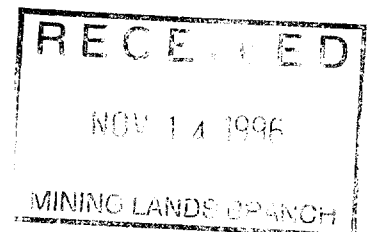


ARMSTRONG - JOHNSON GOLD PROSPECT
KING'S BAY, ONTARIO
DIAMOND DRILLING PROGRAM

2.16878

October 1996

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THE ARMSTRONG-JOHNSON PROPERTY

The *Armstrong-Johnson Gold Prospect* consists of 3 claim blocks: Pa 1162738, Pa 1162808, and Pa 1162799. The claim blocks are grouped under the ownership of George Armstrong (51%) and Johnson-Read (49%). The claims are located on the Fourbay Lake claim map, G2543 on claim block Pa 1162808 (Fig. 1).

PROPERTY LOCATION & ACCESS

The *Armstrong-Johnson (A-J) Gold Prospect* (50°02' north/90°49' west) is within the regional topography covered by the Savant Lake map (NTS 52 J/2). The Prospect is approximately 3.5 miles southeast of Provincial Road 599, about 0.75 miles northwest of King's Bay (King Bay) and west of Sturgeon Lake, Ontario (Fig.2).

Provincial Hwy 599, extending northeast from Ignace to the Six Mile Road (60 miles), and a series of logging roads east of Hwy 599 provide access to the King's Bay (west Sturgeon Lake) area. The property is reached by heading E-SE along the Six Mile Road, then E-SE along an abandoned logging road for about 6 miles. The remaining 1.8 miles to the property can be covered easily on foot, all-terrain vehicle or 4x4 truck (mainly during the dry summer) along a well-established drill road. The region was subject to a forest fire in the early 1980s followed by blowdown, creating a dense second growth of trees and making access to rock exposures difficult.

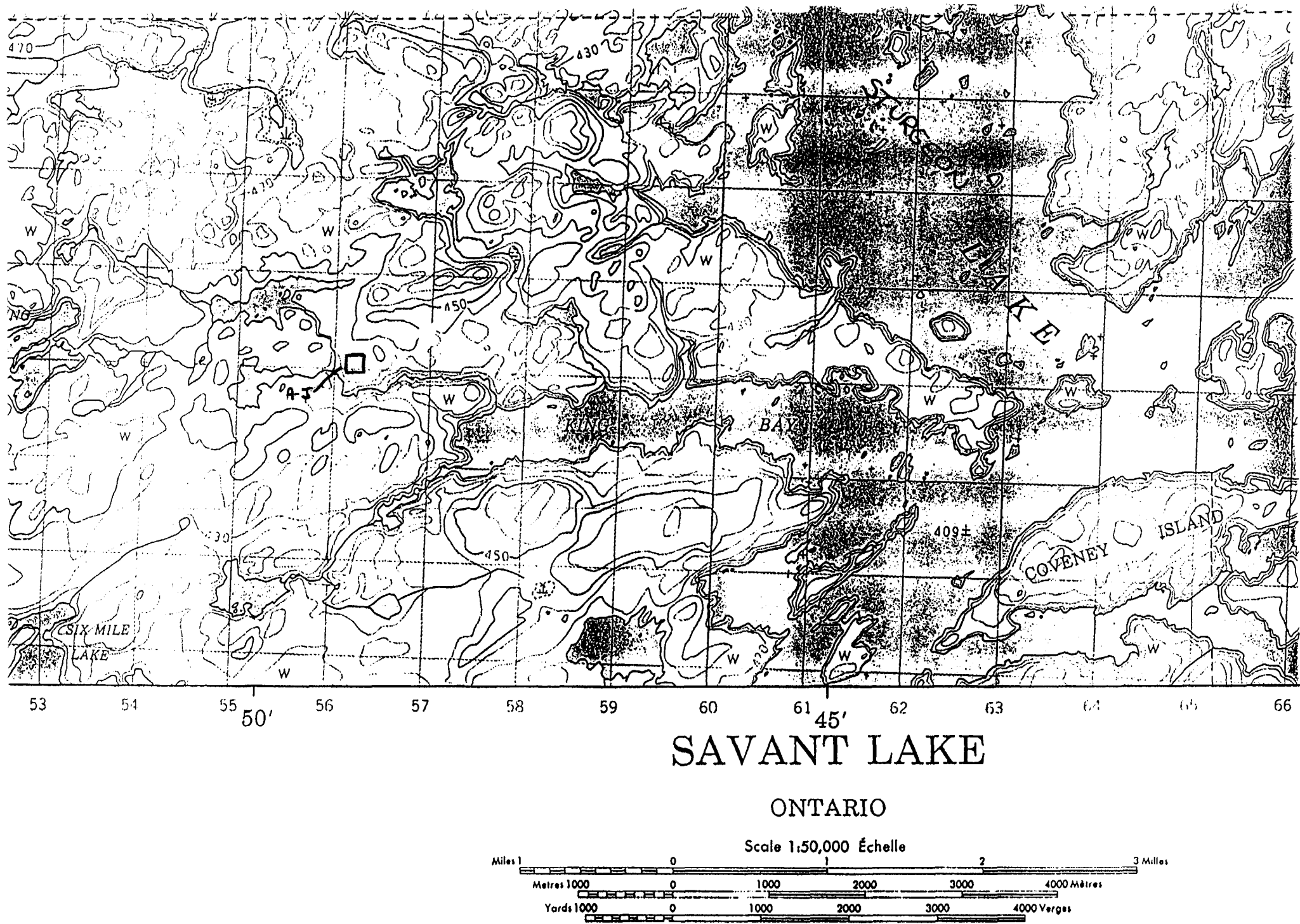


Figure 1. Location of the Armstrong-Johnson Gold Prospect on the Savant Lake map sheet.

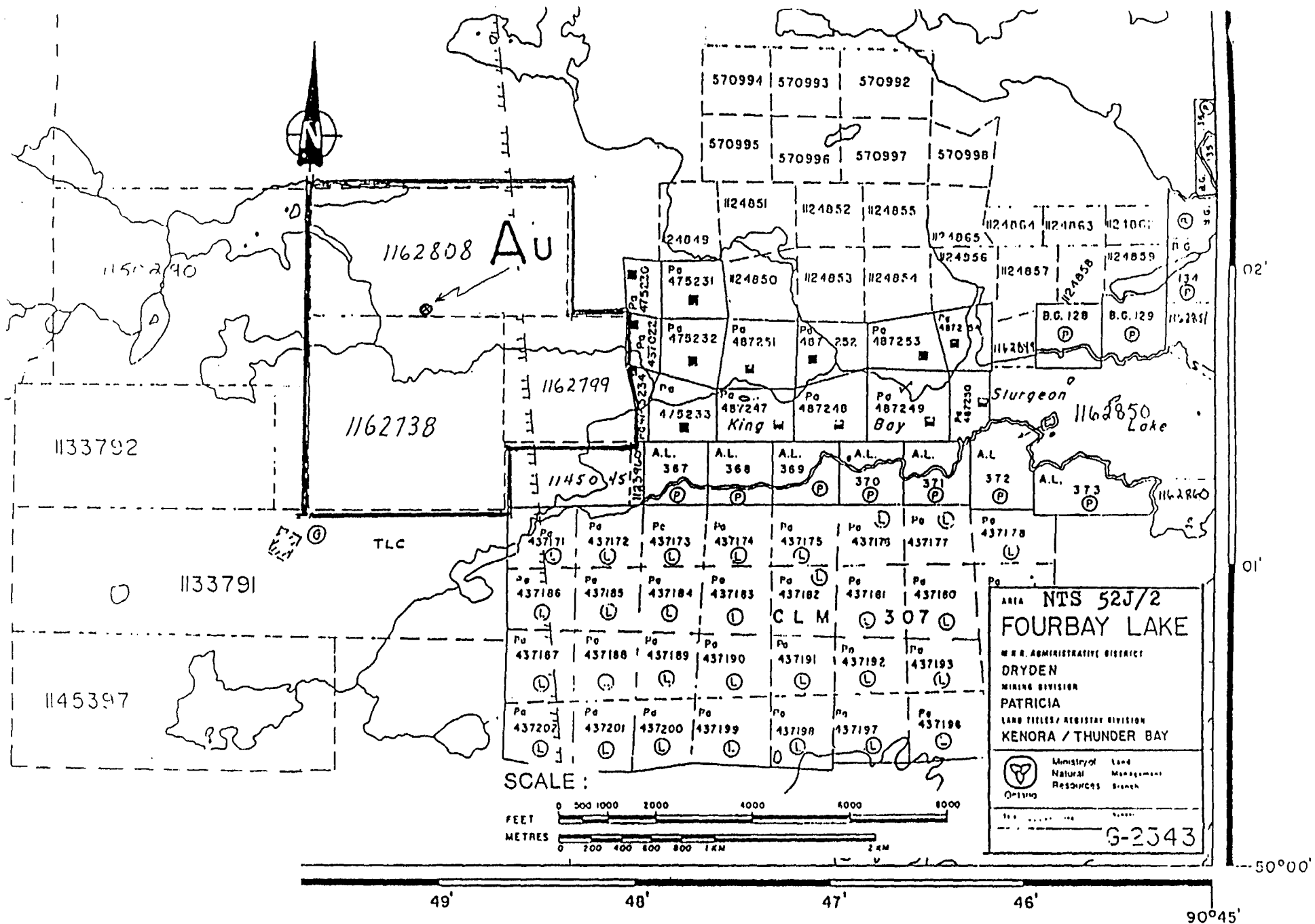


Figure 2. Armstrong-Johnson Claim Group and location of diamond drilling program on the Fourbay Claim Map.

REGIONAL GEOLOGY

The geology of the Sturgeon Lake and King's Bay areas have been studied by a number of authors including: (1) Trowell, N.F., Geology of the Squaw Lake-Sturgeon Lake Area, District of Thunder Bay, OGS Report 227, 1983; (2) Trowell, N.F., Geology of the Sturgeon Lake Area, Districts of Thunder Bay and Kenora, OGS Report 221, 1983; (3) Robinson, D.J. & MacLean, P., Geology of the Six Mile Lake Area, OGS Open File Map 185, 1992; and, (4) Robinson, D.J., Geology of the Six Mile Lake Area, OGS Open File Report 5838, 1992. The Ontario Geological Survey completed an airborne magnetic and electromagnetic survey over the area in 1990 (OGS AEM survey - Sturgeon Lake-Savant Lake Area, Map 81489).

The King's Bay Area

The King's Bay area is located within the Archean granite-greenstone belt of the Wabigoon Subprovince. The rocks in this region have been subject to greenschist to lower-amphibolite facies metamorphism and as such may be referred to as *metavolcanic* and *metasedimentary* rock units. The area is underlain by a broad band of south-facing, east-west trending mafic volcanic rocks that form part of the Six Mile Cycle (Robinson, 1992). The Six Mile Cycle (SMC) consists of a bimodal sequence of lower Pillowed Mafic unit (PMU) which includes massive and pillowed flows intercalated with sedimentary rocks and minor felsic to intermediate tuff. Robinson (1992), noted that the mafic volcanic rocks in the King's Bay area generally more chloritic and carbonate-altered, than elsewhere in the area. The PMU is overlain by an upper Felsic Pyroclastic unit. East-west trending sulphide facies iron formations are interpreted (from geophysical survey) to be cutting through the lower PMU. Quartz feldspar porphyry occur as

dykes and sills throughout the SMC, intruding the mafic volcanic succession.

Structural Geology

Although stratigraphic facing directions throughout the PMU are south, the units are vertical to subvertical, dipping north (overturned). Foliation is primarily east-west trending, subparallel to primary bedding and flow structures. The area has been subjected to complex folding and faulting (Trowell, 1983) with most of the major lineaments and faults trending north-northeast to east-west as marked by linear scarps and valleys. Minor north-south trending faults and shear zones occur throughout the area but their genetic relationship to the major east-west faults is not clear. It is assumed that the major east-west trending lineaments and faults are the youngest structures, occurring subparallel to parallel to lithological contacts.

ECONOMIC GEOLOGY

Following the discovery of the base metal (Zn, Cu, Ag, Pb, Au) sulphide deposits south of Sturgeon Lake (Mattabi - Mattabi Mines Ltd.; Lyon Lake - Falconbridge Nickel Mines Ltd.) in the late 1960s and early 1970s, exploration activity in the area flourished. Exploration work has been directed mainly at base metal and gold exploration through diamond drilling and geophysical methods. Property descriptions in the area have been described by a number of authors including (1) OGS - Geological Data Inventory Folder 348 (1987); (2) Robinson (1992); and, (3) Trowell (1983).

Gold

Most gold occurrences in the King's Bay area have as their primary host, quartz veins, massive quartz or quartz segregations. The quartz veins are described (Trowell, 1983) as occurring in four modes: (1) in association with granitic intrusions; (2) veins associated with metavolcanic and metasedimentary rocks; (3) quartz veins with carbonate; and, (4) quartz veins with sulphide facies iron formation. The most common association is with metavolcanic rocks. The most common mineral assemblage is quartz + carbonate + sulphides (chalcopyrite and pyrite) ± tourmaline. Trowell (1993) suggests that the mafic volcanic rocks were the source of the gold and that initial gold concentration occurred in siliceous sulphide or sulphide-carbonate exhalative units. Further gold concentration occurred as a result of igneous activity (ie. intrusion by stocks, dykes and batholiths), structural dislocation (ie. folding, faulting, shearing), quartz veining or metamorphic segregation (ie. regional to local metamorphism and alteration). It is suggested by Robinson (1992) that the association of the King's Bay gold occurrences with carbonitized mafic

volcanic rocks and intrusive porphyry may be analogous to the Porcupine or Red Lake gold camps. Although numerous high-grade occurrences have been found in the area the tonnages are low and to date no major load deposits have been delineated.

The Armstrong-Best Gold Prospect

The *Armstrong-Best (A-B) Gold Prospect* is located approximately 1 mile east along strike from the Armstrong-Johnson prospect, consists of relatively high grade gold values with **associations to local lithologies that are very similar to those of the A-J property**. Reported gold values in the A-B are as high as 3.85 oz/t Au over a length of approximately 10 ft., occurring in blue- black quartz veins with up to 5% pyrite, pyrrhotite, chalcopyrite and visible gold (VG). The host rock is altered mafic volcanic rocks with a gangue mineral assemblage that includes ankerite ($\text{Ca,Fe}(\text{CO}_3)_2$), calcite (CaCO_3) and talc ($\text{Mg}_6[\text{Si}_8\text{O}_{20}](\text{OH})_4$). Following a ground VLF-EM16 and magnetometer survey and diamond drilling (testing strike and depth to 150 ft) in 1983, **Steep Rock Resources Inc.** confirmed the presence of an alteration zone enveloping the vein structure. The best values reported by Steep Rock were 1.34 oz/t Au over approx. 36 ft. and 0.864 oz/t over approx. 15 ft. **Hudson Bay Exploration and Development (HBED)** reported that the gold zone was hosted within a westerly plunging, narrow (0.66 to 5.0 ft) and irregular blue quartz veins concurrent with a marker horizon of sulphide facies iron formation. The best intersection by diamond drilling (testing strike to 656 ft. and depth to 492 ft.) reported by HBED was 0.98 oz/t Au over approx. 1.4 ft. **Almaden Resources Corp. (ARC)** reported that the gold zone was confined to a steeply south-dipping structure containing grey to buff altered mafic volcanic flows. ARC described the alteration zone as a 3.3 ft. to 23 ft. wide zone comprising

carbonate, sericite, talc and 1-2% pyrrhotite. ARC also deduced that the initial drilling results reported by Steep Rock Resources Inc. probably intersected the auriferous blue-black quartz veining down-dip. The best values reported from ARC's diamond drilling are 1.07 oz/t over approx. 4.3 ft., 3.25 oz/t over approx. 0.72 ft and 0.39 oz/t over approx. 1.5 ft.

LOCAL GEOLOGY

The *Armstrong-Johnson Au property* (Fig. 1) has been explored through several projects including a diamond drilling program during the winter of 1994-95 (supervised and reported on by C.J. Kuryliw, Feb. 1995) and an excavation project which produced several large pits that have now filled with water. The earlier diamond drilling program was aimed at the delineation of an auriferous white-cream to grey quartz vein hosted by pillowed to massive mafic volcanic rocks and lesser quartz porphyry within a north-northwest trending shear zone (herein referred to as the *Berry Zone*).

The A-J property is primarily underlain by pillowed to massive mafic volcanic rocks of the lower PMU in the Six Mile Cycle or SMC. Intercalated within the mafic volcanic rocks are narrow (<1 ft.) units of felsic to intermediate tuff and sedimentary units of greywacke and arkosic sandstone. Foliation in the mafic volcanic rocks is generally east trending (100°) and dips range from vertical to subvertical, dipping between 85° south and 80° north (overturned). The pillowed unit is also highly fractured with an intense network of rusty fractures ± quartz-carbonate veinlets and stringers. Kuryliw (Feb. 1995) noted an increase in fracturing and pillow deformation to the north.

Extending northeast from the *Berry Zone* is a relatively narrow (generally <3 ft wide and narrowing to <3 in. wide northward) shear zone. It is apparent from outcrop exposure just north of the *Berry Zone* that this fault is representative of a semi-ductile to ductile shear zone with a *dextral* sense of movement (east block south and west block north). This is evidenced by the dragging of the east-west foliation (pillowed flows in east block) to an angle of >45° to the shear zone margin and the rotation of the host volcanic rock's foliation into the northwest shear zone.

The latest drilling program focuses on an east-west trending shear zone (herein referred to as the *TY ZONE*) located about 100 ft. northwest of the Berry Zone. The TY Zone was interpreted, based on brief exposure in the large pit, to be a minimum of 10 ft in width and to be relatively continuous to the west. Unfortunately, surface exposure around the TY Zone (north of the Berry Zone) is very poor to none and attempts to dig prolonged dry pits through the overburden have been unsuccessful. Therefore, nearly all of the available information and interpretations concerning the TY Zone are derived from diamond drill core. A small *knife* outcrop at the southeast corner of the large pit consists of highly sheared (fol. at 300/90) black-to dark-brown weathering mafic volcanic rock and rust-weathered chlorite schist (fol. at 275/90). This outcropping appears to represent the eastern extent of the east-west shear zone which may or may not continue eastward beyond the interpreted northern extension of the northwest trending shear zone from the Berry Zone. Several outcrops of red-weathering, moderate to highly foliated and sheared, Fe-carbonitized, quartz-porphyry occur east of the large pit. These outcrops may also represent the eastern extension of the east-west trending shear zone and as they are approximately parallel to the previously described outcrops.

Rubble and rock fragments, brought up to the present surface (dumps along the sides of the large pit) through excavation, consist of:

- (1) mafic volcanic rocks, sheared, rusty orange weathering, with chlorite and sericite schist along the margins of a blue-grey to sugary white quartz vein. The schistose rocks and quartz veins alternating bands with up to 35% stringers, disseminated and blebs of sulphides (cpy, po, py). Minor bornite was also observed with possible arsenopyrite.

(2) quartz-muscovite to sericite-schist, buff to yellow (dry) to waxy green-grey (wet) weathering, and occasionally alternating bands of near-black and yellow mica. Blue-grey quartz veins, up to 2 inches in width are observed cross-cutting the micaceous bands with up to 5% disseminations and stringers (parallel to foliation) of sulphides (py, cpy, po).

These rock types are correlative with the drill core retrieved from intersections made under the large pit and have been subject to assay (see Appendix III).

THE DIAMOND DRILLING PROGRAM

A total of 942 ft. of diamond drilling (BQ size core) was carried out over a period of 18 days from August 25, 1996 to September 11, 1996. A total of 7 holes (6 successfully completed to 942 total ft. and 1 abandoned at 83 ft.) were drilled during this time with the aim of delineating an interpreted east-west trending, gold-and sulphide-bearing shear zone. Unfortunately, the lack of surface exposure made subsurface interpretation difficult and only one positive intersection of the east-west trending shear zone was made (DDH TY-02). Diamond drill hole plan and vertical sections are portrayed Appendix I, diamond drill hole logs and assay values are listed in Appendix II and III.

Gold Mineralization

Most of the gold reported in this area is associated with blue-grey to black quartz veining and for the most part this proves to hold true for this property. However, some of the mineralization is associated with alteration around pillow selvages in conjunction with quartz-carbonate veinlets and sheared blue-grey quartz veins. Also, there appears to be a positive association between the presence of gold and sulphides. No visible gold was observed in the drill core and was only rarely observed in rock and through panning of material from the dumps around the large pit.

For the most part, gold values are in the 0.001 to 0.002 oz/ton range (within the mafic volcanic rocks with disseminated (1%) sulphides) with only the occasional 0.005 to 0.006 oz/ton value (mainly in highly qtz-carb altered zones around pillow selvages). DDH TY-02 intersected the target shear zone from 94'03" to 107'09" with the most significant intersections made in the

intervals from 94'03" to 97'00" (0.113 oz/ton; 1.54' true width), 97'00" to 98'07" (0.026 oz/ton; 0.89' true width), and 99'08" to 100'01" (0.02 oz/ton; 0.23' true width). These intervals are representative of a shear zone consisting of blue-grey quartz, quartz-muscovite schist, chlorite schist and patchy sulphides and are correlative with the previously exposed shear zone, uncovered through excavation.

Sulphide Mineralization

The presence of disseminated and bleb (po > cpy) sulphides (1% average) were noted throughout nearly all of the host mafic volcanic rocks. However, none of the assays from the mafic volcanic rocks produced any significant gold values (0.001 to 0.002 oz/ton Au). Near semi-massive (25%) to semi-massive (40%) stringers and veins of sulphides (po > cpy >> py) occur as concentrations along altered pillow selvages. These sulphide-rich alteration zones are commonly associated with epidotization and quartz-carbonate veinlets that may or may not be intensely sheared. Areas that have become sheared generally contain > 40% sulphides along with sheared blue-grey quartz veins. Assays from the sulphide-rich alteration zones are all relatively low, averaging 403 ppm (0.04%) Cu, 83 ppm (0.008%) Zn, and 112 ppm (0.011%) Ni. The best Cu value was returned from DDH TY-02 (sample 0090 - from 99'08" to 100'01"; 0.23' true width) at 1690 ppm (0.17%). The best Ni value was also returned from DDH TY-02 (sample 0079 - from 73'08" to 74'02"; 0.28' true width) at 168 ppm (0.017%).

