5	1.0	3	0.2	87	71
16259	44.50-45.0	0.5	4	0.2	355	93
16260	45.00-45.6	0.65	8	0.2	220	120
16261	45.65-46.7	1.05	5	0.2	410	76
16262	46.70-47.6	0.9	5 5	0.2	230	75
16263	47.60-44.24	0.64	5	0.2	76	56
16264	56.45-56.85	0.4	3	0.2	87	63
16265	56.85-57.3	0.55	6	0.2	100	190
16266	57.30-59.2	1.9	3	0.2	100	130
16267	59.20-60.3	1.1	3	0.2	82	180
16268	60.30-61.9	1.6	3 3 3 3	0.2	100	93
16269	61.90-64.0	2.1	3	0.2	99	140
16270	64.00-64.2	0.2	3	0.2	19	35

The "Main Showing" was tested 25m further to the west and at a depth of about 30m. Several narrow sulphide rich zones were intersected but the best assay was only 96 ppb over 0.87m. The same sample was only slightly anomalous in Ag, Cu and Zn. Although the mineralization on the surface is erratic it does not appear the main mineralized zone extends to the west past LlW. The assay results are summarized below.

TABLE 13
ASSAY RESULTS FOR HK-89-4

ASSAY #	INTERVAL	LENGTH (M)	AU (PPB)	<u>AG</u>	CU	ZN
16271	23.35-24.4	1.05	<3	<0.2	82	120
16272	27.18-27.85	0.67	<3	<0.2	110	81
16273	27.85-28.36	0.51	6	<0.2	340	83
16274	28.36-29.30	0.94	3	<0.2	91	60
16276	31.55-32.70	1.15	4	<0.2	325	110
16275	32.70-33.25	0.55	5	0.2	235	130
16280	55.7-56.67	0.97	8	0.4	98	55
16281	55.60-55.73	0.06	17	0.4	66	29
16282	55.73-56.73	1.00	5	0.2	87	56
16277	61.1-62.95	1.85	4	<0.2	63	69
	62.95-63.30	1.65	4	<0.2	115	63
	63.30-64.50	1.2	3	<0.2	83	70
-	73.1-73.78	0.68	7	0.2	180	190
	73.28-74.65	0.87	96	0.6	180	180
16285	74.65-75.65	1.0	<3	0.2	28	94

Drill hole HK-89-5 was drilled to test very strong IP and moderate geochemical gold and copper anomaly. The target is located at L57W/50 S on the old grid and L0+77W/95 S (See Geology Map 2) The drill undercut a trenched area where some grab samples gave low level values for Au and Cu. The hole however hit a diabase dyke within 30m and remained in it to 78m where the hole was stopped. Although the mapping of the trenching showed numerous sulphide rich shears the drill hole had only significant sulphides in the first 11 metres. It appears that the diabase dips under the trenched area and the IP chargeability anomaly is caused by sulphide rich rock at a shallow depth. No gold was detected in the drill hole but no sulphides bearing rock was cut under the trench because of the diabase dyke. Therefore, the results of the drill

hole do not completely reflect the IP anomaly. The assay results are listed below.

TABLE 14

ASSAY #	INTERVAL	LENGTH (M)	AU (PPB)	<u>AG</u>	<u>CU</u>	ZN
16290	3.6-4.0	0.4	3	1.4	270	145
16291	4.0 - 4.7	0.7	<3	0.6	1250	135
16292	4.7-5.11	0.41	<3	<0.2	455	120
16293	5.11-5.90	0.79	<3	<0.2	480	67
16294	5.90-6.55	0.65	< 3	<0.2	165	45
16295	6.55-7.55	1.0	<3	<0.2	47	44
16296	11.1-11.25	0.15	<3	<0.2	1000	17
16297	26.2-28.14	1.94	<3	<0.2	165	62
16298	28.14-29.00	0.86	< 3	<0.2	160	69

Although no gold was found the contact zone with the diabase dyke is anomalous in copper. It appears that there may be relationship between the diabase dyke and the chalcopyrite-epidote silica mineralization. It is unlikely this type of Cu mineralization would be of high enough grade or large enough tonnage to become economical to mine.

11. CONCLUSIONS

The Hawkins property covers a geological setting considered favourable for gold in sulphide-bearing siliceous and sericitic zones and sulphide-bearing structural zones. The generally thin overburden cover and locally extensive bedrock exposure allows for the application of direct exploration techniques such as, geological mapping, rock sampling, bulldozer trenching and channel sampling.

Geophysical surveys proved effective in outlining geology and identifying sulphide zones. Induced polarization surveys proved effective in identifying disseminated sulphide zones. Magnetic and VLF electromagnetic surveys were useful in completing a geological interpretation.

Geochemical soil sampling was completed over induced polarization anomalies to screen the anomalies.

Diamond drilling was completed on induced polarization anomalies and intersected disseminated sulphide zones in various lithologies.

The salient conclusions regarding the comprehensive exploration program conducted in the northern sector of the Hawkins property are summarized as follows:

- 1. Geological mapping confirms the dominant steep dip and ENE trend of the predominantly amphibolitic mafic volcanic rock sequence. An elliptical-shaped granodiorite intrusive extends from the east to the east-central part of the property and the volcanic rocks are indicated to wrap around the nose of the intrusive.
- 2. Magnetic and VLF electromagnetic surveys aided the geological interpretation. The magnetic survey maps out a magnetic halo in mafic volcanics around the granodiorite intrusive. Narrow northeast, northwest and north-south magnetic trends map out magnetic diabase dykes which cut all other rock units. VLF electromagnetic anomalies generally parallel the regional ENE trend, but also identify some cross-cutting structures.
- 3. An induced polarization anomaly (Anomaly E) was identified coincident with the gold-bearing main showing discovered by Goldfields in 1986. Significant induced polarization anomalies were also obtained in the main volcanic-intrusive contact area (Anomaly F) on the east part of the property and in two northwest trending structural zones (Anomaly A and B) at the west end of the property. These induced polarization anomalies are indicated to be caused by disseminated sulphides.
- 4. Analytical results from soils taken over induced polarization anomalies indicated spotty low level anomalous base-metal and gold values in "B" horizon soils. Analytical results from rock chip, rock channel and diamond drill core sampling from mineralized rock also returned low values in base metals, silver and gold. The best assay results in gold were obtained under the main showing, but poor continuity is indicated.

The exploration results on the Hawkins property has identified several zones which are considered favourable for gold mineralization but sampling results indicate a paucity of gold. At the main showing the gold is indicated to be generally restricted to the nose of a tight westerly plunging fold. Overall, the exploration results suggest low potential for a significant gold discovery.

12. RECOMMENDATIONS

The following diamond drill holes are recommended to test good IP and/or geochemical soil Au anomalies.

TABLE 15
LIST OF POTENTIAL DIAMOND DRILL HOLE LOCATIONS

LOCATION	HTUMISA	LENGTH	ANGLE
L8+70E/12+75S	210	150m	-45
L13+00W/400S	200	150m	-45
L16+60W/75N	200	150m	-45
L16W/400S	200	150m	-45
L19+50W/25N	200	125m	-45
L29E/100N	165	100m	-45
L36E/75N	165	200m	-45
		1025 met	res

The total amount of drilling recommended to test all significant geophysical and geochemical anomalies is 1025 metres.

Lines 12+00W to 5+00W should be extended to the south to enable geophysical ground surveys to locate the extension of the IP anomalies found on L 12+00W and south of L17W/14S.

Lines 6E to 12E should be extended south of Tie Line 1800S to delineate the IP anomalies found on L8E and on the Tie Line at

9+50E to 10+50E.

Similarly, L18W to 21W should be extended to the north of 4N to delineate the NW trending IP anomaly further to the NW. Geological mapping and soil sampling should also be done on the extensions to the above lines.

Respectfully submitted

by

Howard R. Lahti PhD.

November 15, 1989

APPENDIX 1

5735 McADAM ROAD MISSISSAUGA, ONTARIO CANADA L4Z 1N9 PHONE: (416) 890-8566 FAX: (416) 890-8575

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Harvey Tremblay AURLOT EXPLORATION LTD. Suite 500 67 Richmond Street West Toronto, ON M5H 1Z5

Authority: H. Tremblay

Project :

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Purchase order :

Job: 891052 Final Status: Cu Zn Pb Sb Hg Au Ag Aв FA/AA3 AA AA AA AA Hyd-AA Hyd-AA ppb ppm ppm ppm ppm ppm ppb Type Sample 4 < 0.2 10 54 6 3.2 <0.2 <10 L12+30W 0+25mS <0.2 <10 9 < 0.2 9 40 7 3.0 L12+30W 0+10mS 6 <0.2 <10 L12+30W 0+5mS <3 <0.2 4 30 1.4 2 <0.2 <10 <3 <0.2 58 0.4 L12+30W 0+20mN L12+30W 0+35mN <3 <0.2 29 58 4 0.9 <0.2 <10 <3 <0.2 7 5 1.4 <0.2 <10 L12+30W 0+60mN 44 <0.2 <10 48 8 3.0 <3 <0.2 8 L12+30W 0+75mN 38 1.7 <0.2 10 L12+30W 1+00mN <3 <0.2 10 <0.2 <10 <3 <0.2 25 37 3 1.0 L57+00W 3+00S 0.2 260 120 4 2.2 <0.2 <10 Old Grid L57+00W 2+50S 8 40 6 0.8 <0.2 14 5 < 0.2 6 HO-HL L57+00W 2+25S <0.2 <10 1.2 4 < 0.2 5 44 6 HO-HL L57+00W 2+00S <0.2 <10 32 1.0 3 3 < 0.2 L57+00W 1+75S <0.2 <10 25 0.4 L57+00W 1+50S <3 <0.2 3 <3 <0.2 3 30 5 0.6 <0.2 <10 L57+00W 1+25S <0.2 <10 3 31 4 1.2 <3 <0.2 L57+00W 1+00S <0.2 <10 1.5 6 38 5 <3 <0.2 L57+00W 50S <0.2 <10 7 34 2.6 <3 <0.2 L57+00W 0+00LB <0.2 <10 10 65 6 3.2 <3 <0.2 L57+00W 0+50N <0.2 <10 <3 <0.2 25 62 2.2 L57+00W 1+00N <0.2 <10 39 5 2.5 5 < 0.2 8 L57W 1+25 Composite <0.2 <10 59 6 3.1 5 < 0.2 14 L56+50W 1+25N 3.2 <0.2 <10 54 9 3 0.2 7 L56+00 0+50N <0.2 <10 7 2.4 L56+00W 1+00N 5 < 0.2 24 38 <0.2 <10 37 7 3.2 <3 <0.2 L56+00W 1+25N 2.0 <0.2 <10 7 71 6 4 < 0.2 L56+00W 1+50N <3 <0.2 9 2.8 <0.2 <10 6 66 L56+00W 1+80N <0.2 <10 6 1.9 3 < 0.2 10 45 L56+00W 2+00N <0.2 <10 <3 <0.2 6 44 6 1.7 L56+00W 2+25N <0.2 <10 3 2.6 L56+00W 2+50N <3 <0.2 21 52 6 33 6 2.2 <0.2 <10 L56+00W 6+00N (A) <3 <0.2

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Page: 2 Copy: 1 of 1 Set: 1

Authority: H. Tremblay

Project:

Job:	891052						* 1	Statu	в:	Final
Type	Sample	Au FA/AA3 ppb	Ag AA <u>pdm</u>	Cu AA DDM	Zn AA ppm	Pb AA ppm	As Hyd-AA ppm	Sb Hyd-AA ppm	Hg ppb	
	L56+00W 6+00N (B)	15	0.2	15	44	7	2.5	<0.2	<10	
	L56+00W 6+50N (A)		<0.2	6	40	6	3.0			
	L56+00W 6+50N (B)		<0.2	9	42	5	2.6			
	L56+00W 6+75N		⟨0.2	5	35	7	2.4	<0.2		
	L56+00W 6+75N (A)		0.2	10	43	6	2.5			
	L56+00W 7+00N		<0.2	6	35	7	2.9			
	L56+00W 7+50N		<0.2	7	37	7	2.4			
	L56+00W 8+00N		<0.2	12	74	8	2.5			
	L57+00W 7+00N		<0.2	6	50	4				
	L60+00W 3+00N		<0.2	10	39	7	2.0			•
	L60+00W 3+50N	<3	<0.2	26	58	8	3.1	<0.2	<10	
	L60+00W 4+00N	<3	<0.2	17	49	10	2.4	<0.2	<10	
	L62+00W 1+00N	<3	<0.2	10	55	5	1.8	<0.2	<10	
	L62+00W 1+50N	<3	<0.2	16	53	4	1.2	<0.2	<10	
	L62+00W 2+00N	<3	<0.2	9	43	7	2.8	<0.2	<10	
	OBA 56+50W 1+25N #1		<0.2	400	44	4	0.3	<0.2	<10	
	OBA 56+50W 1+25N #2	40	<0.2	150	22	1	0.3	<0.2	<10	

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Authority: H. Tremblay

Project :

Purchase order:

Job: 891071 Status: Final

Au Cu Zn As
FA/AA3 AA AA Hyd-AA

Туре	Sample	Au FA/AA3 ppb	Cu AA ppm	Zn AA ppm	As Hyd-AA _ppm
	L8W-O+OON-HK	<3	370	52	2.0
	L8W-0+25N-HK	₹3	13	39	2.2
	L8W-0+38N-HK	<3	8	33	3.4
	L8W-0+50N-HK	5	12	35	2.6
	L8W-0+62N-HK	10	7	34	4.2
	L8W-0+75N-HK	23	7	30	3.2
	L8W-100N-HK	5	5	24	2.0
	L9W-400N-HK	10	5	13	1.0
	L9W-388N-HK	<3	16	23	2.9
	L9W-375N-HK	7	17	30	1.3
	L9W-362N-HK	5	6	21	1.8
	L9W-3+50N-HK	<3	18	32	2.7
	L9W-325N-HK	3	12	27	1.1
	L9W-3+00N-HK	7	8	24	1.4
	L10W-4+25N-HK	3	5	28	4.0
	L10W-400N-HK	5	7	21	2.0
	L10W-350N-HK	5	5	17	1.3
	L10W-300N-HK	3	8	30	1.8
	L10W-288N-HK	<3	7	31	1.0
	L10W-275N-HK	<3	6	35	1.8
	L10W-262N-HK	7	10	48	6.0
	L10W-250N-HK	3	19	28	3.0
	L10W-225N-HK	5	8	30	3.8
	L10W-200N-HK	4	15	32	2.3
	L10W-175N-HK	2	8	35	2.6
	L10W-150N-HK	3	13	31	2.4
	L10W-138N-HK	12	7	34	2.4
	L10W-125N-HK	3	8	38	
	L10W-100N-HK	₹3	7	35	
	L1E-375N-HK	10	6	24	1.8
	L1E-350N-HK	<3	8	27	3.8

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Project:

Purchase order:

Job: 891071 Status: Final

		Au	Cu	Zn	Ав
		FA/AA3	AA	AA	Hyd-AA
Type	Sample	_ppb	_ppm	_ppm_	ppm
	рашрте		_ ppm_	_ <u></u>	
	L1E-338N-HK	4	4	24	1.6
	L1E-325N-HK	8	5	39	1.8
	L1E-300N-HK	7	5	31	2.1
	L3E-1500S-HK	3	9	19	1.8
	L3E-1475S-HK	12	6	11	0.6
	L3E-1450S-HK	7	6	15	1.2
	L3E-1425S-HK	4	4	19	1.0
	L3E-1400S-HK	6	6	18	1.2
	L3E-1325S-HK	4	16	40	2.9
	L3E-1350S-HK	6	39	48	3.4
	L3E-1375S-HK	4	10	28	1.2
	L3E-6+00S-HK	7	11	24	2.5
	L3E-5+75S-HK	4	9	16	1.0
	L3E-5+50S-HK	<3	2	17	1.1
	L3E-5+25S-HK	<3	43	20	3.0
	L3E-5+00S-HK	5	14	41	2.4
	L3E-4+75S-HK	<3	2	9	0.5
	L3E-4+25S-HK	. 3	10	28	1.6
	L3E-325S-HK	25	13	38	2.6
	L3E-300S-HK	21	5	30	3.6
	L3E-288S-HK	10	5	20	4.0
	L3E-275S-HK	17	6	38	
	L3E-250S-HK	5	5	29	2.6
	L3E-262S-HK	<3	5	36	3.2
	L3E-225S-HK	<3	3	33	2.2
	L3E-75N-HK	<3	110	28	
	L3E-100N-HK	9	8	45	
	L3E-125N-HK	3	4	28	
	L3E-138N-HK	4	5	38	2.4
	L3E-150N-HK	4	4	40	1.8
	L3E-175N-HK	35	1	36	3.0



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Authority: H. Tremblay

Project:

Purchase order:

Job:	891071					-	Status:	Final
_Type	Sample	Au FA/AA3 _ppb	Cu AA ppm	Zn AA ppm	As Hyd-AA ppm			
	L3E-225N-HK	<3	7	38	1.7			
	L3E-162N-HK	3	4	37	1.4			
	L3E-500N-HK	6	4	28	2.3			
	L3E-475N-HK	6	8	25	2.7			
	L3E-450N-HK	<3	20	27	2.5			
	L3E-425N-HK	6	9	56	2.2			
	L3E-400N-HK	9	7	44	2.4			
	L3E-375N-HK	<3	3	32	1.6			
	L3E-350N-HK	6	4	32	2.4			
	L3E-325N-HK	<3	6	34	4.0			
	L3E-300N-HK	3	21	34	3.0			
	L3E-275N-HK	8	5	40				
	L4E-1200S-HK	8	27	37	2.4			
	L4E-1175S-HK	<3	12	41				
	L4E-1150S-HK	<3	11	41				
	L4E-1125S-HK	<3	4	38				
	L4E-1100S-HK	<3	5	27				
	L4E-950S-HK	<3	4	27				
	L4E-925S-HK	6	43	46				
	L4E-900S-HK	<3	9	31				
	L4E-875S-HK	4	10	17	1.0			
	L4E-850S-HK	3	4	31				
	L4E-825S-HK	3	9	23				
	L4E-800S-HK	<3	9	28				
	L4E-775S-HK	6	12	72				
	L4E-750S-HK	3	5	32				

3.0

2.4

2.4

3.4

1.9

37

43

35

30

25

6

7

7

3

5

4

<3

<3

6

L4E-538N-HK

L4E-500N-HK

L4E-488N-HK L4E-475N-HK

L4E-462N-HK



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Harvey Tremblay

Authority: H. Tremblay

Project :

Job:	891071					Status:	Final
Type	Sample	Au FA/AA3 ppb	Cu AA <u>ppm</u>	Zn AA ppm	As Hyd-AA _ppm		
	L4E-450N-HK	<3	5	40	3.4		
	L4E-438N-HK	⟨3	3	31	1.6		
	L4E-425N-HK	<3	5	33	2.0		
	L4E-400N-HK	3	4	21	1.8		
	L4E-350N-HK	<3	8	35	2.5		
	L1W-0+00N-HK	4	21	33	2.5		
	L1W-0+12N-HK	13	4	22	1.9		
	L1W-0+25N-HK	3	8	39	3.9		
	L1W-0+38N-HK	4	18	52	3.1		
	L1W-0+50N-HK	4	7	40	3.0		
	L1W-0+75N-HK	<3	17	44	1.8		
	L1W-0+100N-HK	4	6	34			
	L1W-0+120N-HK	<3	5	40	1.9		
	L1W-100S-HK	5	4	28	3.2		
	L1W-125S-HK	6	6	33	3.4		
	L1W-138S-HK	7	6	35	2.0		
	L1W-150S-HK	4	7	43	2.0		
	L1W-162S-HK	4	7	24	2.5		
	L1W-175S-HK	4	42	55	1.1		
	L150W-0+00N-HK	6	10	35	3.5		
	L150W-0+25N-HK	<3	6	28	2.7		
	L150W-0+50N-HK		11	32			
	L150W-0+75N-HK		6	40			
	L150W-100N-HK	3	5	31			
	L150W-38N-HK	3	5	19			



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Page: 1 Copy: 1 of 1 Set: 1

Authority: Howard Lahti

Project : HK

Job:	891080					Status:	Final
Type	Sample	Au FA/AA3 ppb	Cu AA ppm	Zn AA ppm	As Hyd-AA <u>ppm</u>		
	L8E-15+00S-HK	<3	7	27	4.2		
	L8E-14+50S-HK	⟨3	7	21	1.8		
	L8E-14+25S-HK	<3	5	29	3.1		
	L8E-14+00S-HK	8	15	21	1.7		
	L8E-13+75S-HK	<3	6	21	2.7		
	L8E-13+50S-HK	<3	6	28	4.7		
	L8E-13+38S-HK	<3	7	26	2.8		
	L8E-13+25S-HK	<3	14	20	4.0		
	L8E-13+12S-HK	<3	7	12	1.5		
	L8E-13+00S-HK	<3	13	21	2.0		
	L8E-12+75S-HK	⟨3	14	20	2.4		
	L8E-12+50S-HK	. ≺3	21	23	4.0		
	L8E-12+25S-HK	<3	14	22	5.0		
	L8E-12+00S-HK	<3	8	21	3.0		
	L8E-11+75S-HK	<3	14	35	4.9		
	L8E-11+50S-HK	<3	17	20	6.8		
	L8E-7+75S-HK	<3	7	30	2.5		
	L8E-7+50S-HK	<3	8	26			
	L8E-7+25S-HK	<3	6	16	2.0		
	L8E-7+00S-HK	<3	10	40	2.6		
	L8E-6+75S-HK	<3	10	27	1.9		
	L8E-6+50S-HK	<3	7	15			
	L8E-6+00S-HK	<3	18	130			
	L22W-0+75S-HK	<3	8	18	2.6		
	L22W-0+50S-HK	<3	8	24	2.0		
	L22W-0+38S-HK	<3	28	18			
	L22W-0+25S-HK	<3	19	31			
	L22W-0+12S-HK	<3		24			
	L22W-BLO+00-HK	<3		17			
	L22W-0+25N-HK	<3	20	28	5.2		
	L22W-0+50N-HK	<3	6	24	4.6		



