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# **ASSESSMENT REPORT**

DIAMOND DRILLING ON THE DRIFTPILE CREEK PROPERTY (P, D, GOOF AND POOK 5 CLAIMS)

LIARD MINING DIVISION

**NTS 94K/4W** 

58° 04' N. LATITUDE, 125° 55' W. LONGITUDE

FILMED

OWNER: TECK EXPLORATION LTD 350-272 Victoria St. Kamloops, B.C. V2C 2A2

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GEOLOGICAL BRANCH ASSESSMENT REPORT

23,109

R. Farmer November, 1993

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## SUMMARY

Thirteen NQ diamond drill holes were drilled on the Driftpile Creek property during 1993. Four of the holes, 93-56, 93-57, 93-58 and 93-59 (total 1325.27 metres) are being filed for assessment and are the subject of this report.

The program was undertaken to test continuity of sedex type mineralization intersected by previous owners during the period 1978-1982, in both dip and strike directions. Drilling has confirmed a dip extent of at least 100 metres for the high grade mineralization on section 15N (holes 93-56, 93-57). Drill holes 93-58 and 93-59 represent stepout tests along strike to the south, and both holes failed to intersect significant mineralization.

Of the four holes, which are the subject of this report, the best results were obtained from hole 93-56, where 12 metres grading 10% zinc and 1% lead including, 6.02 metres grading 12.26% zinc, 1.36% lead, were intersected.

Drilling has confirmed the presence of at least two, stratigraphically distinct mineralized horizons. High grade mineralization intersected to date, in the area of 1993 drilling, is restricted to the lower horizon.

# RECOMMENDATIONS

1. Continue drilling along strike, in particular along strike to the north, where the sulphide zone is known to continue and potential for increasing tonnage remains good.

2. Stepouts for additional drilling should remain small, on the order of 100 metres, as larger stepouts considerably increase the risk of missing due to structural complexity and lack of reliable stratigraphic control.

3. There are other targets on the property where mineralization similar to that dirlled in 1993, is present. These other targets should be drilled in 1994.

## INTRODUCTION

During 1993, a 13 hole diamond drill program was completed on the Driftpile Creek property. Four of the holes, 93-56, 93-57, 93-58, and 93-59 (1325.27 metres total), will be filed for assessment and are the subject of this report.

The program was undertaken to follow-up drill intersections obtained between 1978 and 1982, by previous property owners. The purpose of the program was to assess strike and dip potential and continuity of mineralization in the area of these previous intercepts. This report describes the results of the four holes listed above.

#### LOCATION AND ACCESS

The property is located along Driftpile Creek, approximately 210 kilometres southwest of Fort Nelson, B.C., in the Liard Mining Division (figure 1). The approximate centre of the claims are located at 58°04'N latitude and 125°55'W longitude on NTS map sheet 94K/4W.

Access is by air only, with the closest access point being Toad River on the Alaska Highway, 90 kilometres to the north. A rough, 600 metre long airstrip is present on the property, which is suitable for Twin Otter aircraft. A 2.5 km cat trail connects the airstrip to the camp area on the property.

For mobilization, gear is trucked to Toad River and then flown by fixed wing aircraft or helicopter, to the Driftpile airstrip. Heavy or bulky gear must then be ferried by helicopter from the airstrip to the camp area. Weekly service flights generally fly straight from Watson Lake, YT (290km) or Fort St. John B.C. (370km) to the Driftpile airstrip.

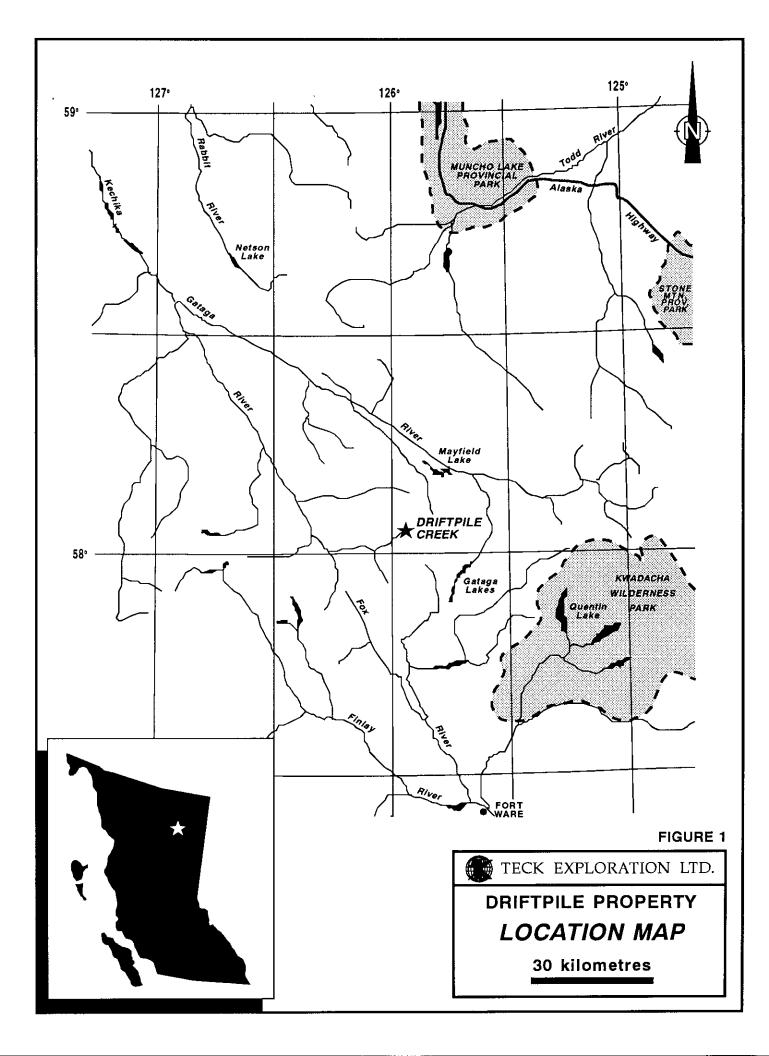
#### **TOPOGRAPHY AND VEGETATION**

The property lies within predominantly sub-alpine type terrain along the west flank of the Muskwa Range of the Rocky Mountains. The east-west Driftpile Creek valley, located in the central portion of the property is the main topographic feature. Elevations on the property range from 1100m to 2000m above sea level.

Vegetation consists of sub-alpine scrub brush and grass with isolated stands of spruce and poplar. Timbered areas are generally hillsides at mid-elevations. Creek valleys and higher elevations are generally vegetated with scrub brush and grass. Logging activities have not yet reached the property area.

#### CLAIMS

The property consists of 67 "two-post" mineral claims and fractions, plus five MGS mineral claims, for a total of 112 units, covering an area of approximately 2800 hectares



(figure 2). All claims are registered in the name of Teck Exploration Ltd., except for the Goof Fr. which is registered under Teck Corporation. The following table lists pertinent claim data.

# TABLE 1CLAIM RECORDS

| Claim Name | Record No. | <u>Units</u> | Record date | Expiry Date |
|------------|------------|--------------|-------------|-------------|
| P 2*       | 227978     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 4*       | 227979     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 6*       | 227980     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 8*       | 227981     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 19*      | 227982     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 20       | 227983     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 21*      | 227984     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 22*      | 227985     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 23*      | 227986     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 24*      | 227987     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 25*      | 227988     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 26*      | 227989     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 27*      | 227990     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 28*      | 227991     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 29*      | 227992     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 30*      | 227993     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 31*      | 227994     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 32*      | 227995     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 34*      | 227996     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 37*      | 227997     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 39*      | 227998     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 41*      | 227999     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 43       | 228000     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 45       | 228001     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 47       | 228002     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 49*      | 228003     | 1            | Aug. 12/74  | Aug. 12/97  |
| P 51*      | 228004     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 2*       | 228005     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 4*       | 228006     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 6*       | 228007     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 8*       | 228008     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 10*      | 228009     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 12*      | 228010     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 14*      | 228011     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 19*      | 228013     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 20*      | 228014     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 16*      | 228012     | 1            | Aug. 12/74  | Aug. 12/97  |

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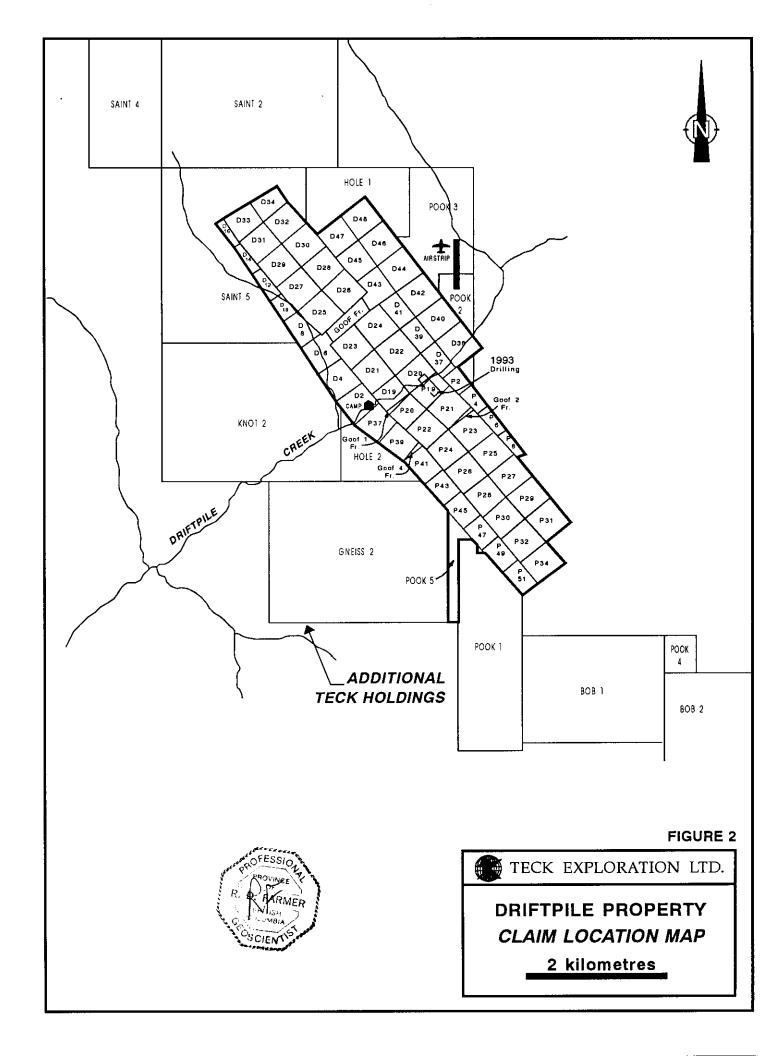
# **TABLE 1 - CLAIM RECORDS - CONTINUED**

| Claim Name     | Record No. | <u>Units</u> | Record Date | Expiry Date |
|----------------|------------|--------------|-------------|-------------|
|                | 000045     | _            |             |             |
| D 21*          | 228015     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 22*          | 228016     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 23*          | 228017     | l<br>-       | Aug. 12/74  | Aug. 12/97  |
| D 24*          | 228018     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 25*          | 228019     | <br>-        | Aug. 12/74  | Aug. 12/97  |
| D 26*          | 228020     | -            | Aug. 12/74  | Aug. 12/97  |
| D 27*          | 228021     | -            | Aug. 12/74  | Aug. 12/97  |
| D 28*          | 228022     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 29*          | 228023     | -            | Aug. 12/75  | Aug. 12/97  |
| D 30*          | 228024     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 31*          | 228025     |              | Aug. 12/74  | Aug. 12/97  |
| D 32*          | 228026     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 33*<br>D 34* | 228027     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 34*<br>D 37* | 228028     | 1            | Aug. 12/74  | Aug. 12/97  |
|                | 228029     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 38*          | 228030     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 39*          | 228031     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 40*          | 228032     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 41*          | 228033     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 42*          | 228034     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 43*          | 228035     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 44*          | 228036     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 45*          | 228037     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 46*          | 228038     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 47*          | 228039     | 1            | Aug. 12/74  | Aug. 12/97  |
| D 48*          | 228040     | 1            | Aug. 12/74  | Aug. 12/97  |
| Goof 1         | 228041     | 1            | Aug. 12/74  | Aug. 12/97  |
| Goof 2*        | 228042     | 1            | Aug. 12/74  | Aug. 12/97  |
| Goof 4*        | 228043     | 1            | Aug. 12/74  | Aug. 12/97  |
| Goof Fr        | 320395     | 1            | Aug. 09/93  | Aug. 09/94  |
| Pook 1         | 221782     | 18           | Aug. 24/78  | Aug. 24/97  |
| Pook 2         | 221783     | 12           | Aug. 24/78  | Aug. 24/97  |
| Pook 3         | 221784     | 9            | Aug. 24/78  | Aug. 24/97  |
| Pook 4         | 221838     | 2            | Jul. 05/79  | Jul. 05/97  |
| Pook 5*        | 221839     | 4            | Jul. 05/79  | Jul. 05/97  |

\* Grouped as Driftpile Group - Total 65 Units

Note: Expiry date for claims in Driftpile Group based on acceptance of this report

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#### **PREVIOUS WORK**

In 1970, Geophoto Consultants Limited conducted a reconnaissance stream sediment survey in the region on behalf of a syndicate.

In 1973, the syndicate entered a joint venture with Canex Placer Ltd. to investigate the 1970 anomalies. Prospecting discovered mineralized float on the Driftpile Creek property and 153 "two-post" mineral claims and fractions were staked in 1974.

Canex Placer Ltd. conducted geological mapping, an EM survey and hand trenching in 1974 and 1975.

No work was carried out during the period 1975-1977.

In 1978, the Gataga Joint Venture (GJV), comprised of Chevron Canada Limited, Getty Canadian Metals Limited, Kidd Creek Mines Ltd., Welcome North Mines Ltd. and Castlemaine Exploration Ltd., optioned the property from the Placer Syndicate. Soil geochemistry, geological mapping, hand trenching and 1016 metres of diamond drilling in nine holes were carried out. The program from 1978 to 1982 was managed by Archer, Cathro and Associates.

In 1979, soil geochemistry, geological mapping, hand trenching and 2416 metres of diamond drilling in 21 holes, were completed.

Soil geochemistry, geological mapping, backhoe trenching and 2020 metres of diamond drilling in 10 holes were completed in 1980.

In 1981, soil geochemistry, geological mapping, backhoe trenching, the establishment and surveying of a grid and 2003 metres of diamond drilling in 11 holes were completed. In addition a MaxMin II EM survey and a gravity survey were carried out, and construction was started on an airstrip.

The airstrip was completed in 1982, along with additional geological mapping and 1122 metres of diamond drilling in three holes.

In 1992, Teck Exploration Ltd. purchased 100% interest in the Driftpile Creek property.

#### 1993 PROGRAM

During 1993, 13 NQ sized diamond drill holes were drilled. Only four (4) of the holes are being filed for assessment, and consequently only that portion of the program pertaining to the four holes will be described in this report. The four holes required 15

days to drill, from July 22 to August 5, 1993. In addition reclamation in the form of removing old fuel barrels, left on the property by past operators, was performed. A portion of the cost of removing the barrels is being filed here in the form of fixed wing transportation. These fixed wing costs also include mobilization of equipment and personnel into the property (ie equipment and personnel in - old fuel barrels out, for each flight). The flights being filed as part of this report include BN Islander flights on July 17 and July 19, 1993. These flights represent a proportionate amount of the total reclamation and mobilization costs.

The four drill holes, which are the subject of this report, include holes 93-56, 93-57, 93-58 and 93-59, for a total of 1325.27 metres. The purpose of the program was to follow-up high grade intersections obtained by previous operators between 1978 and 1982. The current drill program was carried out to assess strike and dip potential and continuity of mineralization in the area of the previous intercepts.

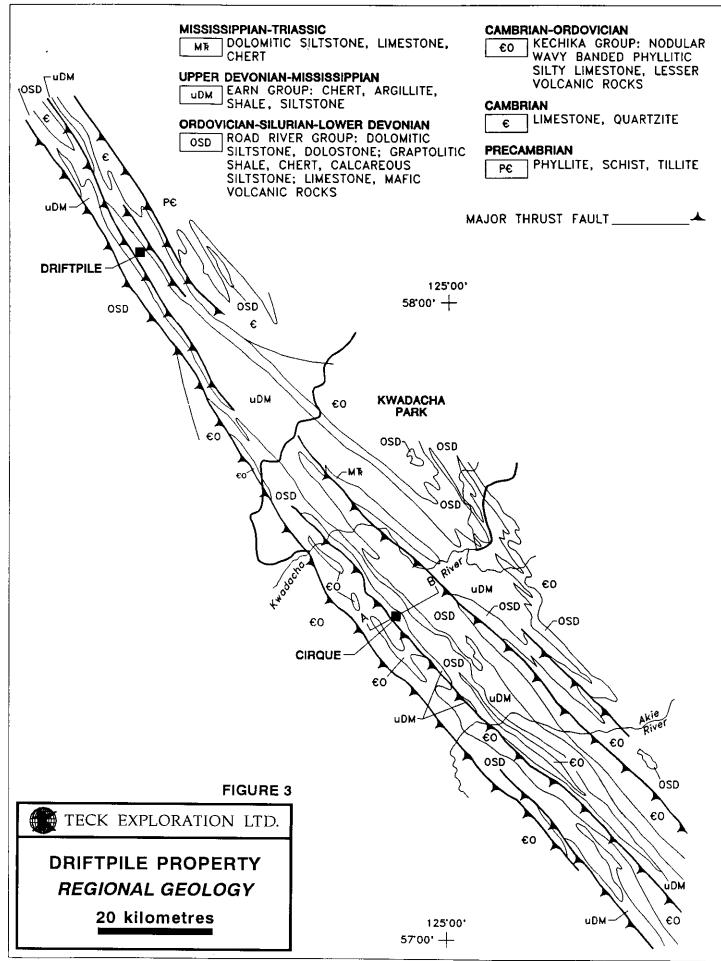
## GEOLOGY

## A. Regional Geology (Figure 3)

The best description of the geology of the Gataga District, including the Driftpile property area, is provided by MacIntyre (1992).