Scrutinization of the Assays

Through random crushing and panning of the sulphide-bearing, schistose, blue-grey quartz found on the dumps along the large pit, free gold (≥ 10 colours) was produced. Some of the gold was greater than 1 mm in size. Visual assay of the material was estimated to be upwards of 1 oz/t, based on the experience of Sherridon Johnson. However, assay of similar material through standard gold assay (fire assay) gave results in the range of 0.116 to 0.118 oz/t Au. This discrepancy lead to the decision to scrutinize the assays by submitting two samples derived from same rock material. One was submitted for standard fire assay while the other for *Metallic* assay. By doing so, we were able to test for the *nugget effect* or loss of coarse gold grains.

The results of this test are listed in Tables 1a & 1b and clearly show a difference in the reported gold values. Unfortunately the metallic assay method is not a true *total gold* method and does not utilize the entire sample. Rather, the metallic method shows that there is a fairly high proportion of coarse gold being retained in the >100 mesh screen size.

TABLE 1a. Metallic Assay Method on Sample TY-01A - King's Bay Prospect

| Mesh | % Sample Wt. (1038.35 mg) | Assay - Au (oz/ton) | Assay - Au (g/t) | Ttl. Au Wt. (mg) |
|------------------------|--------------------------------------|--------------------------------|-----------------------------|-----------------------------|
| +100 | 0.67 | 1.36 | 46.91 | 0.326 |
| -100 | 99.33 | 0.04 | 1.37 | 1.413 |
| Net Au (oz/ton) | | 0.049 | | |
| Net Au (g/t) | | 1.67 | | |

TABLE 1b. Standard Fire Assay Method on Sample TY-01B - King's Bay Prospect

| Au oz/ton | Au oz/ton check |
|------------------|------------------------|
| 0.118 | 0.116 |

I would recommend that in the future, where panning of the gold proves to show more promise than the overall assay values, one should submit an intermittent number of samples for metallic assay (eg. in chip samples, submit similar samples of the same material for comparison; in a diamond drill program submit promising samples from highly mineralized zones).

CONCLUSIONS

It is evident from the diamond drilling and assay results that the east-west trending shear zone is not a continuous and simple structure. Features noted in the diamond drill core and in surface samples suggests that the deformation zone is best categorized as a *brittle-ductile shear zone*; having undergone both plastic and brittle deformation. Although the shear zone was definitely intersected under the large pit by DDH TY-02, failure to intersect any recognizable portion of the zone in DDH TY-03, TY-04, TY-05 and TY-07 suggests several possibilities:

- (1) the shear zone is rapidly pinching and swelling along strike to the west and at depth, leading to a very discontinuous and erratic target.
- (2) the shear zone has been faulted at numerous locations along strike such that the motion of the transcurrent (strike-slip) faulting has placed the mineralized zones either further north or south. If the faulted blocks have been transported north, they are likely to have been eroded away within the major E-W lineament.
- (3) the shear zone deflects to the northwest and the diamond drilling did not reach the actual location of the shear.
- (4) the northwest trending fault (from the Berry Zone) is older than the E-W shear and the target shear zone is continuous to the east.

It is difficult to determine which one (or combination) of these possibilities are most probable without the aid of further diamond drilling, excavation or geophysical survey. It may be possible that relatively shallow drilling (ie. less than 1000 ft.) may never intersect economic grades and

tonnages of gold and that consistent grades and tonnages will only be attained once deep intersections in dominantly *ductile shear zones* are made (ie. 1500 ft. or more).

RECOMMENDATIONS

Although the assay values from the present diamond drill program are very disappointing, there is no doubt that gold, and to some extent base metals, are present on this property, and in the King's Bay region (ie. Armstrong-Best Prospect). Previous diamond drilling on the property (Kuryliw, Feb. 1995) has proven that gold mineralization is present and that alteration (Fe-carbonitization) and geological structure (fault-shear) are both favourable.

Therefore, there are a number of recommendations that can be made in order to better understand the mineralization in the area:

(1) A geophysical survey (electromagnetic - VLF-EM16) designed to better understand the structural geology (trace faults/shears) and probable mineralization of the area.

(Price: approximately \$1,275.00 - see attached proposal for details)

(2) Further excavation and prospecting to the east of the large pit to better expose the Fe-carbonitized and sheared quartz-porphyry and to better expose the area directly to the east of the pit.

(Price: less than \$1,000.00)

(3) Diamond drilling program to test the geological structure outlined through geophysical survey and to test the eastern extension of the shear zone. This might include three diamond drill holes at a total of 600 feet.

(Price: approximately \$12,000.00 - based on \$20.00/ft.)

(4) Diamond drilling program aimed at testing the depth of the shear zone in the area under the large pit. This would include one diamond drill hole at a total of 2000 feet, designed to intersect the shear zone at depths of about 1500 ft. A second hole would then be planned contingent on the

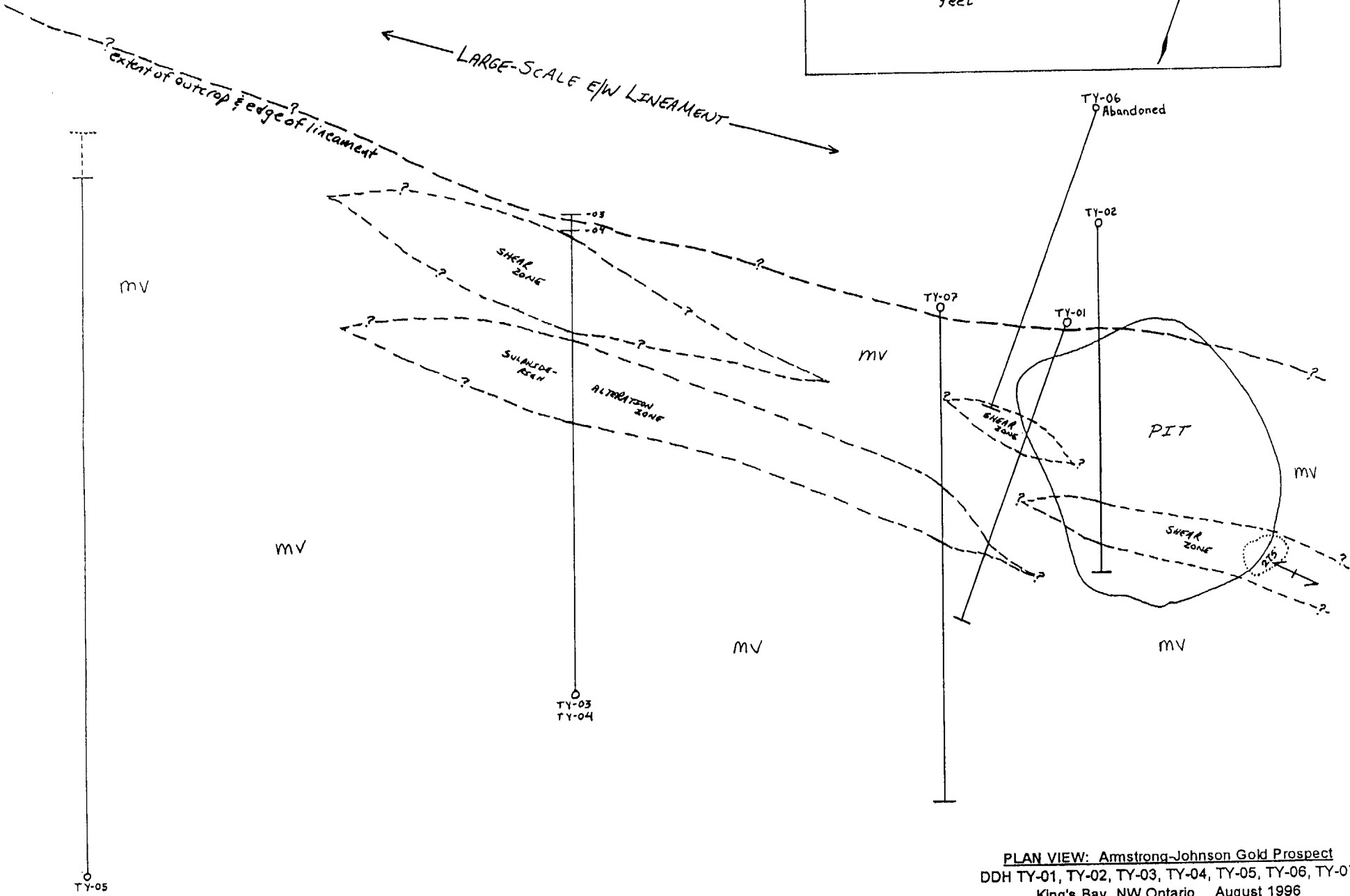
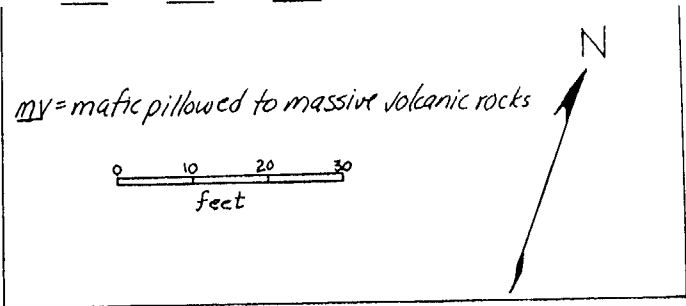
success of the first.

(Price: > \$40,000.00 - based on \$20.00/ft.)

I would suggest that the order of these recommendations be followed, as it provides the most logical flow of information and ultimately the most cost effective approach. Suggestion (4) is quite obviously an extremely expensive recommendation and I have only added it to the list as an *idea* that may be applicable to the King's Bay area as a whole (including the Armstrong-Best Prospect). An approach like this has been employed in regions where near-surface drilling has produced similar results (ie. sporadic high-grade, low tonnage shear zones). Success has been found by drilling deep into the deformation zones where moderate grades and high tonnages have been preserved.

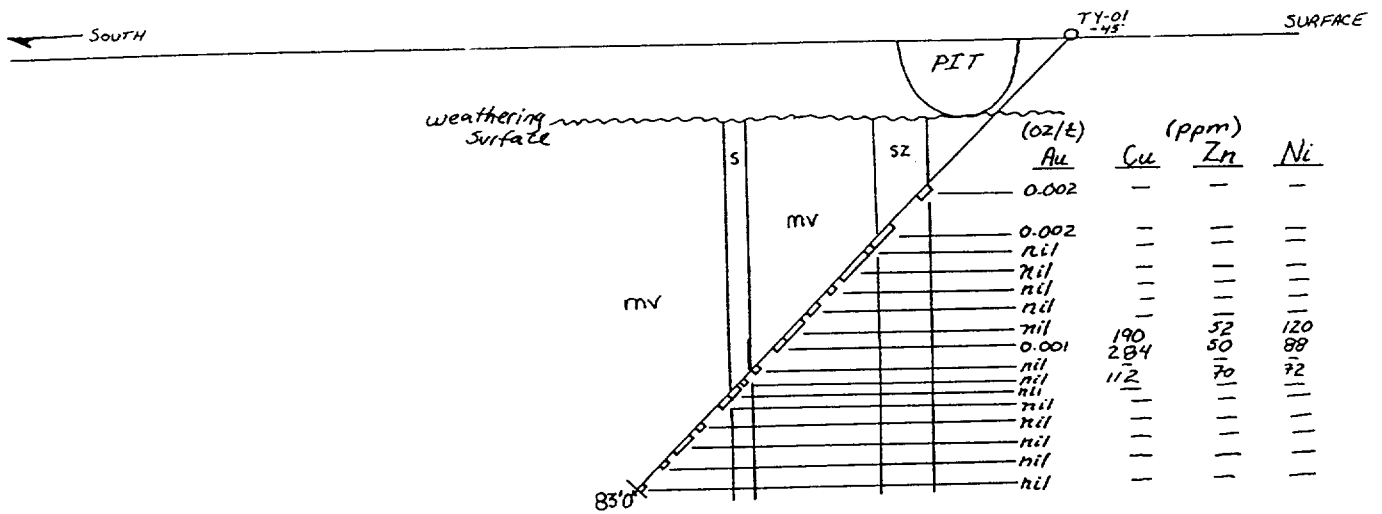
APPENDIX I

Plan and Vertical Sections from the Diamond Drilling Program

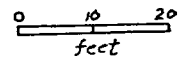


PLAN VIEW: Armstrong-Johnson Gold Prospect
 DDH TY-01, TY-02, TY-03, TY-04, TY-05, TY-06, TY-07
 King's Bay, NW Ontario August 1996
 scale: 1" = 25'

DDH TY-01 LOOKING WEST

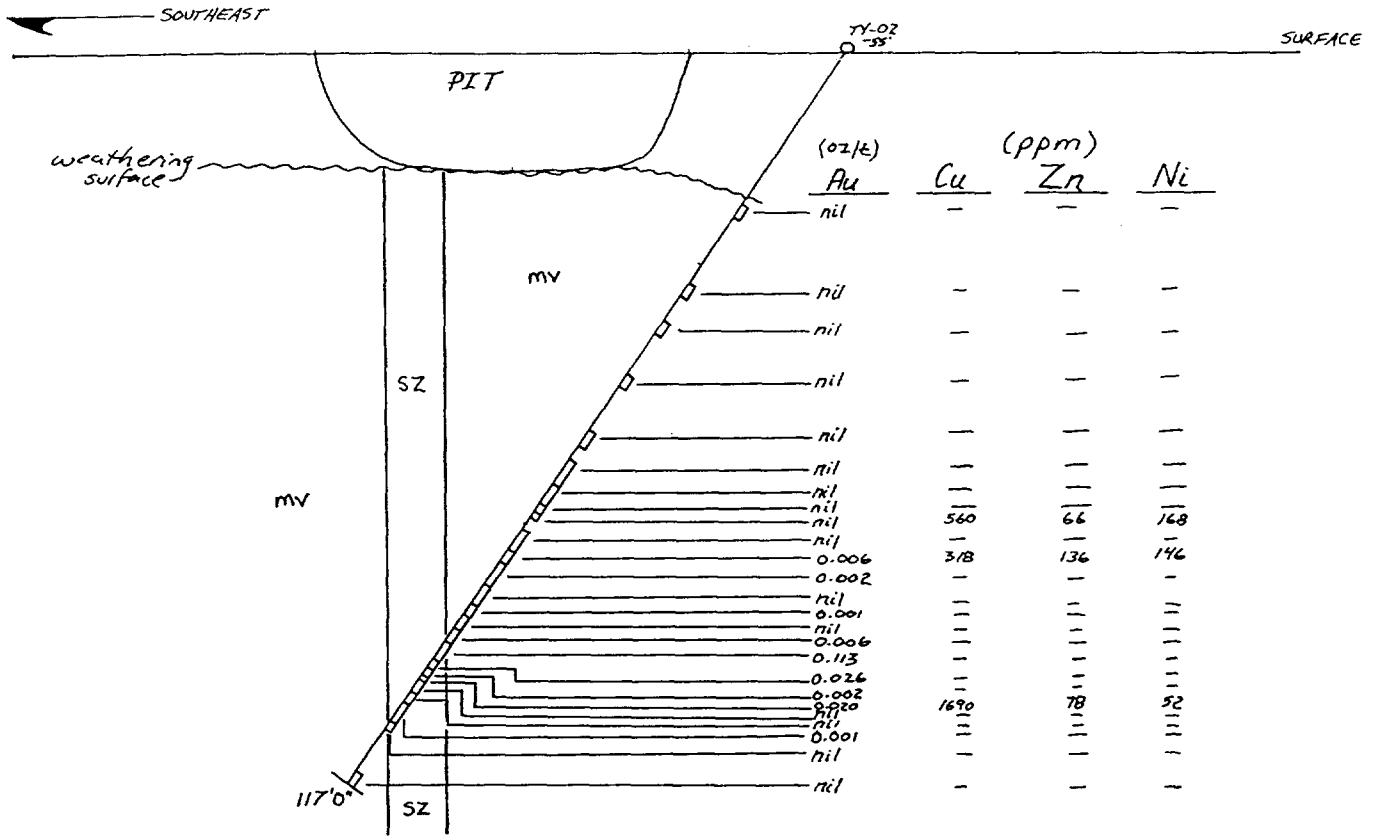


mv = mafic pillowed to massive volcanic rocks
 SZ = shear zone
 S = sulphide-rich alteration

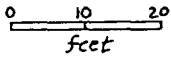


VERTICAL SECTION: DDH TY-01
Armstrong-Johnson Gold Prospect
 King's Bay, NW Ontario August 1996
 scale: 1" = 25'

DDH TY-02 LOOKING-SOUTHWEST

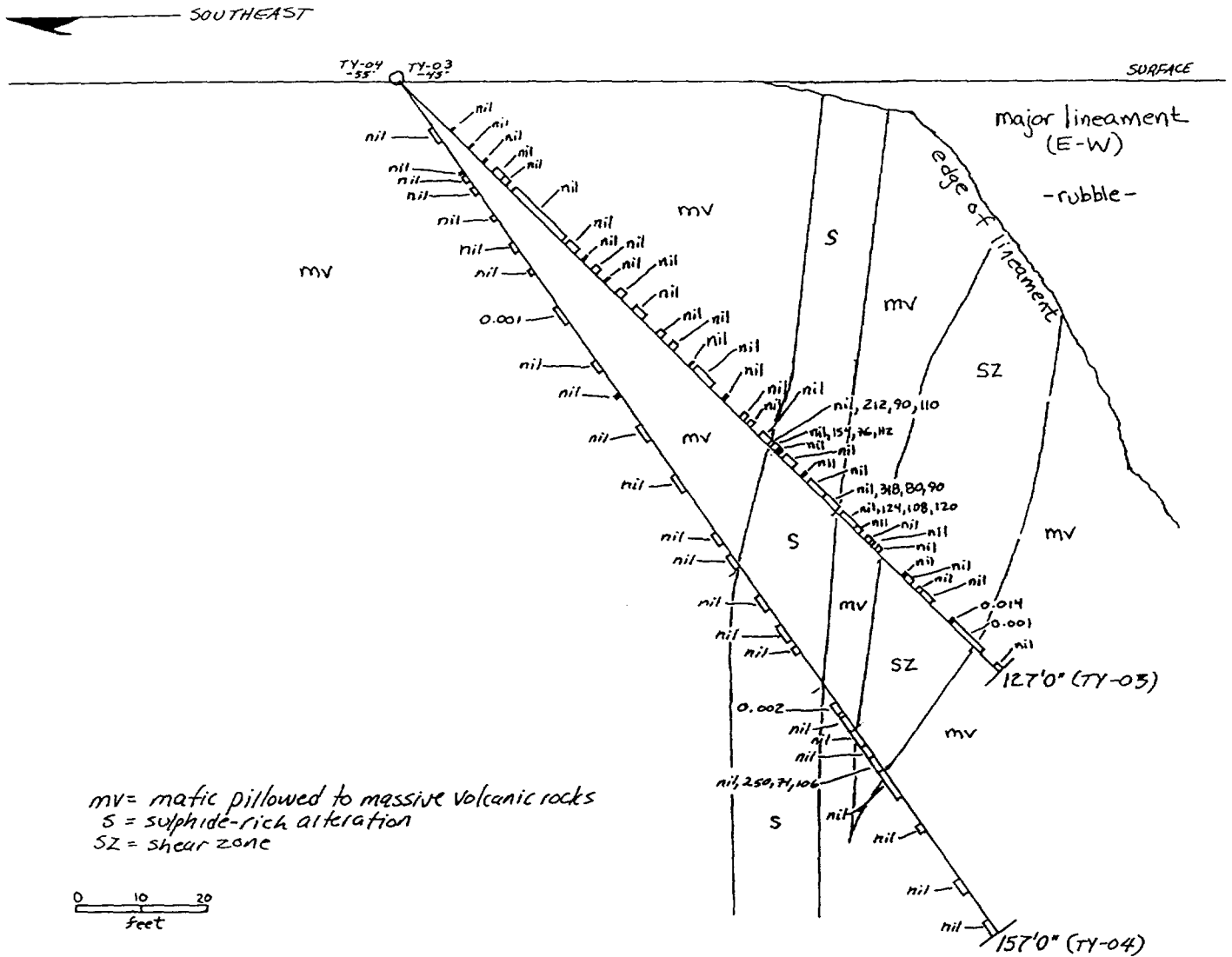


mv = mafic pillowed to massive volcanic rocks
 SZ = shear zone
 S = sulphide-rich alteration

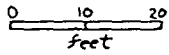


VERTICAL SECTION: DDH TY-02
 Armstrong-Johnson Gold Prospect
 King's Bay, NW Ontario August 1996
 scale: 1" = 25'

DDH TY-03, TY-04 LOOKING SOUTHWEST



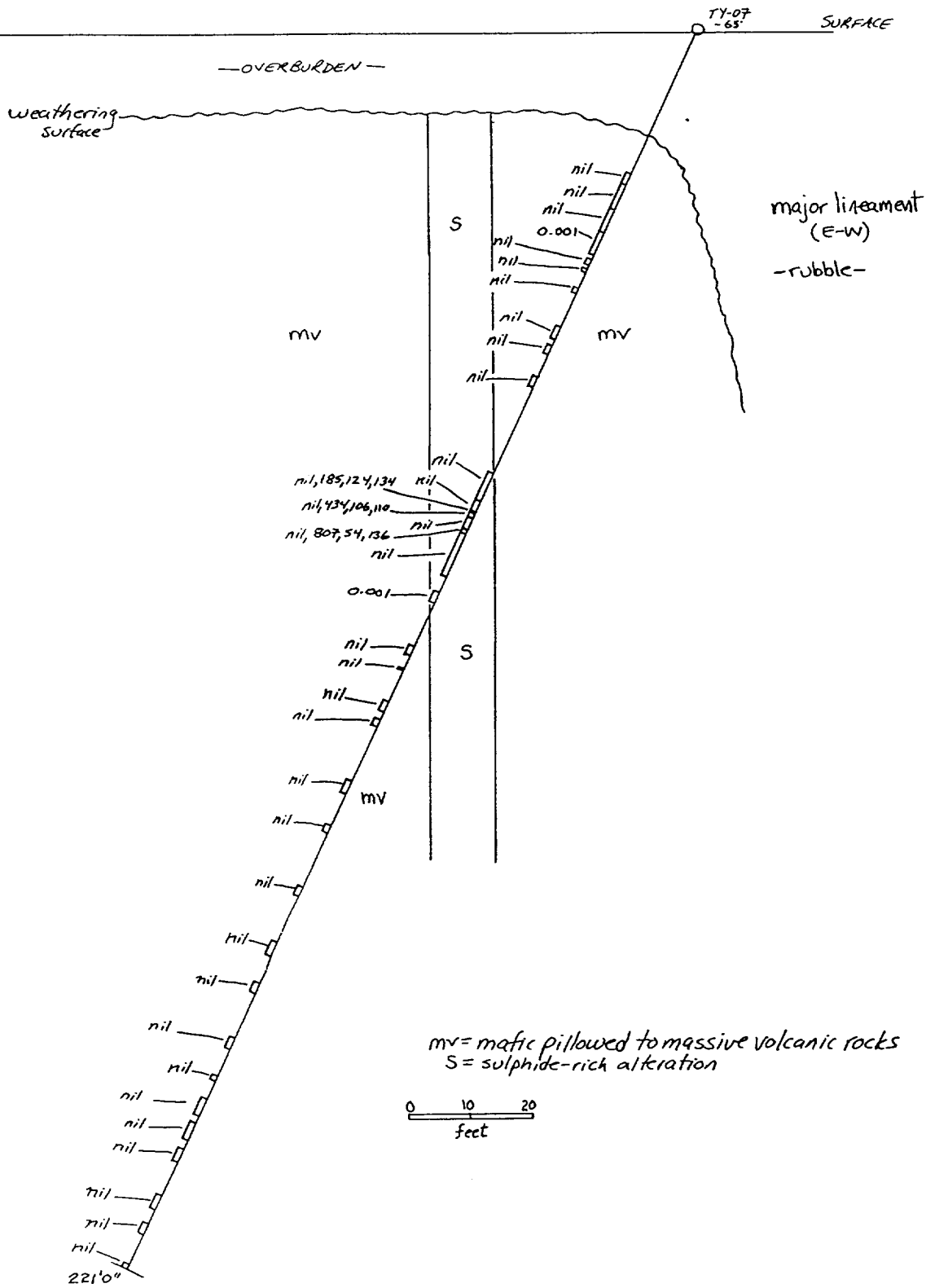
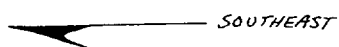
mv = mafic pillowed to massive volcanic rocks
 S = sulphide-rich alteration
 SZ = shear zone



*Assays listed as Au oz/t and Cu, Zn, Ni in ppm.