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Authority: Howard Lahti

Project : HK

Job:	891080					Status:	Final
Type	Sample	Au FA/AA3 ppb	Cu AA ppm	Zn AA ppm	As Hyd-AA ppm		
	L14W-150S-HK	⟨3	6	20	2.7		
	L14W-175S-HK	⟨3	7	27	2.5		
	L14W-188S-HK	<3	8	27	3.2		
	L14W-200S-HK	<3	7	28			
	L14W-212S-HK	<3	8	45			
	L14W-225S-HK	<3	9	27			
	L14W-250S-HK	<3	12	39			
	L14W-300S-HK	<3	6	28			
	L14W-325S-HK	<3	6	22			
	L14W-338S-HK	<3	9	33			
	L14W-350S-HK	18	7	30	3.0		
	L14W-362S-HK	<3	7	30	3.8		
	L14W-388S-HK	<3	7	26	2.1		
	L14W-400S-HK	<3	8	30	3.8		
	L12W-0+25N-HK	<3	6	24	3.4		
	L12W-O+50N-HK	<3	5	19	2.2		
	L12W-O+75N-HK	<3	5	22	1.8		
	L12W-1+00N-HK	<3	6	30	1.8		
	L12W-1+25N-HK	<3	8	19			
	L12W-1+50N-HK	<3	18	24	3.1		
	L12W-1+75N-HK	<3	30	28			
	L6E-5+50S-HK	<3	5	24			
	L6E-6+00S-HK	<3	12	37			
	L6E-6+50S-HK	<3	4	22			
	L6E-7+00S-HK	<3	5	26			
	L6E-7+25S-HK	<3	7	30			
	L6E-7+50S-HK	<3	3	23			
	L6E-8+00S-HK	<3	7	19			
	L6E-8+25S-HK	<3	32	33			
	L6E-8+50S-HK	<3	14	21	1.9		
	L6E-8+75S-HK	<3	4	24	1.8		



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8-Nov-89

Harvey Tremblay AURLOT EXPLORATION LTD. Suite 500 67 Richmond Street West Toronto, ON M5H 1Z5

Page: Copy: 1 of 1 Set: 1

Authority: Howard Lahti

Project : HK

Job:	891080		 			Status:	Final
		Au	Cu	Zn	As		
		FA/AA3	AA	AA	Hyd-AA		
Type	Sample	dqq	ppm	ppm	ppm		
	L6E-9+00S-HK	<3	2	21	1.2		
	L6E-11+75S-HK	<3	12	40	3.0		
	L6E-12+00S-HK	<3	8	19	1.6		
	L6E-12+25S-HK	<3	7	28	4.6		
	L6E-12+50S-HK	<3	20	78	3.0		
	L6E-12+75S-HK	<3	5	26	2.5		
	L6E-13+00S-HK	<3	6	35	4.3		
	L6E-13+12S-HK	<3	34	83	2.2		
	L6E-13+25S-HK	<3	7	38	6.1		
	L6E-13+38S-HK	<3	5	28	3.1		
	L6E-13+50S-HK	<3	7	29	4.0		
	L6E-13+62S-HK	<3	19	48	2.7		
	L6E-13+75S-HK	<3	7	29	4.3		
	L6E-14+00S-HK	10	7	35	4.5		
	L6E-14+25S-HK	<3	5	25	1.7		
	L0+00-375S-HK	3	5	20	1.9		
	LO+00-400S-HK	<3	5	24	2.9		
	LO+00-425S-HK	<3	4	21	1.5		
	LO+00-450S-HK	<3	4	17	1.8		
	LO+00-475S-HK	<3	4	21	4.0		
	LO+00-500S-HK	3	4	18	3.0		
	L13W-2+75S-HK	5	13	27	2.4		
	L13W-3+00S-HK	3	7	33	2.8		
	L13W-3+25S-HK	<3	9	30	4.6		
	L13W-3+38S-HK	<3	12	33	3.3		
	L13W-3+50S-HK	<3	6	18	1.0		
	L13W-3+75S-HK	<3	7	27			
	L13W-4+00S-HK	<3	6	24			
	L13W-2+50N-HK	<3	2				
	L13W-2+75N-HK	5	4	19	1.8		
	L13W-2+88N-HK	3	8	17	2.6		

5735 McADAM ROAD MISSISSAUGA, ONTARIO CANADA L4Z 1N9

PHONE: (416) 890-8566 FAX: (416) 890-8575

8-Nov-89

Harvey Tremblay AURLOT EXPLORATION LTD. Suite 500 67 Richmond Street West Toronto, ON M5H 1Z5

Page: 4 Copy: 1 of 1 Set: 1

Authority: Howard Lahti

Project : HK

Job:	891080	din dilan kilan samun kin menjaran kanggan panggan panggan panggan				Status:	Final
Туре	Sample	Au FA/AA3 ppb	Cu AA ppm	Zn AA ppm	As Hyd-AA DDM		
	L13W-3+00N-HK	<3	7	36	3.8		
	L13W-3+12N-HK	3	7	35	3.6		
	L13W-3+25N-HK	<3	8	21	3.8		
	L13W-3+50N-HK	<3	12	28	3.8		
	L17W-0+00-HK	8	7	37	3.5		
	L17W-0+12S-HK	4	6	28	2.6		
	L17W-0+25S-HK	5	6	31	3.5		
	L17W-0+12N-HK	10	9	28	4.6		
	L17W-0+25N-HK	6	6	41	2.7		
	L17W-0+38N-HK	<3	6	32	3.0		
	L17W-0+50N-HK	7	11	42	0.8		
	L17W-0+75N-HK	9	6	39	2.0		
	L17W-100N-HK	6	10	77	1.3		
	L17W-125N-HK	6	5	27	1.0		
	L11W-0+25N-HK	<3	5	18	3.2		
	L11W-BLO+00-HK	<3	6	23	4.0		
	L11W-0+12S-HK	<3	4	17	2.6		
	L11W-0+25S-HK	<3	4	317	2.6		
	L11W-0+38S-HK	<3	10	26	2.6		
	L11W-0+50S-HK	<3	7	28	2.6		
	L11W-0+62S-HK	4	6	24	3.0		
	L11W-0+75S-HK	<3	7	30	2.4		
	L11W-100S-HK	5	11	24	1.6		
	L15W-BLO+00-HK	5	7	20	2.0		
	L15W-0+25N-HK	<3	4	19	1.8		
	L15W-0+50N-HK	<3		25	2.1		
	L15W-0+75N-HK	⟨3		24			
	L15W-100N-HK	<3		29			
	L15W-112N-HK	<3		29			
	L15W-125N-HK	<3		23			
	L15W-150N-HK	₹3	12	23	3.4		



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8-Nov-89

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Authority: Howard Lahti

Project : HK

Au Cu Zn As Hyd-AA PDPM	Job:	891080					Status:	Final
L15W-175N-HK			FA/AA3	AA	AA	Hyd-AA		
L16W-0+00-HK	Туре	Sample	ppb	<u>ppm</u>	<u>ppm</u>	_ppm		
L16W-0+00-HK		L15W-175N-HK	14	16	26	4.2		
L16W-0+12N-HK								
L16W-0+25N-HK								
L16W-0+38N-HK								
L16W-0+50N-HK								
L16W-100N-HK			<3	6	27	3.3		
L16W-100N-HK		L16W-0+75N-HK	<3	14	28	1.8		
L16W-125N-HK								
L16W-150N-HK L16W-175N-HK L16W-200N-HK L16W-200N-HK L16W-225N-HK L16W-225N-HK L16W-250N-HK L16W-250N-HK L16W-262N-HK L16W-262N-HK L16W-262N-HK L16W-262N-HK L16W-275N-HK L16W-288N-HK L16W-300N-HK L16W-300N-HK B L16W-325N-HK B L16W-0+25S-HK B L16W-0+25S-HK B L16W-0+25S-HK B L16W-0+25S-HK B L16W-0+38S-HK B L16W-0+38S-HK B L16W-0+38S-HK B L16W-0+75S-HK B L16W-0+75S-HK B L16W-0+75S-HK B L16W-100S-HK B L16W-100S-HK B L16W-112S-HK B L16W-12SS-HK B L16W-12SS-HK B L16W-12SS-HK B L16W-150S-HK B L16W-150S-HK B L16W-150S-HK B L16W-150S-HK B L16W-150S-HK B L16W-150S-HK B L16W-175S-HK B L16W-175S-H			<3		25			
L16W-175N-HK L16W-200N-HK L16W-225N-HK L16W-250N-HK L16W-250N-HK L16W-250N-HK L16W-250N-HK L16W-275N-HK L16W-275N-HK L16W-28N-HK L16W-28N-HK L16W-300N-HK B L16W-325N-HK B L16W-0+25S-HK B L16W-0+25S-HK B L16W-0+38S-HK B L16W-0+50S-HK B L16W-0+75S-HK B L16W-0+88S-HK B L16W-0+88S-HK B L16W-0+88S-HK B L16W-12S-HK B L16W-10S-HK B L16W-10S-HK B L16W-10S-HK B L16W-12S-HK B L16W-12S-HK B L16W-12S-HK B L16W-12S-HK B L16W-175S-HK B		L16W-125N-HK-rpt	<3	3	25	1.5		
L16W-175N-HK 4 7 19 2.5 L16W-200N-HK <3		L16W-150N-HK	<3	4	19	1.6		
L16W-225N-HK			4		19	2.5		
L16W-250N-HK		L16W-200N-HK	<3	7	26	3.0		
L16W-262N-HK		L16W-225N-HK	<3	11	21	2.2		
L16W-275N-HK		L16W-250N-HK	<3	4	21	1.8		
L16W-288N-HK		L16W-262N-HK	<3	5	31	1.3		
L16W-300N-HK L16W-325N-HK S S S S S S S S S S S S S S S S S S		L16W-275N-HK	<3	17	29	3.4		
L16W-325N-HK 9 6 25 2.7 L16W-0+25S-HK 3 6 20 2.0 L16W-0+38S-HK (3 13 43 3.3 L16W-0+50S-HK 3 13 53 3.3 L16W-0+75S-HK (3 15 38 3.3 L16W-0+88S-HK (3 33 130 2.5 L16W-100S-HK (3 8 35 0.9 L16W-112S-HK (3 31 34 1.7 L16W-125S-HK (3 47 37 3.3 L16W-150S-HK (3 6 27 3.1 L16W-175S-HK (3 6 38 2.0		L16W-288N-HK	. 4	7	27	1.7		
L16W-0+25S-HK		L16W-300N-HK						
L16W-0+38S-HK		L16W-325N-HK	9	6	25	2.7		
L16W-0+50S-HK 3 13 53 3.3 L16W-0+75S-HK <3 15 38 3.3 L16W-0+88S-HK <3 33 130 2.5 L16W-100S-HK <3 8 35 0.9 L16W-112S-HK <3 31 34 1.7 L16W-125S-HK <3 47 37 3.3 L16W-150S-HK <3 6 27 3.1 L16W-175S-HK <3 6 38 2.0		L16W-0+25S-HK	3	6	20	2.0		
L16W-0+75S-HK		L16W-0+38S-HK	<3	13	43	3.3		
L16W-0+88S-HK		L16W-0+50S-HK	3	13				
L16W-100S-HK		L16W-0+75S-HK	<3	15	38	3.3		
L16W-112S-HK		L16W-0+88S-HK	<3	33				
L16W-112S-HK			<3	8				
L16W-150S-HK								
L16W-175S-HK <3 6 38 2.0								
		L16W-150S-HK						
L16W-188S-HK 3 10 38 2.8		L16W-175S-HK	<3	6	38	2.0		
		L16W-188S-HK	3	10	38	2.8		



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8-Nov-89

Harvey Tremblay AURLOT EXPLORATION LTD. Suite 500 67 Richmond Street West Toronto, ON M5H 125

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Authority: Howard Lahti

Project : HK

Job:	891080			·		Status:	Final
		Au	Cu	Zn	As		
		FA/AA3	AA	AA	Hyd-AA		
Type	Sample	dqq	_ppm_	ppm	ppm		
	L16W-200S-HK	<3	8	26	3.0		
	L16W-212S-HK	< 3	12	55	1.9		
	L16W-225S-HK	₹3	8	50	1.9		
	L16W-238S-HK	₹3	6	31	3.1		
	L16W-250S-HK	<3	30	30	2.4		
	L16W-300S-HK	3	4	28	2.5		
	L20W-225N-HK	√ ⟨3	18	24	2.5		
	L20W-250N-HK	₹3	10	20	1.9		
	L20W-275N-HK	₹3	12	25	3.9		
	L20W-300N-HK	⟨3	7	23	2.8		
	L20W-325N-HK	<3	8	30	4.5		
	L20W-350N-HK	<3	6	18	2.3		
	L20W-362N-HK	<3	8	25	3.5		
	L20W-375N-HK	3	18	32	4.3		•
	L20W-388N-HK	3	23	40	2.3		
	L20W-400N-HK	4	40	38	4.3		
	L14W-0+12S-HK	4	4	22			
	L14W-0+25S-HK	<3	4	22			
	L14W-0+75S-HK	<3	9	29	2.0		
	L14W-BLO+00-HK	<3	9	25	3.2		
	L14W-0+12N-HK	<3	7	28	5.1		
	L14W-0+38N-HK	<3	4	16			
	L14W-0+50N-HK	₹3	6	26			
	L14W-0+62N-HK	₹3	5	21			
	L14W-0+75N-HK	3	6	33			
	L14W-125N-HK	6	6	32			
	L18W-BLO+00-HK	3	39	67			
	L18W-0+25N-HK	4	12	32			
	L18W-0+38N-HK	3	49	65			
	L18W-0+50N-HK	<3	8	32			
	L18W-0+75N-HK	4	7	37	5.2		



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8-Nov-89

Harvey Tremblay AURLOT EXPLORATION LTD. Suite 500 67 Richmond Street West Toronto, ON M5H 1Z5

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Authority: Howard Lahti

Project : HK

Job:	891080	· · · · · · · · · · · · · · · · · · ·		 		Status:	Final
		Au	Cu	Zn	Λs		
		FA/AA3	AA	AA	Hyd-AA		
Type	Sample	dqq	<u>ppm</u>	<u>ppm</u>	ppm		
	L18W-100N-HK	5	9	25	2.6		
	L18W-125N-HK	4	8	30	4.2		
	L18W-138N-HK	<3	4	23	2.4		
	L18W-150N-HK	<3	9	21	1.6		
	L18W-162N-HK	<3	5	25	2.4		
	L18W-175N-HK	<3	11	50	5.2		
	L18W-200N-HK	3	7	35	2.6		
	L18W-2+25S-HK	4	190	69	2.4		
	L18W-2+50S-HK	3	40	29	2.6		
	L18W-2+75S-HK	N	N	N	N		
	L18W-3+00S-HK	N	N	N	N		
	L18W-3+25S-HK	<3	7	19	2.6		
	L18W-3+50S-HK	<3	20	36			
	L20W-0+25N-HK	<3	11	36	2.6		
	L20W-0+50N-HK	<3	8	32			
	L20W-0+75N-HK	<3	4	12	0.3		
	L20W-0+25N-HK	<3	18	39	1.8		
	L20W-0+50S-HK	<3	19	36	2.1		
	L20W-0+75S-HK	N	N	N	N		
	L20W-1+00S-HK	<3	7	24	1.8		
	L20W-1+25S-HK	<3	8	49	3.0		
	L20W-1+50S-HK	<3	7	31			
	L20W-175S-HK	<3	23	36	2.3		
	L12W-150S-HK	<3	9	31	2.6		
	L12W-175S-HK	3	14	30			
	L12W-188S-HK	3	47	34	1.6		
	L12W-200S-HK	<3	14	21			
	L12W-212S-HK	3	26	32			
	L12W-225S-HK	4	16	39			
	L12W-238S-HK	5	140	41	2.8		
	L12W-250S-HK	<3	31	34	2.1		



5735 McADAM ROAD MISSISSAUGA, ONTARIO CANADA L4Z 1N9

PHONE: (416) 890-8566 FAX: (416) 890-8575

8-Nov-89

Harvey Tremblay AURLOT EXPLORATION LTD. Suite 500 67 Richmond Street West Toronto, ON M5H 1Z5

Page: 8 Copy: 1 of 1 Set: 1

Authority: Howard Lahti

Project : HK

Purchase order:

Job: 891080 Status: Final

Type	Sample	Au FA/AA3 ppb	Cu AA ppm	Zn AA ppm	As Hyd-AA <u>ppm</u>
	L12W-275S-HK	<3	5	27	3.5
	L4W-0+50S-HK	<3	7	31	3.7
	L4W-0+88S-HK	<3	10	29	2.2
	L4W-1+00S-HK	<3	7	35	4.2
	L4W-1+12S-HK	<3	4	19	1.2
	L4W-1+25S-HK	<3	3	17	1.4
	L4W-1+50S-HK	<3	5	21	2.0
	L4W-0+75S-HK	<3	8	48	2.6

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8-Nov-89

Harvey Tremblay AURLOT EXPLORATION LTD. Suite 500 67 Richmond Street West Toronto, ON M5H 1Z5

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Authority: Howard Lahti

Project : HK

Job: 891083	Status:	Final
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		Au FA/AA3	Cu AA	Zn AA
Type	<u>Sample</u>	_ppb_	_ppm_	ppm
	L3E 0+88N	<3	150	59
	L3E 1+12N	⟨3	5	20
	L3E 1+88N	<3	7	30
	L3E 2+00N	<3	4	17
	L3E 2+12N	<3	6	21
	L3E 2+50N	<3	6	27
	L3E 3+50N	<3	6	30
	L3E 3+75N	<3	7	21
	L3E 3+88N	<3	6	23
	L3E 4+00N	<3	21	28
	L3E 4+38N	<3	20	36
	L3E 4+62N	<3	8	22
	L3E 4+88N	<3	5	10
	L3E 3+12S	<3	85	10
	L3E 3+38S	<3	7	22
	L3E 3+50S	<3	7	28
	L3E 3+62S	<3	9	30
	L2E 0+50S	<3	8	24
	L2E 0+75S	<3	5	21
	L2E 1+75S	<3	5	20
	100 1.000		77	0.1
	L2E 1+00S	<3	7	21
	L2E 1+25S	<3	8	15
	L2E 1+50S	<3	9	14
	L2E 1+62S	< 3	9	23
	L2E 1+88S	<3	4	14
	L2E 2+00S	<3	8	23
	L2E 2+25S	<3		13
	L2E 2+50S	<3		13
	L2E 2+75S			10
	L2E 3+00S	<3	26	13
	L2E 3+25S	<3	11	22



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Harvey Tremblay AURLOT EXPLORATION LTD. Suite 500 67 Richmond Street West Toronto, ON M5H 1Z5

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Authority: Howard Lahti

Project : HK

Purchase order:

Job: 891083 Status: Final ZnΛu Cu FA/AA3 AA AΛ Type Sample ppb ppm ppm L2E 3+50S <3 9 22 L2E 3+75S <3 55 14 L2E 4+00S N N N

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8-Nov-89

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Page: 1 Copy: 1 of 1 Set: 1

Authority: Howard Lahti

Project : HK

Purchase order:

Job: 891084 Status: Final

		Au	Cu	Zn
		FA/AA3	AA	AA
Type	Sample	<u>ppb</u>	ppm	_ppm_
			_	
	HK L8E 2+75S	<3	6	55
	HK L8E 2+88S	<3	6	35
	HK L8E 3+00S	3	7	63
	HK L8E 3+12S	<3	7	37
	HK L8E 3+25S	<3	6	32
	HK L8E 3+75S	<3	12	21
	HK L8E 4+00S	<3	6	25
	HK L8E 4+25S	<3	9	26
	HK L8E 4+50S	<3	9	19
	HK L8E 4+75S	<3	6	36
	1111 200 11100		•	
	HK L8E 5+00S	<3	5	23
	HK L8E 5+25S	₹3	4	12
	HK L8E 2+75N	⟨3	2	15
	HK L8E 3+00N	₹3	4	18
	HK L8E 3+25N	<3	3	19
	HK L8E 3+50N	<3	5 5	15
		>3	4	18
	HK L8E 3+75N			
	HK L8E 4+00N	< 3	4	22
	HK L8E 4+25N	₹3	6	19
	HK L8E 4+50N	<3	6	23
			_	
	HK L10E 2+00N		9	
	HK L10E 2+25N	<3	5	22
	HK L10E 2+50N	<3	44	36
	HK L10E 2+75N	<3	5	21
		⟨3	11	29
		<3	3	
		<3	3	16
	HK L10E 3+75N	<3	7	25
	HK L8E 4+75N HK L8E 5+00N HK L10E 1+75N HK L10E 2+00N HK L10E 2+25N HK L10E 2+50N HK L10E 2+75N HK L10E 3+00N HK L10E 3+25N HK L10E 3+25N	<3 <3 <3 <3 <3 <3 <3 <3 <3	5 7 32 9 5 44 5 11 3	21 18 15 22 22 36 21 29 19