The Driftpile Creek property is located within the Rocky Mountain Fold and Thrust belt of northeastern B.C. The property is located within Paleozoic, miogeoclinal basinal facies rocks of ancestral North America affinity (MacIntyre, 1992). These rocks were deposited in the Kechika Trough, a southeast extension of the Selwyn Basin and are bounded to the east by platformal carbonates of the MacDonald Platform and to the west by carbonates of the Cassiar Platform. The Kechika Trough is underlain by predominately clastic rocks ranging from Proterozoic to Triassic in age which form a northwest trending linear belt. The Driftpile Creek property is underlain by black shale, silty shale, siliceous shale and chert of the Gunsteel Formation, Lower Earn Group, of Upper Devonian age. The Stronsay (Cirque) deposit, located 100km to the southeast (38.5 m.t. @ 8.0% Zn, 2.2% Pb, 47.2g/t Ag), is hosted by the same Gunsteel Fm. shales. Northeast directed compression has resulted in complex thrusting and related folding, lending difficulty to stratigraphic correlation. The lack of a reliable marker horizon further complicates correlation.

Archer, Cathro and Associates carried out extensive work on the Driftpile property during the period 1977-1982, including regional and detailed mapping and diamond drilling. From this work, Carne and Cathro (1982), identified three main mineralized horizons hosted by the Devonian shales.



After MacIntyre, 1983

#### **B. PROPERTY GEOLOGY**

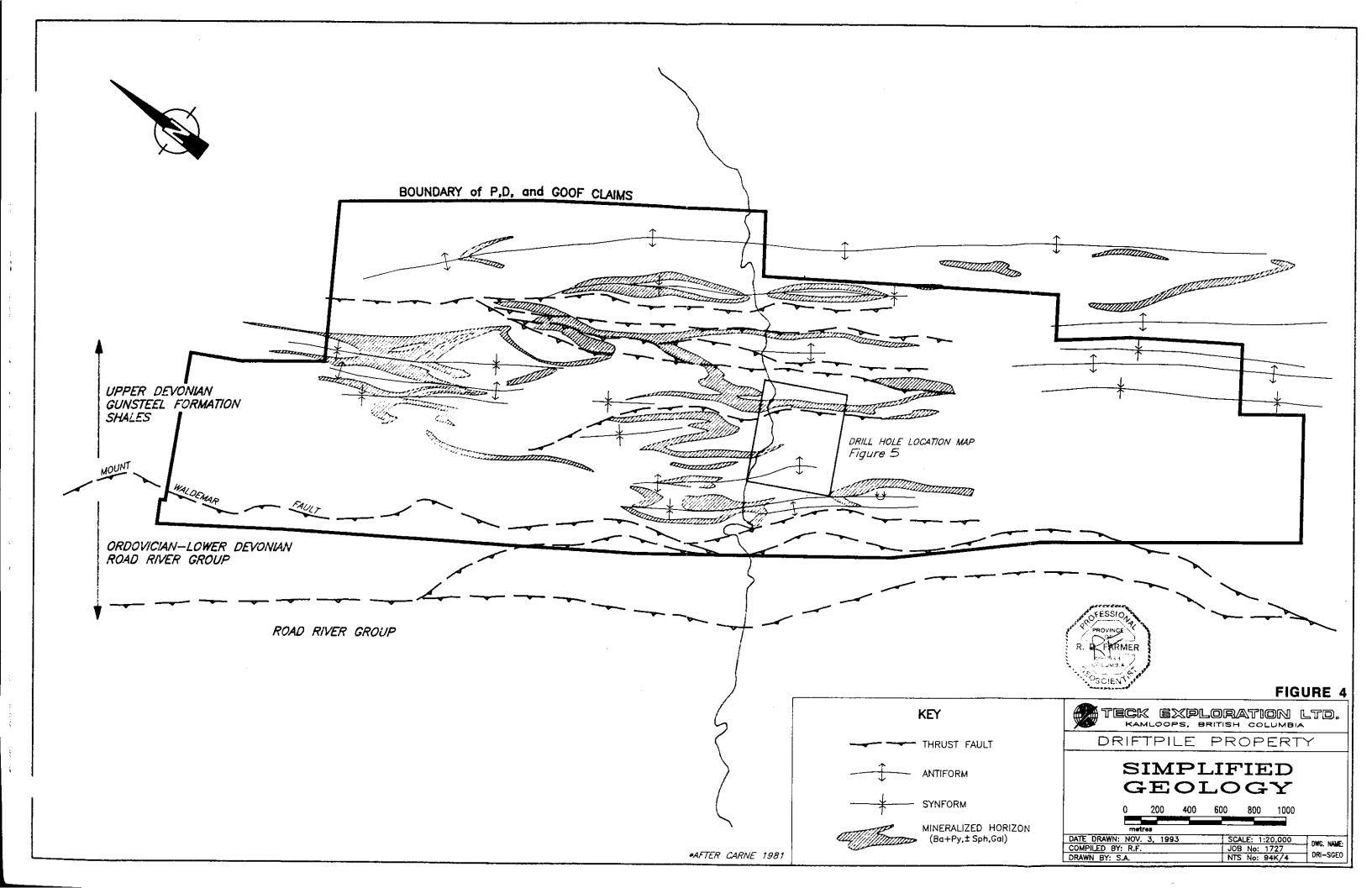
The Driftpile Creek property is underlain by a northwest trending belt of black shale, silty shale, siliceous shale and chert of the Upper Devonian Gunsteel Formation. The Gunsteel Fm. shales are bounded to the west by the Mount Waldemar fault, which thrusts Lower Devonian to Ordovician rocks of the Road River Group over the Gunsteel stratigraphy. The Mount Waldemar Fault occurs near the western boundary of the P, D and Goof claims (figure 4). Paleozoic carbonates of the MacDonald Platform are present east of the property. The geology is dominated by northwest trending thrust faults and related folding with, generally, northwest trending axes. These fold and thrust patterns result in an erratic, juxaposed distribution of lithologies in an east-west direction, whereas lithological units tend to be latterally continuous in a northwest-southeast direction, parallel to the structural grain.

Mineralized horizons are widespread on the property and consist of baritic and/or pyritic shale, locally containing concentrations of sphalerite and galena. Barite varies from massive and laminated through blebby laminations with shale, to nodular laminations with shale. This variation likely represents a trend from proximal to distal environment of deposition, respectively. There appears to be at least two separate mineralized horizons, however stratigraphic relationships are difficult to resolve due to structural complexity and lack of a reliable marker horizon.

In the claims area outcrop exposure is generally poor, except along creeks and on higher ridge tops. The most common lithology is grey to black, massive, poorly laminated, often featureless shale. As mineralized horizons are approached, the shales tend to become thinner bedded and more strongly laminated. Carbonate concretions and pyrite and/or barite laminations also increase towards mineralized horizons. Siliceous shale and chert are generally present in the stratigraphic footwall to mineralization, or may represent a lateral equivalent to mineralization. Where stratigraphic relationships are preserved, contacts between units tends to be gradational over several metres to tens of metres. In drill core younging indicators are often present, the most common being grading and load or flame structures. Other indicators present occasionally include cross-lamination and cleavage refraction.

## <u>C. LITHOLOGY</u>

The following section describes lithologic units used on maps and drill sections included with this report. Units are numbered from stratigraphically highest to lowest, although uncertainity remains as to the relative positions of some units. In all cases contacts between units are gradational, usually over several metres to tens of metres, except where complicated by faulting.



#### UNIT 1

This unit, termed nodular shale, consists of grey to black, thick bedded (massive), poorly to moderately laminated shale and mudstone which generally contains abundant nodules. Nodules consist of calcite, with varying content of pyrite, and are generally 5mm or less in diameter. Laminations, where present, consist of black shale, grey siltite or coarse, grey, iron carbonate-rich, silty layers. Laminations are generally 2cm or less in thickness, although thicker ones are occasionally present. White carbonate concretions, 2-4cm in diameter, are occasionally present, but not diagnostic of this unit. This unit occupies the highest stratigraphic position currently recognized on the property and as such tends to be exposed only in the core of synclinal structures.

#### UNIT 2

Unit 2 is not a distinctive lithology and generally includes undifferentiated stratigraphy. This unit is a thick bedded, massive mudstone with infrequent shale laminations, generally grey in colour, and soft (non-siliceous). Pyrite-carbonate nodules and concretions may be present locally and when present, this unit is difficult to distinguish from unit 1. Nondistinctive mudstones of unit 2 are the most common lithology on the property.

#### UNIT 3

Concretionary shale of Unit 3 consists of moderately well laminated grey to black shale with abundant, light grey concretions, 2-10cm in diameter. This unit is very distinctive both on surface, where concretions readily weather out, and in drill core. When a high percentage of sulphide laminations are present, this unit is termed Unit 6-pyrite laminated turbidite or, Unit 7-transition zone. As these concretion rich rocks rarely occur without considerable sulphide content, Unit 3 is not a common lithology.

#### UNIT 4

Cryptic pyrite laminated mudstone of Unit 4 is a common lithology in drill core, where it is easily recognized. Unit 4 consists of grey to black, massive mudstone which is variably graphitic, variably siliceous (nonsiliceous to very siliceous or cherty) and

contains distinctive millimetre scale pyrite laminations which often give the rock a "striped" appearance when wet. Pyrite laminations vary from very fine, almost single grain width, lines to brownish bands several millimetres thick. Cryptic pyrite laminated mudstone (CPLM) seems to be related to mineralization, however only to baritic mineralization related to the barite-sulphide zone on surface, not the main zone intersected at depth. This suggests two distinct mineralized horizons are present, with unit 4 only associated with the upper one. There is some suggestion that CPLM may represent a distal expression of mineralization as it tends to occur above or lateral to stronger mineralization. There is an intimate association between CPLM and homogeneous and siliceous shale/mudstone with radiolaria and or amoeboid chert textures of units 9 and 10. Rocks of units 4, 9 and 10 always occur together high up in the holes however, units 9 and 10 are also present associated with the lower mineralized horizon and CPLM is not. This leads to the possibility that CPLM can be used as a marker horizon, indicating the approximate position of the upper mineralized horizon and a position of roughly 100-200 metres above the lower mineralized horizon.

#### UNIT 5

Unit 5 is a well laminated turbidite. The lithology consists of massive mudstone beds, 40cm or less, separated by well laminated intervals which are 10-20cm thick. The thickness of massive mudstone beds and therefore the frequency of laminated sections increases towards the base of the unit. Laminated sections commonly contain large carbonate concretions, and in general the number of concretions increases towards the bottom of the unit, while average size tends to decrease. Laminations, in the laminated intervals, consist primarily of black shale and grey siltite, although coarser iron-carbonate and pyrite laminations are locally present. Pyrite laminations tend to increase towards the base of the unit. This unit represents the beginning of a recognizable hanging wall stratigraphy related to the lower mineralized horizon. The contact with underlying Unit 6 is gradational and selection of its location is arbitrary, based on thickness of mudstone interbeds (and corresponding frequency of laminated sections), and frequency of concretions and pyrite laminations.

# UNIT 6

Well laminated - pyrite laminated turbidite of Unit 6 is similar to Unit 5 but, pyrite has become a dominant type of lamination and massive mudstone beds are now 5-10cm in thickness. The lithology is now a well bedded/laminated distal turbidite. Bedding/lamination can be rhythmic, giving the impression of turbiditic pulses. Concretions are now very commonly associated with the laminated sections and are generally 4cm or less in diameter. Within the laminated sections, laminations are

generally a few millimetres to one or two centimetres thick and often consist of alternating black shale and grey siltite. Laminations tend to be contorted, likely a result of soft sediment deformation. The concretions, possibly of late diagenetic origin, disrupt bedding.

#### UNIT 7

The transition zone, Unit 7, represents the uppermost part of the main mineralized zone and is termed transition because it represents a transition from sulphide bearing shale stratigraphy to a sulphide dominant mineralized sequence. Contacts with both overlying and underlying stratigraphy are gradational, usually over at least several metres. The upper contact is generally taken at the last larger mudstone interbed and/or the first coarse grained carbonate bed. These coarse grained carbonate beds, which can be up to several metres thick, consist of tightly packed, circular, grey carbonate patches and probably represent beds of amalgamated concretions. Within the transition zone, concretions, which are now very common, begin to recrystallize as coarse carbonate, usually beginning in the center and progressing towards the margins. This recrystallization gradually becomes more complete towards the base of the transition zone. The transition zone is generally very graphitic, and at times may be baritic. The main difference between Well Laminated-Pyrite Laminated Turbidite and Transition Zone is the difference in thickness of mudstone beds (thinner in TZ), the greater concentration of sulphide, and the beginnings of recrystallization of concretions in the transition zone.

#### UNIT 8

Unit 8 is the main mineralized zone and consists of 35% - 80+% sulphide in a carbonate matrix, with minor black, graphitic shale laminations. Sulphides are primarily pyrite with local sphalerite and galena. The mineralized zone generally consists of fine grained, finely laminated sulphide with patches and irregular bands of white to black carbonate (recrystallized concretions). Sulphide laminations often display grading and are intensly contorted due to soft sediment deformation and bedding transposition. Locally, near the base of the mineralized unit, fine grained, stony, massive sulphide with no carbonate patches and little or no lamination, is present. This massive zone, when present, is generally very high grade. Occasional beds of unmineralized shale or weakly mineralized coarse carbonate are present and can vary from a few centimetres to several metres thick. This unit will be described further in the section of this report entitled "Mineralization".

#### **UNIT 9**

Unit 9 is associated with the footwall to mineralization, both of the main mineralized horizon and the upper horizon. Rocks of this unit consist of massive, homogeneous black shale/mudstone, which can be siliceous or nonsiliceous. Concretions and nodules are not present and laminations are rare to absent, which serves to distinguish this unit from other map-units. The upper contact with the mineralized zone is sharp and conformable, when not complicated by faulting. Although this unit tends to be black and carbonaceous it is generally not graphitic. Although always in the footwall to mineralization it may not necessarily represent the immediate footwall, at times unit 10 forms the immediate footwall and unit 9 occurs deeper in the footwall or not at all. As such, units 9 and 10 could possibly be combined into one broader litho-stratigraphic assemblage, though for the time being they will be mapped separately.

#### **UNIT** 10

Map-unit 10 consists of siliceous to cherty shale/argillite and local chert. A distinctive feature of this unit is the local presence of radiolaria-bearing chert beds and white "amoeboid textured" chert patches. Radiolarian chert beds are generally 0.5-4cm thick and contain tiny, circular, white radiolaria. These beds are quite distinctive. Similarily, the "amoeboid chert" patches are very distinctive, consisting of irregular, splotchy, white chert patches 0.5-5cm in size, hosted in black siliceous to cherty argillite. The patches often display a very fine chalcedonic-like internal banding which is circular and appears to be nucleated around something. The origin of these cherty patches is uncertain. At times, rocks of units 9 and 10 are intimately associated with cryptic pyrite laminated turbidite of unit 4. At other times, for example below the main mineralized horizon, units 9 and 10 occur independantly of unit 4.

#### **D. STRUCTURE**

Thrust faulting and related folding dominate the structure at Driftpile. Thrust faults are very common on the property, with a half dozen or more known faults across the two kilometre width of the property (figure 4). Continued drilling will likely identify many more. Thrusts have a general northwest strike and are northeast directed. The most significant thrust on the property is the Mount Waldemar fault, along the west boundary of the P, D and Goof claim boundary, which forms the western boundary of the Devonian Gunsteel shales. The Mount Waldemar fault has brought older rocks of the Road River Group over Gunsteel stratigraphy. Most of the other thrusts on the property likely have relatively minor movement. For example, thrusts intersected during the current drilling, have on the order of 150-200 metres of movement (see figure 6).

Three phases of deformation have been recognized (McClay and Insley, 1985) and include; asymmetric folding on northeast axes of phase 1, complex, generally northeast verging thrusts and folds of phase 2, and late stage kink folds of phase 3. Structures related to phase 2 are the dominant, preserved structures. Phase 2 folds have a very strongly developed penetrative, axial planar cleavage. Fold axes tend to be horizontal or gently plunging. Folds tend to be open and somewhat symmetrical away from thrusts and isoclinal and asymmetric adjacent to thrusts. Isoclinal, asymetric folds are often overturned.

Drilling, in 1993, has confirmed the presence of a synclinal structure, with broad, open limbs and a flat to shallow north plunging axis. The fold is cut by moderate to steep, west dipping thrust faults which raise the west limb (hanging wall side of faults) by 100-200 metres (figure 6, in pocket).

## **E. MINERALIZATION**

Although the structure and stratigraphy are complex, making correlation difficult, two mineralized horizons are present within the area drilled, the Main Horizon and the Upper Horizon. The Lower or Main Horizon has a massive, siliceous, locally radiolaria bearing footwall and, a well laminated turbidite with abundant concretions and pyrite laminations in the hangingwall. The Upper Horizon, which correlates with the barite kill zone on surface, has siliceous, radiolaria bearing stratigraphy as well as a cryptic pyrite laminated mudstone, in both the hanging wall and footwall. The well laminated turbidites are not present. In addition the Upper Horizon is much more baritic than the Main Horizon. The Main Horizon was the target of the 1993 drilling. No holes were drilled specifically to intersect the Upper Horizon, although hole 93-58 did, in fact, intersect it.

The Main Horizon consists of finely laminated pyrite with varying amounts of interbedded graphitic black shale. A distinctive feature of the mineralization is abundant light grey coloured concretions. These concretions generally decrease in size and show increasing recrystallization downwards through the mineral zone. Concretions are primarily composed of carbonate, although some silica may locally be present towards the base of the mineralized horizon. Pyrite laminations are strongly deformed, both as a result of soft sediment deformation and transposition along cleavage planes. Total sulphide content tends to increase towards the base of the horizon. Locally near the base of the mineralized interval a zone of stony, massive, non-laminated sulphide is present. When present, this massive sulphide is rich in galena/sphalerite, often occurring as irregular masses or base metal rich bands. Base metals tend to be enriched towards the base of the mineralized horizon. Sphalerite and galena occur as fine grained masses as a matrix to framboidal pyrite, as discrete aggregates or bands and locally as coarse grains within concretions. In general, the entire mineralized zone carries 1-2% Zn with enriched sections towards the base. Visible barite is not common, however when

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present, occurs towards the top of the zone.

The Upper Horizon is generally much more baritic, often consisting of massive, laminated or blebby barite. Sulphides are subordinate to barite, although semi-massive to massive sulphide can still be present. Locally significant sphalerite/galena is present as laminations within massive, laminated barite, without significant pyrite. Concretions are generally absent.