VERTICAL SECTION: DDH TY-03, TY-04
 Armstrong-Johnson Gold Prospect
 King's Bay, NW Ontario August 1996
 scale: 1" = 25'

DDH TY-07 LOOKING SOUTHWEST



mv = mafic pillowed to massive volcanic rocks
 S = sulphide-rich alteration

0 10 20
 feet

* Assays listed as Au oz/ft and Cu, Zn, Ni in ppm.

VERTICAL SECTION: DDH TY-07
 Armstrong-Johnson Gold Prospect
 King's Bay, NW Ontario August 1996
 scale: 1" = 25'

APPENDIX II

Diamond Drill Hole Logs

PROPERTY: Armstrong-Johnson, King Bay, ONT.
 HOLE No.: TY-01
 Collar Inclination: -45.00
 Bearing: 180.00 AZ
 Collar Elevation:
 Location: north of large pit

Logged By: S. Jobin-Bevans
 Date: 08/28/96
 Final Depth: 83'0"
 Drilled By: Kenora Soil & Drilling
 Core Size: BQ

| <u>FROM</u> | | <u>TO</u> | | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | | | | | | |
|-------------|---------------|-----------|------|--|---------------|-------------|-----------|---------------|-----------|-----------|-----------|-----------|--|--|
| (ft) | (in) | (ft) | (in) | | | | | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> | | |
| 00 00 | | 22 00 | | casing | | | | | | | | | | |
| 22 00 | | 27 00 | | likely boulders; sludge was muddy, pearly yellow (sericitic?); only core recovered was ~3" of yellow sandy clay; possible weathering profile or shear? [poor recovery] | | | | | | | | | | |
| 27 00 | [shear zone?] | 28 04 | | fragmented rock with yellow-pearly clay coating; mainly blue-grey qtz with some sericite-schist along fractures; few sericite schist fragments and disseminated pyrite (~1%) [poor recovery] | 0052 | 27 00 | 29 00 | 1.43 | 0.002 | | | | | |
| 28 04 | [shear zone?] | 36 06 | | intermediate-felsic volcanic; sheared; extensive silicification & carbonitization; mainly sericite-schist with stringers of blue-grey quartz boudins; veins up to 0.75" wide; disseminated sulphides (~1%) (cpy,py,po) esp. on fracture surfaces;foliation and veining at 55 to C.A. [poor recovery] | 0053 | 34 05 | 38 00 | 2.56 | 0.002 | | | | | |
| 36 06 | | 38 00 | | mafic volcanic; sheared with qtz-carb stringers up to 0.13" wide; disseminated pyrite (~1%); vuggy q-c cavities; shear/veins at 33 to C.A. [poor recovery] | | | | | | | | | | |
| 38 00 | | 39 04 | | f.g., massive mafic volcanic; local silicification; disseminated sulphides (py,po) (<1%); coarsening of grains downhole and increase in q-c fracture-fill; disseminated sulphides throughout q-c [poor recovery] | 0054 | 38 00 | 39 04 | 0.95 | nil | | | | | |
| 39 04 | | 44 11 | | fg-mg, massive mafic volcanic; x-cut by network of q-c veins up to 0.5"; disseminated sulphides(<1%) both in q-c and host mafic [moderate recovery] | 0055 | 39 07 | 44 00 | 3.15 | nil | | | | | |

| <u>FROM</u> | | <u>TO</u> | | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | | | | |
|-------------|------|-----------|------|---|---------------|-------------|-----------|---------------|-----------|-----------|-----------|-----------|
| (ft) | (in) | (ft) | (in) | | | | | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> |
| 44 | 11 | 48 | 09 | fg, massive mafic volcanic; <1% disseminated py,cpy,po; decline in q-c veins with patchy silicification of mafics [good recovery] | 0056 | 45 09 | 46 09 | 0.71 | nil | | | |
| 48 | 09 | 54 | 08 | fg, massive mafic volcanic; some pillow selvages; <1% disseminated sulphides with up to 20% po>cpy in qtz-carb fracture fill [good recovery] | 0057 | 48 09 | 50 01 | 0.95 | nil | | | |
| | | | | | 0058 | 51 06 | 55 03 | 2.68 | nil | | | |
| 54 | 08 | 55 | 02 | fg, massive mafic volcanic; highly fractured; q-c network with silicified patches; disseminated py (<1%) in q-c veins; locally weakly foliated [good recovery] | | | | | | | | |
| 55 | 02 | 55 | 04 | near massive-sulphide; po>>cpy with minor pyrite; ~2" vein with cherty clasts amongst sulphides; test by dimethylglyoxime was negative; sulphide vein is at 55 to C.A. [good recovery] | 0059 | 55 02 | 55 04 | 0.12 | nil | 190 | 52 | 120 |
| 55 | 04 | 56 | 11 | fg, massive mafic volcanic; silicified; x-cut by q-c network with ~1% sulphides; diss. sulphides in mafics [good recovery] | 0060 | 55 04 | 56 11 | 1.13 | 0.001 | | | |
| 56 | 11 | 57 | 00 | near-massive sulphide (po>>cpy>py) in silicified shear; clasts of cherty mafic amongst sulphides; q-c network with patchy epidotization; weak foliation at 55 to C.A. [good recovery] | 0061 | 56 11 | 57 00 | 0.06 | nil | 284 | 50 | 88 |
| 57 | 00 | 57 | 08 | fg, massive mafic volcanic; dissem. sulphides (5%); q-c network fracture fill with ~1% sulphide blebs [good recovery] | | | | | | | | |
| 57 | 08 | 59 | 06 | fg, massive, mafic volcanic with q-c fracture fill; near semi-massive po>>cpy>py in qtz-carb vein at close to length of core axis; at 10 to C.A.; sulphide vein ~6" wide to 0.5" decreasing downhole; mafic volcanic locally brecciated with patchy silicification and epidotization [good recovery] | | | | | | | | |

| <u>FROM</u> | | <u>TO</u> | | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | | | | | | |
|--------------|------|-----------|------|--|---------------|-------------|-----------|---------------|-----------|-----------|-----------|-----------|----|----|
| (ft) | (in) | (ft) | (in) | | | | | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> | | |
| 59 | 06 | 61 | 06 | fg, massive, mafic volcanic, qtz-carb network with disseminated sulphides (<1%) [good recovery] | 0062 | 60 | 00 | 61 | 03 | 0.89 | nil | | | |
| 61 | 06 | 62 | 07 | fg, brecciated mafic volcanic; fragmented by q-c network; sulphides ~10-15% po>>cpy>py in q-c fracture fill [good recovery] | | | | | | | | | | |
| [shear zone] | | | | | | | | | | | | | | |
| 62 | 07 | 62 | 09 | semi-massive (>25%) sulphides in qtz-carb shear; clots of po>cpy>py; sulphide vein at 55 to C.A. [good recovery] | 0063 | 62 | 07 | 63 | 01 | 0.36 | nil | 112 | 70 | 72 |
| [shear zone] | | | | | | | | | | | | | | |
| 62 | 09 | 64 | 01 | fg, massive mafic volcanic; q-c network locally fracturing mafics; blebs of po in q-c veins as well as diss. sulphides in volcanics [good recovery] | 0064 | 63 | 10 | 65 | 09 | 1.37 | nil | | | |
| 64 | 01 | 64 | 08 | fg, mafic volcanic; moderately to strongly foliated at 55 to C.A.; po>>py along shear planes and in q-c veins as disseminations [good recovery] | | | | | | | | | | |
| [shear zone] | | | | | | | | | | | | | | |
| 64 | 08 | 66 | 01 | fg, massive mafic volcanic; diss. sulphides; q-c veining network with <1% diss. sulphides [good recovery] | 0065 | 65 | 09 | 67 | 02 | 1.01 | nil | | | |
| 66 | 01 | 67 | 10 | fg, massive mafic volcanic, dissem. sulphides in q-c network (py,po,cpy); up to 5% sulphide in mafics [good recovery] | | | | | | | | | | |
| 67 | 10 | 68 | 00 | fg, mafic volcanics with q-c network; chloritic inclusions in q-c veins with <1% sulphides, mainly along contacts with mafics [good recovery] | | | | | | | | | | |
| 68 | 00 | 70 | 07 | fg, massive mafic volcanic; q-c network with diss. sulphides (<1%) in mafics and q-c veins; q-c veins at ~40 to C.A. [good recovery] | | | | | | | | | | |
| 70 | 07 | 71 | 11 | fg, mafic volcanic; brecciated with q-c network; ~1% diss. sulphides in mafics with blebs of po>cpy in q-c [good recovery] | 0066 | 70 | 08 | 71 | 11 | 0.89 | nil | | | |

| <u>FROM</u> | | <u>TO</u> | | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | | | | | | |
|-------------|------|-----------|------|---|---------------|-------------|-----------|---------------|-----------|-----------|-----------|-----------|--|--|
| (ft) | (in) | (ft) | (in) | | | | | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> | | |
| 71 11 | | 73 00 | | fragmented and broken rubble; probable cave [poor recovery] | | | | | | | | | | |
| 73 00 | | 79 08 | | fg, massive, mafic volcanic with q-c network; 1-3% diss. sulphides (py>po>cpy); locally sheared and brecciated with blue-grey qtz veins (barren) up to 0.15" wide [good recovery] | 0067 | 73 00 | 76 00 | 2.14 | nil | | | | | |
| | | | | | 0068 | 76 00 | 76 04 | 0.24 | nil | | | | | |
| 79 08 | | 80 00 | | fg, mafic volcanic with white to blue-grey qtz vein and q-c veining network; up to 5% sulphides; veins are at 50 to C.A. [moderate recovery] | 0069 | 77 09 | 78 08 | 0.65 | nil | | | | | |
| 80 00 | | 83 00 | | fg, massive mafic volcanics; up to 1% diss. sulphides; q-c network with sulphide blebs | 0070 | 82 02 | 83 00 | 0.59 | nil | | | | | |

E.O.H.

PROPERTY: Armstrong-Johnson, King Bay, ONT.
 HOLE No.: TY-02
 Collar Inclination: -55.00
 Bearing: 160.00 AZ
 Collar Elevation:
 Location: north of large pit but south of DDH TY-01

Logged By: S. Jobin-Bevans
 Date: 08/29/96
 Final Depth: 117'0"
 Drilled By: Kenora Soil & Drilling
 Core Size: BQ

| <u>FROM</u> | | <u>TO</u> | | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | | | | | | |
|-------------|------|-----------|------|--|---------------|-------------|-----------|---------------|-----------|-----------|-----------|-----------|--|--|
| (ft) | (in) | (ft) | (in) | | | | | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> | | |
| 00 | 00 | 22 | 00 | approximate depth of casing - probably short; fragmented mafic volcanic [none] | | | | | | | | | | |
| 22 | 00 | 27 | 00 | mafic volcanic; intermittent fragmented core; rusty veins of q-c stringers [poor recovery] | 0071 | 24 06 | 26 10 | 1.31 | nil | | | | | |
| 27 | 00 | 28 | 06 | f.g.; mafic volcanic; massive, broken fragments [poor recovery] | | | | | | | | | | |
| 28 | 06 | 43 | 00 | f.g. mafic volcanic, massive to poorly foliated; q-c network of stringers; diss. sulphides (<1-1%) in mafics & q-c veinlets; epidotized areas (pillow selvages); locally up to 5% sulphide in q-c (lets; lost core (~6ft) with fragments up to 43' section [moderate recovery] | 0072 | 37 03 | 39 00 | 0.98 | nil | | | | | |
| 43 | 00 | 45 | 00 | f.g., massive, mafic volcanic; q-c veinlets /stringers with diss. sulphide(1%) [good recovery] | 0073 | 43 00 | 45 00 | 1.12 | nil | | | | | |
| 45 | 00 | 65 | 06 | f.g., massive mafic volcanic; diss. sulphide (~1%) decrease in silicification [good recovery] | 0074 | 51 06 | 53 08 | 1.21 | nil | | | | | |
| | | | | | 0075 | 60 06 | 63 00 | 1.40 | nil | | | | | |
| 65 | 06 | 74 | 02 | f.g. mafic volcanic; start of brecciation; increase in highly brecciated and recemented by q-c; epidotization prevalent; mainly diss. sulphides (1 to 2%) with more blebs of sulphide and increased di downhole (~66'06"); localized sulphide-rich alteration/shear with up to 10% po,cpy,py; local foliation at 45 to C.A. [good recovery] | 0076 | 65 00 | 69 00 | 2.24 | nil | | | | | |
| | | | | | 0077 | 69 00 | 72 09 | 2.10 | nil | | | | | |
| | | | | | 0078 | 72 09 | 73 02 | 0.23 | nil | | | | | |
| | | | | | 0079 | 73 08 | 74 02 | 0.28 | nil | 560 | 66 | 168 | | |

| <u>FROM</u> | | <u>TO</u> | | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | | | | | | |
|-------------|------|-----------|------|---|---------------|-------------|-----------|---------------|-----------|-----------|-----------|-----------|--|--|
| (ft) | (in) | (ft) | (in) | | | | | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> | | |
| 74 | 02 | 76 | 06 | lighter (buff) mafic to intermediate volcanics; decrease in q-c veinlets and brecciation; diss. sulphides (<1% to 1%); locally poorly foliated at 45 to C.A. [good recovery] | | | | | | | | | | |
| 76 | 06 | 79 | 11 | mafic to intermediate volcanics; increasing fol. downhole (45 to C.A.); increased q-c stringers with increased sulphides up to 2%; [good recovery] | 0080 | 76 06 | 79 10 | 1.87 | nil | | | | | |
| 79 | 11 | 81 | 11 | f.g., mafic (silicified) volcanic; vuggy and rusty q-c alteration and stringers; highly foliated at 45 to C.A.; diss. sulphides (1%) throughout upper section until ~81'2", then increase in sulphides (po, cpy, py) and sugary q-c veinlets; q-c is rusty, sulphide-rich until 81'11" - terminated by sharp sheared contact at 52 to C.A. [good recovery] | 0081 | 79 11 | 81 11 | 1.12 | 0.006 | 318 | 136 | 146 | | |
| 81 | 11 | 85 | 00 | f.g., intermediate to felsic volcanic; locally moderately foliated at 45 to C.A.; <0.25" wide blue-grey to grey-white qtz-vein; ~1% diss. sulphides throughout [good recovery] | 0082 | 81 11 | 85 00 | 1.73 | 0.002 | | | | | |
| 85 | 00 | 94 | 03 | f.g., felsic (?) volcanic; highly foliated at 30 to C.A.; concentration of black and yellow micas into .25 to 0.5" wide bands; increase in banding downhole; increase in diss. sulphides downhole up to 3% po, cpy, py; locally blue-grey qtz veins up to 1.25" wide parallel to foliation with up to 1% bleb and diss. sulphides; lesser q-c veinlets that x-cut foliation; sharp, sheared contact with shear zone downhole at 45 to C.A. [good recovery] | 0083 | 85 00 | 88 00 | 1.68 | nil | | | | | |
| | | | | | 0084 | 88 00 | 90 00 | 1.12 | 0.001 | | | | | |
| | | | | | 0085 | 90 00 | 92 00 | 1.12 | nil | | | | | |
| | | | | | 0086 | 92 00 | 94 03 | 1.26 | 0.006 | | | | | |

| <u>FROM</u> | | <u>TO</u> | | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | | | | |
|-------------|------|-----------|------|--|---------------|-------------|-----------|---------------|-----------|-----------|-----------|-----------|
| (ft) | (in) | (ft) | (in) | | | | | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> |
| 94 | 03 | 98 | 07 | SHEAR ZONE; highly foliated qtz-muscovite to sericite-schist and chlorite schist interbanded with blue-grey qtz-veins; locally >30% sulphides as blebs and stringers; near-massive patches in qtz , esp. along contacts with schist (po>cpy>>py); qtz veins x-cut and parallels foliation [good recovery] | 0087 | 94 03 | 97 00 | 1.54 | 0.113 | | | |
| | | | | | 0088 | 97 00 | 98 07 | 0.89 | 0.026 | | | |
| 98 | 07 | 100 | 01 | SHEAR ZONE; f.g., grey-green intermediate to mafic volcanic; highly foliated at 40 to C.A.; q-c veinlets with up to 20% sulphides (po,cpy); generally ~1% diss. sulphides throughout volcanics; near semi-massive sulphide at end of section in sheared region with qtz (blue-grey) augen and rusty fol. at 45 to C.A. [good recovery] | 0089 | 98 07 | 99 08 | 0.61 | 0.002 | | | |
| | | | | | 0090 | 99 08 | 100 01 | 0.23 | 0.020 | 1690 | 78 | 52 |
| 100 | 01 | 102 | 01 | SHEAR ZONE; f.g. to m.g., intermediate volcanics; highly fol. at 45 to C.A.; up to 15 % blebs and diss. sulphides (po,cpy,py); blue-grey qtz veins (<.25" wide) parallel foliation [good recovery] | 0091 | 100 01 | 102 01 | 1.12 | nil | | | |
| 102 | 01 | 102 | 08 | SHEAR ZONE; f.g., massive, intermediate to mafic volcanic; probably a preserved enclave in shear zone [good recovery] | | | | | | | | |
| 102 | 08 | 104 | 00 | SHEAR ZONE; f.g., siliceous mafic volcanic; sheared grey-blue qtz; highly foliated with black bands of micas; foliation at 45 to C.A. [good recovery] | 0092 | 102 10 | 104 00 | 0.65 | nil | | | |
| 104 | 00 | 107 | 09 | SHEAR ZONE; f.g., intermediate volcanic; highly to moderately foliated at 45 to C.A.; decreasing foliation downhole accompanied by decrease in % sulphide; upper section is up to 15% diss. to blebs of sulphides (po,cpy);occasional .25" wide blue-grey qtz veins parallel to foliation [good recovery] | 0093 | 104 00 | 107 00 | 1.68 | 0.001 | | | |

| <u>FROM</u> | | <u>TO</u> | | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | | | | |
|-------------|------|-----------|------|--|---------------|-------------|-----------|---------------|-----------|-----------|-----------|-----------|
| (ft) | (in) | (ft) | (in) | | | | | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> |
| 107 | 09 | 117 | 00 | f.g., intermediate (buff) volcanic; massive; q-c veinlets with up to 1% sulphide; mafics with ~1% diss. sulphides; q-c veinlets x-cut poorly developed foliation (randomly oriented) [good recovery] | 0094 | 107 00 | 108 02 | 0.65 | nil | | | |
| | | | | | 0095 | 115 00 | 117 00 | 1.12 | nil | | | |
| | | | | E.O.H. | | | | | | | | |

PROPERTY: Armstrong-Johnson, King Bay, ONT.
 HOLE No.: TY-03
 Collar Inclination: -45.00
 Bearing: 340.00 AZ
 Collar Elevation:
 Location: west of large pit