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8-Nov-89

Harvey Tremblay AURLOT EXPLORATION LTD. Suite 500 67 Richmond Street West Toronto, ON M5H 125

Page: 2 Copy: 1 of 1 Set: 1

Authority: Howard Lahti

Project : HK

Job:	891084			
		Au	Cu	Zn
		FA/AA3	AA	AA
Type	Sample	<u>ppb</u>	<u>ppm</u>	ppm
	HV I 10D ALOON			0.0
	HK L10E 4+00N HK L10E 4+25N	<3 3	6 5	23 25
	HK L10E 4+50N	<3	4	30
	HK L10E 4+75N	<3	6	29
	HK L10E 5+00N	<3	7	39
	HK L10E 4+00S	₹3	10	26
	HK L10E 4+25S	₹3	5	23
	HK L10E 4+50S	₹3	8	22
	HK L10E 4+75S	₹3	7	23
	HK L10E 5+25S	₹3	6	25
	III DION CIDOD	\0	v	20
	HK L10E 13+00S	<3	7	18
	HK L10E 13+25S	⟨3	7	21
	HK L10E 13+50S	⟨3	7	20
	HK L10E 13+75S	⟨3	5	23
	HK L10E 14+00S	⟨3	7	26
	HK L10E 14+25S	<3	9	24
	HK L10E 14+38S	<3	12	26
	HK L10E 14+50S	4	5	22
	HK L10E 14+62S	⟨3	15	25
	HK L10E 14+75S	⟨3	25	28
	2102 11.100	10		
	HK L10E 14+88S	<3	10	33
	HK L10E 15+00S	₹3	13	25
	HK BLO+00 12E	<3	10	51
	HK L12E 0+25N	⟨3	8	54
	HK L12E 3+50S	⟨3	8	31
	HK L12E 3+75S	3	5	20
	HK L12E 3+88S	3	5	28
	HK L12E 4+00S	⟨3	12	28
	HK L12E 4+12S	⟨3	6	27
	HK L12E 4+25S	⟨3	5	25
		_	-	
	HK L12E 4+38S	<3	5	22

5735 McADAM ROAD MISSISSAUGA, ONTARIO CANADA L4Z 1N9 PHONE: (416) 890-8566 FAX: (416) 890-8575

8-Nov-89

Harvey Tremblay AURLOT EXPLORATION LTD. Suite 500 67 Richmond Street West Toronto, ON M5H 1Z5

Page: 3 Copy: 1 of 1 Set: 1

Authority: Howard Lahti

Project : HK

Purchase order:

Job: 891084 Status: Final

				Au	Cu	Zn
				FA/AA3	۸A	AA
Type		Sam	ple	ppb	<u>bbw</u>	_ppm_
	HK	L12E	4+50S	<3	3	19
	HK	L12E	4+75S	<3	3	32
	HK	L12E	5+00S	<3	7	22
	HK	L12E	5+25S	<3	4	26
	HK	L12E	5+50S	<3	5	22
	HK	L12E	5+75S	<3	3	20
	HK	L12E	11+75S	<3	8	25
	HK	L12E	12+00S	<3	6	41
			12+25S	<3	7	21
			12+508	<3	7	30
			12+758	<3	4	18
			13+00S	<3	9	18
			O L14E	<3	3	18
			0+25N	<3	6	21
			0+38N	<3	7	25
	HK	L14E	0+50N	<3	6	21
	HK	L14E	0+75N	<3	5	27
	HK	L14E	1+00N	<3	3	13
	HK	L14E	1+50N	3	8	22
	HK	L14E	2+00N	<3	7	24
	нк	L14E	2+25N	<3	6	35
			2+50N	<3	4	22
			2+62N	<3	7	17
			2+75N	⟨3	15	33
			3+00N	₹3	3	14
			3+25N	₹3	7	23
			1+258	⟨3	9	19
			2+00N	⟨3	4	16
			2+25N	⟨3		21
			2+50N	⟨3	7	30
					-	0.4
	HK	L19W	2+63N	<3	5	34



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8-Nov-89

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Page: 4 Copy: 1 of 1 Set: 1

Authority: Howard Lahti

Project : HK

Job:	891084	Status:	Final
------	--------	---------	-------

Туре		San	nple	Au FA/AA3 ppb	Cu AA ppm	Zn AA ppm
	нк	L19W	2+75N	<3	6	28
	HK	L19W	2+88N	<3	6	23
	HK	L19W	3+00N	<3	5	17
	HK	L19W	3+12N	<3	6	20
	HK	L19W	3+25N	<3	6	18
	HK	L19W	3+50N	<3	5	18
	HK	L19W	3+75N	<3	12	19
	HK	10+12	W 15+00S	<3	58	31



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8-Nov-89

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Page: 1 Copy: 1 of 1 Set: 1

Authority: Howard Lahti

HKR-36

Project : HK

Purchase order:

Job:	891085				····	 	Status:	Final
		Au	Cu	Zn				
		FA/AA3	AA	AA				
Type	Sample	<u>dqq</u> _	<u>ppm</u>	_ppm_				
	LHKR-31 L8E+75N	<3	32	39				
	HKR-32 LINE-9	<3	140	37				
	19433 15+12W	45	820	46				
	HKR-34 L2E	<3	34	47				
	HKR-35	<3	69	130				

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Page: Copy: 1 of 1 Set: 1

Authority: Howard Lahti

Project : HK

Purchase order:

Job: 891098 Status: Final

		Au	Cu	Zn
		FA/AA3	AA	AA
Type	Sample	ppb	ppm	ppm
_==#_F_=		mak-kain-ma	manufacture	
	L21W-BL0+00-HK	<3	6	26
	L21W-0+25N-HK	<3	6	23
	L21W-0+38N-IIK	3	5	23
	L21W-0+50N-HK	3	6	27
	L21W-0+62N-HK	<3	7	18
	L21W-0+75N-HK	<3	12	24
	L21W-0+88N-HK	<3	9	28
	L21W-2+00N-HK	3	16	16
	L21W-2+50N-HK	<3	7	19
	L21W-0+25S-HK	<3	10	33
	L21W-0+50S-HK	<3	12	23
	L21W-0+38S-HK	<3	5	21
	L7E-7+25S-HK	<3	6	21
	L7E-8+00S-HK	<3	14	27
	L7E-8+25S-HK	<3	5	26
	L7E-11+00S-HK	<3	6	25
	L7E-11+25S-HK	<3	10	41
	L7E-11+38S-HK	<3	10	23
	L7E-11+50S-HK	<3	17	45
	L7E-11+75S-HK	<3	25	25
	L7E-12+00S-HK	₹3	17	32
	L7E-12+12S-HK	₹3	10	22
	L7E-12+25S-HK	4	19	38
	L7E-12+38S-HK	⟨3	7	29
	L7E-12+50S-HK	<3	13	30
	L7E-12+75S-HK	₹3	9	22
	L7E-13+75S-HK	₹3	7	17
	L7E-14+00S-HK	<3	7	13
	L7E-14+12S-IIK	<3	4	17
	L7E-14+25S-HK	<3	4	17
	L7E-14+38S-HK	<3	6	25



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Authority: Howard Lahti

Project : HK

Purchase order:

		Au FA/AA3	Cu AA	Zn AA
_Type	Sample	ppb	_ppm	ppm
	L7E-14+50S-HK	<3	7	19
	L7E-14+75S-HK	<3	5	22
	L7E-15+00S-HK	<3	7	23
	+L15S-900E-HK	<3	50	50
	+L15S-925E-HK	<3	7	21
	+L15S-938E-HK	<3	50	50
	+L15S-950E-HK	<3	5	13
	+L15S-962E-HK	<3	8	22
	+L15S-975E-HK	<3	9	20
	+L15S-988E-HK	₹3	5	18
	+L15S-1000E-HK	<3	10	18
	+L15S-1000E-HK	<3	21	27
	+L15S-1012E-HK	<3	19	23
	+L15S-1025E-HK	<3	62	30
	+L15S-1050E-HK	<3	20	27
	+L15S-1075E-HK	⟨3	5	21
	+L15S-1150E-IIK	<3	6	21
	+L15S-1175E-HK	<3	9	20
	+L15S-1200E-HK	⟨3	7	17
	L5E-9+00S-HK	<3	3	22
	DOE STOOD III	\0	Ū	20
	L5E-8+75S-HK	<3	7	16
	L5E-8+50S-HK	<3	7	25
	L5E-8+25S-HK	<3	7	20
	L5E-8+00S-HK	<3	4	20
	L5E-7+75S-HK	<3	6	20
	L5E-7+50S-HK	<3	5	14
	L5E-7+25S-HK	<3	3	15
	L16E-2+75N-HK	3	3	16
	L16E-2+50N-HK	<3	6	22
	L16E-2+38N-HK	<3	5	18
	L16E-2+25N-HK	<3	6	21

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8-Nov-89

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Page: 3 Copy: 1 of 1 Set: 1

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Project : HK

Purchase order:

Туре	Sample	Au FA/AA3 ppb	Cu AA ppm	Zn AA ppm
	L16E-2+12N-HK	N	N	N
	L16E-2+12N-HK	√3	6	19
	L16E-0+25N-HK	<3	8	18
	L16E-BLO+00N-HK	⟨3	3	14
	L16E-0+25S-HK	<3	5	21
	L16E-0+50S-HK	⟨3	6	13
	L16E-0+75S-HK	⟨3	6	23
	L16E-1+00S-HK	₹3	7	27
	L16E-1+25S-HK	⟨3	4	17
	L18E-2+25N-HK	₹3	15	18
	L18E-1+75N-HK	<3	6	20
	L18E-1+25N-HK	<3	2	11
	L18E-1+12N-HK	<3	5	17
	L18E-1+00N-HK	<3	9	32
	L18E-0+88N-HK	<3	10	27
	L18E-0+75N-HK	3	11	18
	L18E-0+25N-HK	<3	5	17
	L18E-2+00S-HK	3	13	17
	L18E-2+25S-HK	<3	5	19
	L18E-2+50S-HK	<3	8	22
	L18E-2+75S-HK	<3	41	31
	L18E-3+00S-HK	<3	5	18
	L18E-3+25S-HK	<3	12	22
	L18E-3+50S-HK	<3	8	19
	L20E-1+50N-HK	<3	8	24
	L20E-1+38N-HK	<3	9	25
	L20E-1+25N-HK	<3	9	20
	L20E-1+12N-HK	<3	6	18
	L20E-1+00N-HK	⟨3	270	30
	L22E-3+00N-HK	<3	7	21
	L22E-2+75N-HK	<3	9	27



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8-Nov-89

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Page: 4 Copy: 1 of 1 Set: 1

Authority: Howard Lahti

Project : HK

Purchase order:

Туре	Sample	Au FA/AA3 ppb	Cu AA ppm	Zn AA ppm
	L22E-2+63N-HK	<3	4	12
	L22E-2+50N-HK	⟨3	6	15
	L22E-2+38N-HK	<3	6	17
	L22E-2+25N-HK	<3	4	16
	L22E-2+00N-HK	<3	10	28
	L22E-1+75N-HK	<3	6	26
	L22E-1+50N-HK	<3	12	28



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Page: 1 Copy: 1 of 1 Set: 1

Authority: Howard Lahti

Project:

OUCUST TIME	Job:	891115	Status:	Final
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Type	Sample	Au FA/AA3 ppb	Cu AA ppm	Zn AA ppm
Soils	L34E-BLO+00S-HK	<3	6	26
	L34E-0+25S-HK	<3	5	22
	L34E-0+50S-HK	<3	23	24
	L34E-0+75S-HK	<3	6	23
	L34E-1+00S-HK	3	16	21
	L34E-1+25S-HK	<3	11	26
	L25E-0+25N-HK	<3	7	22
	L25E-BLO+00S-HK	4	6	21
	L25E-0+12S-HK	<3	6	20
	L25E-0+25S-HK	<3	8	27
	L25E-0+38S-HK	<3	6	15
	L25E-0+50S-HK	<3	8	28
	L25E-0+63S-HK	6	15	21
	L25E-0+75S-HK	5	4	16
	L25E-0+88S-HK	<3	9	27
	L25E-1+00S-HK	<3	13	25
	L25E-1+25S-HK	<3	32	42
	L25E-1+50S-HK	6	20	38
	L25E-1+75S-HK	<3	7	25
	L30E-0+75S-HK	<3	7	27
	L30E-0+50S-HK	<3	3	19
	L30E-0+25S-HK	<3	10	50
	L30E-0+25S-HK	<3	4	28
	L30E-BLO+00S-HK	<3	4	33
	L30E-0+12N-HK	<3	12	43
	L30E-0+25N-HK	<3	9	48
	L30E-0+50N-HK	<3	10	33
	L30E-0+75N-HK	<3	9	8
	L30E-1+00N-HK	4	7	27
	L30E-1+12N-HK	<3	10	27
	L30E-1+25N-HK	<3	18	23



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8-Nov-89

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Page: Copy: 1 of 1 Set: 1

Authority: Howard Lahti

Project :

Job:	891115			**************************************
			a	•
		Au	Cu	Zn
fn.	0. 1	FA/AA3	AA	AA
Type	Sample	_ppb_	_ppm_	_ppm_
	TOOK 1 LEON HV		1 5	25
	L30E-1+50N-HK	<3	15	25
	L30E-1+75N-HK	<3	5	17
	L30E-2+25N-HK	<3	6	29
	L30E-2+50N-HK	₹3	8	28
	L30E-2+63N-HK	<3	7	26
	L30E-2+75N-HK	<3	7	21
	L30E-3+00N-HK	<3	6	23
	L30E-3+25N-HK	3	11	26
	L31E-0+25N-HK	<3	31	25
	L31E-0+38N-HK	<3	17	18
	L31E-0+50N-HK	<3	9	17
	L31E-0+75N-HK	<3	14	17
	L31E-1+00N-HK	<3	4	12
	L31E-1+25N-HK	<3	17	17
	L29E-BLO+00N-HK		7	20
	L29E-0+25N-HK	<3	12	23
	L29E-0+50N-HK	⟨3	8	21
	L29E-0+75N-HK	8	16	21
	L29E-0+88N-HK	<3	7	22
	L29E-1+00N-HK	5	16	
	David Trook lik	U	10	50
	L29E-1+25N-HK	<3	13	25
	L29E-1+50N-HK	₹3	6	
	L29E-1+75N-HK	₹3	11	
	L29E-2+25N-HK	⟨3	8	
	L29E-2+50N-HK	4	8	
	L29E-2+75N-HK	<3	7	
		4	9	
	L29E-3+00N-HK			
	L29E-3+25N-HK	<3		
	L29E-3+50N-HK	5		
	L29E-3+75N-HK	<3	42	51
	* 0 5 5 0 . 5 5 6	4	^	
	L27E-0+75S-HK	4	9	22



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8-Nov-89

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Authority: Howard Lahti

Project :

Job:	891115				Status:	Final
		•	Cu	7		

		Au	Cu	Zn
		FA/AA3	۸۸	AA
Type	Sample	_ppb	_ppm_	ppm
			F.F.	P.E.'''
	L27E-0+50S-HK	<3	7	17
	L27E-0+25S-HK	<3	5	17
	L27E-0+12S-HK	<3	9	30
	L27E-BLO+00S-HK	<3	7	22
	L27E-0+12N-IIK	<3	8	22
	L27E-0+25N-HK	<3	9	24
	L27E-0+50N-HK	<3	9	22
	L27E-0+75N-HK	<3	13	26
	L27E-1+00N-HK	<3	11	25
	L27E-1+25N-HK	<3	10	33
	L36E-2+75N-HK	<3	5	23
	L36E-2+50N-HK	<3	9	24
	L36E-2+25N-HK	<3	10	24
	L36E-2+00N-HK	<3	9	35
	L36E-1+75N-HK	<3	6	20
	L36E-1+25N-HK	<3	7	31
	L36E-0+75N-HK	<3	9	26
	L36E-0+50N-HK	<3	7	26
	L36E-0+38N-HK	<3	6	23
	L36E-0+25N-HK	<3	7	22
	L36E-0+12N-HK	<3	8	27
	L36E-BLO+00N-HK		24	34
	L36E-0+25S-HK	<3	6	30
	L36E-0+50S-HK	3	26	29
	L36E-0+75S-HK	<3	11	28
	L36E-0+88S-HK	<3	53	31
	L36E-1+00S-HK	<3	23	30
	L36E-1+12S-HK	<3	16	23
	L36E-1+25S-HK	<3	7	20
	L36E-1+50S-HK	<3	5	21
	L24E-1+00N-HK	<3	6	23



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8-Nov-89

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Page: 4 Copy: 1 of 1 Set: 1

Authority: Howard Lahti

Project :

Purchase order:

		Au	Cu	Zn
		FA/AA3	AA	AA
<u>Type</u>	Sample	_ppb	ppm	ppm
	L24E-0+50N-HK	<3	6	20
	L24E-0+25N-HK	<3	9	25
	L24E-BLO+00S-HK	<3	10	26
	L24E-0+25S-HK	4	8	28
	L24E-0+50S-HK	<3	7	29
	L24E-0+75S-HK	<3	12	20
	L24E-0+88S-HK	<3	7	18
	L24E-1+00S-HK	3	9	16
	L24E-1+12S-HK	<3	12	32
	L24E-1+25S-HK	<3	6	15
	L24E-1+50S-HK	<3	7	17
	L24E-2+00S-HK	3	10	18
	L22E-0+00N-HK	3	10	23
	L22E-0+50S-HK	3	11	22
	L22E-0+75S-HK	⟨3	11	19
	L22E-1+00S-HK	₹3	5	16
	L22E-1+12S-HK	₹3	9	18
	L22E-1+25S-HK	⟨3	5	20
	L22E-1+50S-HK	₹3	8	26
	L22E-1+75S-HK	₹3	4	15
	Dage-11700-III	\0	•	10
	L28E-0+25S-IIK	<3	7	19
	L28E-BLO+00N-HK	<3	4	16
	L28E-0+12N-HK	3	5	16
	L28E-0+25N-HK	<3	5	16
	L28E-0+38N-HK	<3	7	24
	L28E-0+50N-HK	<3	31	26
	L28E-1+00N-HK	<3	5	15
	L28E-1+25N-HK	<3	4	17
	L28E-1+50N-HK	<3	8	20
	L28E-1+63N-HK	<3	5	15
	L28E-1+75N-HK	<3	6	23



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Authority: Howard Lahti

Project :

Purchase order:

Type	Sample	Au FA/AA3 ppb	Cu AA ppm	Zn AA ppm
	L28E-2+25N-HK	<3	5	14
	L28E-2+75N-HK	<3	6	18
	L28E-2+88N-HK	5	17	19
	L28E-3+00N-HK	5	32	39
	L28E-3+25N-HK	<3	10	14
	L28E-3+75N-HK	<3	11	16
	L38E-3+25N-IIK	<3	9	13
	L38E-3+12N-HK	3	9	27
	L38E-3+00N-HK	3	7	12
	L38E-2+75N-HK	3	7	18
	L38E-2+50N-HK	3	4	9
	L38E-2+25N-HK	6	7	21
	L38E-2+00N-HK	3	6	19
	L38E-0+50N-HK	3	5	20
	L38E-0+25N-HK	<3	9	25
	L38E-BLO+00S-HK	<3	8	27
	L38E-0+25S-HK	<3	13	21
	L38E-0+50S-HK	<3	26	24
	L38E-0+75S-IIK	<3	3	17
	L38E-1+00S-IIK	<3	6	32
	L38E-1+25S-HK	4	8	29
	L38E-1+50S-HK	4	11	42



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8-Nov-89

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Page: 1 Copy: 1 of 1 Set: 1

Authority: Howard Lahti

Project : HK

Purchase order:

Type	Sample	Au FA/AA3 ppb	Cu AA ppm	Zn AA ppm
Soil	L40E-BLO+00N-HK	<3	10	26
	L40E-0+12N-HK	<3	14	20
	L40E-0+25N-HK	<3	7	28
	L40E-0+38N-HK	<3	5	22
	L40E-0+50N-HK	<3	8	25
	L40E-0+63N-HK	<3	8	19
	L40E-0+75N-HK	<3	35	45
	L40E-1+00N-HK	<3	11	23
	L40E-1+25N-HK	<3	9	28
	L42E-1+00N-HK	<3	9	47
	L42E-0+75N-HK	<3	4	25
	L42E-0+50N-HK	<3	5	29
	L42E-0+25N-HK	4	4	23
	L42E-0+12N-HK	<3	5	27
	L42E-BLO+00S-HK	<3	4	31
	L42E-0+12S-HK	<3	8	30
	L42E-0+25S-HK	<3	5	25
	L42E-0+75S-HK	<3	5	24
	L42E-1+00S-HK	<3	9	32
	L42E-1+25S-HK	<3	13	34
	L46E-0+25S-HK	<3	4	31
	L46E-0+50S-HK	<3	2	11
	L46E-0+75S-HK	<3	5	25
	L46E-1+00S-HK	<3	2	12
	L46E-1+25S-HK	<3	2	16
	L46E-1+50S-HK	<3	6	23
	L48E-0+50S-HK	<3	9	28
	L48E-0+75S-HK	<3	4	16
	L48E-1+00S-HK	<3	4	18
	L48E-1+25S-HK	<3	5	23
	L48E-1+50S-HK	<3	10	33