## DIAMOND DRILLING

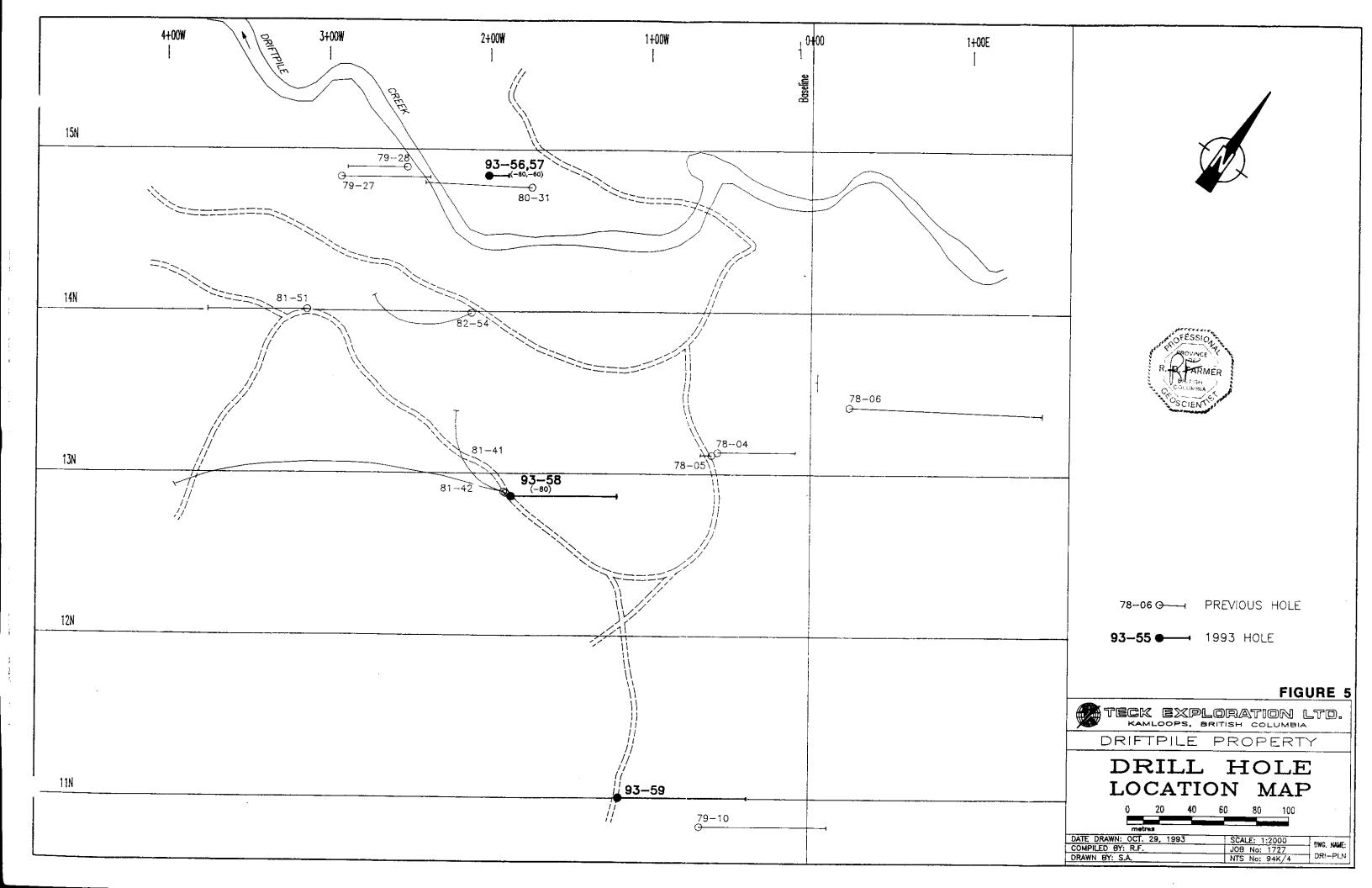
A total of 13 diamond drill holes were drilled in 1993, of which four holes, totalling 1325.27 metres, are being filed for assessment and are being reported on here. The holes were drilled to test for strike and dip extensions to high grade intersections obtained by previous owners during the period 1978-1982. The four holes in question, 93-56, 93-57, 93-58, 93-59 were drilled between July 22 and August 5, 1993. Advanced Drilling Ltd. of Surrey, B.C. was contracted to drill the NQ sized core. Selected portions of the core were split (sawed with a diamond saw), and sent to Min-En Laboratories in North Vancouver, B.C. for analysis. A total of 107 samples were collected and analyzed; 82 were fire assayed for Zn, Pb, Ag; 19 samples for 31 elements by ICP and; 6 samples were assayed for barium. Sample locations and lengths are plotted on the drill sections (figures 6 to 8), and complete results are listed on the Certificates of Analyses, Appendix III.

Drill hole locations are plotted on figure 5 and Table 2 summarizes pertinent drill data. Drill logs are included in Appendix V.

#### TABLE 2 DIAMOND DRILL HOLE DATA

| HOLE NO. | GRID LOCATION | ELEVATION | AZIMUTH | DIP  | TOTAL LENGTH  | NO. OF SAMPLES |
|----------|---------------|-----------|---------|------|---------------|----------------|
| 93-56    | 14+80N,2+00W  | 1194m     | 055°    | -80° | 328.27m       | 34             |
| 93-57    | 14+80N,2+00W  | 1194m     | 055°    | -60° | 313.03m       | 44             |
| 93-58    | 12+87N,1+86W  | 1268m     | 055°    | -80° | 367.89m       | 9              |
| 93-59    | 11+00N,1+16W  | 1281m     | 055°    | -80° | 316.08m       | 14             |
|          |               |           | Total   |      | 1325.27 metre | s 107 Samples  |

Drill core is stored on the property where it has been stacked at the camp site. Core recovery averaged 90%-100% and drilling was completed quickly and efficiently.



## A. DDH 93-56 (figure 6)

Hole 93-56 was drilled to test the dip extent of high grade mineralization intersected in the previously drilled hole 80-30 (11.8% Zn+Pb/10 metres).

The hole intersected distal hangingwall stratigraphy, consisting of nodular shale and nondistinctive shale/mudstone until 72.24 metres. Proximal hangingwall rocks consisting of well laminated - pyrite laminated turbidite were intersected from 72.24-94.64 metres. Graphite content also increased considerably in this interval. A steep westerly dipping thrust fault is present at 94.64 metres, underlain by massive to moderately laminated shale and siliceous, radiolaria-bearing argillite to 125.88 metres. A second steep west dipping thrust fault is present at 125.88 metres. Significant movement is indicated for both these faults by strong bedding rotation, as evidenced by rapid changes in bedding core axis angles. Bedding above the thrusts is likely east dipping, with cleavage vergence data suggesting an antiformal closure to the west. Below the thrusts bedding has a westerly dip which flattens downhole, and cleavage vergence suggests the antiformal closure is now to the east. This change in bedding dip and cleavage vergence direction, combined with the flattening of bedding down hole, indicates a synformal closure in the area of the drill hole. Uphole younging indicators (grading, load structures) confirm that stratigraphy is rightside up and that the structure is a syncline.

Below the fault at 125.88m non-distinctive shale/mudstone, which is generally thick bedded and poorly laminated, was again intersected to 257.75 metres. From 257.75-285.6 metres, proximal hangingwall stratigraphy consists of well laminated - pyrite laminated turbidite to 274.94m and transition zone to 285.6m. These hangingwall rocks exhibit increasing frequency of laminations, increasing percentage of concretions and increasing pyrite laminations and total sulphide content downhole. These features and trends are very distinctive of the immediate hangingwall to mineralization of the Main Horizon. Local, thin beds of coarse carbonate, representing amalgamated concretions, also appear in this interval.

Mineralization of the Main Horizon was intersected from 285.6-313.8 metres. Contacts with overlying stratigraphy are gradational. This intersection is approximately 70 metres updip towards grid east of the hole 80-30 intercept. Mineralization consists of well laminated, highly deformed, pyritic sulphide. Sulphide content varies from about 35% to 80%, with interlaminations consisting of graphitic black shale. A distinctive feature of this mineralized zone is the presence of grey, round to angular carbonate concretions. Concretions make up an estimated 10%-30% of the rock, and in general decrease in size and increase in angularity downhole. Increasing angularity is due to increasing recrystallization. The concretions are considered to be late diagenetic in origin, although they are poorly understood. Base metal content is, in general enriched towards the base of the zone, and in particular associated with areas of stony, poorly laminated massive sulphide. This stony massive sulphide is present from 297.36-299.89 metres and does not contain concretions. Sphalerite and galena occur as fine grained masses and crude bands within both the laminated and massive pyrite. Minor coarse grained sphalerite and galena are present within concretions. In this hole, sulphide content

decreases near the base, after 307 metres, although best sulphides are usually present near the base.

Siliceous to cherty, massive argillite, locally with radiolaria bearing beds, was intersected from 313.8m to the end of the hole, at 328.27 metres. These massive, non-laminated, siliceous rocks are the footwall to mineralization of the Main Horizon.

Best results are as follows:

296.0 to 308.0 metres (12.0m) averaging 10.0% Zn, 1.0% Pb including 297.36 to 299.94 metres (2.58m) averaging 13.92% Zn, 2.21% Pb and 300.91 to 306.93 metres (6.02m) averaging 12.26% Zn, 1.36% Pb

# **B. DDH 93-57** (figure 7)

Hole 93-57 was drilled from the same collar location as 93-56 and drilled at -60° towards grid east (055° azimuth), to test the Main Horizon further updip.

Hole 57 intersected similar geology and structure to hole 56, namely nodular to massive, poorly laminated, non-distinctive shale/mudstone to an upper thrust fault at 68.53 metres. This was followed by poorly to moderately laminated shales to the main thrust at 86.63-96.75 metres.

Below this thrust there are some changes in lithology from hole 93-56. Siliceous, well laminated shale with local radiolaria bearing beds are present to 111.86 metres, underlain by cryptic pyrite laminated mudstone to 153.29m. This cryptic pyrite laminated mudstone may represent a distal facies of Upper Horizon mineralization which is present further updip to the east. Black, siliceous shale/argillite is present from 153.29 to 190.87 metres. Radiolaria bearing chert beds and irregular white cherty patches (here termed "amoeba textured chert"), occur erratically throughout the interval. Cryptic pyrite laminations continue throughout this interval and the interval is strongly graphitic. At 190.87-194.03m transition zone rocks are present, consisting of well laminated, concretionary, strongly pyrite laminated turbidite. Pyrite concentration decreases downhole through the section and a fault is present at the base. Well laminated turbidite is present from 194.03-229.4 metres, followed by graphitic pyrite laminated turbidite to 235.18 metres. A fault is present at 225.7-227.15m and probably has late movement as indicated by brecciation of late quartz veins. Another fault is present at 237.25m and the intervening section is strongly deformed and quartz veined, possibly indicating additional faults or a broad zone of weakness.

The mineralized horizon was intersected from 235.18 to 276.95 metres. Mineralization is similar to that in hole 93-56 except, here, the strongest sulphide is at the top of the interval. A narrow zone of stony massive sulphide well mineralized with sphalerite and galena is also

present near the top (246.38-247.67m). Sulphide content decreases towards the base of the interval, and younging indicators suggest the section is overturned. Laminations become strongly contorted towards the base of the interval and a strong fault, which brecciates quartz veins, indicating late movement, is present at the bottom contact. Mineralization is visibly weaker in this hole than in 93-56.

Below the mineralized zone, transition zone rocks were intersected to 293.59m. Pyrite laminations and frequency of concretions both decrease downhole. Younging indicators still suggest the section is overturned. From 293.59 to the end of the hole, at 313.03 metres, a black, massive, homogeneous, poorly laminated mudstone/shale was intersected. Local pyrite-carbonate nodules and barite-carbonate laminations are present and these are usually indicative of hanging wall stratigraphy. Due to complex structure, it is not clear if the hole ended in hangingwall or footwall stratigraphy.

Cleavage vergence data throughout the lower portion of the hole suggests several reversals in sense of vergence, suggesting complex folding. This is supported by younging reversals and a reversal of stratigraphy (transition zone underlying mineralization). This could be caused by rotation due to faulting of a minor, sympethetic fold to the main syncline/anticline pair (F1), (shown on fig. 6), or by complication by later F2 folding.

Best results are as follows:

241.88-247.77 metres (5.9m) averaging 4.43% Zn, 0.15% Pb including 246.38-247.67 metres (1.29m) @ 12.5% Zn, 1.5% Pb

**C. DDH 93-58** (figure 7)

Hole #58 was collared 200 metres south of holes 56,57 and was drilled to test the strike extent of mineralization to the south.

A moderately well laminated shale/ mudstone sequence was intersected to a depth of 118.0 metres. Pyrite-carbonate nodules are common, concretions are present but infrequent. Two thrust faults are present, at 118.0m and 130.85-136.39m, and are separated by grey, massive, poorly laminated mudstone. The faults are the same ones intersected in holes 56 and 57. The lower one remains the strongest as indicated by rotation of bedding core axis angles and a lithologic change across the fault.

From 136.30 to 178.98 metres a well laminated turbiditic mudstone with weakly developed cryptic pyrite laminations was intersected. This interval is moderately graphitic and locally siliceous. At 178.98-206.55m black, siliceous to cherty argillite with local radiolaria bearing beds and amoeboid chert textures is present. This interval is also erratically cryptic pyrite laminated. Grey, poor to moderately laminated shales were again intersected from 206.55-251.4 metres.

The frequency of laminations increases down hole.

The recognizable and correlatable portion of the hangingwall stratigraphy begins to appear at 251.4m with the appearance of a well laminated turbidite. Concretions and lamination frequency increase downhole, pyrite laminations appear and increase downhole. By 284.1m pyrite laminations, concretions and lamination frequency have increased to the point where the lithology is termed pyrite laminated turbidite, the change being gradual and gradational. Massive mudstone interbeds are now less than 5cm thick. By 298.2m the concretions have begun to recrystallize and sulphide content is up to an estimated 35%. The lithology is now termed Transition Zone, and continues to 304.5m. This zone contains 35-40% sulphide as pyrite laminations and massive, laminated beds with black, graphitic shale interlaminations and abundant recrystallized concretions. This interval may represent a much weakened equivalent of the mineralized horizon rather than the usual overlying transition zone.

At 304.5m to the end of the hole, at 367.89 metres a massive, homogeneous, poorly laminated, grey to black mudstone is present which is similar to portions of the footwall stratigraphy in other holes. At 314.67m, a 0.8m breccia zone, consisting of grey mudstone, black shale, radiolarian chert and pyrite clasts, in a grey mudstone matrix was intersected. It is not clear whether this breccia is tectonic or primary in origin.

Best results are as follows:

298.29-304.5 metres (6.21m) averaging 1.46% Zn

**D. DDH 93-59** (figure 8)

Hole 93-59 was collared 200 metres south of hole 93-58 and was drilled to test the mineralized zone further to the south along strike.

It was also drilled to test the Upper Horizon downdip from previous hole 79-10 which intersected sub-economic grades (7.17% Zn/2.5m, 6.33% Zn/4.7m). The hole penetrated massive, thick bedded, poorly laminated silty mudstone until 22.5 metres, at which point a major fault was intersected. This fault likely correlates with the lower thrust intersected in previous holes. Below the fault a grey silty cryptic pyrite laminated mudstone was intersected until 74.36m. Rocks in this interval are locally siliceous with, in places, (eg 57-61m), black chert beds.

The Upper Horizon mineralized sequence is present from 74.36-122.14 metres. The upper portion, down to 96.28m consists of grey to black, locally siliceous and cherty cryptic pyrite laminated argillite with local radiolarian chert beds and amoeboid textured chert. This interval is often well laminated, and frequently contains grey chert beds. The interval is moderately baritic, containing beds of blebby barite. Coarse bladed barite is locally present within these baritic beds. Below this until 109.98m is an interval of dominantly massive, siliceous

mudstone with occasional laminated sections containing concretions, barite and pyrite. The barite is nodular at the top, becoming blebby down hole, and pyrite increases downhole. This interval looks similar to transition zones seen elsewhere, but is much more baritic. From 109.98 to 116.3m a homogeneous, massive black mudstone is present. This mudstone still contains barite and pyrite, but the mineralization is much weaker. A stronger mineralized zone is present from 116.3 to 122.14m. This mineralization is similar to the upper portion of the Main Horizon as described in other holes, except here there is much more visible barite. Total sulphide content reaches a maximum of about 30%, and trace sphalerite is present towards the base. A black earthy mineral is present in fractures in some barite-carbonate rich sections which could be pyrobitumen.

At 122.14-180.02 metres the hole intersected cryptic pyrite laminated mudstone, which is variably siliceous and graphitic. Below this, massive, non-laminated, grey to black mudstone with local sections of radiolarian and amoeba textured chert, was penetrated until 207.11 metres. From 207.11m to 255.7m grey, poorly laminated mudstone/shale of the non-distinctive unit was intersected. After 230m the shales become moderately-well laminated, concretions and pyrite laminations begin to appear near the base. This section could be included with well laminated turbidites of unit 6. After 255.7 to 273.41m well laminated- pyrite laminated turbidites with common pyrite laminations and concretions was intersected. Massive mudstone interbeds between laminated beds, are now only 10-20cm thick. This grades downhole into a transition like mineralized zone, which is only six metres thick, ending at 279.6m. Abundant recrystallized concretions are present along with 15-20% pyrite. Significant sphalerite and galena were not observed. The mineralization appears to be continuing to weaken southwards.

Massive, homogeneous, poorly laminated mudstone forms the footwall to mineralization and was intersected to the end of the hole at 316.08 metres. This mudstone is non-siliceous and concretions are absent. Laminations become moderately common near the bottom of the hole.

Best results are as follows:

118.14-122.14 metres (4.0m) averaging 3.12% Zn - Main Zone 107.26-109.98 metres (2.72m) averaging 4.75% Ba - Upper Zone

# CONCLUSION

This report describes the results of four diamond drill holes totalling 1325.27 metres drilled.

Drilling has confirmed a dip extent of at least 100 metres for the high grade mineralization. Drilling along strike to the south failed to intersect high grade mineralization. The mineralized horizon thins and weakens considerably to the south.

Best results were obtained from hole 93-56, where 12 metres grading 10% Zn and 1% Pb, including 6.02 metres grading 12.26% Zn, 1.36% Pb, were intersected. Infill drilling and drilling along strike to the north of present drilling is warranted.

Drilling has comfirmed the presence of at least two mineralized horizons (Main Horizon and Upper Horizon) which are approximately 100-200 metres apart stratigraphically. Stratigraphy, in particular, hangingwall stratigraphy, related to the two mineralized horizons is sufficiently different to allow the horizons to be distinguished.

In future, stepouts between drill holes should be kept small, on the order of 100 metres, as larger stepouts become excessively risky due to the structural complexity and lack of reliable stratigraphic control.