Logged By: S. Jobin-Bevans
 Date: 08/30/96
 Final Depth: 127'0"
 Drilled By: Kenora Soil & Drilling
 Core Size: BQ

| <u>FROM</u> | | <u>TO</u> | | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | | | | | | | |
|-------------|-------|-----------|------|--|---------------|-------------|-----------|---------------|-----------|-----------|-----------|-----------|--|--|--|
| (ft) | (in) | (ft) | (in) | | | | | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> | | | |
| 00 | 00 | 05 | 00 | casing (2') and cave/fragmentation [none] | | | | | | | | | | | |
| 05 | 00 | 14 | 05 | f.g., mafic volcanic, massive; q-c veinlets (1%); diss. sulphides (1%) to blebs of po, cpy in q-c veinlets [moderate recovery] | 323351 | 10 11 | 12 00 | 0.77 | nil | | | | | | |
| 14 | 05 | 14 | 07 | q-c and blue-grey to white-cream qtz vein in shear; bleb to diss. sulphides in and around qtz vein; up to 10% po.cpy..py; poor local foliation at 55 to C.A. [good recovery] | 323352 | 14 05 | 14 07 | 0.12 | nil | | | | | | |
| 14 | 07 | 21 | 06 | increase in paleness of volcanics (silicification?) downhole; mafic volcanic ; massive; local 0.2" wide blue-grey qtz-carb veinlets; up to 2% dis. sulphide and blebs in q-c veinlets (po, cpy >py) [good recovery] | 323353 | 17 02 | 17 10 | 0.48 | nil | | | | | | |
| 21 | 06 | 31 | 00 | f.g., mafic volcanic; increased schistosity downhole with foliation at 50 to C.A.; mainly diss. sulphides (~1%); blebs of sulphide in q-c veinlets (po>cpy);local diss. sulphides up to 2% in mafics [good recovery] | 323354 | 19 08 | 21 05 | 1.25 | nil | | | | | | |
| | | | | | 323355 | 21 06 | 22 07 | 0.77 | nil | | | | | | |
| | | | | | 323356 | 23 06 | 23 10 | 0.24 | nil | | | | | | |
| | | | | | 323357 | 23 10 | 24 03 | | nil | | | | | | |
| | | | | | 323358 | 24 03 | 25 05 | 0.83 | nil | | | | | | |
| | | | | | 323359 | 25 05 | 25 08 | 0.18 | nil | | | | | | |
| | | | | | 323360 | 28 02 | 29 03 | 0.77 | nil | | | | | | |
| 323361 | 30 03 | 30 06 | 0.18 | nil | | | | | | | | | | | |
| 323362 | 30 06 | 31 00 | 0.36 | nil | | | | | | | | | | | |
| 31 | 00 | 31 | 11 | f.g., mafic volcanic; brecciated; q-c veinlets with white to blue-grey qtz;<2% diss. sulphides; prevalent epidotization [good recovery] | 323363 | 31 00 | 31 11 | 0.65 | nil | | | | | | |

| <u>FROM</u> | | <u>TO</u> | | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | | | | |
|-------------|------|-----------|------|---|---------------|-------------|-----------|---------------|-----------|-----------|-----------|-----------|
| (ft) | (in) | (ft) | (in) | | | | | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> |
| 31 11 | | 46 06 | | f.g., mafic volcanic; increased brecciation due to increase in q-c veinlets (up to 15%); diss. sulphides (1%) throughout with up to 2% as blebs in q-c; up to .25" wide blue-grey qtz-carb veinlets with sulphides (po,cpy,py) [good recovery] | 323364 | 31 11 | 33 04 | 1.01 | nil | | | |
| | | | | | 323365 | 33 04 | 33 06 | 0.12 | nil | | | |
| | | | | | 323366 | 33 06 | 34 05 | 0.65 | nil | | | |
| | | | | | 323367 | 35 02 | 36 00 | 0.60 | nil | | | |
| | | | | | 323368 | 36 00 | 36 11 | 0.65 | nil | | | |
| | | | | | 323370 | 36 11 | 37 08 | 0.54 | nil | | | |
| | | | | | 323371 | 38 04 | 38 10 | 0.36 | nil | | | |
| | | | | | 323372 | 40 07 | 41 09 | 0.83 | nil | | | |
| | | | | | 323373 | 43 01 | 43 04 | 0.18 | nil | | | |
| | | | | | 323374 | 45 08 | 47 00 | 0.95 | nil | | | |
| 46 06 | | 72 06 | | f.g., mafic volcanic; decrease in brecciation from q-c veinlets; more regular q-c veinlets at 50 to C.A., paralleling poor foliation; up to 2% diss. sulphides in mafics with local blebs of cpy surrounding po; q-c veinlets at 50 to C.A.; occasional blue-grey qtz veins up to .25" wide at 50 to C.A. [good recovery] | 323375 | 49 05 | 51 07 | 1.55 | nil | | | |
| | | | | | 323376 | 54 05 | 55 11 | 1.07 | nil | | | |
| | | | | | 323377 | 57 00 | 58 04 | 0.95 | nil | | | |
| | | | | | 323378 | 61 05 | 61 10 | 0.30 | nil | | | |
| | | | | | 323379 | 62 05 | 66 00 | 2.56 | nil | | | |
| | | | | | 323380 | 68 10 | 69 02 | 0.24 | nil | | | |
| 72 06 | | 76 09 | | f.g., mafic volcanic; massive; increase q-c veinlets and rock brecciation;diss. sulphides (1-2%) with blebs of po, cpy in q-c veinlets [good recovery] | 323381 | 72 06 | 73 01 | 0.42 | nil | | | |
| | | | | | 323382 | 73 10 | 74 10 | 0.71 | nil | | | |
| 76 09 | | 78 03 | | f.g., mafic volcanics; increasing schistosity but near-massive; patches of highly silicified and chloritized mafics; q-c veinlet network (5%) [good recovery] | 323383 | 76 09 | 78 03 | 1.07 | nil | | | |
| 78 03 | | 78 11 | | f.g., mafic volcanics; highly sheared and brecciated; vuggy q-c veinlets with red-stained pyrite-rich stringers (py>cpy) - no po visible [moderate recovery] | 323384 | 78 03 | 78 11 | 0.48 | nil | 212 | 90 | 110 |
| 78 11 | | 79 01 | | f.g., mafic volcanic, massive; diss. sulphides up to 1%; locally brecciated by q-c veinlets with blebs of po, cpy. [good recovery] | 323385 | 78 11 | 79 10 | 0.65 | nil | | | |

| <u>FROM</u> (ft) | <u>TO</u> (in) | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> |
|--------------------------------|-------------------|---|---------------|-------------|-----------|-------------------------------|-----------|-----------|-----------|-----------|
| 79 01 [sulphide alteration] | 79 02 | q-c vein with near-massive sulphide (po>cpy>py); hosted by brecciated mafic volcanic with diss. sulphides (1%); veining at 50 to C.A. [good recovery] | | | | | | | | |
| 79 02 [sulphide alteration] | 80 00 | f.g., mafic volcanic; brecciated by q-c veinlets (15%) with cherty blue-grey fragments; diss. sulphides (2%) and blebs of po, cpy throughout [good recovery] | 323386 | 79 10 | 80 00 | 0.12 | nil | 154 | 76 | 112 |
| 80 00 [sulphide alteration] | 86 06 | f.g., massive, mafic volcanic; q-c veinlets (2%) but only local brecciation; blebs of po, cpy with diss. sulphides (2%) in mafics [good recovery] | 323387 | 80 00 | 80 06 | 0.36 | nil | | | |
| | | | 323388 | 81 01 | 83 01 | 1.43 | nil | | | |
| | | | 323389 | 85 00 | 85 09 | 0.54 | nil | | | |
| 86 06 [sulphide alteration] | 92 08 | f.g., mafic volcanic; massive to locally highly sheared and brecciated by q-c veinlets (5%); near semi-massive sulphide stringers and veinlets mainly associated with q-c veinlets; most mineralized veins are 0 to 10 to the C.A.; mainly po and cpy with local clots of semi-massive cpy>po. [good recovery] | 323390 | 86 06 | 89 10 | 2.38 | nil | | | |
| | | | 323391 | 89 10 | 92 08 | 2.02 | nil | 318 | 80 | 90 |
| 92 08 | 96 08 | f.g., mafic volcanic; highly foliated ; chlorite-schist with patchy silicification throughout; locally highly silicified with 1% diss. sulphide; q-c veinlets (3%)are parallel to foliation with blebs and diss. sulphide (po, cpy, py); veins are at 40 to C.A. [good recovery] | 323392 | 93 07 | 96 08 | 2.20 | nil | 124 | 108 | 120 |
| 96 08 | 98 02 | f.g., mafic volcanic; highly sheared with q-c veinlets (10%); cherty patches; foliation at 30-35 to C.A. [good recovery] | 323393 | 96 08 | 97 09 | 0.77 | nil | | | |
| 98 02 | 98 10 | f.g., mafic volcanic; highly fractured and fragmented with diss. sulphides(1%) [poor recovery] | | | | | | | | |
| 98 10 | 100 10 | fg. ,mafic (? - silicified) volcanic; massive; <1% diss. sulphides [moderate recovery] | 323394 | 98 10 | 99 05 | 0.42 | nil | | | |
| | | | 323395 | 99 08 | 99 10 | 0.12 | nil | | | |

| <u>FROM</u> | | <u>TO</u> | | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | | | | |
|---------------|------|-----------|------|---|---------------|-------------|-----------|---------------|-----------|-----------|-----------|-----------|
| (ft) | (in) | (ft) | (in) | | | | | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> |
| 100 | 10 | 102 | 03 | rusty green-brown clastic; cherty qtz and feldspar clasts (sandstone?); <1% sulphides; rusty fractures [moderate recovery] | 323396 | 100 10 | 101 04 | 0.36 | nil | | | |
| 102 | 03 | 106 | 06 | fragmented and broken-up core; likely qtz-muscovite /sericite schist; LOST ~4.5 ft of core [poor to no recovery] | | | | | | | | |
| [shear zone?] | | | | | | | | | | | | |
| 106 | 06 | 107 | 00 | blue-grey qtz vein; x-cut by rusty sulphide stained veinlets; qtz was likely in contact with sericite chlorite-schist up-hole (south) but was ground out; fine diss. sulphides throughout qtz with po, cpy and py in rusty veinlets [poor to moderate recovery] | 323397 | 106 07 | 107 00 | 0.30 | nil | | | |
| [shear zone?] | | | | | | | | | | | | |
| 107 | 00 | 110 | 04 | yellow-cream qtz-muscovite to locally sericitic schist; highly foliated at 40 to C.A.; no visible sulphides; | 323398 | 107 00 | 108 02 | 0.83 | nil | | | |
| [shear zone?] | | | | | | | | | | | | |
| | | | | LOST 1.5 ft of core from 108'02" - 109'08" [poor to no recovery] | 323399 | 109 09 | 110 04 | 0.42 | nil | | | |
| 110 | 04 | 117 | 00 | blue-grey qtz vein; x-cut by q-c veinlets; highly fragmented; LOST 4.5 ft of core that was likely qtz-muscovite schist; only 3.5' of blue-grey qtz vein with fine diss. sulphides throughout [poor to no recovery] | 323400 | 110 04 | 112 06 | 1.55 | nil | | | |
| [shear zone?] | | | | | 0096 | 116 10 | 117 00 | 0.12 | 0.014 | | | |
| 117 | 00 | 121 | 06 | yellow-pearly coloured sludge return; yellow muddy to sandy core; likely from weathering profile possibly derived from qtz-muscovite schist; recovered a total of 4.5 ft of "muddy" core [poor to no recovery] | 0097 | 117 00 | ? ? | | 0.001 | | | |
| [shear zone?] | | | | | | | | | | | | |
| 121 | 06 | 127 | 00 | f.g., intermediate to felsic volcanic; highly fragmented and fractured no visible sulphides; LOST about 6 ft [poor to no recovery] | 0098 | 126 00 | ? ? | | nil | | | |

E.O.H.

PROPERTY: Armstrong-Johnson, King Bay, ONT.
 HOLE No.: TY-04
 Collar Inclination: -55.00
 Bearing: 340.00 AZ
 Collar Elevation:
 Location: west of large pit; same as DDH TY-03

Logged By: S. Jobin-Bevans
 Date: 09/01/96
 Final Depth: 157'0"
 Drilled By: Kenora Soil & Drilling
 Core Size: BQ

| <u>FROM</u> | | <u>TO</u> | | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | | | | | | |
|-------------|------|-----------|------|--|---------------|-------------|-----------|---------------|-----------|-----------|-----------|-----------|--|--|
| (ft) | (in) | (ft) | (in) | | | | | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> | | |
| 00 | 0.0 | 02 | 0.0 | casing (2') and cave/fragmentation [none] | | | | | | | | | | |
| 02 | 0.0 | 32 | 2.0 | f.g., massive to locally poorly foliated, mafic volcanic; q-c veining with local epidotized pillow selvages and patchy white-cream qtz veins; diss. sulphides with rare blebs of po >cpy [good recovery] | 7215 | 08 05 | 11 00 | 1.45 | nil | | | | | |
| | | | | | 7216 | 16 03 | 16 10 | 0.33 | nil | | | | | |
| | | | | | 7217 | 17 00 | 18 04 | 0.75 | nil | | | | | |
| | | | | | 7218 | 19 06 | 20 07 | 0.61 | nil | | | | | |
| | | | | | 7219 | 24 06 | 25 01 | 0.33 | nil | | | | | |
| | | | | | 7220 | 29 11 | 31 04 | 0.79 | nil | | | | | |
| 32 | 2.0 | 39 | 0.0 | f.g., massive to poorly foliated, mafic volcanic; mottled texture [good recovery] | 7221 | 34 05 | 35 05 | 0.56 | nil | | | | | |
| 39 | 0.0 | 51 | 1.0 | f.g., massive to poorly foliated, mafic volcanic [good recovery] | 7222 | 41 09 | 44 05 | 1.49 | 0.001 | | | | | |
| 51 | 1.0 | 53 | 1.0 | f.g., massive mafic volcanic, highly epidotized with major increase in q-c stringers & veins stringers and veins; many q-c veins at 20 to C.A.; diss. sulphides (1%) with occasional blebs; pillow selvages and minor q-c at 45 to C.A. [good recovery] | 7223 | 51 06 | 53 01 | 0.89 | nil | | | | | |
| 53 | 1.0 | 87 | 2.0 | f.g., massive to poorly foliated, mafic volcanic [good recovery] | 7224 | 57 06 | 58 00 | 0.28 | nil | | | | | |
| | | | | | 7225 | 63 02 | 66 01 | 1.63 | nil | | | | | |
| | | | | | 7226 | 72 11 | 75 04 | 1.35 | nil | | | | | |
| | | | | | 7227 | 83 01 | 85 02 | 1.17 | nil | | | | | |
| 87 | 2.0 | 89 | 10.0 | f.g., massive to poorly foliated; amygdules; mafic volcanic [good recovery] | 7228 | 87 02 | 89 09 | 1.45 | nil | | | | | |

| <u>FROM</u> | | <u>TO</u> | | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | | | | |
|-----------------------|------|-----------|------|---|---------------|-------------|-----------|---------------|-----------|-----------|-----------|-----------|
| (ft) | (in) | (ft) | (in) | | | | | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> |
| 89 | 10.0 | 104 | 3.0 | f.g., massive to locally poorly foliated, mafic volcanic; sheared blue-grey qtz vein at ~97'02" up to 0.5" wide with 15% bleb & diss. sulphides; qtz-vein at 35 to C.A. [good recovery] | 7229 | 94 11 | 97 07 | 1.49 | nil | | | |
| [sulphide alteration] | | | | | 7230 | 100 01 | 103 02 | 1.73 | nil | | | |
| 104 | 3.0 | 104 | 7.5 | f.g., mafic volcanic with sulphide stringers (25%) with cpy>po; blue-grey qtz sheared with "swirled" texture [good recovery] | 7231 | 104 03 | 105 05 | 0.65 | nil | | | |
| [sulphide alteration] | | | | | | | | | | | | |
| 104 | 7.5 | 111 | 5.0 | f.g., mafic volcanic; massive to weakly foliated; diss. sulphides (1%); blue-grey qtz-vein up to .25" wide with blebs sulphide; veins at 45 to C.A. [good recovery] | | | | | | | | |
| [sulphide alteration] | | | | | | | | | | | | |
| 111 | 5.0 | 114 | 8.0 | f.g., massive mafic volcanic; epidotized & mottled; diss. sulphides (<1%) throughout [good recovery] | | | | | | | | |
| | | | | | | | | | | | | |
| 114 | 8.0 | 119 | 11.0 | f.g., massive mafic volcanic; q-c network; local strong epidotization (pillow selvages); diss. sulphides (<1%) [good recovery] | 7232 | 114 10 | 116 09 | 1.07 | 0.002 | | | |
| | | | | | 7233 | 117 00 | 119 11 | 1.63 | nil | | | |
| 119 | 11.0 | 124 | 6.0 | SHEAR ZONE; highly foliated intermediate to mafic volcanic; foliated at 30 to C.A.; diss. sulphides (1%); q-c is sheared parallel to foliation; increase in total sulphides (5%) & blebs downhole toward highly sheared region [good recovery] | 7234 | 119 11 | 122 08 | 1.54 | nil | | | |
| [shear] | | | | | 7235 | 122 08 | 124 06 | 1.03 | nil | | | |
| 124 | 6.0 | 127 | 0.0 | SHEAR ZONE; highly foliated, sulphide-rich shear; "swirly" texture with cherty fragments in sheared mafic volcanic; ~15 to 20% sulphides(po>cpy>py); foliated at 30 to C.A. or less; blue-grey to white qtz veins and minor q-c sheared parallel to fol. [good recovery] | 7236 | 124 06 | 127 00 | 1.40 | nil | 250 | 71 | 106 |
| [shear] | | | | | | | | | | | | |
| 127 | 0.0 | 137 | 0.0 | f.g., massive to weakly foliated; mafic volcanic; minor q-c stringers and diss. sulphides (1%); lost ~5' of core from 132' to 137' [moderate recovery] | 7237 | 127 00 | 132 00 | 2.80 | nil | | | |

| <u>FROM</u> | <u>TO</u> | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | | | | |
|-------------|-----------|--|---------------|-------------|-----------|---------------|-----------|-----------|-----------|-----------|
| (ft) (in) | (ft) (in) | | | | | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> |
| 137 0.0 | 157 0.0 | f.g., massive, mafic volcanic; q-c stringers (1%); <1% diss. sulphides; locally moderate fol. at 40 to C.A. [good recovery] | 7238 | 137 00 | 138 01 | 0.61 | nil | | | |
| | | | 7239 | 147 02 | 149 09 | 1.45 | nil | | | |
| | | | 7240 | 154 11 | 157 00 | 1.17 | nil | | | |
| | | E.O.H. | | | | | | | | |

PROPERTY: Armstrong-Johnson, King Bay, ONT.
 HOLE No.: TY-05
 Collar Inclination: -55.00
 Bearing: 340.00 AZ
 Collar Elevation:
 Location: west of large pit; furthest western DDH

Logged By: S. Jobin-Bevans
 Date: 09/03/96
 Final Depth: 237'0"
 Drilled By: Kenora Soil & Drilling
 Core Size: BQ

| <u>FROM</u> | | <u>TO</u> | | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | | | | | | |
|-------------|------|-----------|------|--|---------------|-------------|-----------|---------------|-----------|-----------|-----------|-----------|--|--|
| (ft) | (in) | (ft) | (in) | | | | | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> | | |
| 00 | 0.0 | 05 | 0.0 | casing with rubble of f.g. mafic volcanic | | | | | | | | | | |
| 05 | 0.0 | 12 | 4.0 | f.g., light-grey-green, massive to weakly foliated intermediate volcanic; 1-2% diss. sulphides; intermittent fractured and rubble; vuggy q-c veins [moderate recovery] | | | | | | | | | | |
| 12 | 4.0 | 45 | 3.0 | f.g., intermediate to mafic volcanic; light green massive to weakly foliated; q-c stringers with diss. sulphides (1%) in stringers; locally blue-grey quartz up to 1" wide with up to 5% sulphide blebs/disssem.; fol. at 40 to C.A. [good recovery] | 7241 | 16 02 | 18 05 | 1.24 | nil | | | | | |
| | | | | | 7242 | 25 10 | 28 03 | 1.35 | nil | | | | | |
| | | | | | 7243 | 36 07 | 38 11 | 1.31 | nil | | | | | |
| 45 | 3.0 | 56 | 10.0 | f.g., mafic volcanic; buff-grey; increase in q-c network downhole; weakly to locally strongly foliated at 40-45 to C.A.; blue-grey qtz veins up to 0.25" wide x-cut foliation and are associated with q-c stringers; locally up to 20% diss. sulph.; blebs of po, cpy in q-c and in host volcanics; bands of q-c and blue-grey qtz are decreasing downhole to 56'10" [good recovery] | 7244 | 45 06 | 49 06 | 2.24 | 0.001 | | | | | |
| | | | | | 7245 | 49 06 | 53 09 | 2.38 | nil | | | | | |
| 56 | 10.0 | 61 | 1.0 | f.g., massive to weakly foliated mafic volcanic; decrease in q-c network and less blue-grey qtz; sheared sharp contact downhole at 61'01" - contact at 45 to C.A. [good recovery] | 7246 | 58 11 | 61 01 | 1.21 | 0.001 | | | | | |
| 61 | 1.0 | 63 | 10.0 | f.g., mafic volcanic; epidotized pillow selvages; massive to poorly foliated; q-c and blue-grey qtz stringers and veins sheared to foliation; diss. sulphides (1%) and blebs of po, cpy along q-c [good recovery] | | | | | | | | | | |

| <u>FROM</u> | | <u>TO</u> | | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | | | | |
|-------------|------|-----------|------|--|---------------|-------------|-----------|---------------|-----------|-----------|-----------|-----------|
| (ft) | (in) | (ft) | (in) | | | | | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> |
| 63 | 10.0 | 86 | 8.0 | f.g., intermediate volcanic; light grey-green; moderate to no foliation at 40-45 to C.A.; q-c network of fractures x-cutting blue-grey qtz veins; blue-grey qtz also assoc. with q-c stringers; diss. sulphides (1%) but locally up to 2% with blebs of po, cpy; epidotized pillow selvages; locally strongly altered shear zones with blebs of sulphide; local brecciation [good recovery] | 7247 | 68 01 | 70 00 | 1.07 | nil | | | |
| | | | | | 7248 | 78 06 | 81 01 | 1.45 | 0.002 | | | |
| 86 | 8.0 | 87 | 11.0 | f.g., mafic volcanic; highly epidotized with increase in q-c stringers; bleb to diss. sulphide up to 5% (cpy, po >py); weak foliation at 40 to CA [good recovery] | 7249 | 86 08 | 87 11 | 0.70 | 0.001 | | | |
| 87 | 11.0 | 94 | 8.0 | f.g., mafic volcanic; grey-green; up to 5% q-c stringers; local brecciation; diss. to bleb sulph. up to 2%; locally epidotized pillow selvages [good recovery] | 7250 | 93 03 | 95 05 | 1.21 | nil | | | |
| 94 | 8.0 | 98 | 3.0 | f.g., mafic volcanic; grey-green; up to 5% q-c stringers; local brecciation; diss. to bleb sulph. up to 2%; locally epidotized pillow selvages decrease in q-c stringers downhole [good recovery] | | | | | | | | |
| 98 | 3.0 | 101 | 0.0 | f.g., mafic volcanic; grey-green; up to 2% q-c stringers; local brecciation; diss. to bleb sulph. up to 2%; mainly cpy > po > po locally epidotized pillow selvages [good recovery] | 7251 | 98 10 | 100 09 | 1.07 | nil | | | |
| 101 | 0.0 | 120 | 5.0 | f.g., mafic volcanic; grey-green; up to 2% q-c stringers; local brecciation; diss. to bleb sulph. up to 2%; mainly cpy > po > po; <0.25" blue-grey qtz veins within q-c stringers; local brecciation ny q-c and local weak fol. at 40-45 to C.A.; [good recovery] | 7252 | 108 09 | 110 10 | 1.17 | 0.001 | | | |
| | | | | | 7253 | 118 00 | 120 03 | 1.26 | nil | | | |