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8-Nov-89

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Page: 2 Copy: 1 of 1 Set: 1

Authority: Howard Lahti

Project : HK

Purchase order:

Type	Sample	Au FA/AA3 ppb	Cu AA ppm	Zn AA <u>ppm</u>
	L48E-1+75S-HK	<3	13	47
	L48E-2+00S-HK	₹3	6	38
	L48E-2+25S-HK	< 3		
	2.02 2.232	-	10	30
	L52E-1+25S-HK	<3	8	15
	L52E-1+38S-HK	<3	7	25
	L52E-1+50S-HK	<3	7	26
	L52E-1+63S-HK	<3	7	31
	L52E-1+75S-HK	<3	6	23
	L54E-0+75N-HK	<3	5	20
	L54E-0+88N-HK	<3	4	18
	L54E-1+00N-HK	⟨3	6	28
	L54E-1+12N-HK	⟨3	7	22
	L54E-1+25N-HK	⟨3	8	24
	L50E-0+25S-HK	<3	4	20
	L50E-0+50S-HK	<3	3	16
	L50E-0+63S-HK	<3	6	24
	L50E-0+75S-HK	<3	5	22
	L50E-1+00S-HK	<3	11	43



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Page: Copy: 1 of 1 Set: 1

Authority: Howard Lahti

Project : HK

Purchase order:

Job: 891142 Status: Final

Type	Sample	Au FA/AA3 ppb	Cu AA ppm	Zn AA _ppm
Soil	L13E-250S	<3	9	33
	L13E-275S	<3	5	26
	L13E-300S	<3	17	18
	L13E-325S	<3	5	23
	L13E-350S	<3	6	22
	L13E-375S	<3	9	28
	L13E-400S	<3	10	36
	L13E-425S	<3	14	71
	L13E-450S	<3	28	37

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8-Nov-89

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Page: 6 Copy: 1 of 1 Set: 3

Authority: Howard Lahti/H. Tremblay

L11E-1500S-HK

<3

7

27

Project : HK

Purchase order:

Job: 891185 Status: Final Λu Cu Zn FA/AA3 AA ٨A Type Sample ppb ppm ppm L8E-1800S-HK <3 12 34 L9E-1500S-HK <3 27 46 32 25 L9E-1525S-HK <3 L9E-1550S-HK <3 11 31 <3 9 27 L9E-1575S-HK 9 32 <3 L9E-1600S-HK L9E-1625S-HK <3 60 52 <3 7 31 L9E-1650S-HK <3 29 32 L9E-1675S-HK 27 <3 21 L9E-1700S-HK <3 24 62 L9E-1725S-HK L9E-1750S-HK <3 10 21 26 L9E-1775S-HK <3 19 23 L9E-1800S-HK <3 8 8 41 L10E-1500S-HK <3 38 <3 15 L10E-1525S-HK 52 3 35 L10E-1550S-HK <3 9 34 L10E-1575S-HK <3 10 33 L10E-1600S-HK 46 <3 12 L10E-1625S-HK 28 L10E-1650S-HK <3 4 27 L10E-1675S-HK <3 8 19 <3 5 L10E-1700S-HK <3 6 20 L10E-1725S-HK L10E-1750S-HK <3 6 25 <3 4 34 L10E-1775S-HK 28 L10E-1800S-HK <3 24 24 <3 4 L10E-1850S-HK 42 L10E-1900S-HK <3 89

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Page: 7
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Set: 3

Authority: Howard Lahti/H. Tremblay

Project : HK

Purchase order:

Type	Sample	Au FA/AA3 _ppb	Cu AA ppm	Zn AA ppm
	L11E-1525S-HK	<3	5	29
	L11E-1550S-HK	₹3	9	22
	L11E-1575S-HK	⟨3	8	24
	L11E-1625S-HK	₹3	35	45
	L11E-1650S-HK	⟨3	7	26
	L11E-1675S-HK	4	10	26
	L11E-1700S-HK	<3	11	22
	L11E-1725S-HK	₹3	12	35
	L11E-1750S-HK	<3	9	26
	L11E-1775S-HK	<3	30	47
	L11E-1850S-HK	<3	8	26
	L11E-1900S-HK	<3	11	33
	L12W-425S-HK	₹3	10	24
	L12W-450S-HK	₹3	7	20
	L12W-462S-HK	⟨3	10	32
	L12W-475S-HK	<3	29	160
	L12W-500S-HK	⟨3	10	22
	L12W-512S-HK	<3	14	24
	L12W-525S-HK	₹3	17	38
	L12W-537S-HK	<3	10	28
	L12W-550S-HK	<3	47	74
	L12W-575S-HK	⟨3	86	98
	L12W-600S-HK	⟨3	250	27
	L12W-725S-HK	⟨3	9	32
	L12W-750S-HK	<3	5	25
	L12W-775S-HK	<3	10	36
	L12W-800S-HK	⟨3	9	20
	L12W-812S-HK	<3	6	29
	L12W-825S-HK	<3	4	32
	L12W-837S-HK	<3	6	23



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Authority: Howard Lahti/H. Tremblay

Project : HK

Purchase order:

Type	Sample	Au FA/AA3 ppb	Cu AA ppm	Zn AA ppm
	L12W-850S-HK	<3	5	24
	L12W-875S-HK	<3	6	29 29
	L12W-887S-HK	<3	4	23 27
	L12W-900S-HK	10	4	30
	L12W-912S-HK	√3	5	27
	L12W-925S-HK	<3	4	25
	L12W-950S-HK	₹3	9	28
	L13W-300S-HK	⟨3	7	21
	L13W-325S-HK	⟨3	9	27
	L13W-350S-HK	<3	54	31
	22011 0000 1111			
	L13W-375S-HK	<3	6	16
	L13W-400S-HK	<3	9	20
	L13W-425S-HK	<3	10	23
	L13W-450S-HK	<3	8	24
	L13W-475S-HK	<3	14	45
	L13W-500S-HK	<3	8	19
	L13W-525S-HK	<3	14	28
	L13W-550S-HK	<3	14	18
	L13W-575S-HK	<3	16	19
	L13W-600S-HK	<3	12	19
	L13W-675S-HK	<3	14	37
	L13W-700S-HK	<3	38	22
	L13W-725S-HK	<3	13	21
	L13W-732S-HK	۲3	8	28
	L13W-750S-HK	<3	10	20
	L13W-762S-HK	<3	17	33
	L13W-775S-HK	<3	22	24
	L13W-800S-HK	<3	21	27
-	L13W-812S-HK	<3	9	24
	L13W-825S-HK	<3	9	24



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Set: 3

Authority: Howard Lahti/H. Tremblay

Project : HK

Purchase order:

			_	
		Λu	Cu	Zn
_		FA/AA3	AA	AA
Type	Sample	_ppb	ppm	ppm
				00
	L13W-850S-HK	<3	11	29
	L13W-875S-HK	<3	9	58
	L13W-900S-HK	3	4	17
	L14W-300S-HK	<3	200	37
	L14W-325S-HK	<3	27	24
	L14W-337S-HK	<3	17	33
	L14W-350S-HK	<3	7	21
	L14W-362S-HK	<3	4	18
	L14W-375S-HK	<3	7	26
	L14W-387S-HK	<3	4	19
	L14W-400S-HK	<3	7	20
	L14W-425S-HK	<3	10	21
	L14W-450S-HK	<3	13	25
	L14W-600S-HK	<3	7	20
	L14W-625S-HK	<3	4	19
	L14W-637S-HK	<3	7	26
	L14W-650S-HK	<3	12	38
	L14W-662S-HK	<3	7	22
	L14W-675S-IIK	<3	6	21
	L14W-687S-HK	₹3	15	22
	22111 0012 1111			
	L14W-700S-HK	<3	5	19
	L14W-725S-HK	<3	7	20
	L14W-750S-HK	₹3	4	16
	L14W-775S-HK	⟨3	9	25
	L14W-800S-HK	⟨3	7	41
	L15W-550S-HK	<3	4	18
	L15W-575S-HK	<3	7	16
	L15W-587S-HK	<3	9	19
	L15W-600S-HK	<3	12	19
	L15W-612S-HK	<3	11	26
	PIOM-0152-HV	(3	11	20

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Page: 10 Copy: 1 of 1 Set: 3

Authority: Howard Lahti/H. Tremblay

Project : HK

Purchase order:

		Au FA/AA3	Cu AA	Zn AA
Type	Sample	ppb	ppm	ppm
	L15W-625S-HK	<3	28	24
	L15W-637S-HK	<3	31	21
	L15W-650S-HK	<3	10	24
	L15W-675S-HK	<3	11	25
	L16W-375S-HK	<3	11	31
	L16W-400S-HK	<3	8	32
	L16W-412S-HK	<3	7	21
	L16W-425S-HK	<3	4	19
	L16W-475S-HK	<3	10	20
	L16W-487S-HK	<3	14	22
	L16W-500S-HK	<3	5	22
	L16W-512S-HK	<3	12	21
	L16W-525S-HK	<3	6	19
	L16W-550S-HK	<3	42	92
	L16W-575S-HK	<3	7	18
	L17W-325S-HK	<3	24	21
	L17W-350S-HK	₹3	10	25
	L17W-362S-HK	<3	14	20
	L17W-375S-HK	₹3	15	36
	L17W-387S-HK	<3	20	140
	L17W-400S-HK	⟨3	29	40
	L17W-412S-HK	⟨3	34	40
	L17W-425S-HK	<3	39	25
	L17W-437S-HK	₹3	18	32
	L17W-450S-HK	⟨3	7	19
	L17W-475S-HK	⟨3	13	23
	L18W-400S-HK	<3	45	190
	L18W-432S-HK	⟨3	17	56
	L18W-475S-HK	<3	17	35
	L18W-500S-HK	<3	16	43



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8-Nov-89

Harvey Tremblay AURLOT EXPLORATION LTD. Suite 500 67 Richmond Street West Toronto, ON M5H 1Z5

Page: 11 Copy: 1 of 1 Set: 3

Authority: Howard Lahti/H. Tremblay

Project : HK

Purchase order:

Type	Sample	Au FA/AA3 ppb	Cu AA ppm	Zn AA ppm
	L18W-525S-HK	<3	18	28
	L18W-550S-HK	⟨3	36	75
	L18W-575S-HK	₹3	32	86
	L18W-600S-HK	⟨3	10	45
	L19W-300N-HK	<3	10	36
	L19W-325N-HK	<3	5	27
	L19W-350N-HK	<3	13	45
	L19W-375N-HK	<3	12	31
	L19W-400N-HK	<3	5	27
	L19W-425S-HK	<3	5	29
	L19W-450N-HK	<3	3	26
	L20W-350N-HK	<3	4	20
	L20W-375N-HK	<3	7	30
	L20W-400N-HK	<3	14	27
	L20W-425N-HK	<3	9	24
	L20W-437N-HK	3	6	38
	L20W-450N-HK	<3	29	45
	L20W-475N-HK	<3	14	32
	L20W-500N-HK	<3	9	31
	L20W-525N-HK	<3	5	31
	L20W-550N-HK	<3	5	26
	L21W-350N-HK	<3	4	21
	L21W-375N-HK	<3	6	28
	L21W-400N-HK	<3	2	24
	L21W-412N-HK	<3	4	26
	L21W-425N-HK	<3	7	29
	L21W-437N-HK	<3	7	28
	L21W-450N-HK	<3	4	28
	L21W-475N-HK	<3	76	40
	L21W-500N-HK	<3	5	28



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Page: 3 Copy: 1 of 1 Set: 2

Authority: Howard Lahti/H. Tremblay

Project : HK

Purchase order:

Job: 891185 Status: Final

Туре	Sample	Au FA/AA3 ppb	Cu AA ppm	Pb AA ppm	Zn AA ppm
Soil	нко-55нк	<3	9	6	27
	нко-56нк	<3	24	18	50
	нко-56внк	<3	8	4	23
	нко-57нк	<3	13	8	43
	HKO-58HK	<3	31	26	70
	нко-59нк	9	26	6	40
	нко-60нк	<3	15	14	70

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Page: 5 Copy: 1 of 1 Set: 3

Authority: Howard Lahti/H. Tremblay

Project : HK

Purchase order:

Job: 891185 Status: Final Au Cu Zn FA/AA3 AΑ AA _ Type Sample dqq _ppm_ ppm 5 Soil L6E-1500S-HK <3 27 L6E-1525S-HK <3 5 25 L6E-1550S-HK <3 10 28 <3 24 L6E-1575S-HK 6 30 L6E-1600S-HK <3 7 <3 25 39 L6E-1625S-HK 33 L6E-1650S-HK <3 6 <3 5 30 L6E-1675S-HK L6E-1700S-HK <3 8 21 L7E-1500S-HK <3 12 23 <3 7 24 L7E-1525S-HK L7E-1550S-HK <3 8 21 L7E-1575S-HK <3 9 21 7 <3 19 L7E-1600S-HK L7E-1625S-HK <3 7 16 L7E-1650S-HK <3 19 35 <3 11 21 L7E-1675S-HK L7E-1700S-HK <3 32 15 18 36 L8E-1500S-HK <3 29 L8E-1525S-HK <3 7 20 <3 13 L8E-1550S-HK <3 6 14 L8E-1575S-HK L8E-1600S-HK <3 9 22 <3 6 16 L8E-1625S-HK 20 <3 10 L8E-1650S-HK 20 26 8 L8E-1675S-HK L8E-1700S-HK <3 8 19 <3 11 27 L8E-1725S-HK 40 <3 24 L8E-1750S-HK L8E-1775S-HK <3 11 44



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Authority: Howard Lahti/H. Tremblay

Project : HK

Job:	891185					 	Status:	Final
		Au	Cu	Pb	Zn			
		FA/AA3	۸A	AA	ΛA			
Type	<u>Sample</u>	_ppb_	ppm	_bbm_	_ppm_			
Rock	HKR-15525	<3	76	2	62			
	HKR-15526	<3	27	2	44			
	HKR-15527	<3	30	<1	76			
	HKR-15528	<3	70	<1	44			
	HKR-15529	<3	32	2	160			
	HKR-15530		170	2	66			
	HKR-15531	46	340	4	44			
	HKR-15532		78	2	65			
	HKR-15533		83	2	55			
	HKR-15534	84	140	2	140			



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Page: 1 Copy: 1 of 1 Set: 1

Authority: Howard Lahti

Project : HK

Job:	891081						Status:	Final
		Au	Cu	Zn	As			
		FA/AA3	AA	ΛA	Hyd-AA			
Type	Sample	_ppb	ppm	_ppm_	ppm			
	19401-HK	<3	79	45	0.2			
	19402-HK	<3	51	120	0.3			
	19403-НК	5	125	600	0.2			
	19404-HK	<3	48	20	0.4			
	19405-НК	<3	75	55	0.2			
	19406-HK	21	130	68	0.8			
	19407-HK	26	470	42	0.6			
	19408-HK	<3	84	88	0.8			
	19409-НК	3	340	60	0.2			
	19410-HK	3	110	78	0.4			
			440	70	0.0			
	19411-HK	<3	110	78	0.2			
	19412-HK	7	88	39	0.2			
	19413-НК	78	180	48	0.4			
	19414-HK	5	845	66	<0.2			
	19415-HK		190	50	0.2			
	19416-HK		140	68	<0.2			
	19417-HK		120	58	<0.2			
	19418-НК		110	45	0.4			
	19419-HK		24	27	0.6			
	19420-HK	21	89	110	0.3			
				4.00	0.0			
	19421-НК		85	130				
	19422-HK		210	110				
	19423-HK		170	58				
	19424-HK		56	270				
	19425-HK		125	170				
	19426-HK		190	460				
	19427-HK		55	380				
	19428-HK		490	1100				
	19429-HK		140	390				
	19430-HK	3	87	30	0.2			



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Page: 1 Copy: 1 of 1 Set: 1

Authority: Howard Lahti

Project : HK

Purchase order:

Job: 891099 Status: Final

		Au	Cu
		FA/AA3	AA
Type	Sample	ppb	_ppm_
	19437	48	40
	19438	7	54
	19439	<3	5
	19440	<3	62
	19441	<3	9
	19442	6	560
	19443	<3	9
	19444	<3	49
	19445	27	670
	19446	<3	69
	19447	4	420
	19448	3	15
	19449	<3	9
	19450	3	72
	19451	4	25

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Page: 1 Copy: 1 of 1 Set: 1

Authority: Howard Lahti

Project:

Purchase order:

Type	Sam	ple	Au FA/AA3 ppb	Cu AA ppm	Zn AA ppm
Rocks	19452	r	<3	150	42
	19453		<3	78	63
	19454		<3	72	59
	19455		<3	400	160
	19456		<3	310	270
	19457		<3	20	150
	19458		15	3100	800
	19459		20	400	190
	19460		4	160	180
	19461		<3	75	57
	19462		<3	370	68
	19463		<3	120	60
	19464		<3	420	220
	19465		5	75	190
-	19466		3	25	26
	19467		<3	55	62
	19468		3	500	45
	19469	(19475)	3	5	57
	19470	(19463)	<3	140	450
	19471	(19464)	4	140	450
	19472	(19465)	4	70	490
	19473	(19470)	<3	78	380
	19474	(19462)	<3	68	300
	19475	(19456)	<3	120	60
	19476	(19455)	<3	58	57
	19477	(19500)	<3	58	54
	19478	(19489)	<3	49	73
	19479	(19461)	<3	55	25
	19480	,	6	75	77
	19481		31	1450	1710
	19482		<3	410	280



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Page: 5 Copy: 1 of 1 Set: 3

Authority: Howard Lahti

Project : HK

Purchase order:

		Au	Ag	Cu	Zn
		FA/AA3	AA	AA	AA
Type	Sample	ppb	ppm .	ppm	ppm
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	19486	<3	0.2	30	80
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	19488	<3	<0.2	70	920
	19489	<3	0.6	346	180
	19490	<3	<0.2	58	360
	19491	<3	<0.2	81	470
	19492	<3	<0.2	65	27
	19493	15	0.2	61	71
	19494	<3	0.2	118	45
	19495	<3	<0.2		14
	19496	3	0.2	9	22
	19497	<3	0.2	48	50
	19498	<3			60
	19499	<3			64
	19500	14	0.4	122	64



FAX: (416) 890-8575

8-Nov-89

Harvey Tremblay AURLOT EXPLORATION LTD. Suite 500 67 Richmond Street West Toronto, ON M5H 1Z5

Page: Copy: 1 of 1 Set:

Authority: Howard Lahti

Project : HK

Purchase order:

Job: 891142 Status: Final

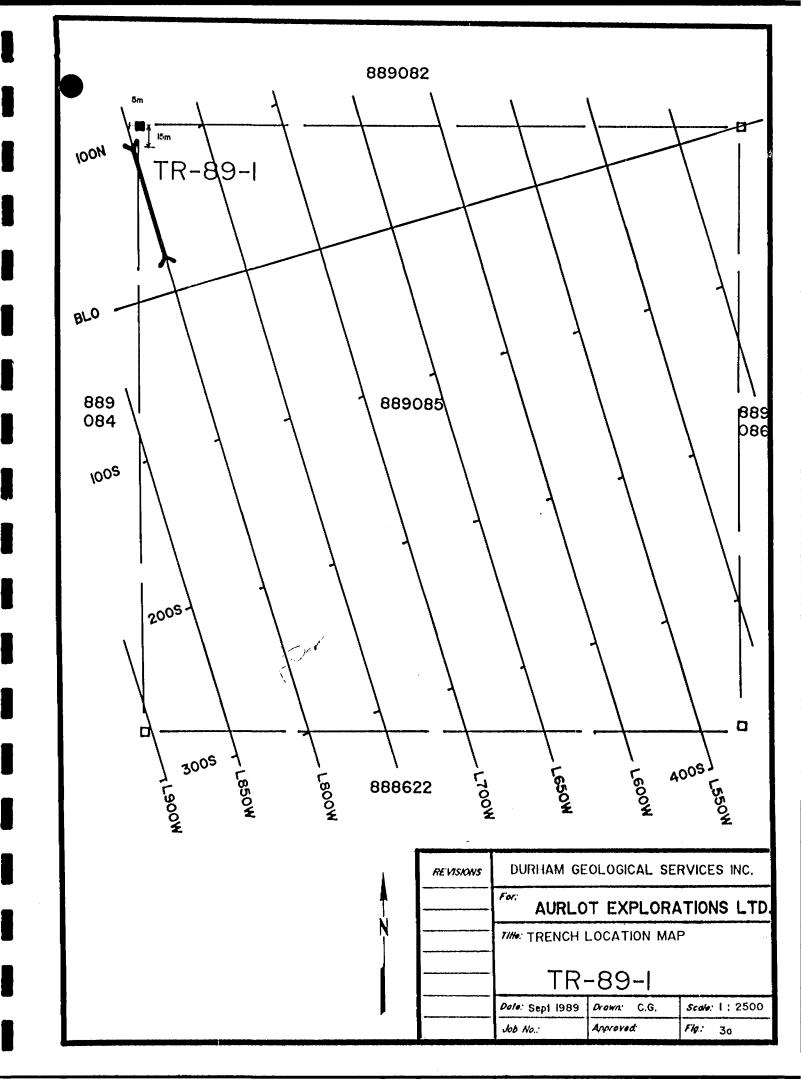
		Au	Ag	Cu	Zn
		FA/AA3	AA	AA	AA
Type	<u>Sample</u>	<u>dqq</u>	<u>ppm</u>	ppm	ppm
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	15502	<3	0.2	111	49
	15503	<3		288	85
	15504	<3	0.2	121	74
	15505	<3	0.2	64	73
	15506	40	0.4	241	65
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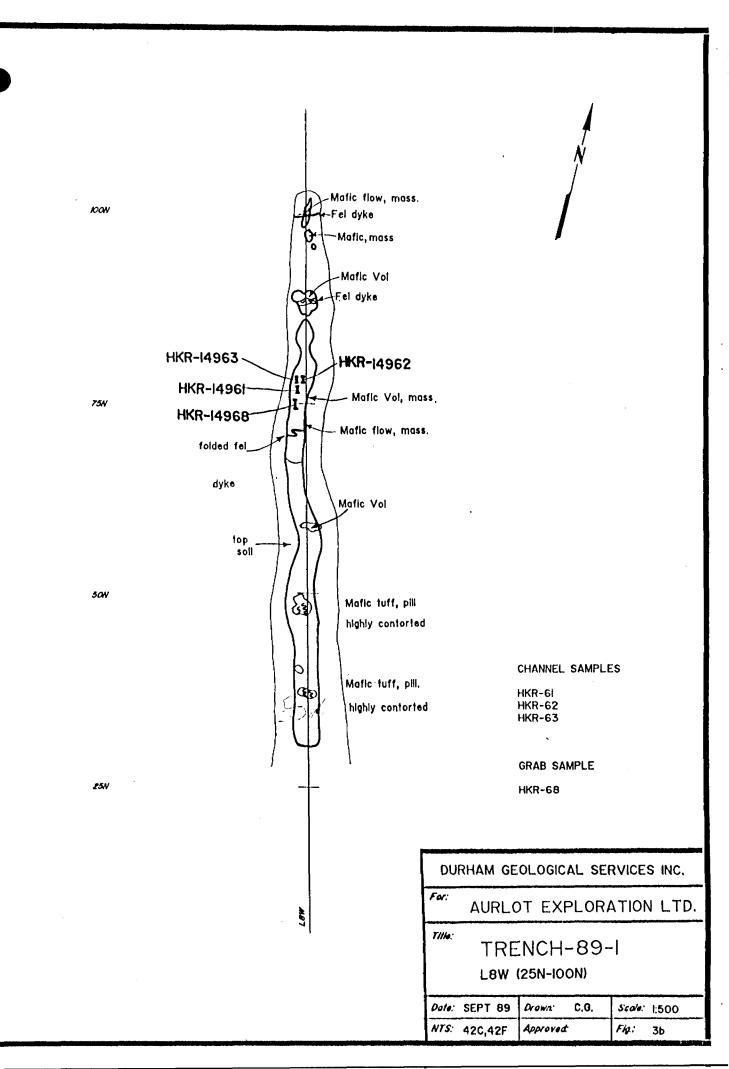
Rock Chip & Channel Samples List