In addition to further drilling to followup the results of the 1993 program, at least three other targets with significant mineralization are present on the property and should be drilled.

# REFERENCES

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| Abbott, J.G., Gordey, S.P.<br>and Tempelman-Kluit, D.J. (1986): | Setting of Stratiform, Sediment Hosted Pb-Zn Deposits<br>in Yukon and Northeastern B.C. CIM Special Volume<br>37, pp 1-18.  |
|---|---|
| Boyle, P. (1977):   | Report on Geochemical Surveys on the Driftpile Pass<br>Property. EMPR Assessment Report No. 6736.   |
| Carne, R.C. and Cathro, R.J. (1978):                            | Assessment Report on Geological and Geochemical<br>Surveys and Diamond Drilling. EMPR Assessment<br>Report No. 6896.  |
| Carne, R.C. and Cathro, R.J. (1982):                            | Summary Report, 1978-1982 Exploration by the Gataga<br>Joint Venture on the Driftpile Creek Property. Inhouse<br>report, Archer, Cathro and Associates.                                     |
| Insley, M.W. (1990):  | Sedimentology and Geochemistry of the Driftpile Ba-Fe-<br>Zn-Pb Mineralization, Northeastern B.C. Ph.D. Thesis,<br>University of London.  |
| Kowalchuk, J.M. (1975):   | Progress Report Driftpile Property, British Columbia.<br>EMPR Assessment Report No. 5812.   |
| MacIntyre, M.W. (1982):   | Geologic Setting of Recently Discovered Stratiform<br>Barite-Sulphide Deposits in Northeast B.C. CIM Bulletin,<br>75, No. 840, pp 99-103.   |
| MacIntyre, D.G. (1992):   | Geological Setting and Genesis of Sedimentary<br>Exhalitive Barite and Barite-Sulphide Deposits, Gataga<br>District, Northeastern B.C. CIM Explor. Mining Geol.,<br>Vol. 1, No. 1, pp 1-20. |
| McClay, K.R. and Insley, M.W. (1985):                           | Structure and Mineralization of the Driftpile Creek Area<br>Northeastern B.C. British Cloumbia MEMPR, Geological<br>Fieldwork; Paper 1986-1.  |

McClay, K.R., Insley, M.W. and Anderton, R. (1989):

Inversion of the Kechika Trough, Northeastern B.C. In: Inversion Tectonics. Edited by M.A. Cooper and G.D. Williams. Geological Society Special Publications No. 44, pp 235-257.

Wise, H.M. (1974):

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Report on the Geology and Geochemistry of the Driftpile Property, Driftpile Creek, B.C. EMPR Assessment Report No. 5359. APPENDIX I

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Statement of Qualifications

- I, Randy Farmer, do hereby certify that:
- 1) I am a geologist and have practised my profession for more than 13 years.
- 2) I graduated from Lakehead University in Thunder Bay, Ontario with an Honours Bachelor of Science degree, (Geology), in 1980.
- 3) I supervised the drilling program on the Driftpile Creek Property and authored the report contained herein.
- 4) All data contained within this report and conclusions drawn from it are true and accurate to the best of my knowledge.
- 5) I hold no personal interest, direct or indirect, in the McCarthy Property which is the subject of this report.
- 6) I am a Professional Geoscientist registered in the Province of British Columbia (Registration No. 20192).

D. FARM

Randy Farmer, P. Geo. Project Geologist December, 1992

APPENDIX II

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**Cost Statement** 

# DRIFTPILE CREEK PROPERTY

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# COST STATEMENT

| 1. | <u>Geology</u><br>(includes core logging, sampling and drill supervision) |  |          |  |  |
|----|---|--|----------|--|--|
|    | A.  | Randy Farmer (Geologist)<br>15 days @ \$ 260.76/day<br>July 22 - Aug 5                 |          | \$ 3,911.40                              |  |
|    | В.  | Doug Nikirk (Technician)<br>15 days @ \$ 195.75/day<br>July 22 - Aug 5                 | Subtotal | \$ <u>2.936.25</u><br><b>\$ 6,847.65</b> |  |
| 2. | <u>Contra</u>   | ct Costs   |          |  |  |
|    | Advand  | ed Drilling Ltd, Surrey, B.C.<br>July 22 - Aug 5, 1993<br>Four (4) Diamond Drill Holes |          |  |  |
|    | A.  | Coring in Bedrock & Overburden<br>NQ Core<br>4348 ft @ \$ 15.64/ft                     |          | \$ 67,997.50                             |  |
|    | В.  | Casing & Shoes left in holes<br>All four holes   |          | \$ 2,043.40                              |  |
|    | C.  | Mud & Grease Consumables<br>All four holes   |          | \$ 1,320.00                              |  |
|    | D.  | Sperry Sun Tests (Downhole)<br>12 Total @ \$ 100.00 ea.                                |          | \$ 1,200.00                              |  |
|    | E.  | Cat Time (JD 450)<br>Drill Access & Pad Preparation                                    |          | \$ <u>3,650.00</u>                       |  |
|    |   |  | Subtotal | \$ 76,210.90                             |  |

3. <u>Analytical</u> = Min-En Labs, North Vancouver, B.C.

**Drill Core Samples** 

| Α. | 82 samples @ \$ 23.75 ea.<br>(Fire Assay for Pb, Zn & Ag) |          | \$ 1,947.50                           |
|----|---|----------|---------------------------------------|
| В. | 19 samples @ \$ 12.00 ea.<br>(31 el. ICP & Ba A.A.)       |          | \$ 228.00                             |
| C. | 6 samples @ \$ 12.25 ea.<br>(Ba Assay)                    | Subtotal | \$ <u>73.50</u><br><b>\$ 2,249.00</b> |

4. <u>Helicopter</u> = Northern Mountain Helicopters, Mackenzie,B.C. (sling fuel from airstrip to drill and camp)

|         |       |           | Subtotal   | \$ 1,333.08  |
|---------|-------|-----------|------------|--------------|
| July 27 | 1.8   | \$ 608.00 | \$ 239.58  | \$ 1,333.08  |
| Date    | Hours | Cost/Hour | Fuel & Oil | <u>Total</u> |

#### 5. Fixed Wing Transportation

A. Watson Lake Flying Services, Watson Lake, Yukon.

| Date    | <u>Cost</u> | Description  |
|---------|-------------|--|
| July 24 | \$ 880.07   | Cesena charter from Watson Lake to Driftpile Creek -<br>groceries and field supplies to camp |
| July 31 | \$ 1,760.15 | Cesena charter from Watson Lake to Driftpile Creek - personnel and groceries (2 trips)       |

B. North Cariboo Air, Fort St. John, B.C.

| Date    | Cost        | Description  |
|---------|-------------|--|
| July 17 | \$ 3,899.39 | Islander charter - fuel drums and drill pipe to Driftpile<br>Creek and empty drums to Toad River (several trips<br>between Toad River and Driftpile Creek - Reclamation) |
| July 19 | \$ 2,318.26 | Islander charter - fuel drums and drill pipe to Driftpile<br>Creek from Fort St. John and empty drums to Toad River<br>(Reclamation)                                     |
| July 30 | \$ 1,056.73 | Cesena charter from Fort St. John to Driftpile Creek and return - personnel & gear   |

|      | Sept 1         | 6 \$ <u>3,171.48</u>                             | Twin Otter Charter - demobilization of personnel, car<br>materials and gear from Driftpile Creek camp to Fort<br>John |                      |
|------|----------------|--|---|----------------------|
|      | Subto          | tal \$ 13,086.08                                 | Subtotal  | \$ 13,086.08         |
|      |                |  |   |                      |
| 6.   | Food a         | and Accommodation                                |   |                      |
|      | Camp           | nanday x 30 mandays<br>cost<br>22-Aug 5, 1993)   |   | \$ 750.00            |
|      |                |  | Subtotal  | \$ 750.00            |
| 7.   | <u>Draftin</u> | īđ   |   |                      |
|      | Α.             | Base map preparation (S<br>1 day @ \$ 200/day    | steve Archibald)  | \$ 200.00            |
|      | В.             | Drafting (Steve Archibald<br>2 days @ \$ 200/day | ))  | \$ 400.00            |
|      | C.             | Prints, Enlargments                              |   | \$ <u>100.00</u>     |
|      |                |  | Subtotal  | \$ 700.00            |
| 8.   | Report         | t Writing and Typing                             |   |                      |
|      | A.             | Randy Farmer (Geologis<br>4 days @ \$ 260.76/day | t)<br>Subtotal  | \$ 1,043.04          |
| тоти |                | DRIFTPILE CREEK 1993                             | PROGRAM   | \$ <u>102,219.75</u> |

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APPENDIX III Certificate of Analysis

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# **RESULTS FOR DDH 93-56**

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MINERAL BORATORIES

SPECIALISTS OF MINERAL ENVIRONMENTS

# Assay Certificate

# VANCOUVER OFFICE:

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2 TELEPHONE (604) 980-5814 (7R (604) 988-4524 FAX (604) 980-9621

#### SMITHERS LAB .:

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3176 TATLOW ROAD SMITHERS, B.C. CANADA VOJ 2NO TELEPHONE (604) 847-3004 FAX (604) 847-3005

#### 3V-0416-RA1

TECK EXPLORATION LTD. Company: Project: **1728 DRIFTPILE CREEK** FRED DALEY Attn:

. . . . . . . .

Date: AUG-05-93 COPY 1. TECK EXPLORATION LTD., KAMLOOPS, B.C.

We hereby certify the following Assay of 24 ROCK samples submitted AUG-03-93 by RANDY FARMER.

| Sample<br>Number | AG<br>g/tonne | AG<br>oz/ton | PB<br>% | ZN<br>% |
|------------------|---------------|--------------|---------|---------|
| 37843            | 1.0           | .03          | .09     |         |
| 37844            | 1.0           | .05          | . 14    | 1.33    |
| 37845            | 1.5           | .04          | .22     | 1.30    |
| 37846            | 1.6           | .05          | .27     | 1.54    |
| 37847            | 1.4           | . 04         | . 22    | 1.46    |
| 37848            | 2.2           | .06          | .27     | 1.65    |
| 37849            | 1.9           | .06          | . 30    | 2.01    |
| 37850            | 1.8           | .05          | . 16    | 1.87    |
| 37851            | 2.0           | . 06         | . 19    | 1.62    |
| 37852            | 2.2           | . 06         | . 16    | 2.31    |
| 37853            | 2.2           | .06          | .25     | 2.75    |
| 37854            | 2.4           | .07          | .23     | 1.98    |
| 37855            | 2.1           | . 06         | . 27    | 2.02    |
| 37857            | 2.2           | . 06         | . 25    | 2.15    |
| 37858            | 2.1           | . 06         | . 46    | 3.58    |
| 37859            | 1.6           | .05          | 1.29    | 16.80   |
| 37861            | . 7           | .02          | 4.85    | 16.80   |
| 37862            | 1.6           | . 05         | . 69    | 1.19    |
| 37863            | 1.5           | .04          | . 40    | 8.10    |
| 37864            | 2.4           | .07          | .91     | 10.70   |
| 37865            | 2.3           | .07          | .43     | 13.40   |
| 37866            | 1.7           | . 05         | 3.15    | 12.40   |
| 37867            | 2.5           | .07          | 1.69    | 14.80   |
| 37868            | 1.9           | . 06         | 1.04    | 3.95    |

11 Certified by

**MIN-EN LABORATORIES** 



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#### SPECIALISTS OF MINERAL ENVIRONMENTS

### Assay Certificate

# VANCOUVER OFFICE:

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2 TELEPHONE (604) 980-5814 OR (604) 988-4524 FAX (604) 980-9621

#### SMITHERS LAB .:

3176 TATLOW ROAD SMITHERS, B.C. CANADA VOJ 2NO TELEPHONE (604) 847-3004 FAX (604) 847-3005

#### 3V-0416-RA2

TECK EXPLORATION LTD. Company: Project: **1728 DRIFTPILE CREEK** Atin: FRED DALEY

We hereby certify the following Assay of 7 ROCK samples

Date: AUG-05-93 COPY 1. TECK EXPLORATION LTD., KAMLOOPS, B.C.

submitted AUG-03-93 by RANDY FARMER. Sample AG AG PB ZN Number g/tonne % % oz/ton 37869 .22 .05 1.6 1.73 37870 .04 1.2 .27 1.88 37871 .04 .08 1.46 1.3 37872 1.2 .04 .10 1.90 37873 .03 1.0 .05 1.22 37874 1.3 .04 .05 1.20 .04 37876 1.4 .08 1.92

#### Assay Certificate

#### 3V-0416-XA1

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Company: TECK EXPLORATION LTD. **1728 DRIFTPILE CREEK** Project: Attn: FRED DALEY

Date: AUG-06-93 copy 1. TECK EXPLORATION LTD., KAMLOOPS, B.C.

We hereby certify the following Assay of 3 PULP samples submitted AUG-03-93 by RANDY FARMER.

| Sample | BA   |  |
|--------|------|--|
| Number | %    |  |
| 37856  | . 30 |  |
| 37860  | . 42 |  |
| 37875  | .79  |  |
|        |      |  |
|        |      |  |

| P: TECK E)<br>J: 1728 da<br>N: Fred da | IFTPILE        |                |                     |                       |                |                |                   |                   |                   |                  | EST         | 15TH S              | T., NDS               | ]<br>TH VANG<br>OR (60 | COUVE             | R, В              | .c. v       |                   | 2                  |               |                   |                |                   |                  |                 |                |                       | LE NO:<br>DA<br>ROCK * | TE: 9       | 93/0          |
|--|----------------|----------------|---------------------|-----------------------|----------------|----------------|-------------------|-------------------|-------------------|------------------|-------------|---------------------|-----------------------|------------------------|-------------------|-------------------|-------------|-------------------|--------------------|---------------|-------------------|----------------|-------------------|------------------|-----------------|----------------|-----------------------|------------------------|-------------|---------------|
| AMPLE                                  |                | CU<br>PPM      | PB<br>PPM           | ŻN<br>PPM             | AS<br>PPM      | SB<br>PPM      | AL<br>X           | 8<br>PPM          | BA<br>PPM         | BE<br>PPM        | BI          | CA<br>%             | CD<br>PPM             | CO<br>PPM              | FE<br>%           | K<br>X            | LI<br>PPM   |                   | MN<br>PPM          | MO<br>PPM     |                   |                | PPM               |                  | PPM             | TI<br>PPM      | PPM                   | GA<br>PPM P            | SN<br>Pm pi | W<br>PM P     |
| 7856<br>7860<br>7875                   | .1<br>.1<br>.1 | 26<br>34<br>31 | 8009<br>8363<br>250 | 5222<br>>10000<br>934 | 19<br>29<br>23 | 22<br>32<br>17 | .61<br>.86<br>.79 | 193<br>265<br>192 | 457<br>114<br>259 | 1.3<br>1.9<br>.9 | 4<br>9<br>5 | 2.20<br>.70<br>1.83 | 29.0<br>>100.0<br>3.0 | 11 1.<br>12 4.<br>8 1. | .76<br>.36<br>.98 | .31<br>.42<br>.36 | 1<br>1<br>1 | .09<br>.09<br>.25 | 1527<br>425<br>758 | 27<br>37<br>8 | .01<br>.01<br>.02 | 54<br>61<br>33 | 470<br>700<br>700 | 114<br>50<br>155 | 43<br>133<br>69 | 23<br>35<br>29 | 19.7<br>164.5<br>45.2 | 10<br>7<br>13          | 1<br>1<br>1 | 1<br>1<br>6 1 |
|  |                |                |                     |                       |                |                |                   |                   |                   |                  |             |                     |                       |                        |                   |                   |             |                   |                    |               |                   |                |                   |                  |                 |                |                       |                        |             |               |
|  |                |                |                     |                       |                |                |                   |                   |                   |                  |             |                     |                       |                        |                   |                   |             |                   |                    |               |                   |                |                   |                  |                 |                |                       |                        |             |               |
|  |                |                |                     |                       |                |                |                   |                   |                   |                  |             |                     |                       |                        |                   |                   |             |                   |                    |               |                   |                |                   |                  |                 |                |                       | <u>-</u>               |             |               |
|  | <br>           |                |                     |                       |                |                |                   |                   |                   |                  |             |                     |                       |                        |                   |                   |             |                   |                    |               |                   |                |                   |                  |                 |                |                       |                        |             |               |
|  |                |                |                     |                       |                |                |                   |                   |                   |                  |             |                     |                       |                        |                   |                   |             |                   |                    |               |                   |                |                   |                  |                 |                |                       |                        |             |               |
|  |                |                |                     |                       |                |                |                   | <b>-</b>          |                   |                  |             |                     |                       |                        |                   |                   |             |                   |                    |               |                   |                |                   |                  |                 |                |                       |                        |             |               |
|  |                |                |                     |                       |                |                |                   |                   |                   |                  |             |                     |                       |                        |                   |                   |             |                   |                    |               |                   |                |                   |                  |                 |                |                       |                        |             |               |

# **RESULTS FOR DDH 93-57**

#### MINERAL • ENVIROMMENTS LABORATORIES (MISON OF ASSAYERS CORP.)



SPECIALISTS IN MINERAL ENVIRONMENTS CHEMISTS + ASSAYERS + AMALYSTS + GEOCHEMISTS

# Assay Certificate

#### VANCOUVER OFFICE: 705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2 TELEPHONE (604) 980-5814 OR (604) 988-4524 FAX (604) 980-9621

SMITHERS LAB .:

3176 TATLOW ROAD SMITHERS, B.C. CANADA VOJ 2N0 TELEPHONE (604) 847-3004 FAX (604) 847-3005

#### 3V-0454-RA1

| Company: | TECK EXPLORATION LTD. |
|----------|-----------------------|
| Project: | 1727                  |
| Attn:    | FRED DALEY            |

Date: AUG-10-93 Copy 1. TECK EXPLORATION LTD., KAMLOOPS, B.C.

We hereby certify the following Assay of 10 CORE samples submitted AUG-09-93 by R.FARMER.

| Sample | AG      | AG     | PB  | ZN   |  |
|--------|---------|--------|-----|------|--|
| Number | g/tonne | oz/ton | %   | %    |  |
| 37651  | 1.6     | .05    | .14 | 2.90 |  |
| 37652  | 1.6     | .05    | .19 | 3.02 |  |
| 37653  | 2.0     | .06    | .17 | 2.17 |  |
| 37654  | 2.1     | .06    | .29 | 3.08 |  |
| 37655  | 1.6     | .05    | .19 | 2.53 |  |
| 37656  | 1.7     | .05    | .19 | 2.64 |  |
| 37657  | 1.4     | .04    | .11 | 2.04 |  |
| 37658  | 1.4     | .04    | .43 | 1.52 |  |
| 37659  | .7      | .02    | .15 | 2.21 |  |
| 37660  | 1.6     | .05    | .64 | 1.38 |  |

# Assay Certificate

#### 3V-0455-RA1

| Company: | TECK EXPLORATION LTD. |
|----------|-----------------------|
| Project: | 1727                  |
| Attn:    | FRED DALEY            |

Date: AUG-10-93 Copy 1. TECK EXPLORATION LTD., KAMLOOPS, B.C.