| <u>FROM</u> | | <u>TO</u> | | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | | | | |
|-------------|------|-----------|------|--|---------------|-------------|-----------|---------------|-----------|-----------|-----------|-----------|
| (ft) | (in) | (ft) | (in) | | | | | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> |
| 120 | 5.0 | 131 | 9.0 | f.g., mafic volcanic; grey-green; up to 2% q-c stringers; local brecciation; diss. to bleb sulph. up to 2%; mainly cpy > po > po around pillow selvages; minor blue-grey qtz veins at 40 to CA; blue qtz from 129'4" to 129'5" [good recovery] | 7254 | 127 00 | 130 00 | 1.68 | nil | | | |
| 131 | 9.0 | 147 | 10.0 | f.g., massive to weakly foliated; mafic volcanic; decrease in q-c network; white to blue-grey qtz veins and stringers; blebs of sulphide (1%) and 1% diss. sulph. throughout; 0.5" wide vein of sulph. at 138'06" to 138'08"; wider qtz veins at 40 to CA [good recovery] | 7255 | 137 09 | 139 02 | 0.79 | nil | | | |
| | | | | | 7256 | 144 04 | 145 03 | 0.51 | nil | | | |
| 147 | 10.0 | 157 | 0.0 | f.g., massive to weakly foliated; mafic volcanic; diss. sulph. (1%) throughout; locally foliated at 30 to CA; bleb cpy >po along pillow selvages [good recovery] | 7257 | 147 10 | 148 03 | 0.23 | nil | | | |
| 157 | 0.0 | 167 | 2.0 | f.g., massive to weakly foliated; mafic volcanic; increased grain-size downhole; 1% diss. sulph.; rare q-c stringers [good recovery] | 7258 | 157 00 | 158 06 | 0.84 | nil | | | |
| 167 | 2.0 | 168 | 4.0 | white to blue-grey qtz vein; sheared sharp contact with mafics; vein at 10 to CA; diss. sulph. at 1% [good recovery] | 7259 | 167 02 | 168 04 | 0.65 | nil | | | |
| 168 | 4.0 | 192 | 10.0 | f.g., mafic volcanic; local silicification; minor q-c stringers; diss. sulph. (1%); local increase in grain size to m.g.; weak foliation at 40 to CA; occasional 0.25" grey-blue qtz vein with diss. & bleb sulphide (cpy > po) [good recovery] | 7260 | 175 04 | 177 00 | 0.93 | nil | | | |
| | | | | | 7261 | 185 06 | 187 00 | 0.84 | nil | | | |
| 192 | 10.0 | 196 | 0.0 | f.g., massive to weakly foliated; mafic volcanic; fractured by q-c veins and blue-grey qtz; local fol at 45 to CA; uphole contact is sheared sharp; fine diss. sulph. throughout (1%) [good recovery] | 7262 | 194 00 | 196 08 | 1.49 | nil | | | |
| 196 | 0.0 | 222 | 6.0 | f.g., massive to weakly foliated; mafic volcanic; brecciated by q-c network and sheared blue-grey qtz mainly diss. sulphide (1%) with some blebs in blue grey qtz; locally up to 5% sulphide [good recovery] | 7263 | 204 09 | 205 10 | 0.61 | nil | | | |
| | | | | | 7264 | 209 09 | 210 07 | 0.47 | nil | | | |
| | | | | | 7265 | 214 07 | 215 06 | 0.51 | nil | | | |
| | | | | | 7266 | 218 11 | 220 09 | 1.03 | nil | | | |

| <u>FROM</u> | | <u>TO</u> | | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | | | | |
|-------------|------|-----------|------|---|---------------|-------------|-----------|---------------|-----------|-----------|-----------|-----------|
| (ft) | (in) | (ft) | (in) | | | | | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> |
| 222 | 6.0 | 234 | 5.0 | f.g., massive to weakly foliated; mafic volcanic; q-c fractured pillow selvedges and diss. sulph. (1%) [good recovery] | 7267 | 229 02 | 230 05 | 0.70 | nil | | | |
| 234 | 5.0 | 235 | 1.0 | f.g., massive mafic volcanic; q-c stringers with mineralized zone of stringers of po, cpy assoc. with cherty qtz-clasts in q-c matrix; locally up to 10% diss. sulph. (po, cpy >>py) [good recovery] | 7268 | 234 05 | 235 01 | 0.37 | nil | | | |
| 235 | 1.0 | 237 | 0.0 | f.g., massive mafic volcanic; 1% or less diss. sulphide; minor (1%) q-c stringers [good recovery] | 7269 | 235 08 | 237 00 | 0.75 | nil | | | |

E.O.H.

PROPERTY: Armstrong-Johnson, King Bay, ONT.
 HOLE No.: TY-06
 Collar Inclination: -45.00
 Bearing: 180.00 AZ
 Collar Elevation:
 Location: north of large pit - furthest north

Logged By: S. Jobin-Bevans
 Date: 08/25/96
 Final Depth: 175' (ABANDONED at 83')
 Drilled By: Kenora Soil & Drilling
 Core Size: BQ

| <u>FROM</u> | <u>TO</u> | <u>LITHOLOGICAL DESCRIPTION</u> | <u>ASSAYS</u> | | | | | | | | |
|-------------|-----------|--|---------------|---------------|-------------|-----------|--------------|-----------|-----------|-----------|-----------|
| (ft) | (in) | (ft) | (in) | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> |
| 00 | 0.0 | 83 | 0.0 | | | | | | | | |
| | | casing; extensive rubble; casing problem | | | | | | | | | |
| | | HOLE ABANDONED | | | | | | | | | |
| | | E.O.H. | | | | | | | | | |

PROPERTY: Armstrong-Johnson, King Bay, ONT.

HOLE No.: TY-07

Collar Inclination: -65.00

Bearing: 160.00 AZ

Collar Elevation:

Location: northwest of large pit

Logged By: S. Jobin-Bevans

Date: 09/07/96

Final Depth: 221'0"

Drilled By: Kenora Soil & Drilling

Core Size: BQ

| <u>FROM</u> | <u>TO</u> | <u>LITHOLOGICAL DESCRIPTION</u> | <u>ASSAYS</u> | | | | | | | |
|-------------|-----------|--|---------------|-------------|-----------|--------------|-----------|-----------|-----------|-----------|
| (ft) (in) | (ft) (in) | | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> |
| 00 0.0 | 24 0.0 | casing with rubble (24') [none] | | | | | | | | |
| 24 0.0 | 27 0.0 | f.g., mafic volcanic; highly brecciated into web or stockwork fracture by q-c stringers; diss. (5%) sulph. with minor blebs; blue-grey qtz as augen and sheared in "swirled" texture; sugary white qtz vein at 26'06" with diss. sulph.; shear at 60 to CA [poor recovery] | 6226 | 25 0.0 | 27 0.0 | 0.84 | nil | | | |
| 27 0.0 | 35 8.0 | f.g., brecciated; mafic volcanic; silicified with q-c network (45%); fine, net-like q-c with up to 5% diss. sulph. and bleb po, cpy >> py; blue-grey qtz sheared throughout; decrease in net-texture downhole; shear at 60 to CA [good recovery] | 6227 | 27 0.0 | 31 6.0 | 1.89 | nil | | | |
| | | | 6228 | 31 6.0 | 35 8.0 | 1.75 | nil | | | |
| 35 8.0 | 39 9.0 | f.g., brecciated; mafic volcanic; decrease in q-c net-like vein and fracture fill into "regular" q-c stringers (1 to 2%); up to 5% diss. sulph with minor blebs of po, cpy, py; local blue-grey qtz veins at 60 to CA; downhole contact is sheared (dyke?) [good recovery] | 6229 | 35 8.0 | 39 8.0 | 1.68 | 0.001 | | | |
| 39 9.0 | 43 4.0 | m.g., mafic volcanic; 1% diss. sulph.; grain size decrease to f.g. downhole; q-c stringers with minor bleb sulph. [good recovery] | 6230 | 40 1.0 | 41 1.0 | 0.42 | nil | | | |
| | | | 6231 | 42 0.0 | 42 10.0 | 0.35 | nil | | | |
| 43 4.0 | 45 0.0 | f.g., mafic volcanic; 1% diss. sulph. and minor(1%) q-c stringer network; localized cherty shears up to 2" wide; intermittent fragmentation [moderate recovery] | | | | | | | | |

| <u>FROM</u> (ft) (in) | <u>TO</u> (ft) (in) | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> |
|--------------------------|------------------------|---|---------------|-------------|-----------|-------------------------------|-----------|-----------|-----------|-----------|
| 45 0.0 | 57 2.0 | f.g., mafic volcanic; q-c network (1%); local blebs of po>cpy and up to 5% diss. sulph. [good recovery] | 6232 | 45 4.0 | 46 4.0 | 0.42 | nil | | | |
| | | | 6233 | 52 6.0 | 54 9.5 | 0.96 | nil | | | |
| | | | 6234 | 55 11.0 | 57 2.0 | 0.53 | nil | | | |
| 57 2.0 | 65 0.0 | f.g., altered mafic volcanic; altered pillow selvedge; "swirled" texture of q-c and sheared blue-grey qtz; minor blebs of sulph. with diss.(1%) throughout; 0.5" wide qtz veins at 10 to CA [good recovery] | 6235 | 61 1.0 | 63 1.0 | 0.84 | nil | | | |
| 65 0.0 | 78 8.0 | f.g., massive to weakly foliated; mafic volcanic; weak fol. at 20-30 to CA; minor to no q-c network; downhole contact is gradational marked by blue-grey qtz-vein with blebs of sulph. [good recovery] | | | | | | | | |
| 78 8.0 | 93 10.0 | f.g., mafic volcanic; INTERMITTENT MINERALIZATION; sections of q-c network alternating with regions of diss. sulph(up to 5% cpy, po) in q-c veins; <0.20" wide blue-grey qtz veins with blebs of po and cpy; veins at 50 to CA; sulphide-rich veins and patches of alteration at 40 to CA with near massive po >cpy, py; with clasts of blue-black chert in sulphide; sulphide-rich zones assoc. with increased q-c and brecciation; 88'05"-89'03" is highly mineralized with q-c alteration and pyrite cubes up to 15% [good recovery] | 6236 | 78 8.0 | 83 5.0 | 2.00 | nil | | | |
| [sulph. alteration] | | | 6237 | 83 5.0 | 83 8.0 | 0.11 | nil | | | |
| | | | 6238 | 83 8.0 | 84 2.0 | 0.21 | nil | | | |
| | | | 6239 | 84 2.0 | 85 3.0 | 0.45 | nil | | | |
| | | | 6240 | 85 3.0 | 85 8.0 | 0.18 | nil | 185 | 124 | 134 |
| | | | 6241 | 85 8.0 | 86 6.0 | 0.35 | nil | 434 | 106 | 110 |
| | | | 6242 | 86 6.0 | 88 5.0 | 0.81 | nil | | | |
| | | | 6243 | 88 5.0 | 89 3.0 | 0.35 | nil | 807 | 54 | 136 |
| | | | 6244 | 89 3.0 | 90 10.0 | 0.66 | nil | | | |
| | | | 6245 | 90 10.0 | 93 10.0 | 1.26 | nil | | | |
| 93 10.0 | 104 0.0 | f.g., mafic volcanic; massive with diss. (1%) sulphide and local patches of up to 10% cpy>po; (1%) q-c network; epidotization throughout [good recovery] | 6246 | 93 10.0 | 97 0.0 | 1.33 | nil | | | |
| [sulph. alteration] | | | 6247 | 99 11.0 | 101 10.0 | 0.80 | 0.001 | | | |
| 104 0.0 | 120 9.0 | f.g., massive to weakly foliated; mafic volcanic; local foliation to CA; 113'06" to 113'11" white qtz vein with blebs of cpy, py | 6248 | 109 1.0 | 111 0.0 | 0.81 | nil | | | |
| | | | 6249 | 113 4.0 | 113 10.0 | 0.21 | nil | | | |
| | | | 6250 | 119 0.0 | 121 0.0 | 0.84 | nil | | | |

| <u>FROM</u> (ft) (in) | <u>TO</u> (ft) (in) | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> |
|--------------------------|------------------------|---|---------------|-------------|-----------|-------------------------------|-----------|-----------|-----------|-----------|
| 120 9.0 | 199 1.0 | f.g., massive to locally foliated; mafic volcanic; diss. sulph. (1%) with q-c network (2%); local brecciation and pillow selvages; q-c and sheared blue-grey qtz veins with blebs of sulph. (po, cpy, py); fol. at 50 CA [good recovery] | 7201 | 122 3.0 | 123 7.0 | 0.56 | nil | | | |
| | | | 7202 | 133 2.0 | 135 8.0 | 1.05 | nil | | | |
| | | | 7203 | 141 2.0 | 142 11.0 | 0.74 | nil | | | |
| | | | 7204 | 152 2.0 | 154 0.0 | 0.77 | nil | | | |
| | | | 7205 | 162 7.0 | 165 0.0 | 1.02 | nil | | | |
| | | | 7206 | 169 5.0 | 171 1.0 | 0.70 | nil | | | |
| | | | 7207 | 179 2.0 | 181 3.0 | 0.88 | nil | | | |
| | | | 7208 | 186 0.0 | 187 0.0 | 0.42 | nil | | | |
| | | | 7209 | 190 0.0 | 193 1.0 | 1.30 | nil | | | |
| | | | 7210 | 194 5.0 | 197 8.0 | 1.37 | nil | | | |
| 199 1.0 | 202 8.0 | f.g.; massive mafic volcanic; pillow selvages; q-c alteration and stringers (2%) with sheared blue white qtz veins; local brecciation in alteration [good recovery] | 7211 | 199 1.0 | 201 4.0 | 0.95 | nil | | | |
| 202 8.0 | 220 5.0 | f.g.; massive mafic volcanic; pillow selvages; q-c alteration and stringers (2%) with sheared blue white qtz veins; local brecciation in alteration [good recovery] | 7212 | 207 11.0 | 210 0.0 | 0.88 | nil | | | |
| | | | 7213 | 212 6.0 | 214 9.0 | 0.95 | nil | | | |
| 220 5.0 | 221 0.0 | f.g., mafic volcanic; brecciated with q-c stringers and cherty clasts; up to 20% cpy, po, py as blebs and diss. sulph. [good recovery] | 7214 | 220 5.0 | 221 0.0 | 0.25 | nil | | | |

E.O.H.

APPENDIX III

Copies of the Assay Certificates



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A Division of TSL/Assayers Inc.

Established 1928

Assaying - Consulting - Representation

Page 1 of 2

Assay Certificate

6W-3647-RA1

Company: **G. ARMSTRONG**

Date: SEP-24-96

Project:

Copy 1. G. Armstrong 807-274-8469

Attn: G. Armstrong


2. S. Johnson 807-937-5769

3. Scott 204-897-5676

We hereby certify the following Assay of 53 Core samples submitted SEP-17-96 by .

| Sample Number | Au oz/ton | Au Check oz/ton | Au 2nd oz/ton | Cu PPM | Ni PPM | Zn PPM |
|---------------|-----------|-----------------|---------------|--------|--------|--------|
| 0052 | 0.002 | - | - | - | - | - |
| 0053 | 0.002 | - | - | - | - | - |
| 0054 | Nil | Nil | - | - | - | - |
| 0055 | Nil | - | - | - | - | - |
| 0056 | Nil | - | - | - | - | - |
| 0057 | Nil | - | - | - | - | - |
| 0058 | Nil | - | - | - | - | - |
| 0059 | Nil | - | - | 190 | 120 | 52 |
| 0060 | 0.001 | - | - | - | - | - |
| 0061 | Nil | - | - | 284 | 88 | 50 |
| 0062 | Nil | - | - | - | - | - |
| 0063 | Nil | - | - | 112 | 72 | 70 |
| 0064 | Nil | - | - | - | - | - |
| 0065 | Nil | - | - | - | - | - |
| 0066 | Nil | - | - | - | - | - |
| 0067 | Nil | - | - | - | - | - |
| 0068 | Nil | - | - | - | - | - |
| 0069 | Nil | Nil | - | - | - | - |
| 0070 | Nil | - | - | - | - | - |
| 0071 | Nil | - | - | - | - | - |
| 0072 | Nil | - | - | - | - | - |
| 0073 | Nil | - | - | - | - | - |
| 0074 | Nil | - | - | - | - | - |
| 0075 | Nil | - | - | - | - | - |
| 0076 | Nil | - | - | - | - | - |
| 0077 | Nil | Nil | - | - | - | - |
| 0078 | Nil | - | - | - | - | - |
| 0079 | Nil | - | - | 560 | 168 | 66 |
| 0080 | Nil | - | - | - | - | - |
| 0081 | 0.006 | 0.005 | - | 318 | 146 | 136 |

One assay ton portion used.

Certified by 



Swastika Laboratories

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Page 2 of 2

Assay Certificate

6W-3647-RA1

Company: **G. ARMSTRONG**

Date: SEP-24-96

Project:

Copy 1. G. Armstrong 807-274-8469

Attn: G. Armstrong

2. S. Johnson 807-937-5769

3. Scott 204-897-5676

We hereby certify the following Assay of 53 Core samples submitted SEP-17-96 by .

| Sample Number | Au oz/ton | Au Check oz/ton | Au 2nd oz/ton | Cu PPM | Ni PPM | Zn PPM |
|---------------|-----------|-----------------|---------------|--------|--------|--------|
| 0082 | 0.002 | - | - | - | - | - |
| 0083 | Nil | - | - | - | - | - |
| 0084 | 0.001 | - | - | - | - | - |
| 0085 | Nil | - | - | - | - | - |
| 0086 | 0.006 | - | - | - | - | - |
| 0087 | 0.113 | 0.106 | 0.106 | - | - | - |
| 0088 | 0.026 | - | - | - | - | - |
| 0089 | 0.002 | - | - | - | - | - |
| 0090 | 0.020 | - | - | 1690 | 52 | 78 |
| 0091 | Nil | - | - | - | - | - |
| 0092 | Nil | - | - | - | - | - |
| 0093 | 0.001 | - | - | - | - | - |
| 0094 | Nil | - | - | - | - | - |
| 0095 | Nil | - | - | - | - | - |
| 0096 | 0.009 | 0.014 | - | - | - | - |
| 0097 | 0.001 | - | - | - | - | - |
| 0098 | Nil | - | - | - | - | - |
| 0099 | Nil | - | - | 306 | 52 | 120 |
| 0100 | 0.001 | - | - | 2060 | 102 | 1050 |
| 0101 | 0.001 | - | - | 3050 | 146 | 2590 |
| 0102 | 0.001 | - | - | 70 | 20 | 92 |
| 0103 | 0.001 | 0.001 | - | 2790 | 130 | 412 |
| 0104 | Nil | - | - | 282 | 54 | 314 |

One assay ton portion used.

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Assay Certificate

6W-3648-RA1

Company: **G. ARMSTRONG**

Date: SEP-24-96

Project:

copy 1. G. Armstrong 807-274-8469

Attn: G. Armstrong

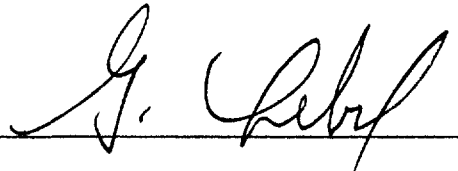
2. S. Johnson 807-937-5769

3. Scott 204-897-5676

We hereby certify the following Assay of 52 Core samples submitted SEP-17-96 by .

| Sample Number | Au oz / ton | Au Check oz / ton | Cu PPM | Ni PPM | Zn PPM |
|------------------|-------------|-------------------|--------|--------|--------|
| 323351 | Nil | - | - | - | - |
| 323352 | Nil | - | - | - | - |
| 323353 | Nil | - | - | - | - |
| 323354 | Nil | - | - | - | - |
| 323355 | Nil | - | - | - | - |
| 323356 | Nil | - | - | - | - |
| 323357 | Nil | - | - | - | - |
| 323358 | Nil | - | - | - | - |
| 323359 | Nil | Nil | - | - | - |
| 323360 | Nil | - | - | - | - |
| 323361 | Nil | - | - | - | - |
| 323362 | Nil | - | - | - | - |
| 323363 | Nil | - | - | - | - |
| 323364 | Nil | - | - | - | - |
| 323365 | Nil | - | - | - | - |
| 323366 | Nil | - | - | - | - |
| 323367 | Nil | - | - | - | - |
| 323368 | Nil | - | - | - | - |
| 323369 Not Rec'd | - | - | - | - | - |
| 323370 | Nil | - | - | - | - |
| 323371 | Nil | - | - | - | - |
| 323372 | Nil | - | - | - | - |
| 323373 | Nil | - | - | - | - |
| 323374 | Nil | Nil | - | - | - |
| 323375 | Nil | - | - | - | - |
| 323376 | Nil | - | - | - | - |
| 323377 | Nil | - | - | - | - |
| 323378 | Nil | - | - | - | - |
| 323379 | Nil | - | - | - | - |
| 323380 | Nil | - | - | - | - |

One assay ton portion used.

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Established 1928

Assay Certificate

6W-3648-RA1

Company: **G. ARMSTRONG**

Date: SEP-24-96

Project:

Copy 1. G. Armstrong 807-274-8469

Attn: G. Armstrong

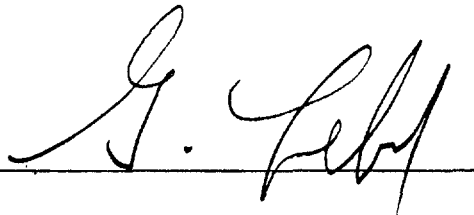
2. S. Johnson 807-937-5769

3. Scott 204-897-5676

We hereby certify the following Assay of 52 Core samples submitted SEP-17-96 by .

| Sample Number | Au oz / ton | Au Check oz / ton | Cu PPM | Ni PPM | Zn PPM |
|---------------|-------------|-------------------|--------|--------|--------|
| 323381 | Nil | Nil | - | - | - |
| 323382 | Nil | - | - | - | - |
| 323383 | Nil | - | - | - | - |
| 323384 | Nil | - | 212 | 110 | 90 |
| 323385 | Nil | - | - | - | - |
| 323386 | Nil | - | 154 | 112 | 76 |
| 323387 | Nil | - | - | - | - |
| 323388 | Nil | - | - | - | - |
| 323389 | Nil | - | - | - | - |
| 323390 | Nil | - | - | - | - |
| 323391 | Nil | - | 318 | 90 | 80 |
| 323392 | Nil | - | 124 | 120 | 108 |
| 323393 | Nil | - | - | - | - |
| 323394 | Nil | - | - | - | - |
| 323395 | Nil | - | - | - | - |
| 323396 | Nil | Nil | - | - | - |
| 323397 | Nil | - | - | - | - |
| 323398 | Nil | - | - | - | - |
| 323399 | Nil | - | - | - | - |
| 323400 | Nil | - | - | - | - |
| 323401 | Nil | - | - | - | - |
| 323402 | Nil | - | - | - | - |
| 323403 | 0.001 | 0.002 | 854 | 108 | 106 |

One assay ton portion used.