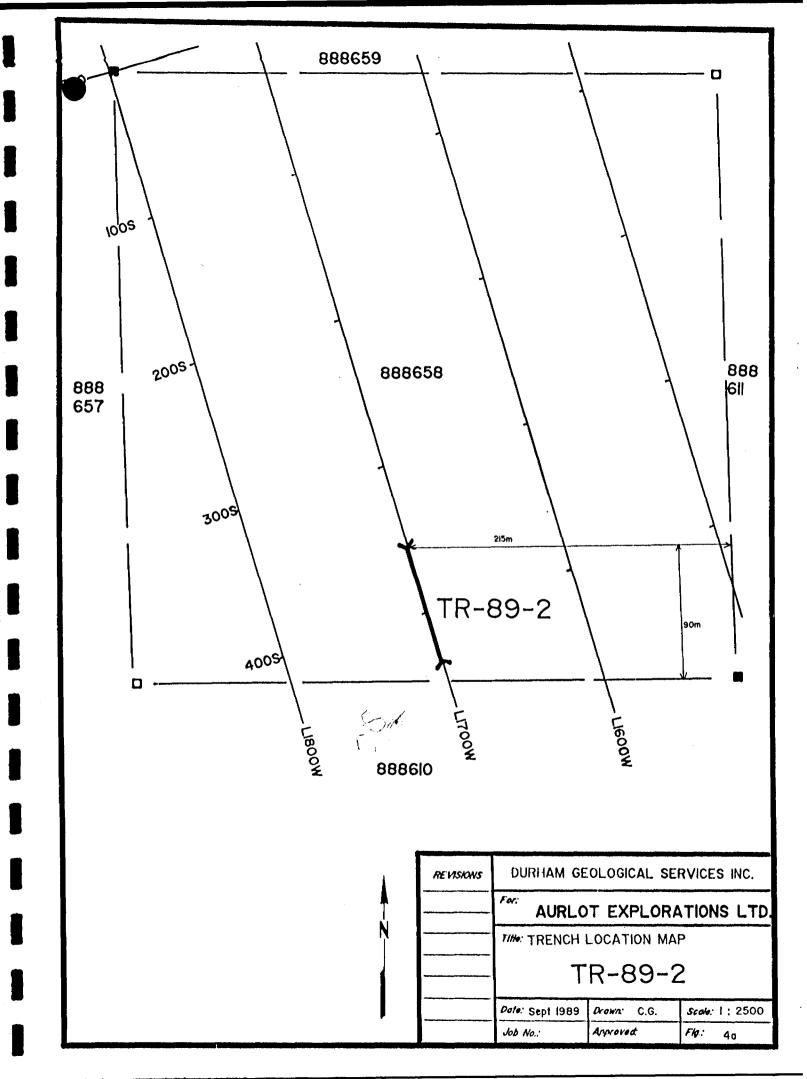
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19409
          15+50W/112N grab
19410
          Main Showing Geology Map
19411
19412
          **
19413
               **
               11
19414
19415
19416
19417
19418
               11
19419
          **
19420
               11
19421
19422
19423
         L16W/120 S
19424
         L16W/0+00
19425
         L16W/312N
19426
          **
               11
19427
19428
          41
19429
         L8E/13+12
19430
         L8E/425N
19431
19432
         L9E/1350S
19433
         L10+15E/1500S
19434
         L2E/162S
         L17W/325S
19435
19436
         L12E/300N
19437
         L19W/350N
19438
         L17W/338S
19439
          L13+85W/4+05N
19440
          L57W/200S
19441
          L12E/2+75N
19442
          L7E/1225S
19443
          L19E/238S
19444
          L19W/250-300N
19445
          L17W/500S
19446
          L17W/262S
          L16+60W/400S
19447
          L13E/425S
19448
19449
          L14E/3+70N
19450
          L15E/1N
          L22E/88S
19451
          L27E/110N
19452
19453
          L24E/105S
19454
          L24E/125S
          L13+35W/408.3 S channel off grid
19455
          see Geology map (South of L13+50W/400S)
19456
19457
               **
          **
19458
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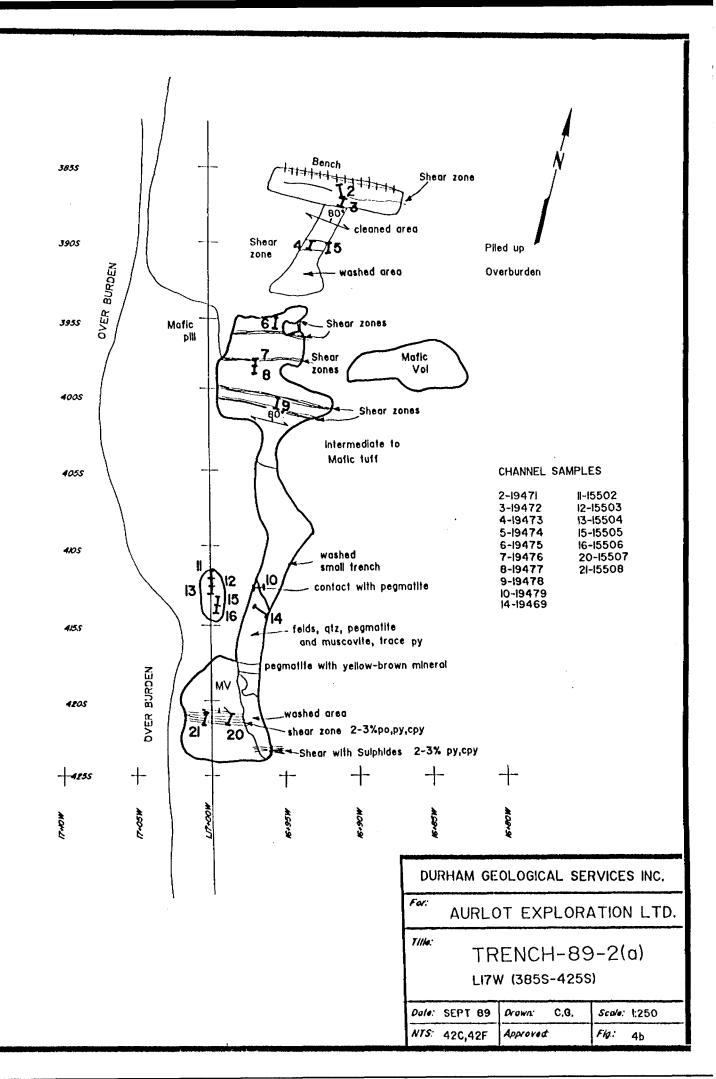
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19459
         see Geology map (South of L13+50W/400S)
19460
19461
         L8W/79N channel
19462
19463
         L17W/4+50S
19464
19465
         L29E/0+50N
19466
         L29E/0+25N
19467
         L19W/350N
19468
         L8W/75N
19469
         L17W #14 channel (TR-89-2)
19470
          #23
               (TR-89-2)
         #2
19471
                  н
         #3
19472
                  11
19473
         #4
         #5
19474
19475
         #6
         #7
19476
                  II
19477
         #8
19478
         #9
19479
          #10
19480
         L36E/0+50N
19481
         L13+90W/400S
         L3E/300S
19482
19483
          L57W/200S Trench 12
19484
          Grab 1 175 S Trench 12
          Grab 2 300 S
19485
                                11
          Grab 4 250 S
19486
          Grab 5 188 S
19487
19488
          L17W/31N
                    Grab 1
          L17W/34 N Grab 2
19489
19490
          L17W/245N Grab 3
19491
          L17W/12N Grab 4
19492
         L5E 3+68 S
                      Main Grid Area
          L9E/13+12S
19493
          L40E/0+70N
19494
          L42E/0+25N
19495
19496
          L42+25E/BL+00 Float
          L7E/1225-50 see trench map Grab 1
19497
                                       Grab 2
19498
19499
                                       Grab 3
                                       Grab 4
19500
```

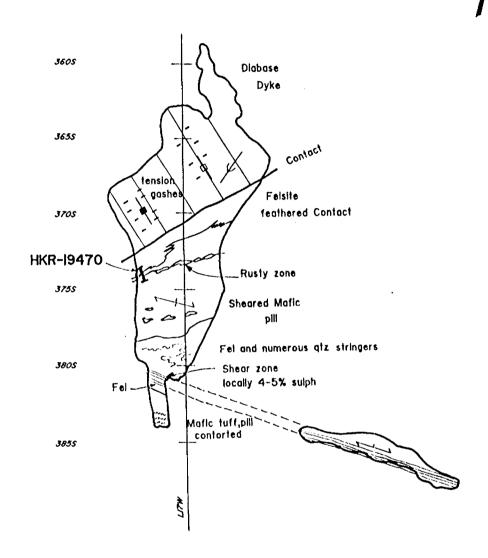
APPENDIX 2











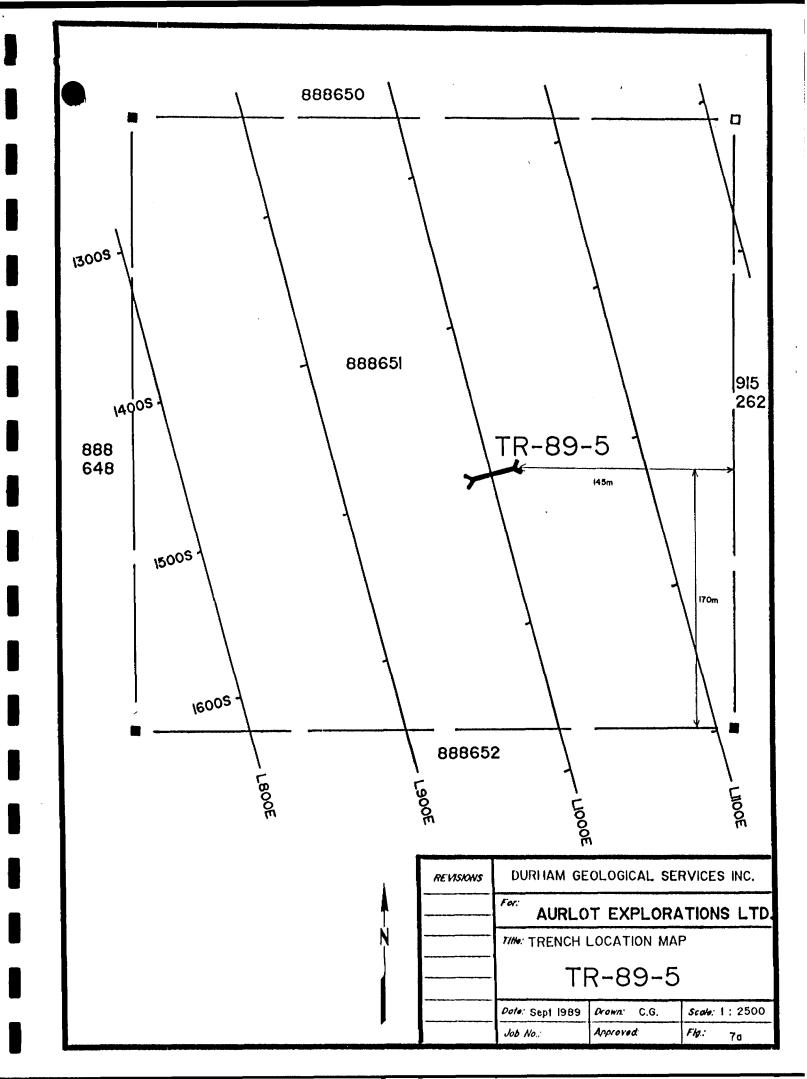
DURHAM GEOLOGICAL SERVICES INC.

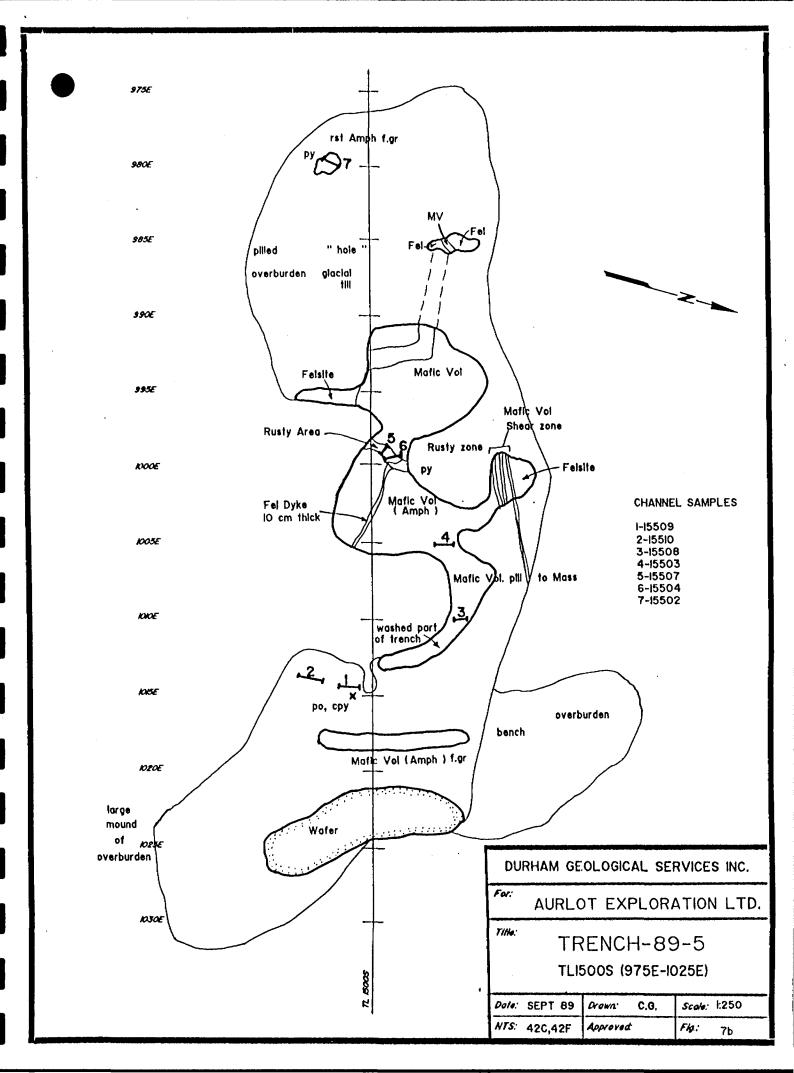
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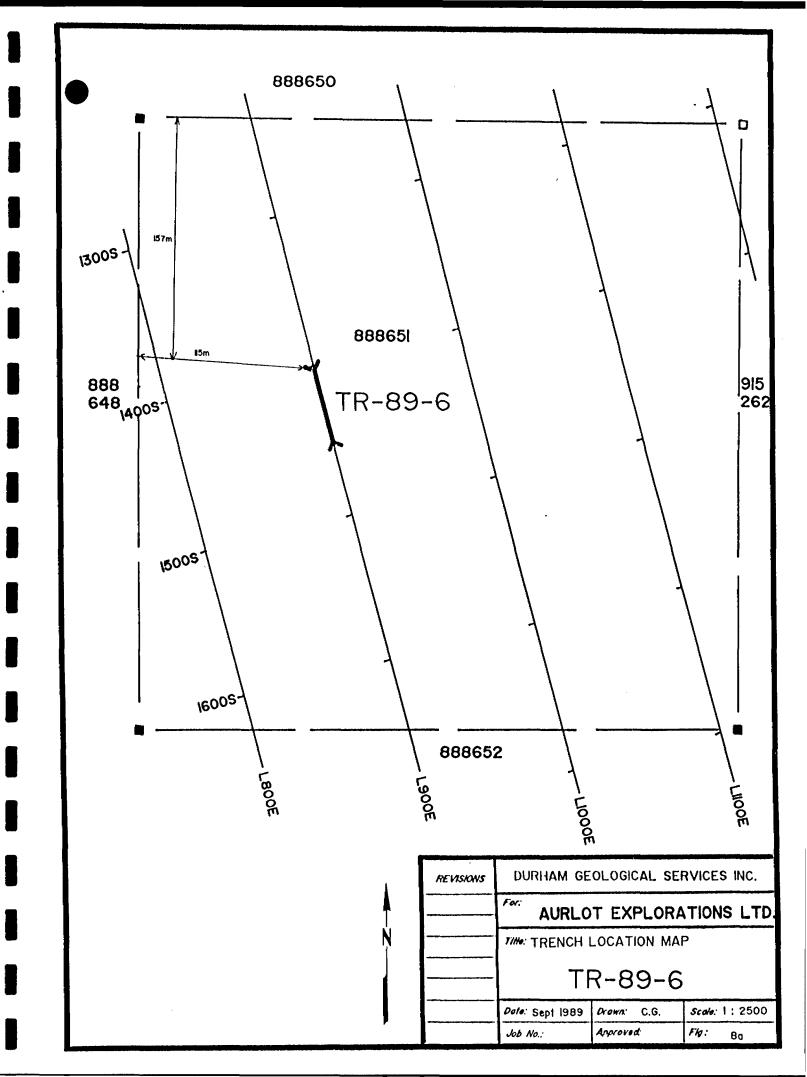
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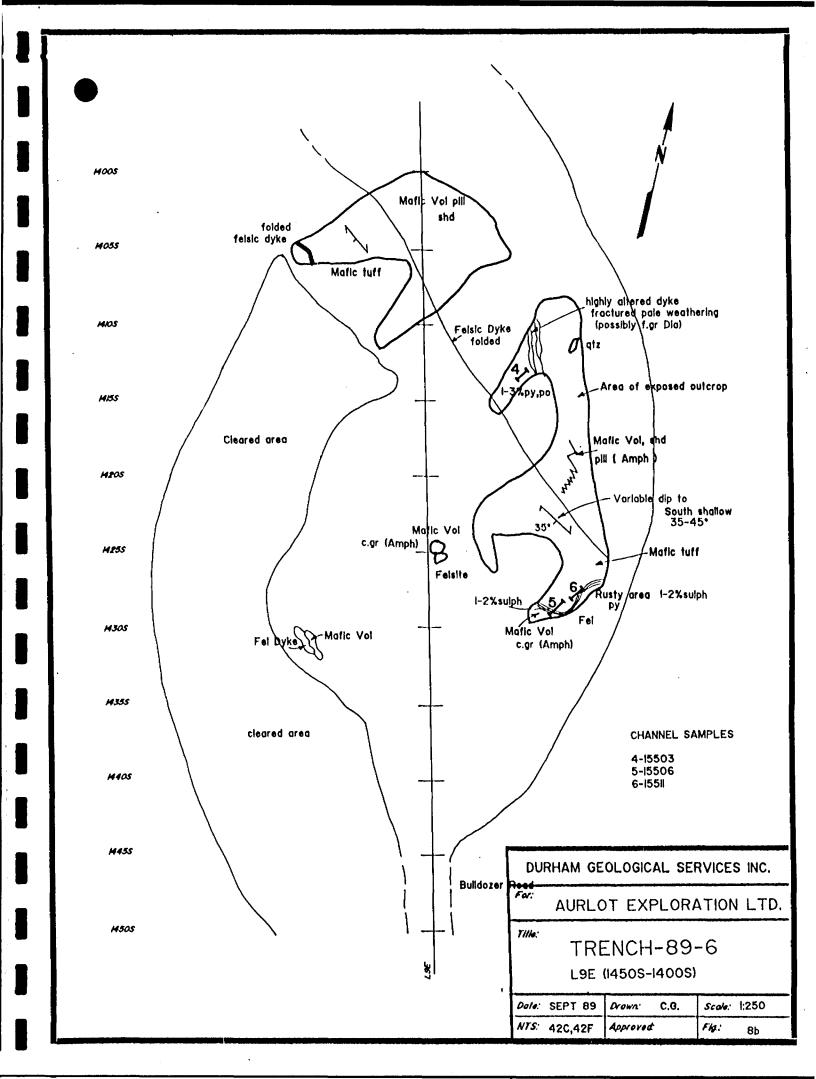
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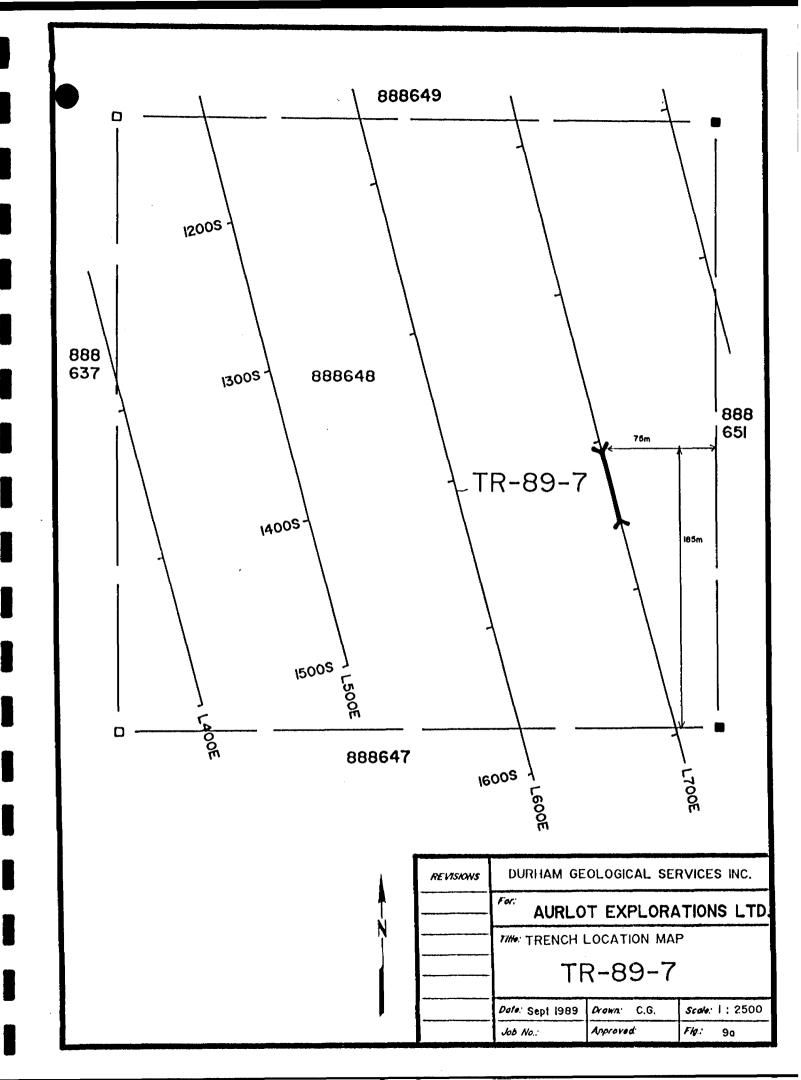
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NTS:	42C,42F	Approvad	Fig.: 4c

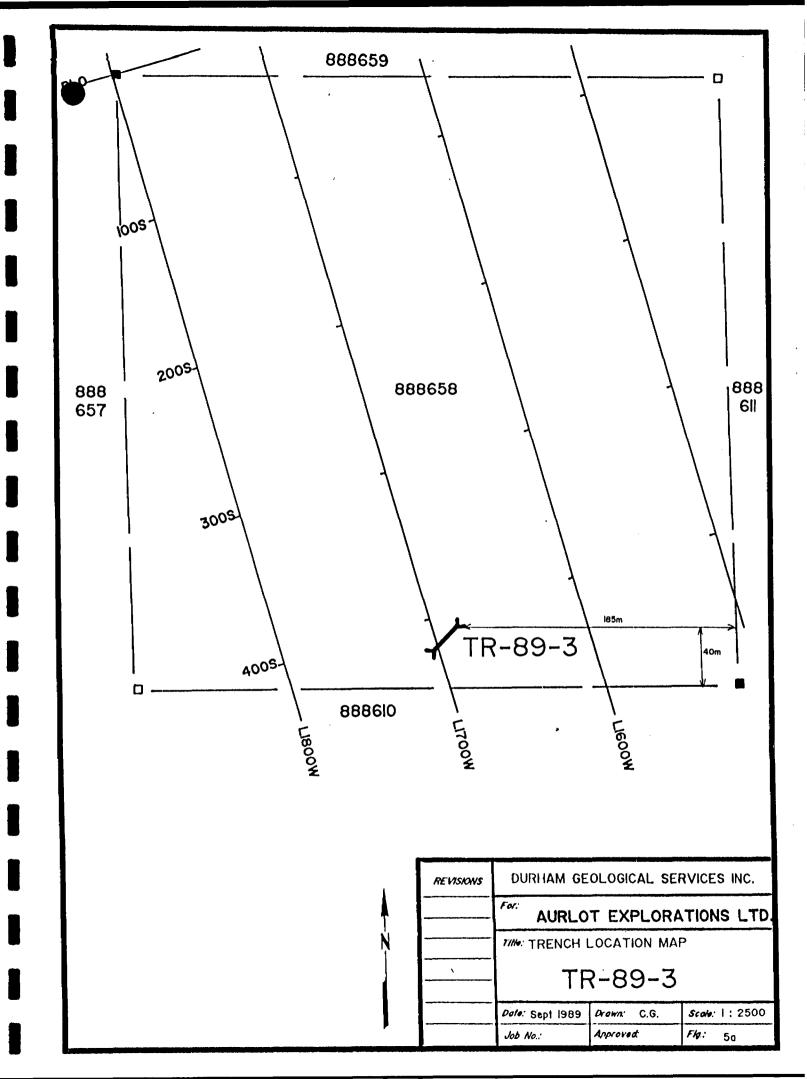


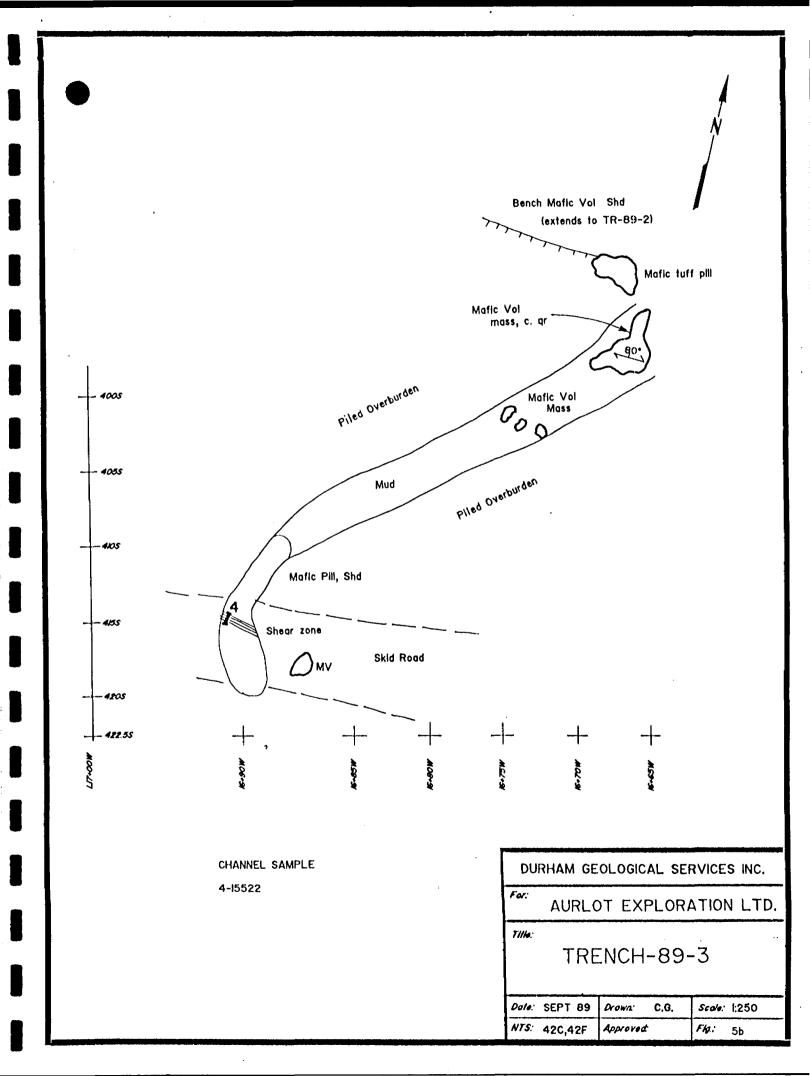


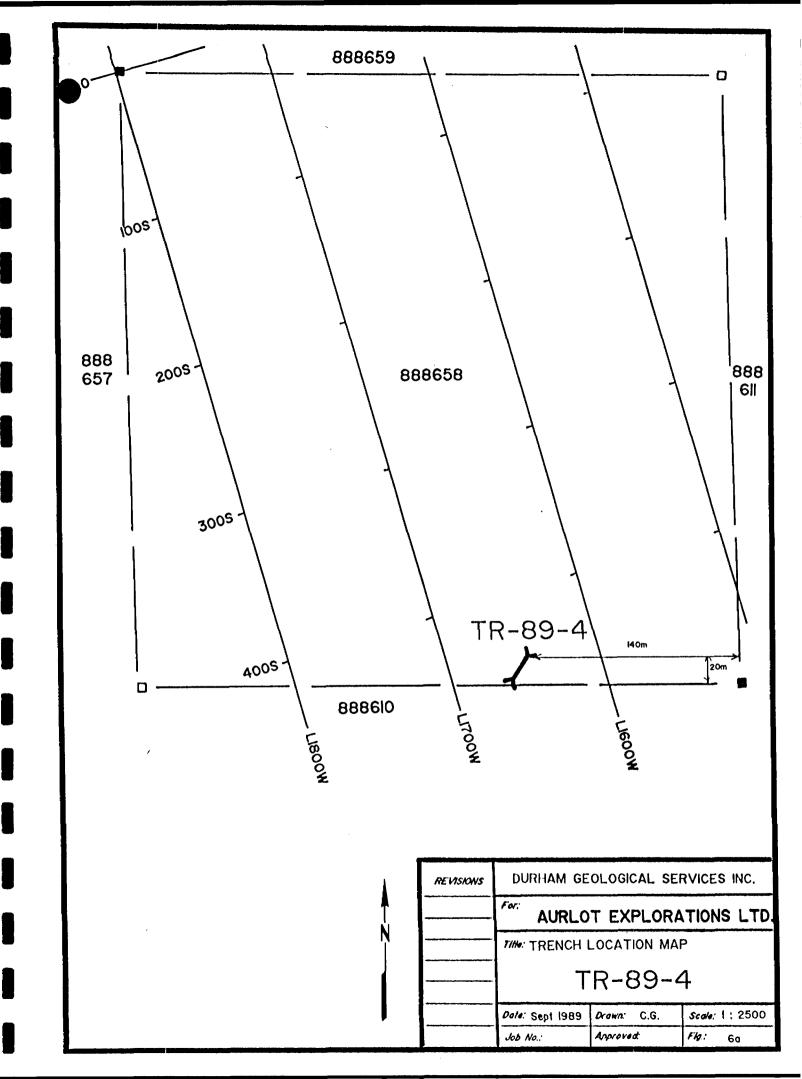


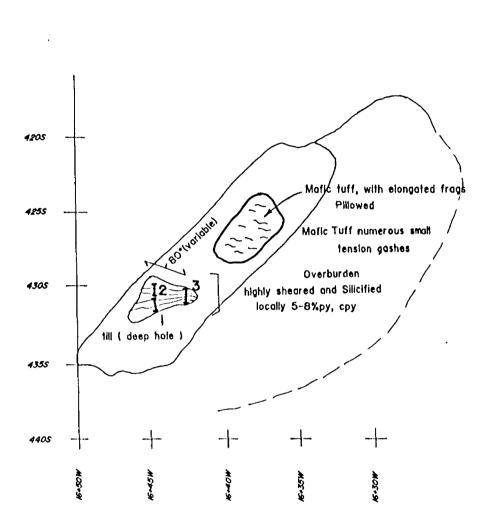












CHANNEL SAMPLES

1-15519 2-15520 3-15521

DURHAM GEOLOGICAL SERVICES INC.

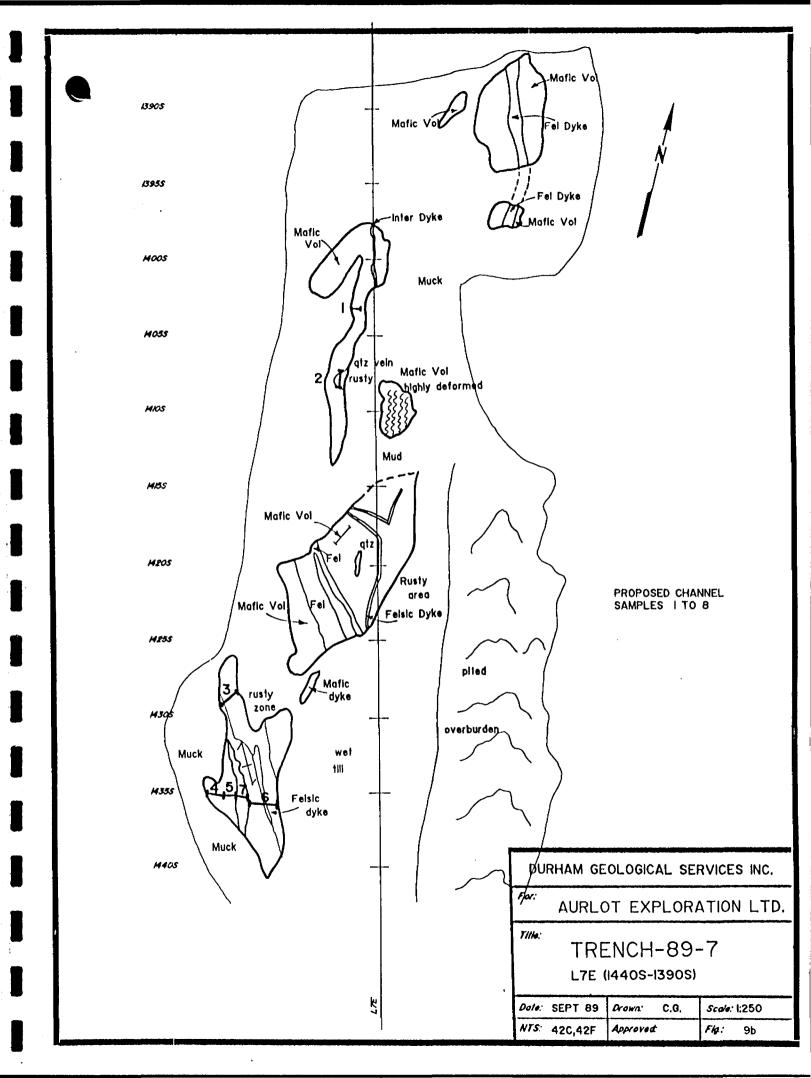
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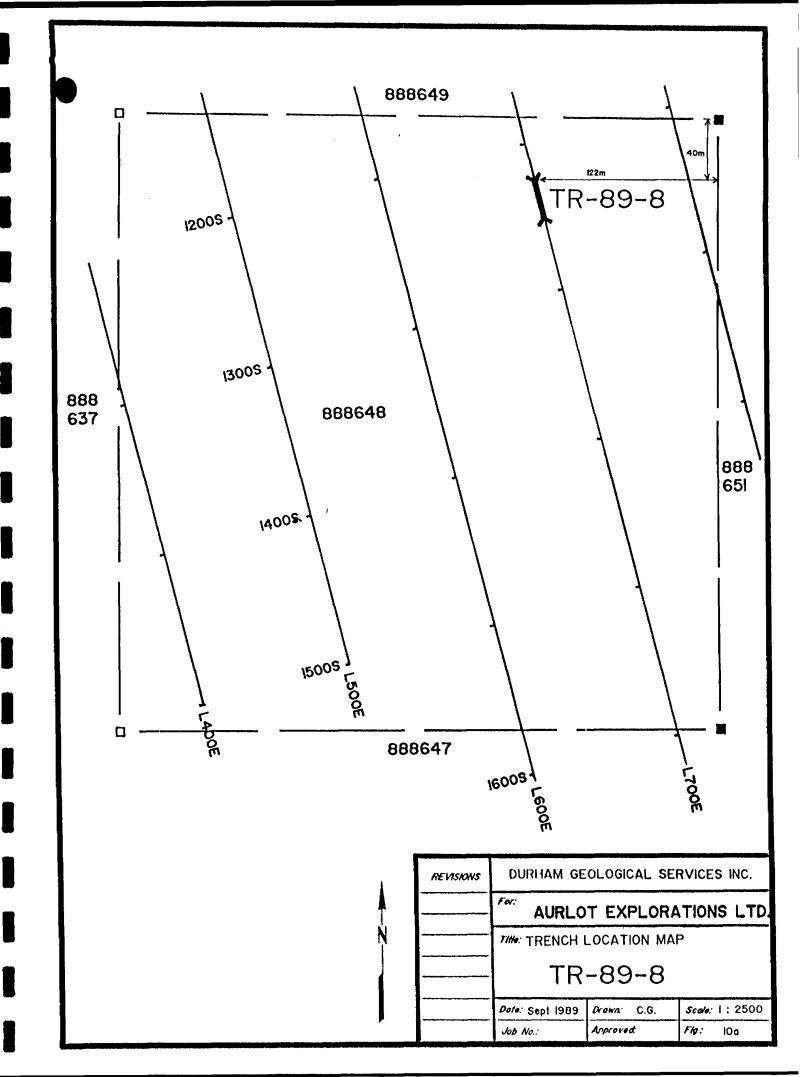
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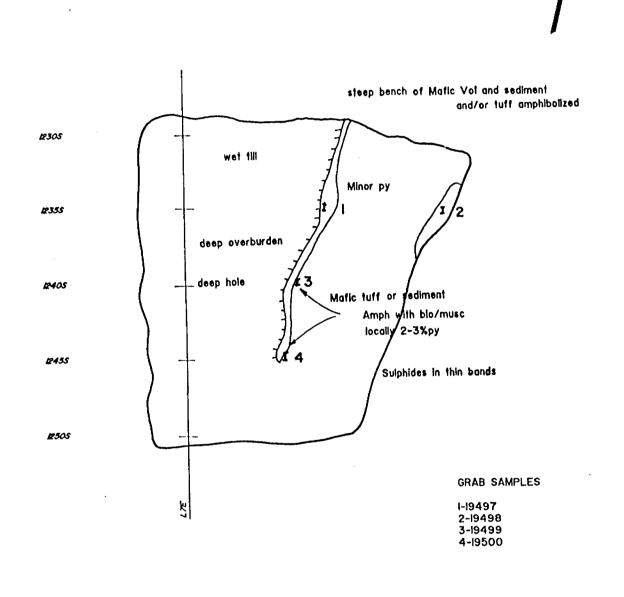
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TRENCH-89-4

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NTS:	42C,42F	Approved	Flo:	6b







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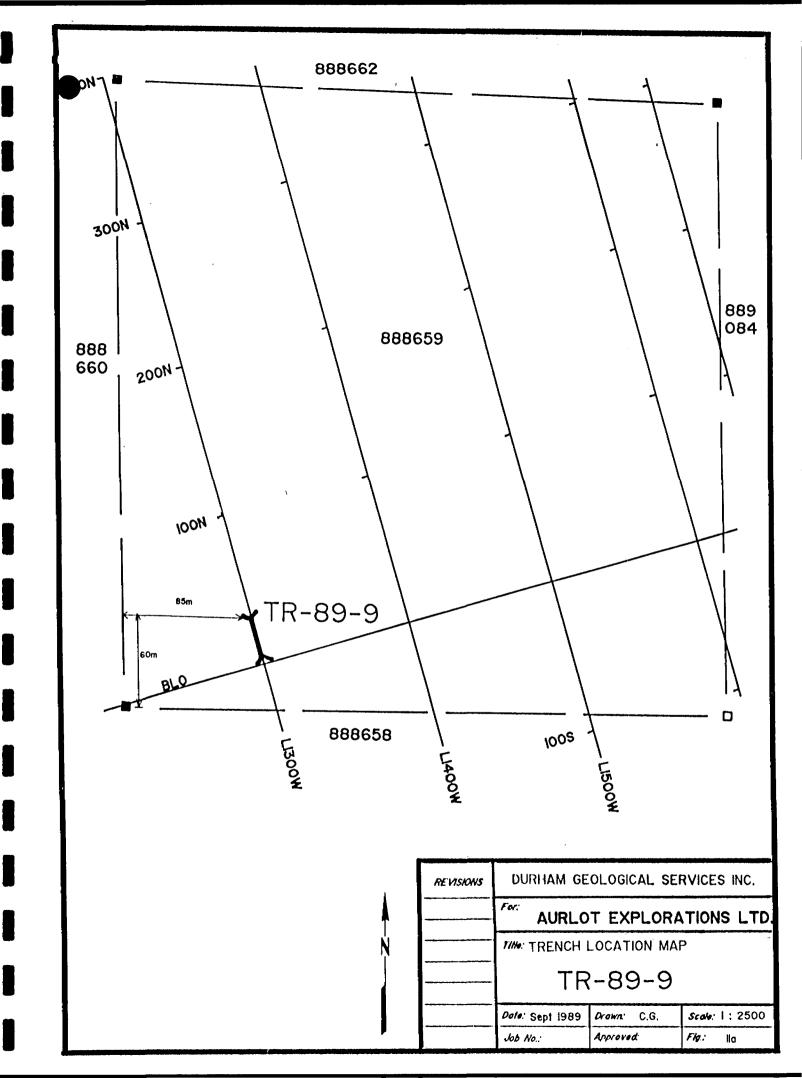
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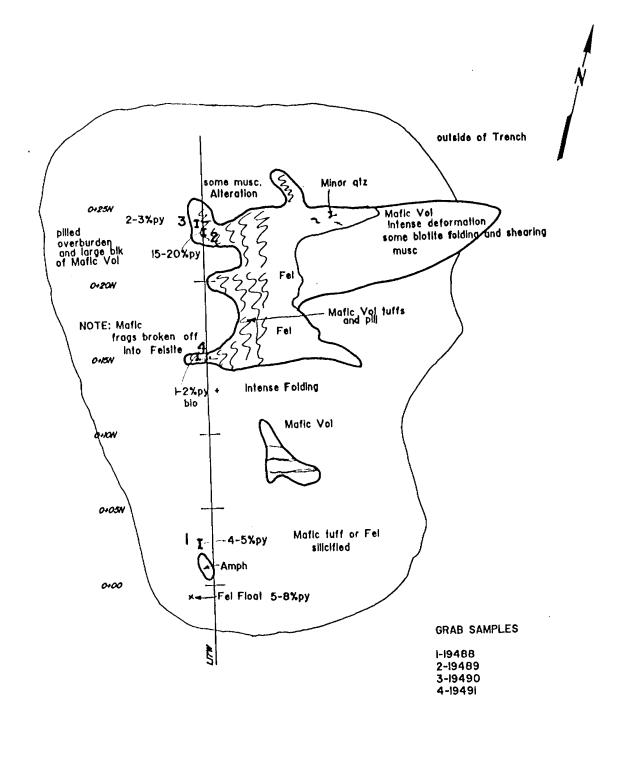
TIME: TRENCH-89-8

L7E (1230S-1250S)

Dolo: SEPT 89 Drown: C.G. Scale: 1:250

NTS: 42C,42F Approved Fig. 10b





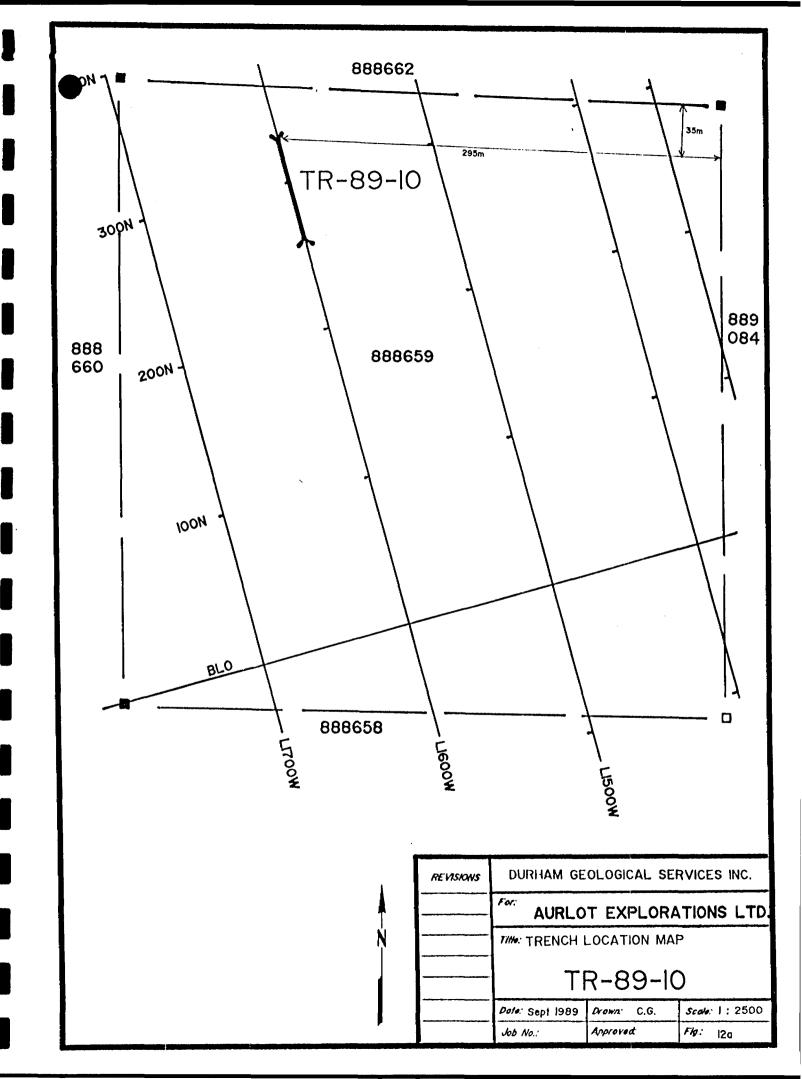
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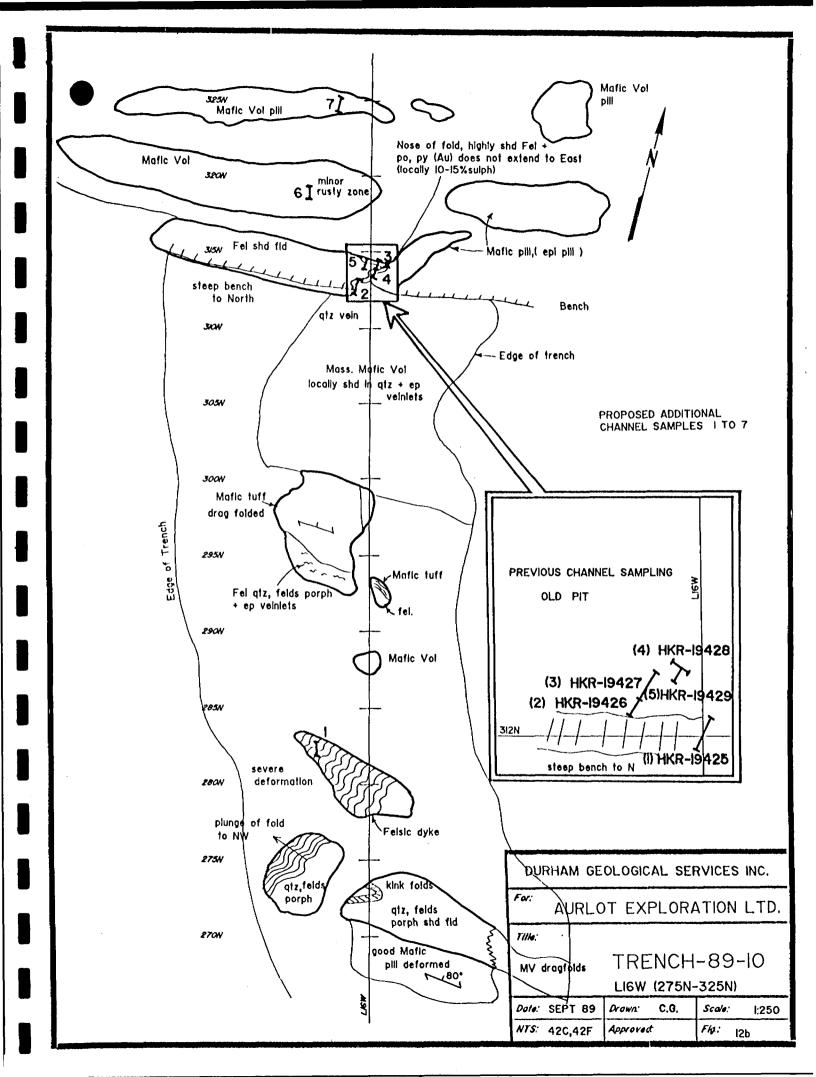