We hereby certify the following Assay of 8 CORE samples submitted AUG-09-93 by R.FARMER.

| Sample | . AG    | AG     | PB   | ZN   |  |
|--------|---------|--------|------|------|--|
| Number | g/tonne | oz/ton | %    | %    |  |
| 37893  | 2.0     | .06    | . 17 | 2.72 |  |
| 37894  | 2.3     | .07    | . 15 | 2.91 |  |
| 37895  | 2.2     | .06    | . 14 | 2.77 |  |
| 37896  | 1.7     | .05    | . 17 | 2.32 |  |
| 37897  | 1.8     | .05    | . 19 | 2.62 |  |
| 37898  | 1.8     | .05    | . 15 | 2.18 |  |
| 37899  | 1.9     | .06    | . 14 | 2.52 |  |
| 37900  | 2.0     | .06    | . 16 | 2.60 |  |

#### MINERAL • ENVIRONMENTS LABORATORIES (DMSION OF ASSAYERS COPP.)

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SPECIALISTS IN MINERAL ENVIRONMENTS CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS VANCOUVER OFFICE: 705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2 TELEPHONE (604) 980-5814 OR (604) 988-4524 FAX (604) 980-9621

SMITHERS LAB.: 3176 TATLOW ROAD SMITHERS, B.C. CANADA VOJ 2NO TELEPHONE (604) 847-3004 FAX (604) 847-3005

#### 3V-0424-XA1

# Assay Certificate

Company: TECK EXPLORATION Project: 1727 Attn: FRED DALEY Date: AUG-11-93 COPY 1. TECK EXPLORATION, KAMLOOPS, B.C.

We hereby certify the following Assay of 1 PULP samples submitted AUG-04-93 by RANDY FARMER.

Sample BA Number % 37886 .14

## Assay Certificate

#### 3V-0424-RA1

| Company: | <b>TECK EXPLORATION</b> |
|----------|-------------------------|
| Project: | 1727                    |
| Attn:    | FRED DALEY              |

Date: AUG-06-93 copy 1. TECK EXPLORATION LTD., KAMLOOPS, B.C.

We hereby certify the following Assay of 1 ROCK samples submitted AUG-04-93 by RANDY FARMER.

| Sample | AG      | AG     | PB  | ZN  |  |
|--------|---------|--------|-----|-----|--|
| Number | g/tonne | oz/ton | %   | %   |  |
| 37886  | . 8     | . 02   | .25 | .49 |  |

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#### VANCOUVER OFFICE:

3176 TATLOW ROAD SMITHERS, B.C. CANADA VOJ 2N0 TELEPHONE (604) 847-3004 FAX (604) 847-3005

SMITHERS LAB .:

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2 TELEPHONE (604) 980-5814 OR (604) 988-4524 FAX (604) 980-9621

# CERAL ENVIRONMENTS

## Assay Certificate

#### 3V-0423-RA1

Company:TECK EXPLORATIONProject:1727Attn:FRED DALEY

Date: AUG-05-93 Copy 1. TECK EXPLORATION LTD., KAMLOOPS, B.C.

We hereby certify the following Assay of 6 ROCK samples submitted AUG-04-93 by RANDY FARMER.

| Sample<br>Number | AG<br>g/tonne | AG<br>oz/ton | PB<br>% | ZN<br>% |  |
|------------------|---------------|--------------|---------|---------|--|
| 37877            | 1.3           | .04          | .08     | 1.02    |  |
| 37878            | 1.7           | . 05         | . 16    | 1.98    |  |
| 37879            | 1.5           | . 04         | . 19    | 2.35    |  |
| 37882            | 2.6           | . 08         | .14     | 1.66    |  |
| 37883            | 1.8           | .05          | . 18    | 4.52    |  |
| 37884            | 1.7           | . 05         | . 10    | 4.32    |  |

# Assay Certificate

#### 3V-0423-RA2

Company:TECK EXPLORATIONProject:1727Attn:FRED DALEY

Date: AUG-06-93 copy 1. TECK EXPLORATION LTD., KAMLOOPS, B.C.

We hereby certify the following Assay of 3 ROCK samples submitted AUG-04-93 by RANDY FARMER.

| Sample | AG      | AG     | PB   | ZN   |  |
|--------|---------|--------|------|------|--|
| Number | g/tonne | oz/ton | %    | %    |  |
| 37885  | .7      | .02    | . 14 | . 42 |  |

VANCOUVER OFFICE:

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2 TELEPHONE (604) 980-5814 OR (604) 988-4524 FAX (604) 980-9621

**SMITHERS LAB.:** 3176 TATLOW ROAD SMITHERS, B.C. CANADA VOJ 2NO TELEPHONE (604) 847-3004 FAX (604) 847-3005

#### 3V-0423-XA2

#### MIN • EN LABORATORIES (DVISION OF ASSAYERS CORP.)

<u>Assay Certificate</u>

Company:TECK EXPLORATIONDate: AUG-11-93Project:1727Copy 1. TECK EXPLORATION, KAMLOOPS, B.C.Attn:FRED DALEY

We hereby certify the following Assay of 3 PULP samples submitted AUG-04-93 by RANDY FARMER.

| Sample<br>Number        | BA<br>%           |  |
|-------------------------|-------------------|--|
| 37880<br>37881<br>37885 | .63<br>.54<br>.17 |  |

# Assay Certificate

| Company: | TECK EXPLORATION |
|----------|------------------|
| Project: | 1727             |
| Attn:    | FRED DALEY       |

We hereby certify the following Assay of 6 ROCK samples submitted AUG-04-93 by RANDY FARMER.

| Sample | AG      | AG     | PB   | ZN    |  |
|--------|---------|--------|------|-------|--|
| Number | g/tonne | oz/ton | %    | %     |  |
| 37887  | 1.7     | .05    | 1.50 | 12.50 |  |
| 37888  | 1.3     | .04    | .34  | 1.35  |  |
| 37889  | 1.5     | .04    | .34  | 2.57  |  |
| 37890  | 1.8     | .05    | .24  | 2.50  |  |
| 37891  | 1.7     | .05    | .33  | 3.04  |  |
| 37892  | 1.7     | .05    | . 17 | 2.83  |  |

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## 3V-0424-RA2

Date: AUG-05-93

Copy 1. TECK EXPLORATION LTD., VANCOUVER, B.C.

| ······               |                |                |           |                      |              |              |                   |                  |                 |                  |           | (604)               | 980-5            | 6814 C    | )R (60               | 4)988             | -4524       |                           |           |              |                   |                |                   |                  |                |                |                       | * RO         | СК *        | (AC         | T:F31           |
|----------------------|----------------|----------------|-----------|----------------------|--------------|--------------|-------------------|------------------|-----------------|------------------|-----------|---------------------|------------------|-----------|----------------------|-------------------|-------------|---------------------------|-----------|--------------|-------------------|----------------|-------------------|------------------|----------------|----------------|-----------------------|--------------|-------------|-------------|-----------------|
| AMPLE<br>UMBER       | AG<br>PPM      | CU<br>PPM      | PB<br>PPM | ZN<br>PPM            | AS<br>PPM    | SB<br>PPM    | AL<br>%           | B                | BA<br>PPM       | BE<br>PPM        | BI<br>PPM | CA<br>%             | CD<br>PPM        | CO<br>PPM | ۶E<br>%              | K<br>%            | L I<br>PPM  | MG<br>% I                 | MN<br>PPM | MO<br>PPM    | NA<br>%           | NI<br>PPM      | P<br>PPM          | SR<br>PPM        | TH<br>PPM      | T I<br>PPM     | V<br>PPM              | GA<br>₽PM    | SN<br>PPM   | W<br>PPM    | CR<br>PPM       |
| 7880<br>7881<br>7885 | .1<br>.1<br>.1 | 31<br>31<br>41 | 805       | 5838<br>5792<br>4026 | 1<br>3<br>19 | 8<br>8<br>12 | .59<br>.56<br>.47 | 100<br>89<br>173 | 89<br>86<br>377 | 1.1<br>1.0<br>.8 |           | 2.53<br>3.42<br>.56 | .1<br>.1<br>13.7 | 4         | 4.12<br>3.96<br>1.21 | .23<br>.22<br>.24 | 1<br>1<br>1 | .13 16<br>.18 26<br>.08 4 | 656       | 8<br>8<br>21 | .02<br>.02<br>.01 | 28<br>25<br>57 | 580<br>530<br>570 | 119<br>178<br>31 | 60<br>42<br>52 | 33<br>13<br>13 | 45.0<br>46.7<br>103.0 | 9<br>16<br>9 | 1<br>1<br>1 | 1<br>1<br>1 | 65<br>103<br>89 |

| COMP: TECK EXP<br>PROJ: 1727<br>ATTN: FRED DAL |           | I  |           |           |           |           |         |          |           |           | EST 1      | 5TH :   | ST., )    | IORTH     | — I(<br>VANCO<br>R (604 | UVER,  | в.с.      |         |           |           |         |           |          |           |           |           |          |           |           | E: 93    | 24-RJ1<br>/08/09 |
|--|-----------|----|-----------|-----------|-----------|-----------|---------|----------|-----------|-----------|------------|---------|-----------|-----------|-------------------------|--------|-----------|---------|-----------|-----------|---------|-----------|----------|-----------|-----------|-----------|----------|-----------|-----------|----------|------------------|
| SAMPLE<br>NUMBER                               | AG<br>PPM | CU | PB<br>PPM | ZN<br>PPM | AS<br>PPM | SB<br>PPM | AL<br>% | B<br>PPM | BA<br>PPM | BE<br>PPM | B I<br>PPM | CA<br>% | CD<br>PPM | CO<br>PPM | FE<br>X                 | K<br>% | LI<br>PPM | MG<br>% | MN<br>PPM | MO<br>PPM | NA<br>% | NI<br>PPM | P<br>PPM | SR<br>PPM | TH<br>PPM | TI<br>PPM | V<br>PPM | GA<br>PPM | SN<br>PPM | W<br>PPM | CR<br>PPM        |
| 37886  | .1        | 45 | 2085      | 4478      | 9         | 11        | .41     | 140      | 378       | .9        | 4          | .87     | 16.4      | 5         | 1.82                    | .21    | 1         | . 12    | 716       | 16        | .01     | 51        | 450      | 36        | 50        | 11        | 96.5     | 9         |           |          | 115              |
| <br>   |           |    |           |           |           |           |         |          |           |           |            |         |           |           |                         |        |           |         |           |           |         |           |          |           |           |           |          |           |           |          |                  |
|  |           |    |           |           |           |           |         |          |           |           |            |         |           | <u>-</u>  |                         |        |           | =       |           |           |         |           |          |           |           | <b>_</b>  |          |           |           |          |                  |
|  |           |    |           |           |           |           |         |          |           |           |            |         |           |           |                         |        |           |         |           |           |         |           |          |           |           |           |          |           |           |          |                  |
|  |           |    |           |           |           |           |         |          |           |           |            |         |           |           |                         |        |           | _       | _         |           |         |           |          |           |           |           |          |           |           |          |                  |
|  |           |    |           |           |           |           |         |          |           |           |            |         |           |           |                         |        |           |         |           |           |         |           |          |           |           |           |          |           |           |          |                  |
|  |           |    |           |           |           |           |         |          |           | <u> </u>  |            |         |           |           |                         |        |           |         |           |           |         |           |          |           |           |           |          |           |           |          |                  |
|  | †         |    |           |           |           |           |         |          | •         |           |            |         |           |           |                         |        |           |         |           |           |         |           |          |           |           |           | -        |           |           |          | {                |



SPECIALISTS IN MINERAL ENVIRONMENTS GEOCHEMISTS

# Assay Certificate

# **TECK EXPLORATION LTD**

We hereby certify the following Assay of 9 CORE samples submitted AUG-09-93 by RANDY FARMER.

Company: 1727 Project: FRED DALEY Attn:

Date: AUG-12-93 COPY 1. TECL EXPLORATION LTD., KAMLOOPS, B.C.

| Sample<br>Number | AG<br>g/tonne | AG<br>oz/ton | PB<br>% | ZN<br>% |
|------------------|---------------|--------------|---------|---------|
| 37,661           | 1.5           | .04          | . 18    | 2.12    |
| 37662            | 1.7           | . 05         | . 39    | 2.24    |
| 37663            | 1.9           | . 06         | . 30    | 1.50    |
| 37664            | 2.0           | . 06         | .21     | 1.85    |
| 37665            | 1.6           | . 05         | . 15    | 5.94    |
| 37666            | 2.1           | .06          | . 32    | 2.28    |
| 37667            | 1.5           | . 04         | . 06    | .61     |
| 37668            | 1.6           | . 05         | . 12    | 1.29    |
| 37669            | 1.1           | . 03         | . 19    | 1.97    |
|                  |               |              |         |         |

U Certified by

**MIN-EN LABORATORIES** 

# VANCOUVER OFFICE:

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2 TELEPHONE (604) 980-5814 OR (604) 988-4524 FAX (604) 980-9621

3V-0458-RA1

#### SMITHERS LAB .:

SMITHERS LAB.: 3176 TATLOW ROAD SMITHERS, B.C. CANADA VOJ 2NO TELEPHONE (604) 847-3004 FAX (604) 847-3005

VANCOUVER OFFICE:

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2 TELEPHONE (604) 980-5814 OR (604) 988-4524 FAX (604) 980-9621

SMITHERS LAB .: 3176 TATLOW ROAD SMITHERS, B.C. CANADA VOJ 2N0 TELEPHONE (604) 847-3004 FAX (604) 847-3005

# Assay Certificate

#### 3V-0458-XA1

3V-0458-RA2

| Company: | TECK EXPLORATION LTD | Date: AUG-12-93                               |
|----------|----------------------|---|
| - J      | 1727<br>FRED DALEY   | COPY 1. TECL EXPLORATION LTD., KAMLOOPS, B.C. |

We hereby certify the following Assay of 1 PULP samples submitted AUG-09-93 by RANDY FARMER.

| Sample | ZN   |
|--------|------|
| Number | %    |
| 37670  | 1.20 |

#### - - -

# Assay Certificate

| Company:          | TECK EXPLORATION LTD | Date: AUG-12-93                               |
|-------------------|----------------------|---|
| Project:<br>Attn: | 1727<br>FRED DALEY   | COPY 1. TECL EXPLORATION LTD., KAMLOOPS, B.C. |

We hereby certify the following Assay of 1 CORE samples submitted AUG-09-93 by RANDY FARMER.

| Sample | A |  |
|--------|---|--|
| Number | 6 |  |
| 37670  | ) |  |



| COMP: TECK E)<br>PROJ: 1727<br>ATTN: FRED D/ |         | TION        | LTD     |    |    |    |    |            |      |      |           | WEST | T 15T<br>(604 | H ST.<br>4)980 | , NOR       | тн х | ANCOU |               | EPOI<br>3.c. v<br>524 |   | 12                  |                |                     |     |    |           |      |        |                    | NO:<br>DAT | E: 93 | /08/1 |
|--|---------|-------------|---------|----|----|----|----|------------|------|------|-----------|------|---------------|----------------|-------------|------|-------|---------------|-----------------------|---|---------------------|----------------|---------------------|-----|----|-----------|------|--------|--------------------|------------|-------|-------|
| SAMPLE                                       | A<br>PP | G /         | ۱L<br>۷ | AS | В  | BA | BE | B I<br>PPM | CA   | CD   | CO<br>PPM | CU   | ۶E<br>%       | K              |             | M    | G M   | N MI<br>M PPI | ) NA                  |   |                     | P PE<br>PM PPI | SB                  | SR  | TH | 11<br>Mag | V    | ZN     | GA                 | SN<br>PPM  | W     | CR    |
| 37670  |         | <u>1</u> .2 | 20      | 1  | 78 | 71 | .1 | 8          | 3.59 | 26.2 | 9         | 26   | 7.11          | . 13           | <u>, rr</u> | · .1 | 0 290 | 5             | .01                   | 2 | <u>n Pr</u><br>1 46 | 60 1075        | <u>1 PPM</u><br>5 1 | 180 | 48 | 15        | 15.8 | >10000 | <u>- PPM</u><br>17 | 1          | 1     | 29    |
|  |         |             |         |    |    |    |    |            |      |      |           |      |               |                |             |      |       |               |                       |   |                     |                |                     |     |    |           |      |        |                    |            |       |       |
|  |         |             |         |    |    |    |    |            | -    |      |           |      |               |                |             |      |       |               |                       |   |                     |                |                     |     |    | _         |      |        |                    |            |       |       |
|  |         | _           |         |    |    |    |    | _          |      |      |           |      |               |                |             |      |       |               |                       |   |                     |                |                     |     |    |           |      |        |                    |            |       |       |
|  |         |             |         |    |    |    |    | - • • •    |      |      |           |      |               |                |             |      |       |               |                       |   |                     |                |                     |     |    |           |      | ·      |                    |            |       |       |
|  |         |             |         |    |    |    |    |            |      |      |           |      |               |                |             |      |       |               |                       |   |                     |                |                     |     |    |           |      |        |                    |            |       |       |
|  | -       |             |         |    |    |    |    |            |      |      |           |      |               |                |             |      |       |               |                       | - |                     |                |                     |     |    |           | ·    |        |                    |            |       |       |
|  |         |             |         |    |    |    |    |            |      |      |           |      |               |                |             |      |       |               |                       |   |                     |                |                     |     |    |           |      |        |                    |            |       |       |
|  |         |             |         |    |    |    |    |            |      |      |           |      |               |                |             |      |       |               |                       |   |                     |                |                     |     |    |           |      |        |                    |            |       |       |
|  |         |             |         |    |    |    |    |            |      |      |           |      |               |                |             |      |       |               |                       |   |                     |                |                     |     |    |           |      |        | <b></b>            |            |       |       |
|  |         |             |         |    |    |    |    |            |      |      |           |      |               |                |             |      |       |               | +                     |   |                     |                |                     |     |    |           |      |        |                    |            |       |       |
| ••••   |         |             |         | •  |    |    |    |            |      |      |           |      |               |                |             |      |       |               |                       |   |                     |                |                     |     |    |           |      |        |                    |            |       |       |
| <u> </u>                                     |         |             |         |    |    |    |    | <b>-</b>   |      |      |           |      |               |                |             |      |       |               | -                     |   |                     |                |                     |     |    |           |      |        | -                  |            |       |       |

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# **RESULTS FOR DDH 93-58**

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SPECIALISTS IN MINIERAL ENVIRONMENTS

# Assay Certificate

#### VANCOUVER OFFICE:

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2 TELEPHONE (604) 980-5814 OR (604) 988-4524 FAX (604) 980-9621

#### SMITHERS LAB .:

3176 TATLOW ROAD SMITHERS, B.C. CANADA VOJ 2NO TELEPHONE (604) 847-3004 FAX (604) 847-3005

#### 3V-0459-RA2

| Company: | TECK EXPLORATION LTD |
|----------|----------------------|
| Project: | 1727                 |
| Aun:     | FRED DALEY           |

Date: AUG-12-93 COPY 1. TECK EXPLORATION LTD., KAMLOOPS, B.C.