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Assay Certificate

6W-3754-RA1

Company: **G. ARMSTRONG**

Date: SEP-30-96

Project:

Attn: G. Armstrong

We hereby certify the following Assay of 39 Core samples submitted SEP-25-96 by .

| Sample Number | Au oz/ton | Au Check oz/ton | Cu PPM | Ni PPM | Zn PPM |
|---------------|-----------|-----------------|--------|--------|--------|
| 7232 | 0.002 | - | - | - | - |
| 7233 | Nil | - | - | - | - |
| 7234 | Nil | - | - | - | - |
| 7235 | Nil | - | - | - | - |
| 7236 | Nil | Nil | 250 | 106 | 71 |
| 7237 | Nil | - | - | - | - |
| 7238 | Nil | - | - | - | - |
| 7239 | Nil | - | - | - | - |
| 7240 | Nil | - | - | - | - |
| 7241 | Nil | - | - | - | - |
| 7242 | Nil | - | - | - | - |
| 7243 | Nil | - | - | - | - |
| 7244 | 0.001 | Nil | - | - | - |
| 7245 | Nil | - | - | - | - |
| 7246 | 0.001 | - | - | - | - |
| 7247 | Nil | - | - | - | - |
| 7248 | 0.002 | - | - | - | - |
| 7249 | 0.001 | - | - | - | - |
| 7250 | Nil | - | - | - | - |
| 7251 | Nil | - | - | - | - |
| 7252 | 0.001 | - | - | - | - |
| 7253 | Nil | - | - | - | - |
| 7254 | Nil | - | - | - | - |
| 7255 | Nil | - | - | - | - |
| 7256 | Nil | Nil | - | - | - |
| 7257 | Nil | - | - | - | - |
| 7258 | Nil | - | - | - | - |
| 7259 | Nil | - | - | - | - |
| 7260 | Nil | - | - | - | - |
| 7261 | Nil | - | - | - | - |

One assay ton portion used.

Certified by

P.O. Box 10, Swastika, Ontario P0K 1T0

Telephone (705) 642-3244

FAX (705) 642-3300



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A Division of TSL/Assayers Inc.

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Assay Certificate

6W-3754-RA1

Company: **G. ARMSTRONG**

Date: SEP-30-96

Project:

Att: G. Armstrong

We hereby certify the following Assay of 39 Core samples submitted SEP-25-96 by .

| Sample Number | Au oz/ton | Au Check oz/ton | Cu PPM | Ni PPM | Zn PPM |
|---------------|-----------|-----------------|--------|--------|--------|
| 7262 | Nil | - | - | - | - |
| 7263 | Nil | - | - | - | - |
| 7264 | Nil | - | - | - | - |
| 7265 | Nil | - | - | - | - |
| 7266 | Nil | - | - | - | - |
| 7267 | Nil | - | - | - | - |
| 7268 | Nil | - | - | - | - |
| 7269 | Nil | - | - | - | - |
| 7270 | Nil | - | - | - | - |

One assay ton portion used.

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Page 2 of 2

Assay Certificate

6W-3753-RA1

Company: **G. ARMSTRONG**

Date: OCT-02-96

Project:

Attn: G. Armstrong

We hereby certify the following Assay of 56 Core samples submitted SEP-25-96 by .

| Sample Number | Au oz / ton | Au Check oz / ton | Cu PPM | Ni PPM | Zn PPM |
|---------------|-------------|-------------------|--------|--------|--------|
| 7206 | Nil | - | - | - | - |
| 7207 | Nil | - | - | - | - |
| 7208 | Nil | Nil | - | - | - |
| 7209 | Nil | - | - | - | - |
| 7210 | Nil | - | - | - | - |
| 7211 | Nil | - | - | - | - |
| 7212 | Nil | - | - | - | - |
| 7213 | Nil | - | - | - | - |
| 7214 | Nil | - | - | - | - |
| 7215 | Nil | - | - | - | - |
| 7216 | Nil | - | - | - | - |
| 7217 | Nil | - | - | - | - |
| 7218 | Nil | - | - | - | - |
| 7219 | Nil | - | - | - | - |
| 7220 | Nil | - | - | - | - |
| 7221 | Nil | - | - | - | - |
| 7222 | 0.001 | 0.001 | - | - | - |
| 7223 | Nil | - | - | - | - |
| 7224 | Nil | - | - | - | - |
| 7225 | Nil | - | - | - | - |
| 7226 | Nil | - | - | - | - |
| 7227 | Nil | - | - | - | - |
| 7228 | Nil | - | - | - | - |
| 7229 | Nil | - | - | - | - |
| 7230 | Nil | - | - | - | - |
| 7231 | Nil | Nil | - | - | - |

One assay ton portion used.

Certified by Denis Chantre



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Page 1 of 2

Assay Certificate

6W-3753-RA1

Company: **G. ARMSTRONG**

Date: OCT-02-96

Project:

Attn: **G. Armstrong**

We hereby certify the following Assay of 56 Core samples submitted SEP-25-96 by .

| Sample Number | Au oz / ton | Au Check oz / ton | Cu PPM | Ni PPM | Zn PPM |
|---------------|-------------|-------------------|--------|--------|--------|
| 6226 | Nil | - | - | - | - |
| 6227 | Nil | - | - | - | - |
| 6228 | Nil | - | - | - | - |
| 6229 | 0.001 | Nil | - | - | - |
| 6230 | Nil | - | - | - | - |
| 6231 | Nil | - | - | - | - |
| 6232 | Nil | - | - | - | - |
| 6233 | Nil | - | - | - | - |
| 6234 | Nil | - | - | - | - |
| 6235 | Nil | - | - | - | - |
| 6236 | Nil | - | - | - | - |
| 6237 | Nil | - | - | - | - |
| 6238 | Nil | - | - | - | - |
| 6239 | Nil | - | - | - | - |
| 6240 | Nil | - | 185 | 134 | 124 |
| 6241 | Nil | - | 434 | 110 | 106 |
| 6242 | Nil | - | - | - | - |
| 6243 | Nil | Nil | 807 | 136 | 54 |
| 6244 | Nil | - | - | - | - |
| 6245 | Nil | - | - | - | - |
| 6246 | Nil | - | - | - | - |
| 6247 | 0.001 | 0.001 | - | - | - |
| 6248 | Nil | - | - | - | - |
| 6249 | Nil | - | - | - | - |
| 6250 | Nil | - | - | - | - |
| 7201 | Nil | Nil | - | - | - |
| 7202 | Nil | - | - | - | - |
| 7203 | Nil | - | - | - | - |
| 7204 | Nil | - | - | - | - |
| 7205 | Nil | - | - | - | - |

One assay ton portion used.

Certified by Denis Chantre

P.O. Box 10, Swastika, Ontario P0K 1T0

Telephone (705) 642-3244

FAX (705) 642-3300



Swastika Laboratories

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Assay Certificate

6W-3839-RA1

Company: **G. ARMSTRONG**

Date: OCT-02-96

Project:

Attn: A. Armstrong

We hereby certify the following Assay of 1 Rock samples submitted SEP-30-96 by .

| Sample Number | Au oz/ton | Au Check oz/ton |
|---------------|-----------|-----------------|
| TY-01A | 0.118 | 0.116 |

One assay ton portion used.

Certified by

P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 FAX (705) 642-3300



Swastika Laboratories

A Division of TSL/Assayers Inc.

Assaying - Consulting - Representation

Established 1928

Metallic Assay Certificate

6W-3840-RM1

Company: **G. ARMSTRONG**

Date: OCT-03-96

Project:

Attn: G. Armstrong

We hereby certify the following Metallic Assay of 1 Rock samples submitted SEP-30-96 by .

| Sample Number | Total | | +100 M | | Assay Value Au | | Total Weight Au | | Metallic Au | | Net Au | |
|---------------|---------|--------|-----------|-----------|----------------|----------|-----------------|-------|-------------|-------|----------|-------|
| | Wt (g) | Wt (g) | +100(g/t) | -100(g/t) | +100(mg) | -100(mg) | (oz/ton) | (g/t) | (oz/ton) | (g/t) | (oz/ton) | (g/t) |
| TY-01B | 1038.35 | 6.95 | 46.91 | 1.37 | 0.326 | 1.413 | 0.009 | 0.31 | 0.049 | 1.67 | | |

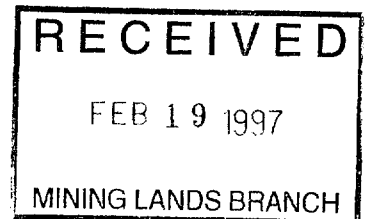
One assay ton portion used.

Certified by 

P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 FAX (705) 642-3300

ARMSTRONG - JOHNSON GOLD PROSPECT
KING'S BAY, ONTARIO
DIAMOND DRILLING PROGRAM

2.16878



October 1996

L.S. Jobin-Bevans
DTE Exploration & Development
169-146 Portsmouth Blvd.
Winnipeg, MB. R3P 1B6
(204)897-3462

MINING LANDS BRANCH
169-146 PORTSMOUTH BLVD.
WINNIPEG, MB. R3P 1B6

17 FEB 19 1997

DECLARATION

I **Scott Jobin-Bevans**, President of **DTE Exploration and Development**, hereby declare that I am a graduate of the University of Manitoba, Canada with a B.Sc. (Hons) in geological sciences, that I am a member of the Mineralogical Association of Canada, the Canadian Institute of Mining, Metallurgy and Petroleum, the Society of Economic Geologists, the Manitoba Prospector and Developer's Association, and have five years consulting experience in geology and geophysics. I also declare that I have no direct or indirect financial interest in the company for which this report was prepared, or in the property investigated.

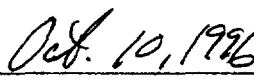
Property: Armstrong-Johnson, King's Bay Gold Prospect
Sturgeon Lake area, Ontario

Work completed by: L.S. Jobin-Bevans & Sherridon Johnson

Work authorized by: L.S. Jobin-Bevans



L.S. Jobin-Bevans, President
DTE Exploration & Development



Date

CLAIM: 1162808

DATE: OCT. 1996

KING'S BAY GOLD PROSPECT (Armstrong-Johnson)

DRILL HOLE LOG - LEGEND

CPY - chalcopyrite

PY - pyrite

PO - pyrrhotite

C.A. - core axis

qtz-carb. - quartz carbonate

q-c - quartz carbonate

f.g. - fine-grained

m.g. - medium-grained

diss. - disseminated

qtz - quartz

STORED: S. JOHNSON, DRYDEN, ONT.

PROPERTY: Armstrong-Johnson, King Bay, ONT.

HOLE No.: TY-01

Collar Inclination: -45.00

Bearing: 180.00 AZ

Collar Elevation:

Location: north of large pit



Logged By: S. Jobin-Bevans

Date: 08/28/96

Final Depth: 83'0"

Drilled By: Kenora Soil & Drilling

Core Size: BQ

CLAIM: 1162808

| <u>FROM</u> (ft) | <u>TO</u> (in) | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> |
|---------------------|-------------------|---|---------------|-------------|-----------|-------------------------------|-----------|-----------|-----------|-----------|
| 00 00 | 22 00 | casing | | | | | | | | |
| 22 00 | 27 00 | likely boulders; sludge was muddy, pearly yellow (sericitic?); only core recovered was ~3" of yellow sandy clay; possible weathering profile or shear? [poor recovery] | | | | | | | | |
| 27 00 | 28 04 | fragmented rock with yellow-pearly clay coating; mainly blue-grey qtz with some sericite-schist along fractures; few sericite schist fragments and disseminated pyrite (~1%) [poor recovery] | 0052 | 27 00 | 29 00 | 1.43 | 0.002 | | | |
| 28 04 | 36 06 | intermediate-felsic volcanic; sheared; extensive silicification & carbonitization; mainly sericite-schist with stringers of blue-grey quartz boudins; veins up to 0.75" wide; disseminated sulphides (~1%) (cpy,py,po) esp. on fracture surfaces; foliation and veining at 55 to C.A. [poor recovery] | 0053 | 34 05 | 38 00 | 2.56 | 0.002 | | | |
| 36 06 | 38 00 | mafic volcanic; sheared with qtz-carb stringers up to 0.13" wide; disseminated pyrite (~1%); vuggy q-c cavities; shear/veins at 33 to C.A. [poor recovery] | | | | | | | | |
| 38 00 | 39 04 | f.g., massive mafic volcanic; local silicification; disseminated sulphides (py,po) (<1%); coarsening of grains downhole and increase in q-c fracture-fill; disseminated sulphides throughout q-c [poor recovery] | 0054 | 38 00 | 39 04 | 0.95 | nil | | | |
| 39 04 | 44 11 | fg-mg, massive mafic volcanic; x-cut by network of q-c veins up to 0.5"; disseminated sulphides (<1%) both in q-c and host mafic [moderate recovery] | 0055 | 39 07 | 44 00 | 3.15 | nil | | | |

STORED: S. JOHNSON, DICKEN, ONT.

PROPERTY: Armstrong-Johnson, King Bay, ONT.

HOLE No.: TY-02

Collar Inclination: -55.00

Bearing: 160.00 AZ

Collar Elevation:

Location: north of large pit but south of DDH TY-01



Logged By: S. Jobin-Bevans

Date: 08/29/96

Final Depth: 117'0"

Drilled By: Kenora Soil & Drilling

Core Size: BQ

CLAIM: 1162808

| <u>FROM</u> | | <u>TO</u> | | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | | | | | | |
|-------------|------|-----------|------|--|---------------|-------------|-----------|---------------|-----------|-----------|-----------|-----------|--|--|
| (ft) | (in) | (ft) | (in) | | | | | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> | | |
| 00 | 00 | 22 | 00 | approximate depth of casing - probably short; fragmented mafic volcanic [none] | | | | | | | | | | |
| 22 | 00 | 27 | 00 | mafic volcanic; intermittent fragmented core; rusty veins of q-c stringers [poor recovery] | 0071 | 24 06 | 26 10 | 1.31 | nil | | | | | |
| 27 | 00 | 28 | 06 | f.g.; mafic volcanic; massive, broken fragments [poor recovery] | | | | | | | | | | |
| 28 | 06 | 43 | 00 | f.g. mafic volcanic, massive to poorly foliated; q-c network of stringers; diss. sulphides (<1-1%) in mafics & q-c veinlets; epidotized areas (pillow selvages); locally up to 5% sulphide in q-c (lets; lost core (~6ft) with fragments up to 43' section [moderate recovery] | 0072 | 37 03 | 39 00 | 0.98 | nil | | | | | |
| 43 | 00 | 45 | 00 | f.g., massive, mafic volcanic; q-c veinlets /stringers with diss. sulphide(1%) [good recovery] | 0073 | 43 00 | 45 00 | 1.12 | nil | | | | | |
| 45 | 00 | 65 | 06 | f.g., massive mafic volcanic; diss. sulphide (~1%) decrease in silicification [good recovery] | 0074 | 51 06 | 53 08 | 1.21 | nil | | | | | |
| | | | | | 0075 | 60 06 | 63 00 | 1.40 | nil | | | | | |
| 65 | 06 | 74 | 02 | f.g. mafic volcanic; start of brecciation; increase in highly brecciated and recemented by q-c; epidotization prevalent; mainly diss. sulphides (1 to 2%) with more blebs of sulphide and increased di downhole (~66'06"); localized sulphide-rich alteration/shear with up to 10% po, cpy, py; local foliation at 45 to C.A. [good recovery] | 0076 | 65 00 | 69 00 | 2.24 | nil | | | | | |
| | | | | | 0077 | 69 00 | 72 09 | 2.10 | nil | | | | | |
| | | | | | 0078 | 72 09 | 73 02 | 0.23 | nil | | | | | |
| | | | | | 0079 | 73 08 | 74 02 | 0.28 | nil | 560 | 66 | 168 | | |

STORED: S. JOHNSON, DRYDEN, ONT.

PROPERTY: Armstrong-Johnson, King Bay, ONT.

HOLE No.: TY-03

Collar Inclination: -45.00

Bearing: 340.00 AZ

Collar Elevation:

Location: west of large pit

Logged By: S. Jobin-Bevans

Date: 08/30/96

Final Depth: 127'0"

Drilled By: Kenora Soil & Drilling

Core Size: BQ

CLAIM: 1162808

| <u>FROM</u> | <u>TO</u> | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | | | | |
|-------------|-----------|---|---------------|-------------|-----------|---------------|------|--------------|-----------|-----------|
| (ft) | (in) | | | | | (ft) | (in) | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> |
| 00 00 | 05 00 | casing (2') and cave/fragmentation [none] | | | | | | | | |
| 05 00 | 14 05 | f.g., mafic volcanic, massive; q-c veinlets (1%); diss. sulphides (1%) to blebs of po, cpy in q-c veinlets [moderate recovery] | 323351 | 10 11 | 12 00 | 0.77 | nil | | | |
| 14 05 | 14 07 | q-c and blue-grey to white-cream qtz vein in shear; bleb to diss. sulphides in and around qtz vein; up to 10% po.cpy..py; poor local foliation at 55 to C.A. [good recovery] | 323352 | 14 05 | 14 07 | 0.12 | nil | | | |
| 14 07 | 21 06 | increase in paleness of volcanics (silicification?) downhole; mafic volcanic ; massive; local 0.2" wide blue-grey qtz-carb veinlets; up to 2% dis. sulphide and blebs in q-c veinlets (po, cpy >py) [good recovery] | 323353 | 17 02 | 17 10 | 0.48 | nil | | | |
| | | | 323354 | 19 08 | 21 05 | 1.25 | nil | | | |
| 21 06 | 31 00 | f.g., mafic volcanic; increased schistosity downhole with foliation at 50 to C.A.; mainly diss. sulphides (~1%); blebs of sulphide in q-c veinlets (po>cpy); local diss. sulphides up to 2% in mafics [good recovery] | 323355 | 21 06 | 22 07 | 0.77 | nil | | | |
| | | | 323356 | 23 06 | 23 10 | 0.24 | nil | | | |
| | | | 323357 | 23 10 | 24 03 | | nil | | | |
| | | | 323358 | 24 03 | 25 05 | 0.83 | nil | | | |
| | | | 323359 | 25 05 | 25 08 | 0.18 | nil | | | |
| | | | 323360 | 28 02 | 29 03 | 0.77 | nil | | | |
| | | | 323361 | 30 03 | 30 06 | 0.18 | nil | | | |
| | | | 323362 | 30 06 | 31 00 | 0.36 | nil | | | |
| 31 00 | 31 11 | f.g., mafic volcanic; brecciated; q-c veinlets with white to blue-grey qtz;<2% diss. sulphides; prevalent epidotization [good recovery] | 323363 | 31 00 | 31 11 | 0.65 | nil | | | |

STORED: S. JOHNSON, DRYDEN, ONT.

PROPERTY: Armstrong-Johnson, King Bay, ONT.

HOLE No.: TY-04

Collar Inclination: -55.00

Bearing: 340.00 AZ

Collar Elevation:

Location: west of large pit; same as DDH TY-03

Logged By: S. Jobin-Bevans

Date: 09/01/96

Final Depth: 157'0"

Drilled By: Kenora Soil & Drilling

Core Size: BQ

CLAIM: 1162808

| <u>FROM</u> | <u>TO</u> | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | | | | |
|-------------|-----------|--|---------------|-------------|-----------|---------------|-----------|-----------|-----------|-----------|
| (ft) (in) | (ft) (in) | | | | | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> |
| 00 0.0 | 02 0.0 | casing (2') and cave/fragmentation [none] | | | | | | | | |
| 02 0.0 | 32 2.0 | f.g., massive to locally poorly foliated, mafic volcanic; q-c veining with local epidotized pillow selvages and patchy white-cream qtz veins; diss. sulphides with rare blebs of po >cpy [good recovery] | 7215 | 08 05 | 11 00 | 1.45 | nil | | | |
| | | | 7216 | 16 03 | 16 10 | 0.33 | nil | | | |
| | | | 7217 | 17 00 | 18 04 | 0.75 | nil | | | |
| | | | 7218 | 19 06 | 20 07 | 0.61 | nil | | | |
| | | | 7219 | 24 06 | 25 01 | 0.33 | nil | | | |
| | | | 7220 | 29 11 | 31 04 | 0.79 | nil | | | |
| 32 2.0 | 39 0.0 | f.g., massive to poorly foliated, mafic volcanic; mottled texture [good recovery] | 7221 | 34 05 | 35 05 | 0.56 | nil | | | |
| 39 0.0 | 51 1.0 | f.g., massive to poorly foliated, mafic volcanic [good recovery] | 7222 | 41 09 | 44 05 | 1.49 | 0.001 | | | |
| 51 1.0 | 53 1.0 | f.g., massive mafic volcanic, highly epidotized with major increase in q-c stringers & veins stringers and veins; many q-c veins at 20 to C.A.; diss. sulphides (1%) with occasional blebs; pillow selvages and minor q-c at 45 to C.A. [good recovery] | 7223 | 51 06 | 53 01 | 0.89 | nil | | | |
| 53 1.0 | 87 2.0 | f.g., massive to poorly foliated, mafic volcanic [good recovery] | 7224 | 57 06 | 58 00 | 0.28 | nil | | | |
| | | | 7225 | 63 02 | 66 01 | 1.63 | nil | | | |
| | | | 7226 | 72 11 | 75 04 | 1.35 | nil | | | |
| | | | 7227 | 83 01 | 85 02 | 1.17 | nil | | | |
| 87 2.0 | 89 10.0 | f.g., massive to poorly foliated; amygdules; mafic volcanic [good recovery] | 7228 | 87 02 | 89 09 | 1.45 | nil | | | |

STORED: S. JOHNSON, DRYDEN, ONT.

PROPERTY: Armstrong-Johnson, King Bay, ONT.