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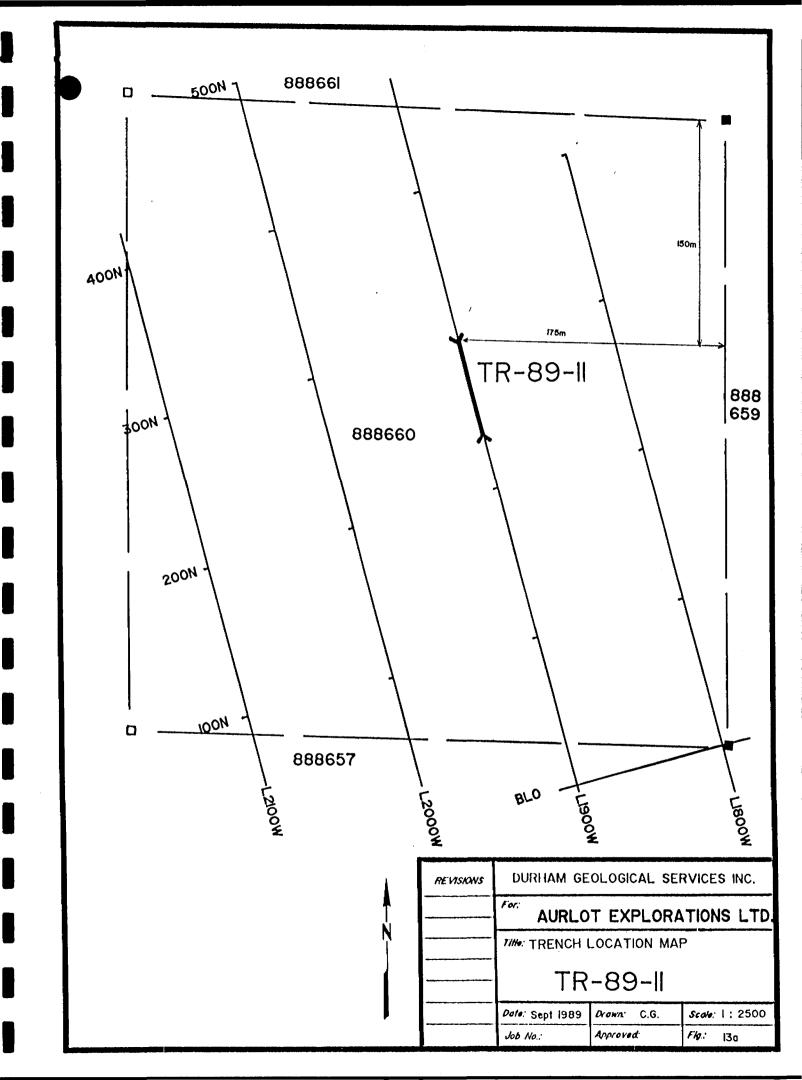
THE: TRENCH-89-9
LI7W (25N-00)

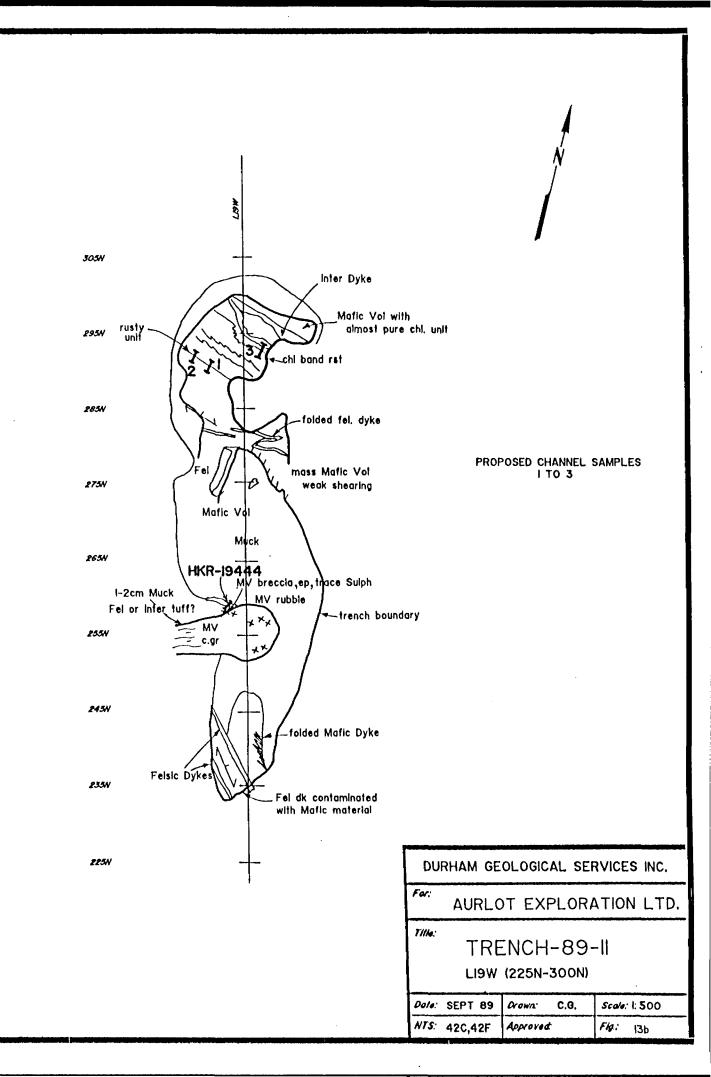
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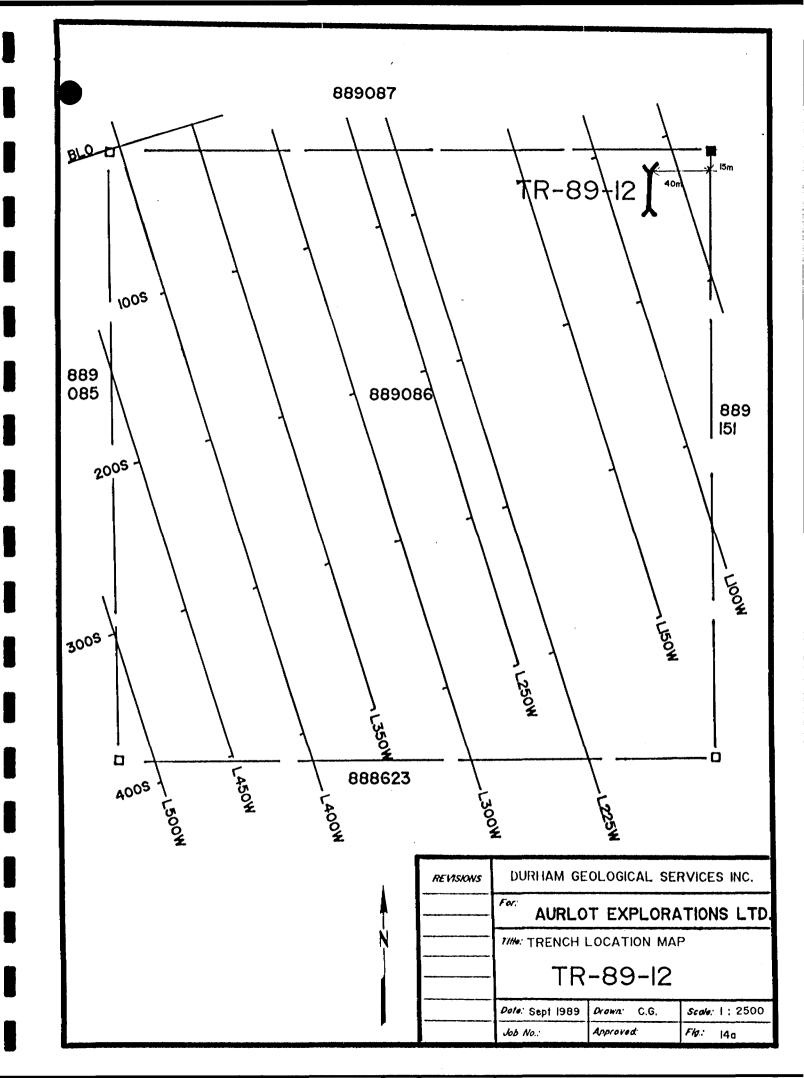
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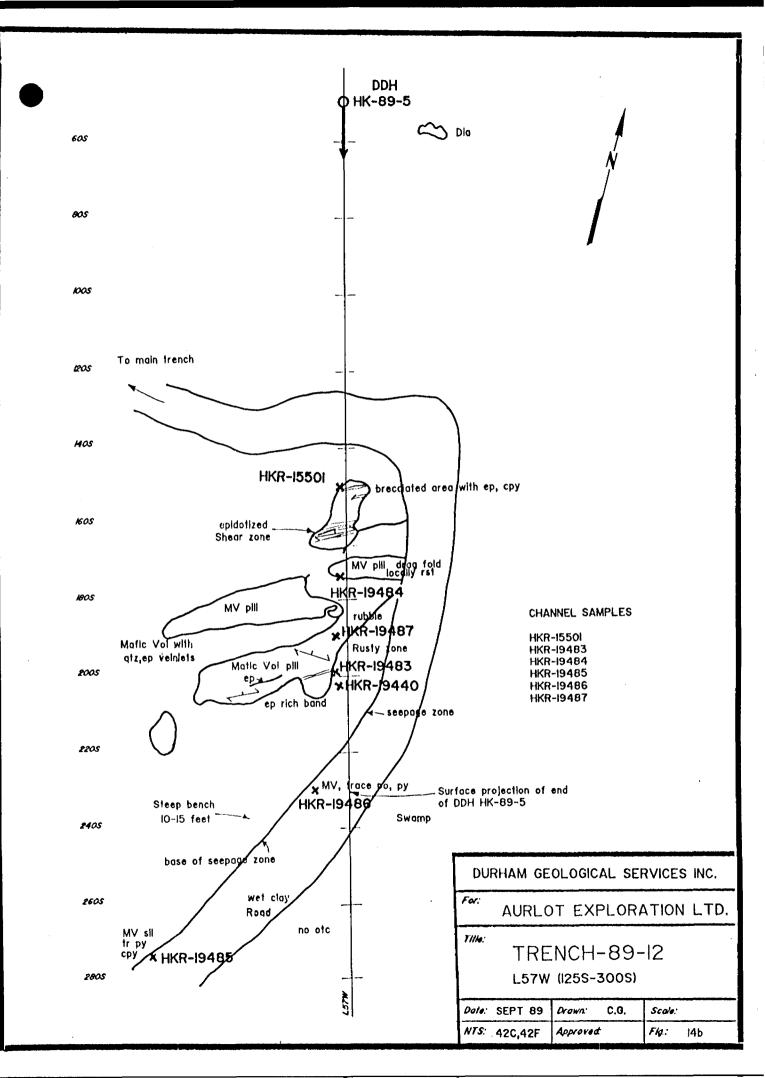


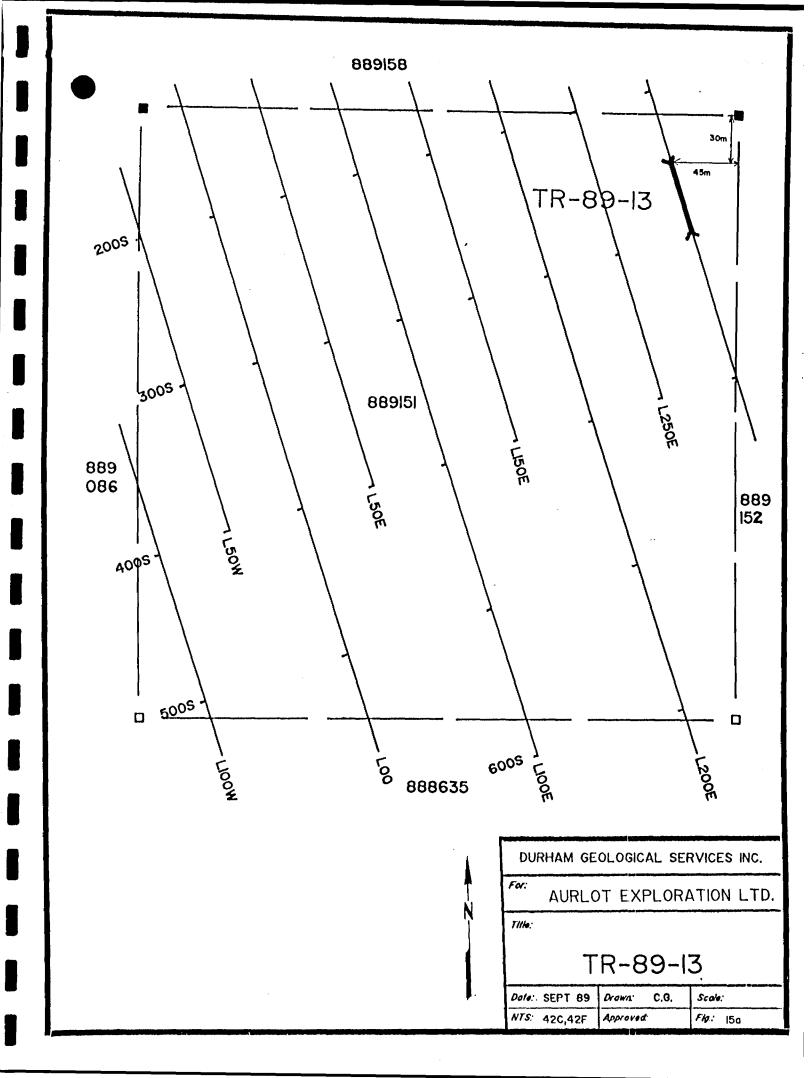


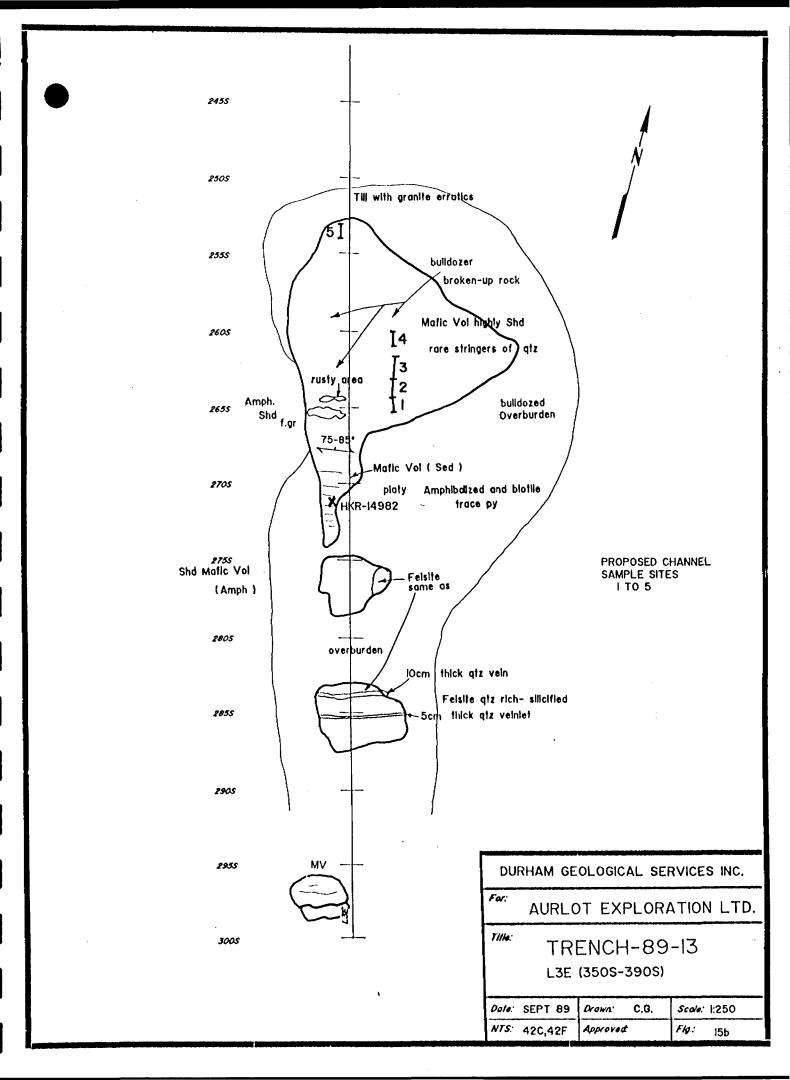














OMIP 89-10

DIAMOND DRILLING REPORT
HAWKINS PROPERTY
HAWKINS TOWNSHIP, ONTARIO
FOR

AURLOT EXPLORATIONS LTD.



TABLE OF

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SUMMARY

A diamond drilling program was conducted on the Hawkins property in September, 1989 to follow-up gold exploration targets established by detailed evaluation of the property conducted during 1989. Eight holes, totalling 3076 feet of diamond drilling was completed on four zones and gave the following results:

- 1. Three holes (HK-6 to 8) were drilled on a chargeability anomaly zone coincident with the quartz-sericite schist zone occurring on the north contact of the granodiorite intrusive located on the east part of the property. The holes intersected quartz-sericite-pyrite schist containing 1 to 5 percent sulphides. The quartz-sericite-pyrite schist is indicated to correlate with the zone hosting Falconbridge's shenango gold zone located to the east of the Hawkins property, but with only background gold values.
- 2. Two holes (HK-89-9 and 12) were drilled to explore a northwest trending combined chargeability and VLF electromagnetic anomaly zone. Both holes intersected narrow sulphide-bearing shear/breccia zones in mafic volcanics. The sulphide zones contain geochemically anomalous copper and zinc, but only low gold values.
- 3. Two holes (HK-89-10 and 11) were drilled to explore a northwest trending combined chargeability and magnetic anomaly zone located 200 metres east of the anomaly discussed in #2. The holes intersected geochemically anomalous copper and zinc in sheared brecciated volcanics, but only low gold values.
- 4. Hole HK-89-13 was drilled on a weak chargeability anomaly located on strike and 200 metres east of the Main Showing gold occurrence. The hole intersected narrow disseminated sulphide zones, but only background gold values and does not suggest an east extension of the Main Showing.

The exploration program on the Hawkins property was successful in identifying structural stratigraphic environments, favourable

for gold mineralization, which have been followed up by diamond drilling. The diamond drilling results taken together with the detailed surface exploration results strongly suggest that gold mineralization is sparce on the property. The only exception is the Main Showing high grade gold, discovered by Goldfields, which is concentrated in the nose of a tight fold and is of very limited strike length.

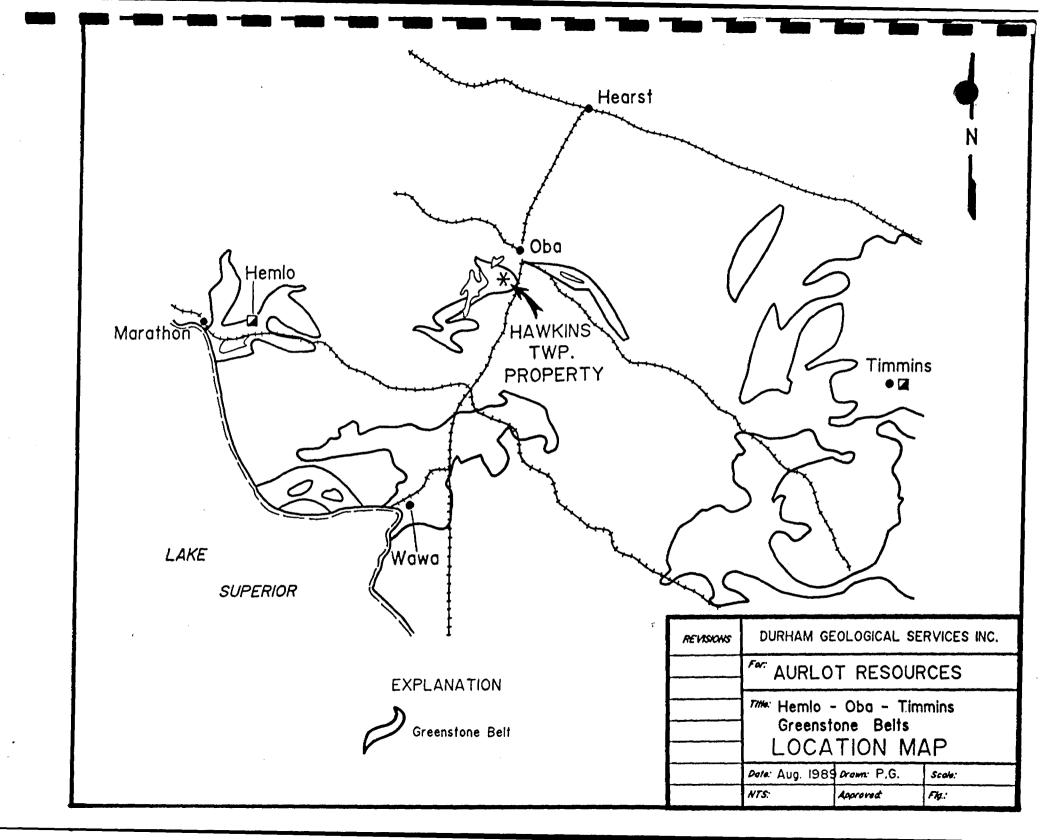
INTRODUCTION

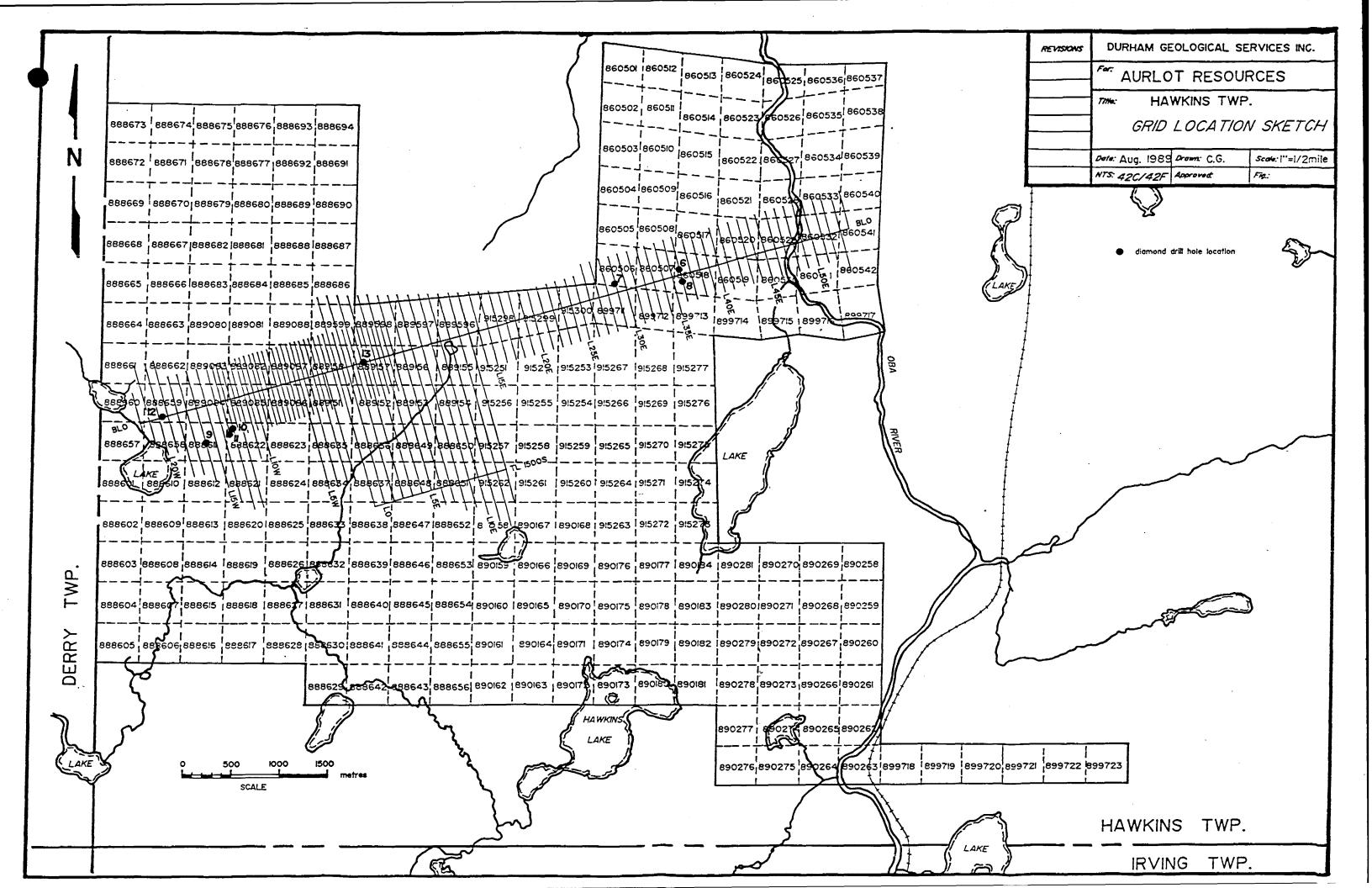
Aurlot Exploration Inc. concluded a comprehensive surface exploration program on the Hawkins Township property, located near Oba, Ontario, by completing 118 kilometres of linecutting, geophysical surveys geological mapping, geochemical soil sampling, bulldozer trenching, rock chip-channel sampling and 1780 feet of diamond drilling in five holes at the Main Showing area. Most of the work was completed in May, June and July, 1989 with limited follow-up work conducted on line extensions in August, 1989.

Subsequent to the completion of the above program a recommendation was made to test gold target areas outside of the Main Showing area with seven holes. The drilling program, subject of this report, began on September 9th and was completed on September 27th, 1989. Eight holes (HK-89-6 to 13) totalling 3076 feet were drilled. Howard R. Lahti managed the project and logged the core. Mike Jones, of Durham Geological Services Inc., was assistant and core splitter.

DRILLING RESULTS AND DISCUSSION

Drill holes HK-89-6, 7 and 8 were drilled to test a wide, moderate chargeability anomaly zone occurring within a quartz-sericite schist unit located immediately north of the large granodiorite intrusive, occurring on the east part of the property.





The quartz-sericite schist is inferred to be the same as that hosting the Shenango Gold Mine gold zone located four kilometres east of the area drilled.