We hereby certify the following Assay of 6 CORE samples submitted AUG-09-93 by RANDY FARMER.

| Sample<br>Number | AG<br>g/tonne | AG<br>oz/ton | PB<br>% | ZN<br>% |
|------------------|---------------|--------------|---------|---------|
| 37674            | 1.3           | .04          | . 15    | 1.44    |
| 37675            | 1.7           | . 05         | . 13    | 1.36    |
| 37676            | 1.1           | . 03         | . 19    | 1.25    |
| 37677            | 1.5           | . 04         | . 15    | 1.69    |
| 37678            | 1.6           | . 05         | . 24    | 1.56    |
| 37679            | 1.7           | . 05         | . 13    | 1.44    |

Certified by

MIN-EN LABORATORIES

7/1/

MIN • EN LABORATORIES (DIVISION OF ASSAYERS CORP.) VANCOUVER OFFICE:

705 WEST 15TH STREET NORTH VANCOLVER, B.C. CANADA V7M 1T2 TELEPHONE (604) 980-5814 OR (604) 988-4524 FAX (604) 980-9821

SMITHERS LAB: 3176 TATLOW ROAD SMITHERS, B.C. CANADA VOJ 2NO TELEPHONE (604) 847-3004 FAX (604) 847-3005

### Assay Certificate

#### 3V-0459-XA1

| Company: | TECK EXPLORATION LTD |
|----------|----------------------|
| Project: | 1727                 |
| Attn:    | FRED DALEY           |

Date: AUG-12-93 Copy 1. TECK EXPLORATION LTD., KAMLOOPS, B.C.

. . . . . . .

Copy 1. TECK EXPLORATION LTD., KAMLOOPS, B.C.

. . .

We hereby certify the following Assay of 2 CORE samples submitted AUG-09-93 by RANDY FARMER.

| Sample<br>Number | ZN<br>%      |  |
|------------------|--------------|--|
| 37671<br>37673   | 1.32<br>1.02 |  |

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# <u>Assay Certificate</u>

#### 3V-0459-RA1

Date: AUG-12-93

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Company: TECK EXPLORATION LTD Project: 1727 Attn: FRED DALEY

We hereby certify the following Assay of 3 CORE samples submitted AUG-09-93 by RANDY FARMER.

| Sample<br>Number        | BA<br>%           |  |
|-------------------------|-------------------|--|
| 37671<br>37672<br>37673 | .17<br>.18<br>.19 |  |

| P: TECK EX<br>J: 1727<br>N: FRED DAI |           | ON LT      | D              |                       |                              |                       |                |                 |                                   |                     |                 | N – EN<br>T 15T | H ST.  | , NORI | H VA    |                   | R, B.          | c. v7   |    | 2          |            |   |                         |          |                 |             |                             |                             | NO:<br>DAT<br>RE * | E: 93 | 101 |
|--------------------------------------|-----------|------------|----------------|-----------------------|------------------------------|-----------------------|----------------|-----------------|-----------------------------------|---------------------|-----------------|-----------------|--------|--------|---------|-------------------|----------------|---------|----|------------|------------|---|-------------------------|----------|-----------------|-------------|-----------------------------|-----------------------------|--------------------|-------|-----|
| AMPLE<br>UMBER<br>7671<br>7672       | AG<br>PPM | .18        | AS<br>PPM<br>1 | B<br>PPM<br>102<br>63 | BA<br>PPM<br>81<br>107<br>52 | BE<br>PPM<br>.1<br>.1 | BI<br>PPM<br>8 | CA<br>%<br>3.16 | CD<br>PPM<br>27.3<br>17.8<br>26.3 | CO<br>PPM<br>7<br>7 | CU<br>PPM<br>26 |                 | K<br>X | LI     | MG<br>% | MN<br>PPM<br>2369 | MO<br>PPM<br>7 | NA<br>% | 24 | PPM<br>500 | PPM<br>660 | 1 | SR<br>PPM<br>135<br>114 | 48       | <u>PPM</u><br>9 | PPM<br>20.6 | ZN<br>PPM<br>>10000<br>8156 | GA<br>PPM<br>15<br>13<br>10 | SN<br>PPM<br>1     | PPM   | P   |
| 7673                                 |           | .17<br>.16 | 1              | 94                    | 52                           | :1                    | 7              | 2.50            | 26.3                              | 10                  | 37              | 7.93            | :10    | ź      | .06     | 2194<br>1592      | 12             | .01     | 24 | 380        | 552<br>406 | 1 | 166                     | 56<br>68 | 11              | 8.2         | >10000                      | 10                          | i<br>              | 1     |     |
|                                      |           |            |                |                       |                              |                       |                |                 |                                   |                     |                 |                 |        |        |         |                   |                |         |    |            |            |   |                         |          |                 |             |                             |                             |                    |       |     |
|                                      |           |            |                |                       |                              |                       |                |                 |                                   |                     |                 |                 |        |        |         |                   |                |         |    |            |            |   |                         |          |                 |             |                             |                             |                    |       |     |
|                                      |           |            |                |                       |                              |                       |                |                 |                                   |                     |                 |                 |        |        |         |                   |                |         |    |            |            |   |                         |          |                 |             |                             |                             |                    |       |     |
|                                      |           |            |                |                       |                              |                       |                |                 |                                   |                     |                 |                 |        |        |         |                   |                |         |    |            |            |   |                         |          |                 |             |                             |                             |                    |       |     |
|                                      |           |            |                |                       |                              |                       |                |                 |                                   |                     |                 |                 |        |        |         |                   |                |         |    |            |            |   |                         |          |                 |             |                             |                             |                    |       |     |
|                                      |           |            |                |                       | -                            |                       |                |                 |                                   |                     |                 | ·               |        |        |         |                   |                |         |    |            |            |   |                         |          |                 |             |                             |                             |                    |       |     |
|                                      |           |            |                |                       |                              |                       |                |                 |                                   |                     |                 |                 |        |        |         |                   |                |         |    |            |            | - |                         |          |                 |             |                             |                             |                    |       |     |
|                                      | -         |            |                |                       |                              |                       |                |                 |                                   |                     |                 |                 |        |        |         |                   |                |         |    |            |            |   |                         |          |                 |             |                             |                             |                    |       |     |
|                                      |           |            |                |                       |                              |                       |                |                 |                                   |                     |                 | <u>.</u>        |        |        |         | <u> </u>          |                |         |    |            |            |   |                         |          |                 |             |                             |                             |                    |       |     |
|                                      |           |            |                |                       |                              |                       |                |                 |                                   |                     |                 |                 |        |        |         |                   |                |         |    |            |            |   |                         |          |                 |             |                             |                             |                    |       |     |

# **RESULTS FOR DDH 93-59**

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SPECIALISTS IN MINERAL ENVIRONMENTS

# Assay Certificate

#### VANCOUVER OFFICE:

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2 TELEPHONE (604) 980-5814 OR (604) 988-4524 FAX (604) 980-9621

#### SMITHERS LAB .:

SMITHERS LAD.: 3176 TATLOW ROAD SMITHERS, B.C. CANADA VOJ 2NO TELEPHONE (604) 847-3004 FAX (604) 847-3005

#### 3V-0481-RA2

| Company: | TECK EXPLORATION LTD. |
|----------|-----------------------|
| Project: | 1727                  |
| Attn:    | FRED DALEY            |

Date: AUG-13-93 Copy 1. TECK EXPLORATION LTD., KAMLOOPS, B.C.

We hereby certify the following Assay of 6 CORE samples submitted AUG-13-93 by RANDY FARMER.

| Sample<br>Number | AG<br>g/tonne | AG<br>oz/ton | PB<br>% | ZN<br>% |
|------------------|---------------|--------------|---------|---------|
| 37683            | 1.6           | . 05         | . 14    | 1.27    |
| 37684            | 1.2           | . 04         | . 06    | . 60    |
| 37685            | 2.1           | . 06         | . 18    | 2.86    |
| 37686            | 1.4           | .04          | .17     | 2.58    |
| 37687            | 1.3           | . 04         | . 38    | 4.57    |
| 37688            | 2.1           | . 06         | . 24    | 2.48    |

# Assay Certificate

#### 3V-0481-RA1

TECK EXPLORATION LTD. Company: 1727 Project: Attn: FRED DALEY

Date: AUG-17-93 COPY 1. TECK EXPLORATION LTD., KAMLOOPS, B.C.

We hereby certify the following Assay of 8 CORE samples submitted AUG-13-93 by R. FARMER.

| Sample<br>Number | BA<br>% |  |
|------------------|---------|--|
| 37680            | 4.73    |  |
| 37681            | 4.10    |  |
| 37682            | 5.08    |  |
| 37689            | . 37    |  |
| 37690            | . 29    |  |
| 37691            | . 33    |  |
| 37692            | .34     |  |
| 37693            | . 40    |  |
|                  |         |  |
|                  |         |  |

#### VANCOUVER OFFICE:

705 WEST 15TH STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2 TELEPHONE (604) 980-5814 OR (604) 988-4524 FAX (604) 980-9621

#### SMITHERS LAB .:

SINT FIEND LAD.: 3176 TATLOW ROAD SMITHERS, B.C. CANADA VOJ 2NO TELEPHONE (604) 847-3004 FAX (604) 847-3005

#### 3V-0481-XA2

| - | MINERAL                      |
|---|------------------------------|
| 1 | • ENVIRONMENTS               |
|   | LABORATORIES                 |
|   | (DIVISION OF ASSAYERS CORP.) |



SPECIALISTS IN MINERAL ENVIRONMENTS ASCAREES + ANALYSTS + GEOCHEMISTS

## Assay Certificate

TECK EXPLORATION LTD. Company: Project: 1727 FRED DALEY Attn:

Date: AUG-17-93 COPY 1. TECK EXPLORATION LTD., KAMLOOPS, B.C.

We hereby certify the following Assay of 6 CORE samples submitted AUG-13-93 by R. FARMER.

| Sample<br>Number | BA<br>% |  |
|------------------|---------|--|
| 37683            | 2.82    |  |
| 37684            | 10.74   |  |
| 37685            | 5.07    |  |
| 37686            | 6.16    |  |
| 37687            | 1.70    |  |
| 37688            | .39     |  |

# Assay Certificate

#### 3V-0481-XA1

Company: TECK EXPLORATION LTD. Project: 1727 Attn: FRED DALEY

Date: AUG-19-93 COPY 1. TECK EXPLORATION LTD., KAMLOOPS, B.C.

We hereby certify the following Assay of 3 CORE samples submitted AUG-13-93 by R. FARMER.

| Sample | ZN   |       |
|--------|------|-------|
| Number | %    |       |
| 37682  | 1.19 | ····· |
| 37689  | 1.32 |       |
| 37691  | 1.12 |       |
|        |      |       |
|        |      |       |

| J: 1727<br>N: FRED DA                | LEY            |                                    |                   |                  |                              |                      |             |                                     |                        | 705                      | WEST                       |                                      |                                 |                         |         | 1COUVE<br>504 398                   |                |                   | M 1T2          | ł                               |                   |                          |                              |                            |                |                      |                      | * CO                      | DAT<br>RE *      | E: 93<br>(AC     |               |
|--------------------------------------|----------------|------------------------------------|-------------------|------------------|------------------------------|----------------------|-------------|-------------------------------------|------------------------|--------------------------|----------------------------|--------------------------------------|---------------------------------|-------------------------|---------|-------------------------------------|----------------|-------------------|----------------|---------------------------------|-------------------|--------------------------|------------------------------|----------------------------|----------------|----------------------|----------------------|---------------------------|------------------|------------------|---------------|
| AMPLE<br>JMBER                       | AG<br>PPM      | AL<br>X                            | AS<br>PPM         | B<br>PPM         | BA<br>PPM                    | BE<br>PPM            | BI          | CA<br>X                             | CD<br>PP <b>m</b>      | CO<br>PPM                | CU                         | FE<br>X                              | K<br>X                          | LI                      | MG<br>% | MN<br>PPN                           | MO             | NA<br>X           | NI<br>PPM      | P<br>PPM                        | PB<br>PPM         | SB<br>PPM                | SR<br>PPM                    | TH                         | TI             | PPM                  |                      | GA<br>PPM                 | SN               | W<br>PPM         | C<br>PP       |
| 7680<br>7681<br>7682<br>7689<br>7690 | 1.1            | 1.05<br>1.23<br>1.54<br>.52<br>.60 | 1<br>8<br>18<br>6 | 1<br>1<br>1<br>1 | 45<br>167<br>53<br>116<br>68 | .1<br>.2<br>.1<br>.1 | - 9         | 2.52<br>.35<br>2.75<br>3.62<br>3.44 | .1<br>.1<br>.1<br>18.5 | 13<br>17<br>12<br>7<br>9 | 30<br>23<br>32<br>28<br>36 | 6.64<br>2.62<br>6.74<br>3.96<br>5.88 | .18<br>.33<br>.19<br>.23<br>.27 | 5<br>6<br>4<br>12<br>11 | .21     | 2217<br>464<br>2061<br>2645<br>2050 | 7<br>9<br>11   | .01<br>.01        | 37<br>69<br>42 | 450<br>380<br>580<br>680<br>630 | 171<br>186<br>646 | 7<br>10<br>13<br>11<br>8 | 86<br>54<br>88<br>252<br>238 | 64<br>70<br>64<br>62<br>68 | 23<br>25<br>30 | 13.3<br>20.2<br>30.7 | 200<br>203<br>>10000 | 18<br>9<br>18<br>22<br>19 | 1<br>1<br>1<br>1 | 5<br>3<br>1<br>1 | 52<br>7<br>58 |
| 7691<br>7692<br>7693                 | .1<br>.1<br>.1 | .72<br>.77<br>.75                  | 6<br>17<br>14     | 1<br>1<br>1      | 97<br>108<br>136             | .1<br>.2<br>.3       | 8<br>8<br>6 | 2.51<br>2.74<br>2.06                | 15.6<br>8.6<br>2.6     | 8<br>8<br>8              | 34<br>38                   | 4.72<br>4.07<br>3.66                 | .33<br>.34<br>.34               | 11<br>11<br>10          |         | 1349<br>1323<br>886                 | 11<br>12<br>11 | .01<br>.01<br>.01 |                |                                 | 300               | 9                        | 184<br>220<br>138            | 78<br>74<br>79             | 36             |                      | >10000               | 16<br>16<br>14            | 1<br>1<br>1      | 1<br>1<br>1      | 6<br>8<br>6   |
|                                      |                |                                    |                   |                  |                              |                      |             |                                     |                        |                          |                            |                                      |                                 |                         |         |                                     |                |                   |                |                                 |                   |                          |                              |                            |                |                      |                      |                           |                  |                  |               |
|                                      |                |                                    |                   |                  |                              |                      |             |                                     |                        |                          |                            |                                      |                                 |                         |         |                                     |                | <u> </u>          | <u> </u>       |                                 |                   |                          |                              |                            |                |                      |                      |                           | · · .            |                  |               |
|                                      |                |                                    |                   |                  |                              |                      |             |                                     |                        |                          |                            |                                      |                                 |                         |         |                                     |                |                   |                |                                 |                   |                          |                              |                            |                |                      |                      | <u> </u>                  |                  |                  |               |
|                                      |                |                                    |                   |                  |                              |                      |             |                                     |                        |                          |                            |                                      |                                 |                         |         |                                     |                |                   |                |                                 |                   |                          |                              |                            |                | <del></del>          |                      |                           |                  |                  |               |
|                                      |                |                                    |                   |                  |                              |                      |             |                                     |                        |                          |                            |                                      |                                 |                         |         |                                     |                |                   |                |                                 |                   |                          |                              |                            |                |                      | ·                    |                           |                  |                  |               |
|                                      |                |                                    |                   |                  |                              |                      |             |                                     |                        |                          |                            | <u>.</u> .                           |                                 |                         |         |                                     |                |                   |                |                                 |                   |                          |                              | ··                         |                |                      |                      |                           |                  |                  |               |
|                                      |                |                                    |                   |                  |                              |                      |             |                                     |                        |                          |                            |                                      |                                 |                         |         |                                     |                |                   |                |                                 |                   |                          |                              |                            |                |                      |                      |                           |                  |                  |               |

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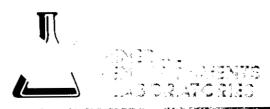
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APPENDIX IV Analytical Procedures

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Division of Assayers Corp. Ltd.



### ANALYTICAL PROCEDURE REPORT FOR ASSESSMENT WORK:

#### PROCEDURE FOR Ba ASSAY

Samples are dried @ 95 C and when dry are crushed on a jaw crusher. The 1/4 inch output of the jaw crusher is put through a secondary roll crusher to reduce it to - 1/8 inch. The whole sample is then riffled on a Jones Riffle down to a statistically representative 300 gram sub-sample (in accordance with Gy's statistical rules.) This sup-sample is then pulverized on a ring pulverizer to 95% - 150 mesh, rolled and bagged for analysis. The remaining reject from the Jones Riffle is bagged and stored.

Samples are weighed and fused at 1200 C with lithium metaborate prior to being dissolved in nitric acid. The resulting solutions are analyzed by ICP. The CANMET standards are employed as check standards with each set of 24 samples. Reports are formatted and printed using a laser printer.