HOLE No.: TY-05

Collar Inclination: -55.00

Bearing: 340.00 AZ

Collar Elevation:

Location: west of large pit; furthest western DDH

S. Jobin-Bevan

Logged By: S. Jobin-Bevan

Date: 09/03/96

Final Depth: 237'0"

Drilled By: Kenora Soil & Drilling

Core Size: BQ

CLAIM: 1162808

| <u>FROM</u> | <u>TO</u> | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | | | | |
|-------------|-----------|--|---------------|-------------|-----------|---------------|-------|--------------|-----------|-----------|
| (ft) | (in) | | | | | (ft) | (in) | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> |
| 00 0.0 | 05 0.0 | casing with rubble of f.g. mafic volcanic | | | | | | | | |
| 05 0.0 | 12 4.0 | f.g., light-grey-green, massive to weakly foliated intermediate volcanic; 1-2% diss. sulphides; intermittent fractured and rubble; vuggy q-c veins [moderate recovery] | | | | | | | | |
| 12 4.0 | 45 3.0 | f.g., intermediate to mafic volcanic; light green massive to weakly foliated; q-c stringers with diss. sulphides (1%) in stringers; locally blue-grey quartz up to 1" wide with up to 5% sulphide blebs/dissemin.; fol. at 40 to C.A. [good recovery] | 7241 | 16 02 | 18 05 | 1.24 | nil | | | |
| | | | 7242 | 25 10 | 28 03 | 1.35 | nil | | | |
| | | | 7243 | 36 07 | 38 11 | 1.31 | nil | | | |
| 45 3.0 | 56 10.0 | f.g., mafic volcanic; buff-grey; increase in q-c network downhole; weakly to locally strongly foliated at 40-45 to C.A.; blue-grey qtz veins up to 0.25" wide x-cut foliation and are associated with q-c stringers; locally up to 20% diss. sulph.; blebs of po, cpy in q-c and in host volcanics; bands of q-c and blue-grey qtz are decreasing downhole to 56'10" [good recovery] | 7244 | 45 06 | 49 06 | 2.24 | 0.001 | | | |
| | | | 7245 | 49 06 | 53 09 | 2.38 | nil | | | |
| 56 10.0 | 61 1.0 | f.g., massive to weakly foliated mafic volcanic; decrease in q-c network and less blue-grey qtz; sheared sharp contact downhole at 61'01" - contact at 45 to C.A. [good recovery] | 7246 | 58 11 | 61 01 | 1.21 | 0.001 | | | |
| 61 1.0 | 63 10.0 | f.g., mafic volcanic; epidotized pillow selvages; massive to poorly foliated; q-c and blue-grey qtz stringers and veins sheared to foliation; diss. sulphides (1%) and blebs of po, cpy along q-c [good recovery] | | | | | | | | |

STORED: N/A

PROPERTY: Armstrong-Johnson, King Bay, ONT.

HOLE No.: TY-06

Collar Inclination: -45.00

Bearing: 180.00 AZ

Collar Elevation:

Location: north of large pit - furthest north

S. Jobin-Bevans

Logged By: S. Jobin-Bevans

Date: 08/25/96

Final Depth: 175' (ABANDONED at 83')

Drilled By: Kenora Soil & Drilling

Core Size: BQ

CLAIM: 1162808

| <u>FROM</u> | <u>TO</u> | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> | <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> |
|-------------|-----------|---------------------------------|---------------|--|-----------|---------------|--------------|-----------|-----------|-----------|-----------|
| (ft) | (in) | (ft) | (in) | | | | | | | | |
| 00 | 0.0 | 83 | 0.0 | casing; extensive rubble; casing problem HOLE ABANDONED | | | | | | | |
| | | | | E.O.H. | | | | | | | |

STORED: S. JOHNSON, DRYDEN, ONT.

PROPERTY: Armstrong-Johnson, King Bay, ONT.


HOLE No.: TY-07

Collar Inclination: -65.00

Bearing: 160.00 AZ

Collar Elevation:

Location: northwest of large pit



Logged By: S. Jobin-Bevans

Date: 09/07/96

Final Depth: 221'0"

Drilled By: Kenora Soil & Drilling

Core Size: BQ

CLAIM: 1162808

| <u>FROM</u> (ft) (in) | <u>TO</u> (ft) (in) | <u>LITHOLOGICAL DESCRIPTION</u> | <u>SAMPLE</u> | <u>FROM</u> | <u>TO</u> | <u>ASSAYS</u> <u>WIDTH</u> | <u>Au</u> | <u>Cu</u> | <u>Zn</u> | <u>Ni</u> |
|--------------------------|------------------------|---|---------------|------------------|-------------------|-------------------------------|------------|-----------|-----------|-----------|
| 00 0.0 | 24 0.0 | casing with rubble (24') [none] | | | | | | | | |
| 24 0.0 | 27 0.0 | f.g., mafic volcanic; highly brecciated into web or stockwork fracture by q-c stringers; diss. (5%) sulph. with minor blebs; blue-grey qtz as augen and sheared in "swirled" texture; sugary white qtz vein at 26'06" with diss. sulph.; shear at 60 to CA [poor recovery] | 6226 | 25 0.0 | 27 0.0 | 0.84 | nil | | | |
| 27 0.0 | 35 8.0 | f.g., brecciated; mafic volcanic; silicified with q-c network (45%); fine, net-like q-c with up to 5% diss. sulph. and bleb po, cpy >> py; blue-grey qtz sheared throughout; decrease in net-texture downhole; shear at 60 to CA [good recovery] | 6227 6228 | 27 0.0 31 6.0 | 31 6.0 35 8.0 | 1.89 1.75 | nil nil | | | |
| 35 8.0 | 39 9.0 | f.g., brecciated; mafic volcanic; decrease in q-c net-like vein and fracture fill into "regular" q-c stringers (1 to 2%); up to 5% diss. sulph with minor blebs of po, cpy, py; local blue-grey qtz veins at 60 to CA; downhole contact is sheared (dyke?) [good recovery] | 6229 | 35 8.0 | 39 8.0 | 1.68 | 0.001 | | | |
| 39 9.0 | 43 4.0 | m.g., mafic volcanic; 1% diss. sulph.; grain size decrease to f.g. downhole; q-c stringers with minor bleb sulph. [good recovery] | 6230 6231 | 40 1.0 42 0.0 | 41 1.0 42 10.0 | 0.42 0.35 | nil nil | | | |
| 43 4.0 | 45 0.0 | f.g., mafic volcanic; 1% diss. sulph. and minor(1%) q-c stringer network; localized cherty shears up to 2" wide; intermittent fragmentation [moderate recovery] | | | | | | | | |

PLAN MAP - DDH LOCATIONS

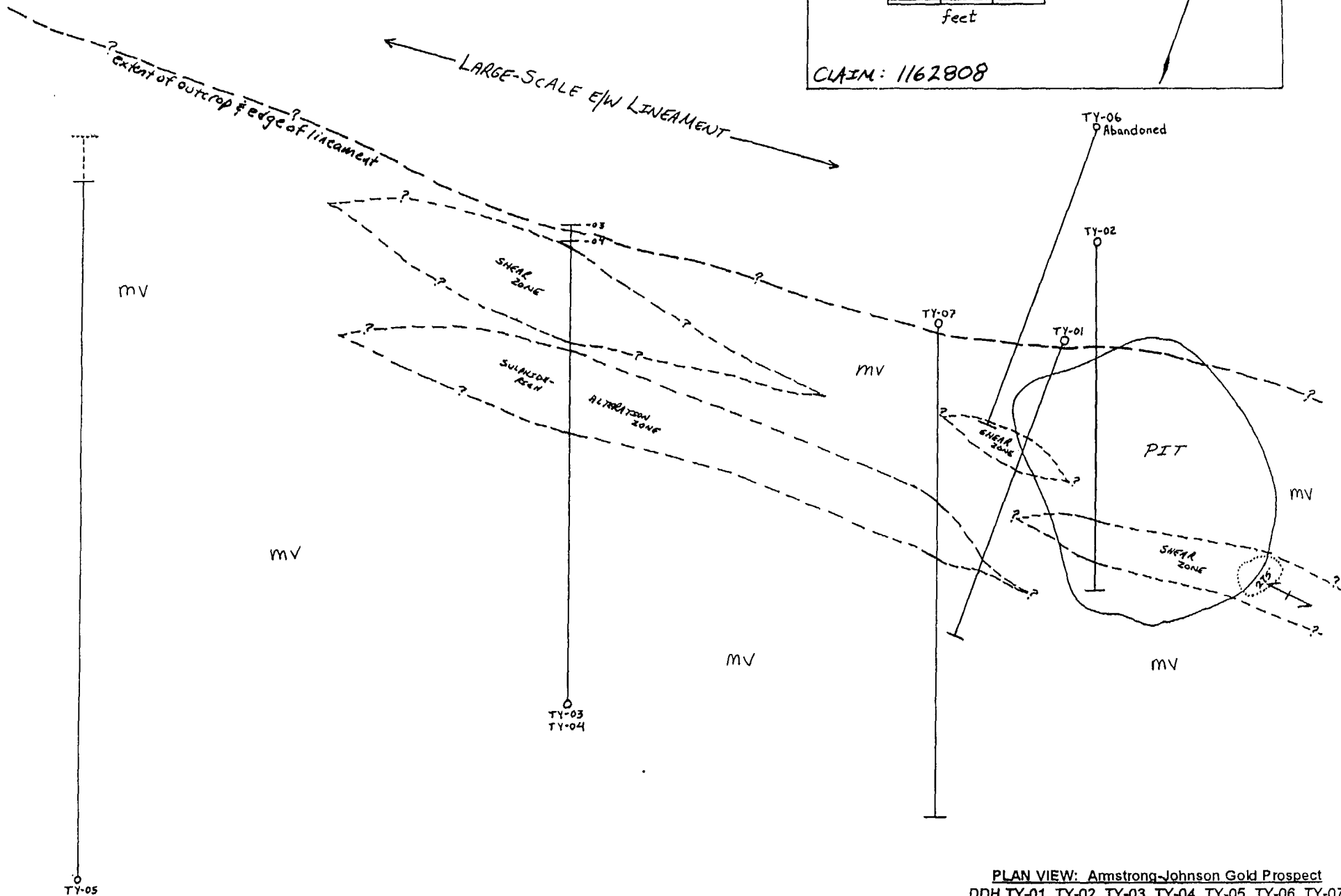
○ — diamond drill hole (projected)

my = mafic pillowed to massive volcanic rocks

0 10 20 30
feet

CLAIM: 1162808

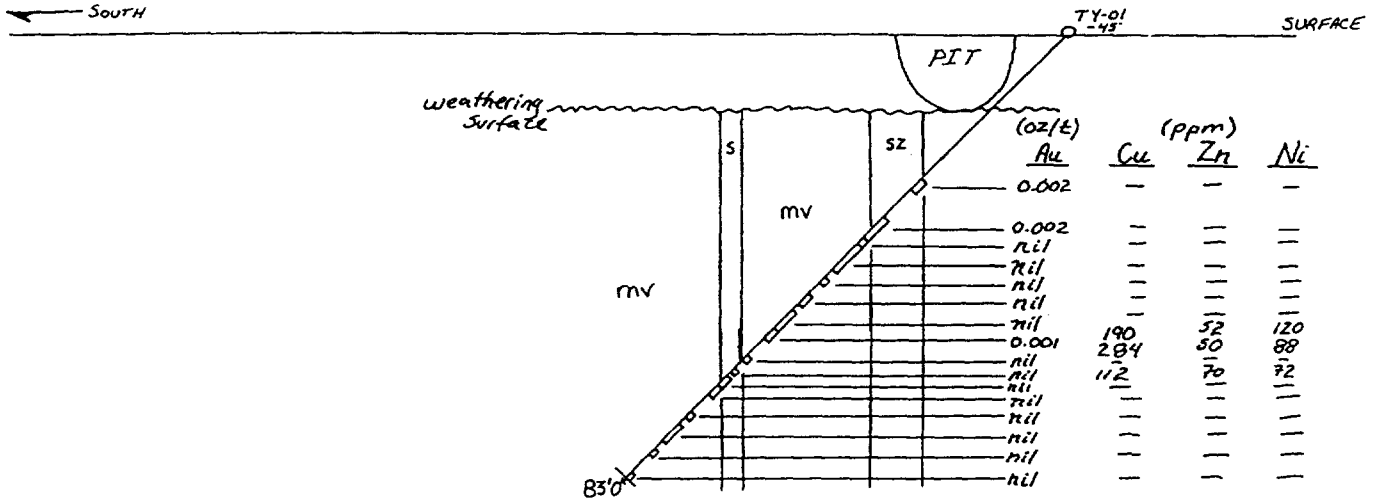
N



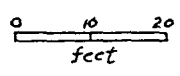
PLAN VIEW: Armstrong-Johnson Gold Prospect
 DDH TY-01, TY-02, TY-03, TY-04, TY-05, TY-06, TY-07
 King's Bay, NW Ontario August 1996
 scale: 1" = 25'

DDH TY-01 LOOKING WEST

BEARING: 180AZ



mv = mafic pillowed to massive volcanic rocks
 SZ = shear zone
 S = sulphide-rich alteration

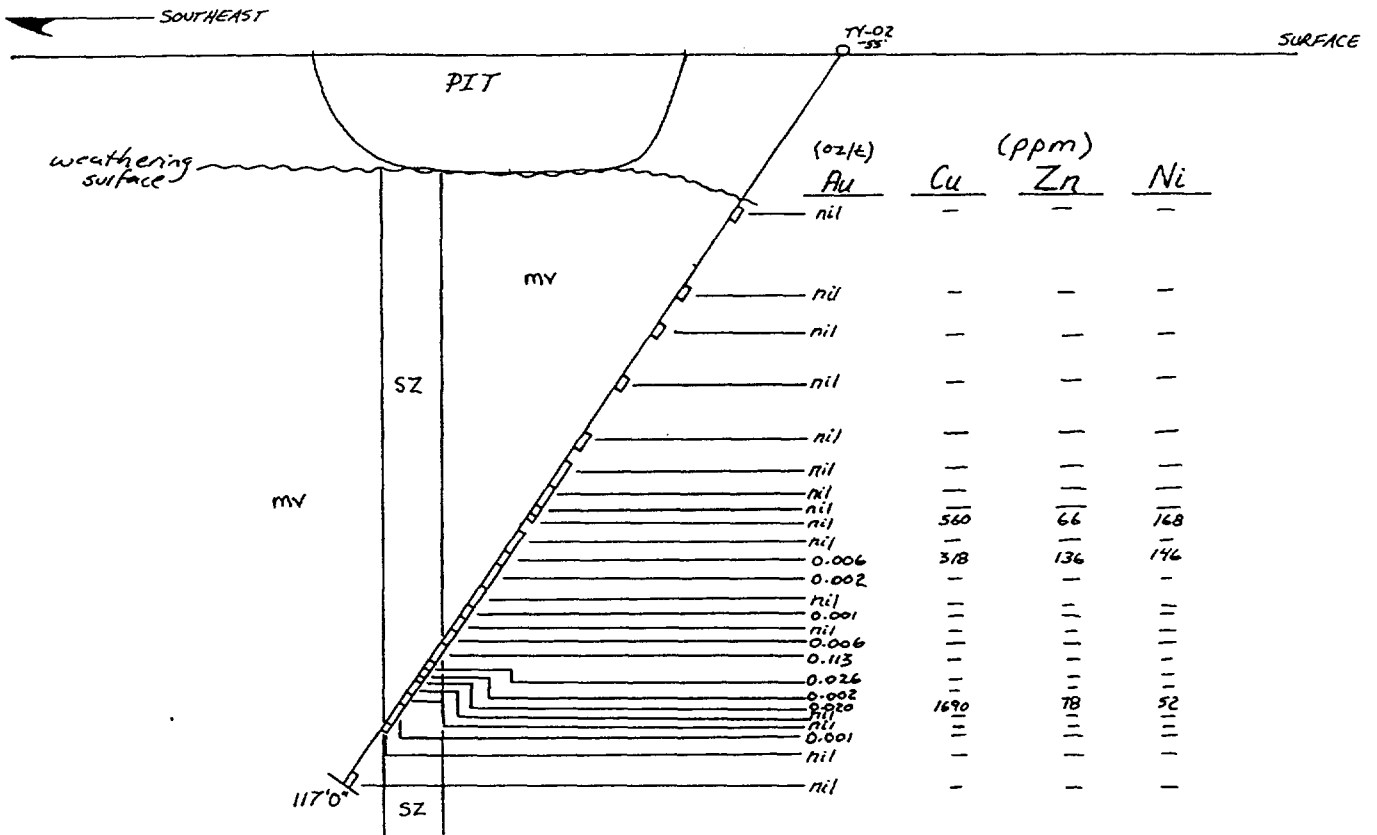


VERTICAL SECTION: DDH TY-01
Armstrong-Johnson Gold Prospect
 King's Bay, NW Ontario August 1996
 scale: 1" = 25'

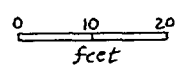
CLAIM: 1162808

DDH TY-02 LOOKING SOUTHWEST

BEARING: 160 AZ



mv = mafic pillowed to massive volcanic rocks
 SZ = shear zone
 S = sulphide-rich alteration

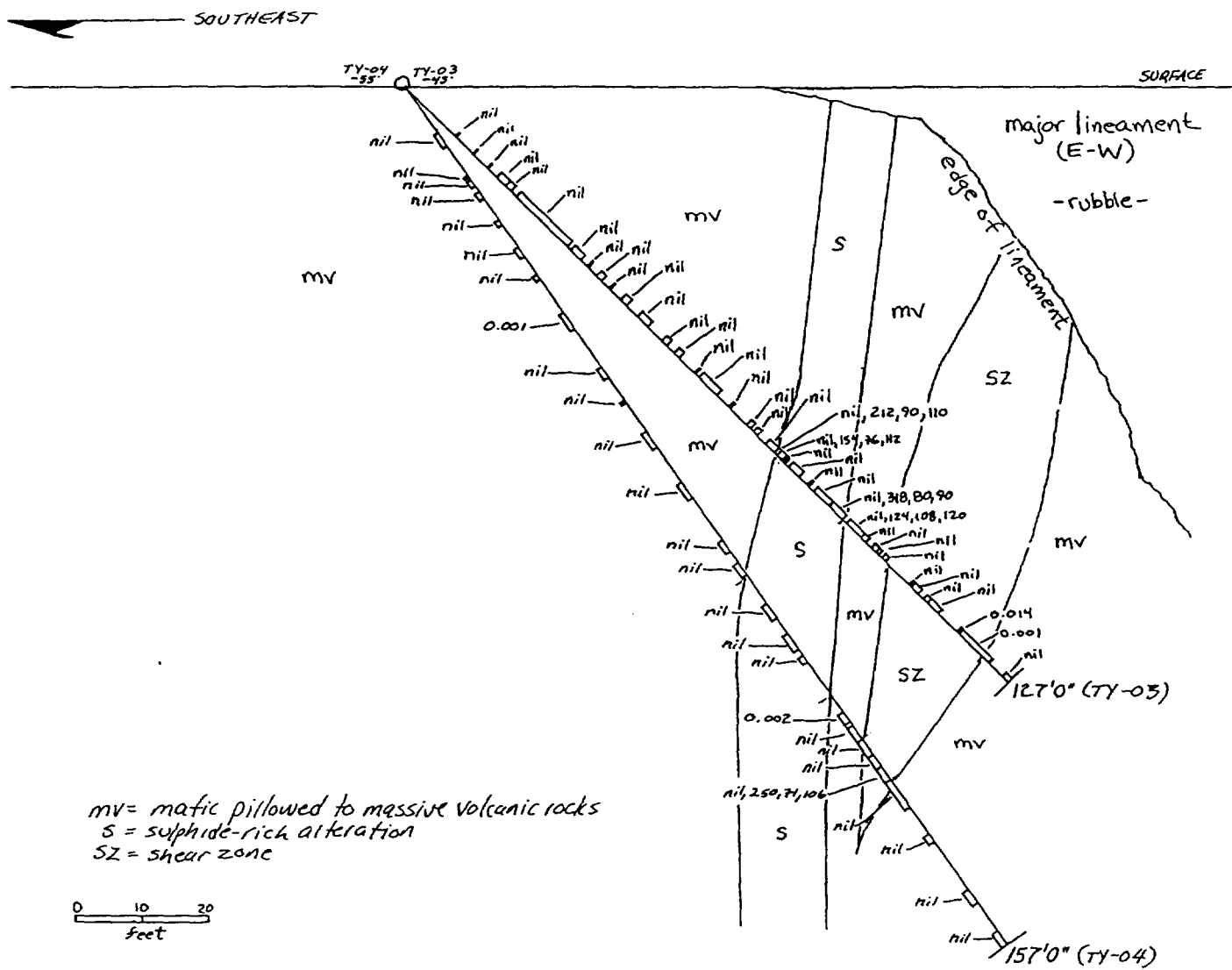


VERTICAL SECTION: DDH TY-02
 Armstrong-Johnson Gold Prospect
 King's Bay, NW Ontario August 1996
 scale: 1" = 25'

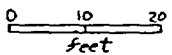
CLAIM: 1162808

DDH TY-03, TY-04 LOOKING SOUTHWEST

BEARING: 340 AZ



mv = mafic pillowed to massive volcanic rocks
 S = sulphide-rich alteration
 SZ = shear zone



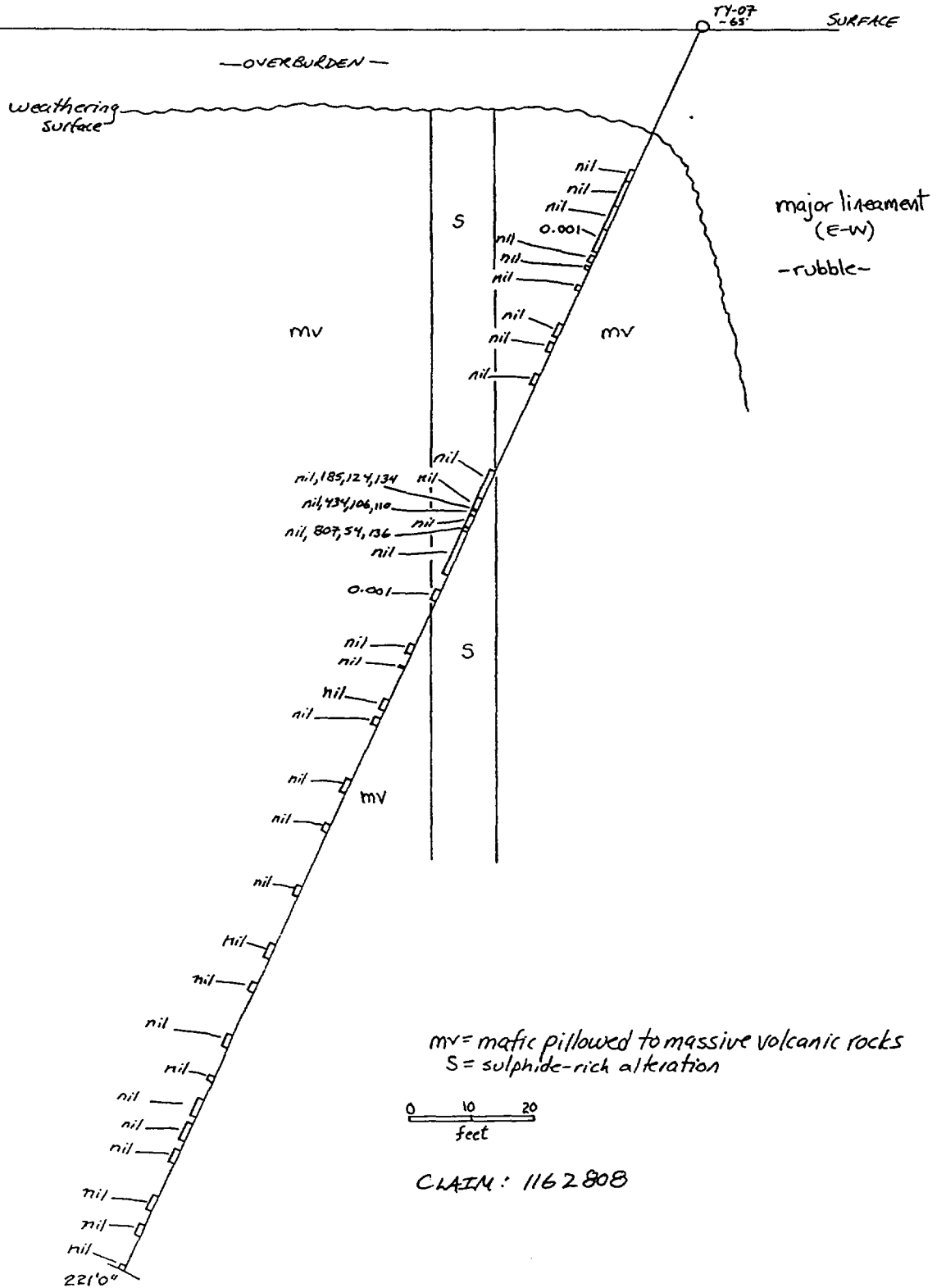
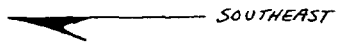
*Assays listed as Au oz/t and Cu, Zn, Ni in ppm.