HK-89-6 located at L36+00E/0+65N went through several quartzsericite schist units up to 25m thick. Two to three percent
disseminated sulphides occur in the quartz-sericite schists. The
sulphides are indicated as the cause of the IP chargeability
anomaly. The best gold values obtained in sampling are 22, 34 and
65 ppb. Higher copper values range from 120-560 ppm and higher
silver values range from 0.6 to 8.0 ppm. The analytical results
do not suggest economic mineralization is associated with the
sulphide zone.

HK-89-8 was drilled to test a weaker part of the IP anomaly, located on L36+00E and to intersect the volcanic-granodiorite contact. A lower sulphide content in the quartz-sericite schist explains the weaker IP chargeability anomaly. The best sulphide zone contains 1-3 percent pyrite and pyrrhotite over 0.6m and assays 28 ppb Au and background levels for base metals. The very low assay results from this hole does not suggest economic mineralization. The drill hole entered the granodiorite at 61.3m and, when projected to surface, corresponds closely with the location interpreted from the magnetic survey.

HK-89-7 was drilled at L28+95E/0+90N to test the strongest

chargeability anomaly located on the quartz-sericite schist unit. The hole encountered in excess of 20 metres of quartz-sericite schist containing 1-2% sulphides. The sulphide content is considered sufficient to cause the IP chargeability anomaly. Assay results for gold and base metals were only slightly above background. The quartz sericite schist is well altered and locally contains purplish brown biotite.

Holes HK-89-9 (L16+00W/0+00) and HK-89-12 (L19+50W/0+00) were drilled to test a northwest combined trending chargeability and VLF electromagnetic anomaly extending from L20W/0+00 to L12+00W/1200S. Geochemical anomalous gold and base metals occur in trenches dug in the vicinity of L17+00W/4+00S. Hole HK-89-9 was drilled to intersect the zone to the southeast of the trenched area and to test a strong chargeability anomaly. The hole cut narrow zones containing 1 to 10 percent sulphides (pyrite and minor pyrrhotite). The best gold assays were between 7 and 14 ppb. Anomalous base metal values were obtained including up to 400 ppm copper, 1500 ppm zinc and 280 ppm lead. These assay values are similar to those found in the nearby trenches.

Hole HK-89-12 was drilled 800 metres northwest of hole HK-89-9 to test the strongest portion of the combined northwest trending chargeability-VLF anomaly. Highly sheared and brecciated mafic volcanics containing 3-5 percent sulphides were intersected, which readily accounts for the good chargeability anomaly. The VLF

electromagnetic conductor is likely caused by water filled chloritic fault zones. Both Cu and Zn are found in concentrations slightly above background levels (90-320ppm for Zn and 90-220ppm for Cu). Some of the higher values were obtained from breccia zones. Only background gold values were obtained.

HK-89-10 was drilled to test a strong IP chargeability anomaly at L13+00W/3+50S. The detailed magnetic survey and geological mapping suggested a convergence of significant structures some containing diabase dykes in this area. The assay results show a strong correlation between the pyrite concentrations and base metals. The hole verified the presence of several good faults and identified narrow sulphide zones with anomalous base metals, but only background gold values. One sample yielded 1.2 metres of 1560 ppm Zinc and 340 ppm Cu.

HK-89-11 was collared at L13+50W/3+65S to the southwest of hole HK-89-10. This hole was drilled to test a chargeability anomaly coincident with a northwest trending structure. Rock chip sampling in the area south of the drill hole, yielded anomalous base metal values in thin felsic units and pyritic mafic tuffs, and a few low level gold values. The highest assay gave 85 ppb Au, 840 ppm Zn and 1500 ppm Cu. Also in the contact zone with the granodiorite dyke assay values ranged from 3 ppb to 60 ppb Au, 156-760 ppm Zn and 65-1200 ppm Cu. The hole verified the presence of a large fault alteration zone and shear zone. The drill core assay

results gave comparable geochemically anomalous base metals as the rock chip sampling, but only very minor gold values.