OFFICE AND LABORATORIES: 705 WEST FIFTEENTH STREET, NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604) 980-5814 (604) 988-4524 TELEX: VIA USA 7601067 FAX: (604) 980-9621

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### Ag, Cu, Pb, Zn, Ni, AND Co ASSAY PRODEDURE

Samples are dried @ 95 C and when dry are crushed on a jaw crusher. The -1/4 inch output of the jaw crusher is put through a secondary roll crusher to reduce it to -1/8 mesh. The whole sample is then riffled on a Jones Riffle down to a statistically representative 500 gram sub-sample (in accordance with Gy's statistical rules.) This sub-sample is then pulverized in a ring pulverizer to 95% minus 140, rolled and bagged for analysis. The remaining reject from the Jones Riffle is bagged and stored.

A 0.200 to 2.000 gram sub-sample is weighed from the pulp bag for analysis. Each batch of 70 assays has a natural standard and a reagent blank included. The samples are digested using a HNO3 - KClO3 mixture and when reaction subsides, HCL is added before it is placed on a hotIplate to digest. After digestion is complete the flasks are cooled, diluted to volume and mixed.

The resulting solutions are analyzed on an atomic absorption spectrometer using the appropriate standard sets. The natural standard digested along with this set must be within 2 standard deviations of it's known or the whole set is re-assayed. If any of the assays are >1% they are re-assayed at a lower weight. 10% of samples are assayed in duplicate.

OFFICE AND LABORATORIES: 705 WEST FIFTEENTH STREET, NORTH VANCOUVER, BC. CANADA V7M 1T2 PHONE: (604) 980-5814 (604) 988-4524 TELEX: VIA USA 7601067 FAX: (604) 980-9621

THE REAL PROPERTY AND A REAL POINTS



### ANALYTICAL PROCEDURE REPORT FOR ASSESSMENT WORK: PROCEDURE FOR 31 ELEMENT TRACE ICP

Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sr, Th, Ti, V, Zn, Ga, Sn, W, Cr

Samples are processed by Min-En Laboratories, at 705 West 15th Street, North Vancouver, using the following procedures.

After drying the samples at 95 C, soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed by a jaw crusher and pulverized by ceramic plated pulverizer or ring mill pulverizer.

0.5 gram of the sample is digested for 2 hours with an aqua regia mixture.

After cooling samples are diluted to standard volume. The solutions are analyzed by computer Jarrell Ash ICP (Inductively Coupled Plasma Spectrometers). Reports are formatted and printed using a laser printer.

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APPENDIX V Diamond Drill Logs

#### DDH NO. 193-56

# TECK EXPLORATION LTD.

| EXI | PLUKAII      | .UN LID.     | DRIFTPILE CREE  | K          | PROJECT #1 | 727   | HOLE | NO. 93-56         |         |
|-----|--------------|--------------|-----------------|------------|------------|-------|------|-------------------|---------|
| NT  | r <b>s</b> : |              | DATE COLLARED:  | July 22/93 | DEPTH      | DIP   | AZ   | LENGTH:           | 328.27m |
| CL  | AIM:         |              | DATE COMPLETED: | July 25/93 | COLLAR     | -80   | 055  | DEPTH OF OVB:     | 5.18m   |
| EL  | EVATION:     | 1194m        | DATE LOGGED:    | July 23-26 | 11.28      | -80   | 058  | CASING REMAINING: | 6.1m    |
|     | RID COORD:   | 14+80N-2+00W | CORE SIZE:      | NQ         | 124.05     | -79.5 | 052° | WATERLINE LENGTH: |         |
| LO  | GGED BY:     | RF           |                 |            | 200.25     | -76   | 049  | PROBLEMS:         |         |
|     | <u></u>      |              |                 |            | 306.93     | -74   | 049  |                   |         |

DRIFTPILE CREEK

| DEPTH<br>(meters)<br>FROM/TO | DESCRIPTION   | RECOVERY | A<br>N<br>G<br>L<br>E<br>S                     | STRUCTURES<br>V<br>E<br>I<br>N<br>S                           | ALTERATION  | METALUC<br>MINERALS (%) | SAMPLE<br>NO. | SAMPLE<br>FROM | DATA<br>TO | LENGT<br>H<br>(meters<br>) | Zn<br>(%) | Pb<br>(%) | RESULTS<br>Ag<br>(g/t) | 6a<br>(%) | Other |
|------------------------------|---|----------|--|---|---|-------------------------|---------------|----------------|------------|----------------------------|-----------|-----------|------------------------|-----------|-------|
| 0-6.1                        | Casing - Hit bedrock at 5.18m   |          | @8.6m<br>6 020<br>cl 025 oppo                  | antiform to<br>west?<br>Suggestive of<br>E. Dlp to<br>bedding |   |                         |               |                |            |                            |           |           |                        |           |       |
| 6.1-24.32                    | Dark grey homogeneous sh/mdst with black shale turbiditic<br>laminations<br>-py-carb nods common, local concretions<br>-local white, coarse Fe-carb laminations<br>-occasional Py lam |          | @20.1<br>b 020<br>cl 015 opp<br>@21.2<br>b 010 | minor gouge<br>at 17.02m @<br>025*                            |   |                         |               |                |            |                            |           |           |                        |           |       |
| 24.32-<br>24.99              | Fault angle @ 045*  |          |  |   | Very weak data<br>suggests younging<br>down hole? |                         |               |                |            |                            |           |           |                        |           |       |

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#### DDH NO. 193-56

| DEPTH<br>(meters)<br>FROM/TO | DESCRIPTION   | R E C O V E A Y | A<br>N<br>G<br>L<br>E<br>S                                   | STRUCTURES<br>V<br>E<br>I<br>N<br>S | ALTERATION                              | METALLIC<br>MINERALS (%) | SAMPLE<br>NO. | SAMPLE<br>FROM | DATA<br>TO | LENGT<br>H<br>(meters<br>) | Zn<br>(%) | Pb<br>(%) | RESULTS<br>Ag<br>(g/t) | Ba<br>(%) | Other |
|------------------------------|---|-----------------|--|-------------------------------------|---|--------------------------|---------------|----------------|------------|----------------------------|-----------|-----------|------------------------|-----------|-------|
| 24.99-<br>41.19              | Similar to above but slightly greyer mdst (Homog. Massive) -<br>poor to moderate laminations<br>-moderately common Fe-carb laminations and Py-carb nods<br>-local chicken track Py-carb<br>-rare concretion and Py lam - both increase downhole         |                 | @39.01m<br>b 035<br>cl 030 opp<br>@41.75m<br>b 030<br>cl 025 |                                     | antiform to West?                       |                          |               |                |            |                            |           |           |                        |           |       |
| 41.19-<br>59.24              | Grey siltite/mdst. more massive and have last Py-carb nods<br>and have last Py-carb nods<br>-still rare concretion<br>-Fe carb lams common<br>-local Py taminations which increase downhole<br>-rare necklace Py-carb +/- Ba?<br>-only weakly graphitic |                 | ଭ58.6m<br>୪୦୦୦<br>୯୦୦୦<br>୯୦୦୦                               |                                     |   |                          |               |                |            |                            |           |           |                        |           |       |
| 59.24-<br>61.5               | Coarse carbonate zone (amaigmated concretions)<br>-QV in centre parallel to core axis<br>-sulphide rich matrix<br>-no gouge   |                 |  |                                     |   |                          |               |                |            |                            |           |           |                        | ·         |       |
| 61.5-<br>72.24               | -similar to previous interval (41.19-59.24) but have white<br>siltite lams commonly here<br>-??? Fe-carb lams<br>-rare Wk Py lams<br>-graphite picking up a little<br>-concretions increase towards bottom  |                 | @67.8m<br>b 030°<br>ci 040°                                  |                                     | -younging uphole?<br>-antiform to West? |                          |               |                |            |                            |           |           |                        |           |       |

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|                              |   | 7                          |   |                                     |   |                         |               |        |            |                            |           |           |                        |           |            |
|------------------------------|---|----------------------------|---|-------------------------------------|---|-------------------------|---------------|--------|------------|----------------------------|-----------|-----------|------------------------|-----------|------------|
| DEPTH<br>(meters)<br>FROM/TO | DESCRIPTION   | R<br>C<br>V<br>E<br>R<br>Y | A N<br>C<br>L<br>E<br>S                                     | STRUCTURES<br>V<br>E<br>I<br>N<br>S | ALTERATION                                      | METALUC<br>MINERALS (%) | SAMPLE<br>NO. | SAMPLE | DATA<br>TO | LENGT<br>H<br>(meters<br>) | Zn<br>(%) | Pb<br>(%) | RESULTS<br>Ag<br>(g/t) | 8a<br>(%) | ,<br>Other |
| 72.24-<br>92.29              | Well Laminated - Pyrite Laminated turbidite<br>-contains white-grey sittle and Fe-carb lams<br>-Concretions moderately abundant<br>-local Py-carb Nods, chicken track & necklace<br>-moderately to strongly graphitic<br>-concretions increase towards bottom   |                            | @78.0m<br>b 040*<br>cl 000*<br>@90.07m<br>b 000*<br>cl 045* |                                     | Lower contact<br>gradational over<br>2-3 metres |                         |               |        |            |                            |           |           |                        |           |            |
| 92.29-<br>94.4               | grey well laminated sittle, common Fe-carb lams   |                            |   |                                     |   |                         |               |        |            |                            |           |           |                        |           |            |
| 94.4-<br>114.0               | dark grey moderately laminated homogenous sittle/mdst, with<br>grey sittle and Fe-carb lams<br>-Wk-mod Py lams in clusters about 40cm apart<br>-interval strongly gtz veined & mdst adj to veins Si02 rich<br>-strongly graphtic near top, decreasing downwards, then<br>graphtic again @ bottom<br>-Concretions infrequent<br>-local Py-carb nods & necklace<br>*@94.64 fault zone @ 50-55*<br>-probably a significant fault based on strong bedding warping<br>in hangingwall |                            |   |                                     |   |                         |               |        |            |                            |           |           |                        |           |            |
| 114.0-<br>119.14             | Dark grey to black graphitic and pyritic siliceous argilite<br>-light coloured gritty rad beds common<br>-very graphitic with abundant fine matrix pyrite near bottom<br>-bladed looking calcite (0.3cm ??) common in argillite matrix  |                            | @114.5m<br>b 085<br>@116.14<br>b 070                        |                                     | younging uphole                                 |                         |               |        |            |                            |           |           |                        |           |            |

#### DDH NO. 1993-56

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| DEPTH<br>(meters) | DESCRIPTION  | R<br>E<br>C<br>V |  | STRUCTURES       |            |                         |               | SAMPLE | DATA |                            |           | <u> </u>  | RESULTS     |           |       |
|-------------------|--|------------------|--|------------------|------------|-------------------------|---------------|--------|------|----------------------------|-----------|-----------|-------------|-----------|-------|
| FROM/TO           |  | R<br>Y           | A<br>N<br>G<br>L<br>E<br>S   | V<br>E<br>N<br>S | ALTERATION | METALUC<br>MINERALS (%) | SAMPLE<br>NO. | FROM   | та   | LENGT<br>H<br>(meters<br>) | Zn<br>(%) | Pb<br>(%) | Ag<br>(9/t) | Ba<br>(%) | Other |
| 119.14-<br>130.14 | Si02 rich massive, homogeneous intensiy graphitic sh/mdst<br>-riddled with white QV's locally brecciated<br>-Sulphide rich, locally up to 30% Vfg pyrite giving rock a<br>brownish tinge<br>-interval probably represents a broad zone of failure<br>@125.88m py bearing fault gouge @035* |                  |  |                  |            |                         |               |        |      |                            |           |           |             |           |       |
| 130.14-<br>133.2  | Grey mdst with white radiolarian - bearing beds  |                  | @132m<br>b 015"  |                  |            |                         |               |        |      |                            |           |           |             |           |       |
| 133.2-<br>154.53  | Grey, homogeneous, massive shale, only very rare laminations<br>-no concretions<br>-nods begin to appear @ base & lams also increase near base<br>-no sulphides, rare Fe-carb lam.<br>-lower contact gradational over 5m   |                  | @154.2m<br>b 040°<br>cl 020°<br>west to antiform but<br>close to closure due<br>to high clev/bed<br>angle? |                  |            |                         |               |        |      |                            |           |           |             |           |       |

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|                              |  |          | r ·····  |                                     | ,               | ·                        | <del>r</del>  | _              |            |                            |           |           | -                      |           |       |
|------------------------------|--|----------|--|-------------------------------------|-----------------|--------------------------|---------------|----------------|------------|----------------------------|-----------|-----------|------------------------|-----------|-------|
| DEPTH<br>(meters)<br>FROM/TO | DESCRIPTION  | RECOVERY | A<br>N<br>G<br>L<br>E<br>S                               | STRUCTURES<br>V<br>E<br>I<br>N<br>S | ALTERATION      | METALLIC<br>MINERALS (%) | SAMPLE<br>NO. | SAMPLE<br>FROM | DATA<br>TO | LENGT<br>H<br>(meters<br>) | Zn<br>(%) | Pb<br>(%) | RESULTS<br>Ag<br>(g/l) | 8a<br>(%) | Other |
| 154.53-<br>218.43            | Poorly laminated, homogenous, massive grey mdst<br>-slittle and shale lams occur over 10-15cm every 0.5m or so &<br>becomes more frequent downhole<br>-increase in Py-carb nods<br>-local, rare concretion but frequency increases downhole<br>-Py-carb nods drgs off near bottom of interval  |          | @162.8<br>b C45*<br>@170.5<br>b 045*<br>@182.2<br>b 045* | Flat Dip                            | younging uphole |                          |               |                |            |                            |           |           |                        |           |       |
|                              | -becomes well laminated by 185 metres - white slittle & blk<br>sh.<br>-well laminated zones 30cm apart<br>(© 201m occasional brassy sulphide lamination begins to<br>appear<br>-rare thin (0.5cm) Fe-carb lam<br>-local (<0.5cm) Py-carb-7Ba blebby or necklace lamination<br>-Lower Contact gradational over +/- 5m                                       |          | ©185m<br>b 015"<br>©200m<br>b 060"<br>cl 025"            | @212m<br>younging<br>uphole         |                 |                          |               |                |            |                            |           |           |                        |           |       |
| 218.43-<br>239.82            | Similar rock type, concretions start to become regular (every<br>+/ 0.5m w/ strongly lam, sections)<br>-Fe carb lams more abundant & thicker (several cm's)<br>-Py laminations slowly increase in frequency<br>-Py-carb nods die out by 230m<br>-Thick massive sections (0.5-2m) separted by +/- 10cm well<br>lam sections<br>-main rock type siltite/mdst |          | @231m<br>b 065*<br>@239.82m<br>b 070*                    | Flat (ying<br>beds                  |                 |                          |               |                |            |                            |           |           |                        |           |       |

#### DDH NO. 193-56

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DEPTH (meters)

FROM/TO

239.82-257.75

257.75-274.94

274.94-

coarse carbonate -only weak graphite

285.6

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|   | DESCRIPTION   | R<br>C<br>O<br>V<br>E |   | STRUCTURES   |            |  |               | SAMPLE | DATA |                            |           |           | RESULTS     |           |       |
|---|---|-----------------------|---|--|------------|--|---------------|--------|------|----------------------------|-----------|-----------|-------------|-----------|-------|
| ) |   | F<br>P<br>Y           | A<br>N<br>G<br>L<br>S                                       | V<br>E<br>I<br>N   | ALTERATION | METALUC<br>MINERALS (%)                | SAMPLE<br>NO: | FROM   | то   | LENGT<br>H<br>(meters<br>) | Zn<br>(%) | Pb<br>(%) | Ад<br>(g/t) | Ba<br>(%) | Other |
|   | Well laminated turbidite<br>-becoming darker but not graphitic<br>-Py lams becoming more common<br>-concretions continue to increase in abundance<br>-occasional Fe-carb lam and rare py-carb nod<br>-white slittle lams common local necklace Py-carb-Ba?  |                       | @249,05m<br>b 085°<br>cl 050°<br>@255m<br>b 070°<br>cl 035° | younging<br>uphole   |            |  |               |        |      |                            |           |           |             |           |       |
|   | Well laminated Turbidite - Py lam turb<br>-abundant concretions, still increasing downhole, rare Fe-carb<br>lam<br>-Carb-Py-Ba, Carb-Ba? necklace still present but becoming<br>thinner (mm)<br>-only local very weak graphite<br>-Late QV's becoming more prominent<br>-Rhymethic bedding 1-5cm grey sittle & thin bik shale |                       | ©262.1m<br>b 075°<br>cl 035°<br>©273.4m<br>b 075°           | Flat Bedding<br>Poor<br>indicators<br>suggest<br>younging<br>uphole &<br>Antiform to<br>E? |            | Tr. sph@<br>274.1m (Yell? m<br>Concr.) |               |        |      |                            |           |           |             |           |       |
|   | Transition Zone<br>-well lam turbidite w/ 30-40% Py lams<br>-strongly concretionary - first development of 10-30 cm coarse<br>carb zones (are amalgmated concretions) & now loc, dissim<br>py in concretions<br>-Towards bottom concretions beginning to recrystallize as   |                       |   |  |            |  |               |        |      |                            |           |           |             |           |       |