VERTICAL SECTION: DDH TY-03, TY-04
 Armstrong-Johnson Gold Prospect
 King's Bay, NW Ontario August 1996
 scale: 1" = 25'

CLAIM: 1162808

DDH TY-07 LOOKING SOUTHWEST

BEARING: 160A2



VERTICAL SECTION: DDH TY-07
 Armstrong-Johnson Gold Prospect
 King's Bay, NW Ontario August 1996
 scale: 1" = 25'

* Assays listed as Au oz/t and Cu, Zn, Ni in ppm.

MAR. -03' 97 (MON) 10:33 PATRICIA MINING DIV.

TEL: 807 737 2034

P. 002

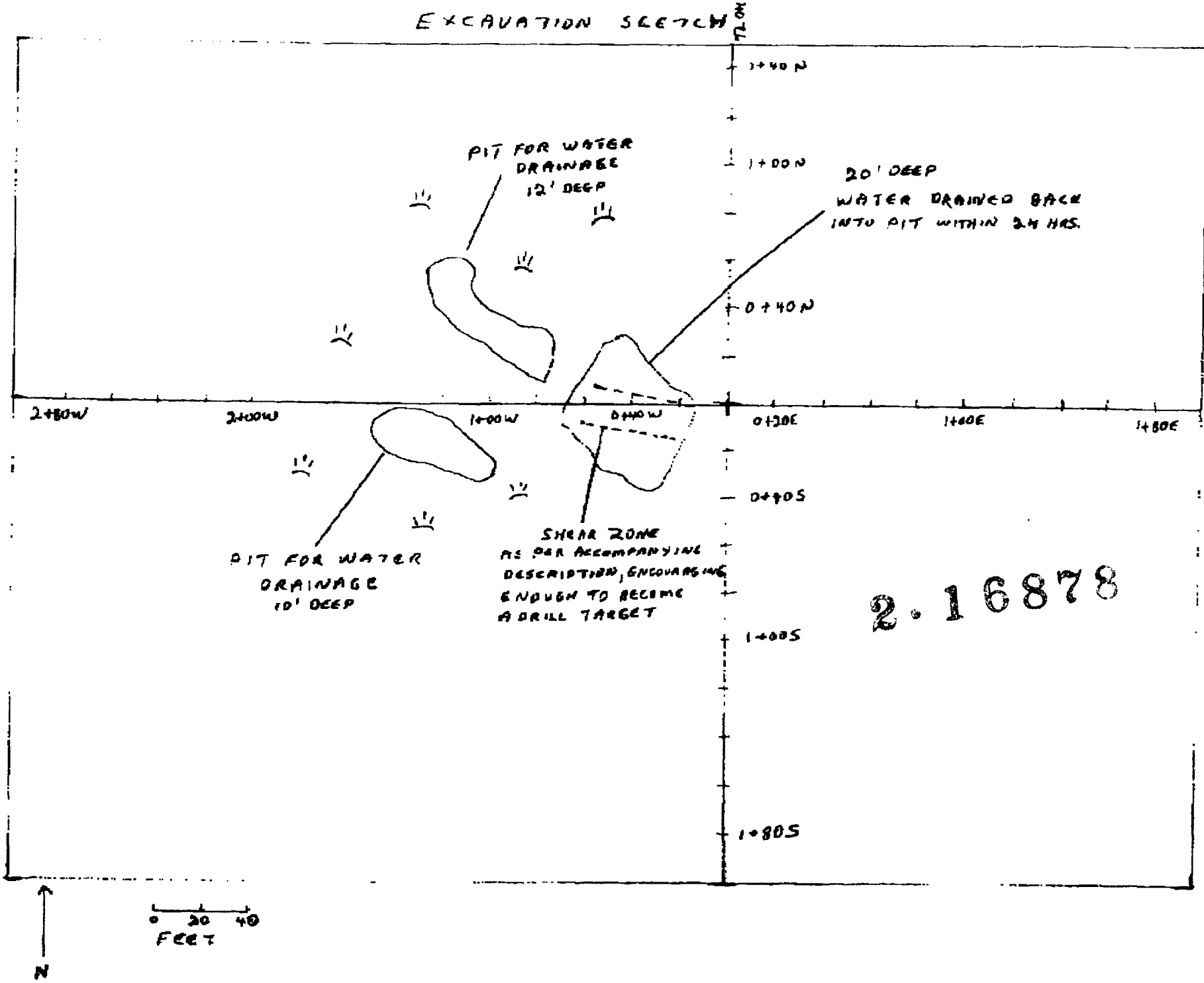
FEB-28-97 13:50

DRYDEN JANITORIAL SERVICES LTD

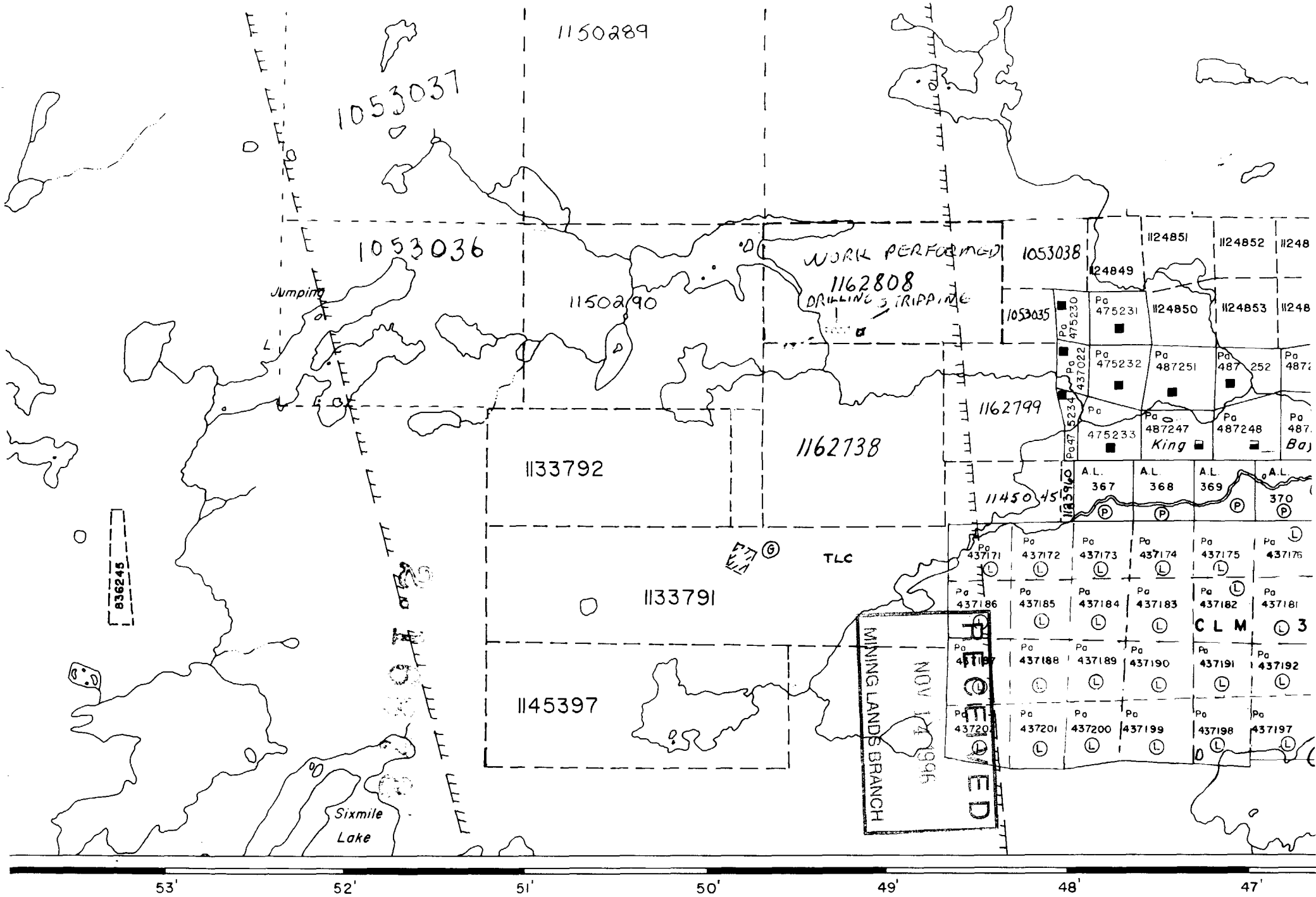
TEL: 1-807-223-4057

P: 01

EXCAVATION SKETCH

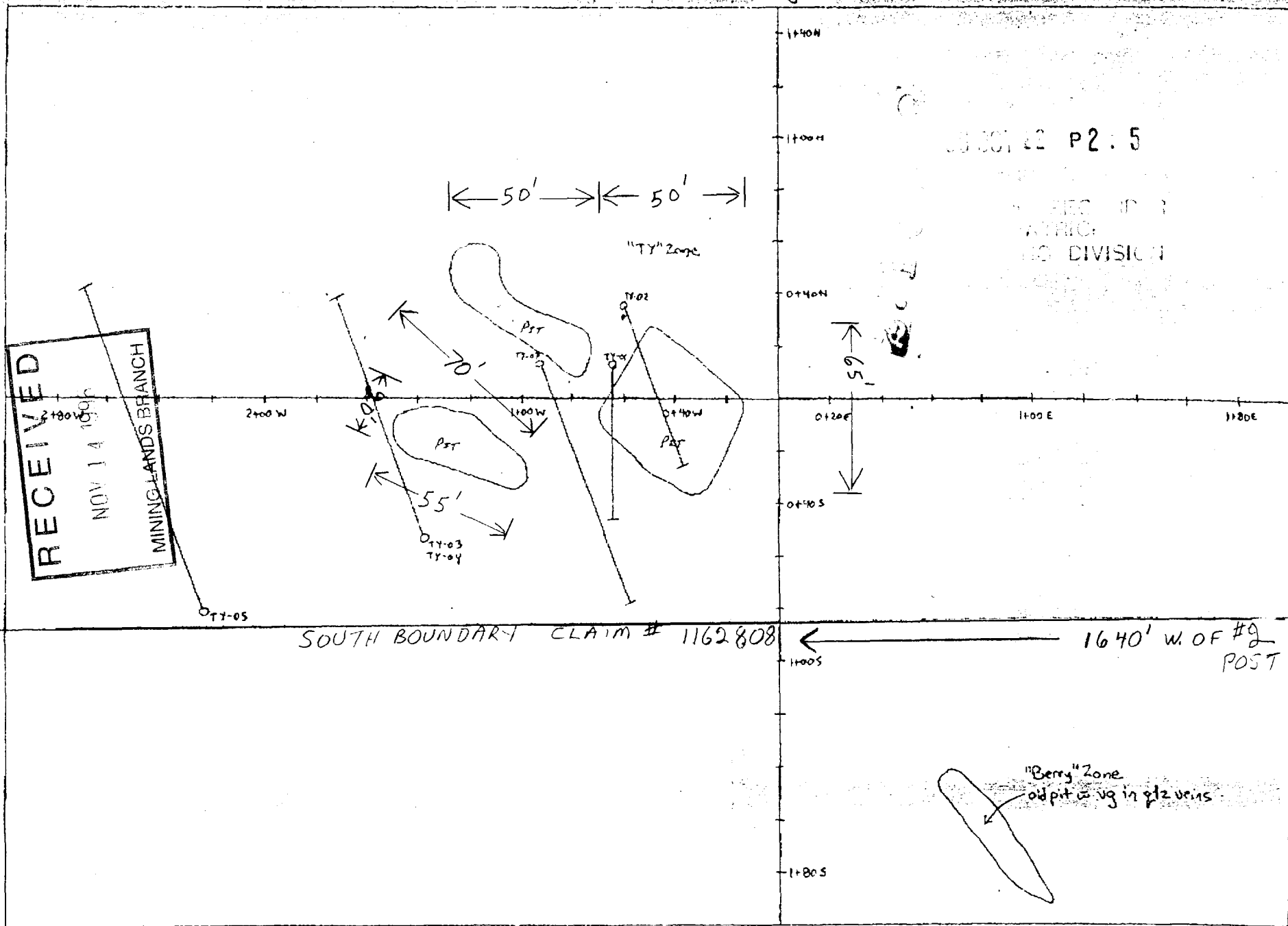


2.16878



Sixmile Lake Area - G-2561

RECEIVED
 NOV 14 1966
 MINING LANDS BRANCH



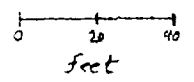
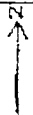
SECTION P2:5

REC'D
 DIVISION

SOUTH BOUNDARY CLAIM # 1162808

1640' W. OF #9 POST

"Berry" Zone
 old pit w. vg in glz veins



○ diamond drill hole
 | drill hole locations are ONLY approximate

Rubble and rock fragments, brought up to the present surface (dumps along the sides of the large pit) through excavation, consist of:

(1) mafic volcanic rocks, sheared, rusty orange weathering, with chlorite and sericite schist along the margins of a blue-grey to sugary white quartz vein. The schistose rocks and quartz veins alternating bands with up to 35% stringers, disseminated and blebs of sulphides (cpy, po, py). Minor bornite was also observed with possible arsenopyrite.

(2) quartz-muscovite to sericite-schist, buff to yellow (dry) to waxy green-grey (wet) weathering, and occasionally alternating bands of near-black and yellow mica. Blue-grey quartz veins, up to 2 inches in width are observed cross-cutting the micaceous bands with up to 5% disseminations and stringers (parallel to foliation) of sulphides (py, cpy, po).

These rock types are correlative with the drill core retrieved from intersections made under the large pit and have been subject to assay (see Appendix III).



Report of Work Conducted After Recording Claim

Transaction Number
W9630.000 81

Ontario

Mining Act

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

Instructions: This report must be prepared and submitted in duplicate.

2.16878



52J02SW0021 2.16878 FOURBAY LAKE

For filing assessment work or consult the Mining

Work Group. Duplicate.

900

accompany this form.

| | | |
|--|---------------------------------|---------------------------------|
| Recorded Holder(s) G. ARMSTRONG, C. KURYLIW, S. JOHNSON; W. READ | | Client No. |
| Address SEE ATTACHED | | Telephone No. |
| Mining Division PATRICIA | Township/Area FOURBAY | M or G Plan No. 62543 |
| Dates Work Performed | From: JULY 23/96 | To: OCT 9/96 |

Work Performed (Check One Work Group Only)

| Work Group | Type |
|---|---|
| <input type="checkbox"/> Geotechnical Survey | |
| <input checked="" type="checkbox"/> Physical Work, Including Drilling | STRIPPING & DIAMOND DRILLING |
| <input type="checkbox"/> Rehabilitation | (W20- PSTRIIP / DRILL) |
| <input type="checkbox"/> Other Authorized Work | |
| <input type="checkbox"/> Assays | |
| <input type="checkbox"/> Assignment from Reserve | |

RECEIVED
NOV 14 1996
MINING LANDS BRANCH

Total Assessment Work Claimed on the Attached Statement of Costs \$ 33282.00

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

| Name | Address |
|------------------------|--|
| SHERRIDON JOHNSON | BOX 19, SITE 214, RR 2, DRYDEN ON. P5N 2Y5 |
| S. JOBIN - BEVINS | 169-146 PORTSMOUTH BLVD. WIN. MN. R3P 1B6 |
| KENORA SOIL & DRILLING | P.O. BOX 109 KENORA ON. P9N 3X1 |

(attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

| | | |
|--|--------------------------|--|
| I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder. | Date OCT 22/96 | Recorded Holder or Agent (Signature) <i>[Signature]</i> |
|--|--------------------------|--|

Certification of Work Report

| | | |
|---|--------------------------|--|
| I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true. | | |
| Name and Address of Person Certifying SHERRIDON JOHNSON BOX 19, SITE 214, RR 2 DRYDEN | | |
| Telephone No. 807 937-5769 | Date OCT 22/96 | Certified By (Signature) <i>[Signature]</i> |

For Office Use Only

| | | | |
|--|--|---------------------------------------|--|
| Total Value Cr. Recorded \$33282 | Date Recorded 96 OCT 22 | Mining Recorder <i>[Signature]</i> | Received Stamp MINING DIVISION RECORDERS OCT 22 2:51 |
| | Deemed Approval Date 97 JAN 20 | Date Approved | |
| | Date Notice for Amendments Sent | | |

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

2-16878

| Work Type | Units of Work <small>Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.</small> | Cost Per Unit of work | Total Cost |
|---|---|--|---------------------|
| STRIPPING (EXCAVATOR) | - 54 HRS. | 79/HR | 4564.62 |
| (FIELD SUPERVISION) - S. JOHNSON RECORDED HOLDER STRIPPING + D. DRILLING | JULY 23 TO OCT 19/96 | 941 FT. 517/FT 941 FT. | 3100.00 |
| DIAMOND DRILLING (CONSULTANT-GEOLOGIST) | 941 FT. (INCLUDES ASSAY COSTS) | | 17116.79 6000.00 |
| Associated Costs (e.g. supplies, mobilization and demobilization). | | | |
| Transportation Costs | | | |
| Food and Lodging Costs | | | |
| 2 MEN - 10 DAYS EA. | | 100/DAY | 2000.00 |
| Total Value of Assessment Work | | | 33281.41 |

RECORDS DIVISION

RECEIVED
NOV 14 1996
1666 KILOS @ 30¢ PER
MINING LANDS BRANCH

Calculations of Filing Discounts:

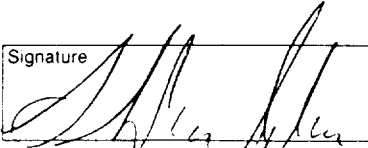
1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK x 0.50 = Total \$ value of worked claimed.

Note:
- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

Certification verifying costs:

I, SHERIDON JOHNSON (please print full name), do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as RECORDED HOLDER I am authorized (recorded holder, agent, or state company position with signing authority) to make this certification.

Signature:  Date: OCT. 22/96

March 7, 1997

Sharon Kemash
Mining Recorder
Queen and Fourth
P.O. Box 3000
Sioux Lookout, ON
P8T 1C6

Geoscience Assessment Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (705) 670-5853
Fax: (705) 670-5863

Dear Sir or Madam:

Submission Number: 2.16878

Status

Subject: Transaction Number(s): W9630.00081 Approval After Notice

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. **WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.**

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

NOTE: This correspondence may affect the status of your mining lands. Please contact the Mining Recorder to determine the available options and the status of your claims.

If you have any questions regarding this correspondence, please contact Steve Beneteau by e-mail at beneteau_s@torv05.ndm.gov.on.ca or by telephone at (705) 670-5855.

Yours sincerely,



ORIGINAL SIGNED BY
Ron C. Gashinski
Senior Manager, Mining Lands Section
Mines and Minerals Division

Work Report Assessment Results

Submission Number: 2.16878

Date Correspondence Sent: March 07, 1997

Assessor: Steve Beneteau

| Transaction Number | First Claim Number | Township(s) / Area(s) | Status | Approval Date |
|---------------------------|---------------------------|------------------------------|-----------------------|----------------------|
| W9630.00081 | 1162808 | FOURBAY LAKE | Approval After Notice | February 28, 1997 |

Section:

10 Physical PDRILL

10 Physical PSTRIIP

All deficiencies associated with this submission have been corrected. Accordingly, assessment credit has been approved as outlined on the Report of Work form.

Correspondence to:

Mining Recorder
Sioux Lookout, ON

Resident Geologist
Sioux Lookout, ON

Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):

Sherridon Johnson
DRYDEN, ONTARIO, CANADA

GEORGE A. ARMSTRONG
FORT FRANCES, ONTARIO

SHERRIDON PATRICK JOHNSON
DRYDEN, ONTARIO

CHESTER J. KURYLIW
DRYDEN, Ontario

WILLIAM C. READ
SIOUXLOOKOUT, ONTARIO

(103079)

GEORGE ARMSTRONG
BOX 518
FT. FRANCES ON
P9A 3N1
507-274-5957

(149509)

SHERIDON JOHNSON
BOX 19, SITE 214, RR2
DRYDEN ON
P8N 275

(154635)

CHESTER KURLIW
46 INCALL DRIVE
DRYDEN ON
P8N 3B7

2.16878

(186151)

WILLIAM READ
BOX 1134
SIOUX LOOKOUT ON
P8T 1B7