Hole HK-89-13 (L1+75E/0+00) was drilled on weak chargeability anomaly to test for the possible east extension of the Main Showing, which is located 200 metres to the west. Several narrow (1-2 metre wide) zones containing up to 4 percent pyrite were intersected in mafic volcanics, and explains the weak chargeability anomaly. The hole collars in a magnetic diabase dyke which explains the strong magnetic anomaly located to the north of the chargeability anomaly. Assay results yielded background gold values and slightly anomalous base metals. The best assay interval gave 0.6 metres of 100 ppm zinc and 350 ppm copper.

CONCLUSIONS

The diamond drilling program was successful in exploring four target areas outlined by combined geological, geophysical and geochemical surveys. Drilling results suggest the following:

1. The quartz-sericite schist unit hosting Falconbridge's Shenango Gold Zone is indicated to extend west onto the Hawkins property. On the Hawkins property the quartz-sericite schist unit is indicated to extend four kilometres along the north contact of the granodiorite intrusive. The quartz-sericite schist contains 1 to 5 percent disseminated sulphides and the sulphides are considered the cause of the chargeability anomalies. Three holes (HK-89-6, 7 and 8) drilled on the better chargeability anomalies yielded only weakly anomalous base and precious metal values. The low level soil and rock geochemical values and the poor drill results

suggests a low potential for significant gold mineralization.

- 2. Previous drilling on the Main Showing gold area (HK-89-1, 2, 3 and 4) indicates a very restricted strike length to the gold showing and is consistent with results obtained in the extensive surface sampling. Hole HK-89-13 was drilled on a weak chargeability anomaly located 200 metres east and on strike with the Main Showing. The hole yielded only background gold values.
- 3. The northwest trending combined chargeability and magnetic anomaly zone, located on the western part of the property, was drilled by two holes (HK-89-10 and 11) and intersected fault/breccia zones in mafic volcanics. Both holes intersected anomalous copper and zinc mineralization similar to that obtained in rock chip samples taken at surface. Only low level anomalous gold values were obtained in sampling.
- 4. A northwest trending combined chargeability-VLF electromagnetic anomaly zone, located 200 metres west of the above anomaly zone, intersected a fault/breccia zone in mafic volcanics containing local sulphide concentrations (1-10% sulphides). Moderately anomalous base metal values and mostly background gold values were obtained in two holes (HK-89-9 and 12) drilled through the zone.
- 5. The two northwest trending structural zones explored by holes HK-89-9 to 12 both yielded geochemically interesting base metal (copper and zinc) values in sheared, brecciated and altered zones containing sulphide mineralization. These structures are still considered prospective for gold, but exploration results indicate the gold is erratic, low level and occurs in narrow zones. Both zones are open for exploration and possible improvement in results beyond the 1500 metres strike length covered by the present investigation.

RECOMMENDATIONS

The combined geophysical-geological-geochemical surveys and follow-up trenching and diamond drilling conducted on the property

were successful in exploring the zones considered favourable for gold mineralization. Because of the poor exploration results obtained in the Main Showing gold area and on the numerous other gold exploration targets extending across the property, no further work is recommended at this time.

Respectfully Submitted

Howard Lahti per tang taller

Howard Lahti PHD.



OM IP 89-10

THIS SUBMITTAL CONSISTED OF VARIOUS REPORTS, SOME OF WHICH HAVE BEEN CULLED FROM THIS FILE. THE CULLED MATERIAL HAD BEEN PREVIOUSLY SUBMITTED UNDER THE FOLLOWING RECORD SERIES (THE DOCUMENTS CAN BE VIEWED IN THESE SERIES):

1) Diamond Drill cogs Holes HK-89-1 to -D See Hawkins Two
HK-89-5; Goldfields Canadian Mining: D.D.R.#23
HK-89-5; Gold Beld's Canadian Mining: D.D.R.#23 Ltd.; H. Lahti; June / 89 RD.W. W8905-173
2 Diamond Drill Logs Holes HK-89-6 to -1 See Hawkins Two
2 Diamond Drill Logs Holes HK-89-6 to -1 See Hawkins Two HK-89-13; Gold Fields Canadian mining D.D.R. # 24
Ltd.; H. Lalvi; Sept 189 R.D.W. W8905-000
3 Assay Reports; Auriot Exp. 1+d; -D See File 2.12914
3 Assay Reports; Auriot Exp. 11d; -D See File 2.12914 4-Lahti/11. Tremblay; Nov/89 R.O.W. W9005-003
•.