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| PAGE | ÷ | 7 | of | 8 |  |
|------|---|---|----|---|--|
|      |   |   |    |   |  |

| DEPTH<br>(meters)<br>FROM/TO | DESCRIPTION  | R<br>E<br>C<br>O<br>V<br>E<br>R<br>Y                               | A<br>N<br>G<br>L<br>S             | STRUCTURES<br>V<br>E<br>I<br>N<br>S        | ALTERATION | METALLIC<br>MINERALS (%)  | SAMPLE<br>NO.   | SAMPLE   | DATA<br>TO  | LENGT<br>H<br>(meters                                | Zn<br>(%)  | Pb<br>(%)   | RESULTS<br>Ag<br>(g/t)   | Ba<br>(%) | Other |
|------------------------------|--|--|-----------------------------------|--|------------|---|---|--|---|--|--|---|--|-----------|-------|
| 285.6-                       | Mineralized Zone<br>-generally consists of the usual sulphide - carbonate type<br>-sulphide lams hosted by well lam shale surrounding<br>carbonate knots (recrystallized concretions)<br>-sulphide content increases towards 297.36m<br>-local late white gtz veins 291.9-292.4 Coarse carb<br>(amal.concr.)<br>-23cm weakly 502 massive shale bed @ 295.12 followed by<br>27cm coarse carb zone<br>-graphitic on fractures<br>297.36-298.64 - stony, cryptically laminated massive Pyrite<br>(60%) in carb gangue<br>local spots & discontinuous bands of Sph/gal<br>298.64-299.21 - weak to non Si02 massive black shale -<br>variable Py & yell, mineral?<br>weakly graphitic<br>299.21-299.89 - stony massive Py again<br>Good Sph/Cal<br>299.89-301 - Non Si02 very graphitic bik shale fault at top of<br>Interval - movement unknown, Minor Py<br>301-313.8 - Sulphide - Carbonate Mineralization again<br>-black knots now present along w/ white ones<br>304-306 - HIGH GRADE Gal/Sph | 100<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>100 | @ top est. avg<br>bedding +/- 75* | 299.21<br>2-3cm gouge<br>@ 30*<br>+/- 30*? |            | Yell mineral (loc<br>arange or buff)<br>present in carb<br>patches neg<br>zinc zap Sph?<br>or Fe-dol?<br>294-295m -<br>Mod Gal +/-<br>Sph in<br>concretions<br>295.62-297.36<br>minor gal. Sp in<br>Concr.<br>Good Sph, Ga<br>Shale<br>Good Sph, Ga<br>Good Sph, Ga | 37843<br>37844<br>37845<br>37846<br>37847<br>37848<br>37849<br>37859<br>37851<br>37852<br>37851<br>37852<br>37854<br>37855<br>37855<br>37856<br>37856<br>37857<br>37859<br>37860<br>37861<br>37861<br>37863<br>37863<br>37864<br>37865<br>37865<br>37866<br>37867<br>37866<br>37867 | 282.0<br>283.0<br>284.0<br>285.0<br>287.0<br>289.0<br>299.0<br>291.0<br>291.0<br>293.0<br>294.0<br>295.12<br>295.35<br>296.0<br>297.36<br>298.74<br>299.21<br>299.21<br>299.21<br>299.21<br>299.21<br>300.91<br>302.0<br>303.0<br>304.0<br>305.0<br>306.0<br>309.0 | 283.0<br>284.0<br>285.0<br>286.0<br>286.0<br>287.0<br>288.0<br>291.0<br>292.0<br>293.0<br>294.0<br>295.12<br>295.12<br>295.35<br>296.0<br>297.36<br>298.74<br>299.21<br>299.94<br>300.91<br>302.0<br>303.0<br>303.0<br>304.0<br>305.0<br>306.0<br>308.0 | 1.0<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0 | 0.96<br>1.33<br>1.30<br>1.5<br>1.46<br>1.65<br>2.01<br>1.87<br>1.62<br>2.31<br>2.75<br>1.98<br>2.02<br>0.52<br>2.15<br>3.58<br>1.0<br>16.8<br>1.0<br>16.8<br>1.0<br>16.8<br>1.0<br>16.8<br>1.0<br>16.8<br>1.0<br>16.8<br>1.0<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.5<br>1.4<br>1.6<br>1.5<br>1.4<br>1.6<br>1.5<br>1.4<br>1.6<br>1.5<br>1.4<br>1.6<br>1.5<br>1.9<br>1.6<br>1.5<br>1.9<br>1.6<br>1.5<br>1.9<br>1.6<br>1.5<br>1.9<br>1.6<br>1.5<br>1.9<br>1.5<br>1.9<br>1.5<br>1.9<br>1.5<br>1.9<br>1.5<br>1.5<br>1.5<br>1.0<br>1.6<br>1.0<br>1.6<br>1.0<br>1.5<br>1.0<br>1.0<br>1.5<br>1.0<br>1.5<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0 | 0.09<br>0.14<br>0.22<br>0.27<br>0.22<br>0.27<br>0.30<br>0.16<br>0.15<br>0.25<br>0.23<br>0.27<br>0.80<br>0.25<br>0.46<br>1.29<br>0.84<br>4.85<br>0.69<br>0.443<br>3.15<br>1.69<br>1.04<br>0.22 | 1.0<br>1.7<br>1.5<br>1.6<br>1.4<br>2.2<br>1.9<br>1.8<br>2.0<br>2.2<br>2.4<br>2.1<br>0.1<br>2.2<br>2.4<br>2.1<br>0.1<br>2.2<br>2.1<br>1.6<br>0.1<br>0.7<br>1.6<br>1.5<br>1.4<br>2.0<br>2.2<br>2.2<br>2.4<br>2.1<br>0.1<br>2.2<br>2.1<br>1.5<br>1.5<br>1.6<br>1.4<br>2.0<br>2.2<br>2.2<br>2.4<br>2.1<br>0.1<br>2.2<br>2.1<br>1.5<br>1.6<br>1.6<br>1.6<br>1.6<br>1.6<br>1.6<br>1.6<br>1.6 | 0.30      |       |

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| DEPTH<br>(meters)<br>FROM/TO | DESCRIPTION  | R<br>C<br>O<br>V<br>E<br>R<br>Y | A<br>N<br>G                                 | STRUCTURES<br>V<br>E | ALTERATION | METALLIC<br>MINERALS (%) | SAMPLE | SAMPLE | DATA | LENGT             | Zn  | Pb  | RÉSULTS | Ба  | ,<br>Other |
|------------------------------|--|---------------------------------|---|----------------------|------------|--------------------------|--------|--------|------|-------------------|-----|-----|---------|-----|------------|
|                              |  |                                 | L<br>E<br>S                                 | I<br>N<br>S          |            |                          | NO.    |        |      | H<br>(meters<br>) | (%) | (%) | (f)     | (%) | US IV      |
| 313.8-<br>315.4              | Massive, dense, somewhat siliceous blk shale, local Py<br>lamination<br>-White gritty - non Rad lams<br>-Local pinkish tinge to gtz veins (Mn?)  |                                 | @314.4<br>5 040*                            |                      |            |                          |        |        |      |                   |     |     |         |     |            |
| 315.4-<br>317.34             | Mineralized Section again 30% sulphide average, decreasing<br>down hole<br>-yellow mineral common but no obvious Sph/gal.<br>-highly invaded by QV's subparaliel to core in lower part   |                                 |   |                      |            |                          |        |        |      |                   |     |     |         |     |            |
| 317.34-<br>328.27            | Dense massive, grey to black siliceous shale<br>graphitic and strongly gtz veined at top, decreasing down hole<br>-Mimor Py near top, decreasing down hole<br>-Rare Py-chert nodule<br>-near bottom, rare white cherty lamination with possible rads<br>-@324.3m (Bottom) gouge at unknown angle - (no litho<br>change). |                                 | @328m<br>b 045°<br>ci 010°<br>-can't orient |                      |            |                          |        |        |      |                   |     |     |         |     |            |
|                              | END OF HOLE  |                                 |   |                      |            |                          |        |        |      |                   |     |     | 1       |     |            |

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# TECK EXPLORATION LTD.

# Driftpile Creek PROJECT #1727 HOLE NO. 93-57

| NTS:<br>CLAIM:<br>ELEVATION:<br>GRID COORD:<br>LOGGED BY: | 1194m<br>14+80N-2+00W<br>R.F. | DATE COLLARED:         25/07/93           DATE COMPLETED:         28/07/93           DATE LOGGED:         28-30/07/93           CORE SIZE:         NQ | DEPTH<br>Collar<br>14.32<br>87.48 | Collar         -60°           14.32         -60°           87.48         -61° |            | LENGTH:<br>DEPTH OF OVB: 6.1m<br>CASING REMAINING: 6.1m<br>WATERLINE LENGTH: |  |  |  |
|---|-------------------------------|---|-----------------------------------|---|------------|--|--|--|--|
| LOGGED BY:  |                               |   | 200.30                            | -59°  | 056<br>053 | PROBLEMS: Footage Marker wrongly placed                                      |  |  |  |
|   |                               |   | 310.06                            | -58°  | 052        | (forgot one) at upper sulphide contact - may<br>affect measurments!          |  |  |  |

| DEPTH<br>(meters) | DESCRIPTION   |  | STRUCTURE  |          |          | SAMPLE DATA   |      |    |                    | RESULTS    |           |             |           |       |
|-------------------|---|--|--|----------|----------|---------------|------|----|--------------------|------------|-----------|-------------|-----------|-------|
| FROM/TO           | · · · · · · · · · · · · · · · · · · ·   | ANGLES<br>to C.A.  | VEINS  | COMMENTS | RECOVERY | SAMPLE<br>NO. | FROM | то | LENGTH<br>(meters) | Zn<br>(%6) | Pb<br>(%) | Ag<br>(9/1) | Ba<br>(%) | Other |
| 0 - 6.1           | Casing in Overburden.<br>- One 5cm piece of massive sulphide-carb. W/Ga/Sph   | @ 6.7m<br>b 010*   |  |          |          |               |      |    |                    |            |           |             |           |       |
| 6.1+<br>42.06     | Dark grey massive, homogeneous mudstone. Poorly<br>laminated.<br>- Only rare black shale & white slittle/Fe-carb<br>lams (< 0.5cm)<br>- several gouge zones between 13.5 and 14.5m -<br>angles unknown<br>- local Py-carb nods, seem to be picking up towards<br>33m.<br>- Ical Py-carb nods, seem to be picking up towards<br>33m.<br>- Zem banded qutz/carb vein parallel to core<br>11.26-13.5m and around 33.5m<br>- Generally non-siliceous, loc. rare concretion<br>- Generally mod-strongly graphtic on fractures<br>- occasional rare Py lam. | © 22m<br>b 010'<br>cl 040'<br>© 32m<br>b 010'<br>cl 035' | Antiform to<br>West, Beds<br>dip East<br>Beds upright<br>Antiform to<br>West |          |          |               |      |    |                    |            |           |             |           |       |

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| DEPTH<br>(meters) | DESCRIPTION  | STRUCTURE   |  |   |          |               | SAMPLE | DATA |                    |           |           | RESULTS     |           | <u>, x</u> |
|-------------------|--|---|--|---|----------|---------------|--------|------|--------------------|-----------|-----------|-------------|-----------|------------|
| FROM/TO           |  | ANGLES<br>to C.A.   | VEINS  | COMMENTS                                      | RECOVERY | SAMPLE<br>ND. | FROM   | TD   | LENGTH<br>(meters) | Zn<br>(%) | Рь<br>(%) | Ag<br>(g/t) | Ba<br>(%) | Other      |
| 42.06 -<br>65.52  | Grey homogeneous, poorly lam mdst/shale<br>- Concretions slightly more abundant<br>- Py-carb nods present but infrequent<br>- soft & non graphitic<br>- Rare laminations are dominated by black shale<br>with an occasional Py lam & white sittite lam<br>- <u>No</u> Fe-carb.   | @ 49m<br>b 000-010*<br>cl 045*<br>@ 56.6m<br>b 010*<br>cl 040*  | Beds upright<br>Antiform to<br>West, Beds<br>dip approx.<br>50° East.  |   |          |               |        |      |                    |           |           |             |           |            |
| 65.52 -<br>90.23  | Grey, massive, homogeneous mdst, concretions<br>drop off.<br>- Py-carb nods @ top but drop off quickly<br>- Poorly laminated, rare light grey, coarse laminations<br>(may be weakly developed Fe-carb lam?)<br>- Very local weak graphite<br>- graphite and erratic SIO, pickup towards<br>bottom, probably related to underlying major<br>fault?<br>- late QV's also increase at bottom<br>- rare Py-lam, near bottom | (a) 72.8m<br>b 000°<br>cl 055°<br>(b 035°<br>cl 050°<br>(cl 050°<br>(a) 64.73m<br>b 020°<br>(a) 65.9m<br>b 030° | © 68.53m<br>4cm gouge ©<br>45° (minor)<br>© 86.56m<br>minor gouge<br>© 10°<br>© 88.63m<br>gouge (angle<br>unknown) |   |          |               |        |      |                    |           |           |             |           |            |
| 90.23 -<br>96.75  | Same rock-type, strongly sheared and ground zone<br>- strong dtz veining<br>- very strongly graphtic & erratically<br>silicified (related to veining?)<br>* 88.63 - 96.75 Major Fault, Late<br>(bedding and cleavage rotated)  | @ 96.2m<br>b 075*<br>@ 97.0m<br>b 065*<br>cl 020*   | @ 92.5m<br>gouge @ 15*<br>- Reversed?<br>(Flat)  | Younging<br>overturned?<br>(Flipped<br>core?) |          |               |        |      |                    |           |           |             |           |            |

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|------------------------------|---|--|--|--------------------------------|---------------------------------------|---------------|----------------|------------|--------------------|------------|-----------|------------------------|-----------|-------|
| DEPTH<br>(meters)<br>FROM/TO | DESCRIPTION   | STRUCTURE<br>ANGLES<br>to C.A.   | VEINS  | COMMENTS                       | AECOVERY                              | SAMPLE<br>NO. | SAMPLE<br>FROM | DATA<br>TO | LENGTH<br>(meters) | Zn<br>(%)  | Pb<br>(%) | RESULTS<br>Ag<br>(g/t) | 6a<br>(%) | Other |
| 96.75 -<br>111.86            | <ul> <li>Weil laminated turbidite (&lt; 0.5cm lams)</li> <li>graphitic at top, decreasing downwards</li> <li>no nods or concretions</li> <li>white carb? lams, gritty lams &amp; black shale lams</li> <li>White carb lams give way down hole to cryptic, single grain width Py-lams.</li> <li>Weakly siliceous (some lams)</li> <li>Possible local <u>Rad lams?</u></li> </ul>   | @ 99.4m<br>b 000'<br>cl 045'<br>@ 105m<br>b 020'<br>cl 030'<br>@ 110m<br>b 045'<br>cl 030' | Weak data<br>suggests<br>younging<br>upright?<br>Now coming<br>within syn-<br>formal Clo-<br>sure? |                                |                                       |               |                |            |                    |            | (78)      | :                      |           |       |
| 111.86 -<br>153.29           | Dark grey mdst/shale with distinctive single<br>grain width Py lams.<br>- 0.5cm or less white slittle & black shale lams<br>- rare 1-2cm slittle lam (poss, Py-carb bearing)<br>- other than Py micro lams, rock is generally<br>featureless<br>- occasional thick (several cm) grey, laminated<br>& graded carbonate bed<br>- graphite on fractures increasing towards<br>bottom of interval   | @ 125m<br>b 065°<br>cl 025°<br>@ 144.5m<br>b 060°<br>cl 030°<br>@ 152.0m<br>b 065°         | Younging up-<br>right - beds<br>flat, clev,/<br>bed at high<br>angle                               |                                |                                       |               |                |            |                    |            |           |                        |           |       |
| 153.29 -<br>189.4            | Grey-black shale/mudstone<br>- "striped" appearance from mm scale cryptic<br>Py lams.<br>- graphilic and strongly quartz veined<br>- local grey, irregular, cherty patches<br>(disrupted iams or concretion?) (similar to<br>124m in hole 33-56)<br>- local kerge (10-30cm) concretion fault gouge @<br>160.13m @ 30 * to C.A.<br>- from the base of the fault to 172.9m the chert<br>patches are absent (just cryptic Py)<br>@ 172.9-174.27m chert patches abundant again<br>- cherty sections are graphitic<br>After 174.27, minor "gritty" radiolaria beds are<br>present w/Tr Py. | © 166.9m<br>b 080°<br>cl 030°<br>© 179.2m<br>b 035°<br>cl 045°                             |  | East Vergence<br>West Vergence |                                       |               |                |            |                    |            |           |                        |           |       |

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| DEPTH<br>(meters)<br>FROM/TO | DESCRIPTION   | STRUCTURE  | VEINS                                       | COMMENTS | RECOVERY | SAMPLE | SAMPLE | DATA   | LENGTH   | Zn   | Ръ   | RESULTS | <br>Ba | ,<br>Other |
|------------------------------|---|--|---|----------|----------|--------|--------|--------|----------|------|------|---------|--------|------------|
| 189.4 -                      | Similar unit, but Py lams become thicker (coarse  | to C.A.<br>@ 190.6m  | 1   |          |          | NO.    | I      | h      | (meters) | (%)  | (%)  | (g/t)   | (%)    |            |
| 190.87                       | diagenetic)   | b 060*   |   |          |          |        |        |        |          |      |      | 1       |        | 1 1        |
| 190.87 -<br>194.03           | "TRANSITION ZONE"<br>- Py laminated turbidite - Py rich at top,<br>decreasing downhole.<br>- concretions common<br>- fault gouge @ 192.74 @ 45-50"  | Younging<br>uphole?  |   |          | 100      | 37670  | 190.86 | 191.56 | 0.70     | 1.20 | 0.71 | 0.1     | 0.59   |            |
| 194.03 -<br>235.18           | Grey well laminated turbidite, rare py lams.<br>- lams generally 1-2cm thick, consisting of<br>gy sittle & minor black shale, with rare Fe-<br>carb lams which are generally < 1cm thick<br>- very rare concretions<br>- Py-carb nods common<br>@ 221m, start of strong veining | <ul> <li> <sup>(a)</sup> 194.8m </li> <li>b 045" </li> <li>cl 045" (appo) </li> <li><sup>(a)</sup> 213.5m </li> <li>b 055" </li> <li>cl 025" </li> </ul> | Beds dip E?<br>Younging<br>uphole<br>E dip? |          |          |        |        |        |          |      |      |         |        |            |
|                              | <ul> <li>225.7 - 227.15m, late fault zone (brecciated qtz veins) at 20° to C.A.</li> <li>229.4 - 235.18m, strongly qtz veined, strongly graphitic with abundant deformed Py lams</li> <li>local white carbonate/grifty slitite laminations</li> </ul>                           | @ 228.8m<br>b 075*<br>ci 025*  | E Vergence<br>Beds dip W                    |          |          |        |        |        |          |      |      |         |        |            |

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| DEPTH<br>(meters) | DESCRIPTION   | STRUCTURE   |                              |   |  |  | SAMPLE  | DATA  |   |  |  | RESULTS   |                              |       |
|-------------------|---|---|------------------------------|---|--|--|---|---|---|--|--|---|------------------------------|-------|
| FROM/TO           |   | ANGLES<br>to C.A.   | VEINS                        | COMMENTS  | RECOVERY   | SAMPLE<br>NO.  |   | TO  | LENGTH<br>(meters)  | Zn<br>(%6)   | Pb<br>(%)  | Ag<br>(g/t)   | Ba<br>(%)                    | Other |
| 235.18 - 276.95   | <ul> <li>"MINERALIZED ZONE"</li> <li>strongly qtz velned until 236.2m, then usual<br/>sulphide-carbonate type w/approx. 60% white<br/>carbonate knots</li> <li>@ 237.21 - 241.05m, black shale with strong Py lams</li> <li>- 109 and bottom fault contacts</li> <li>@ 243.76 - 246.38m, black shale, brecclated at top<br/>w/shale &amp; Bad chert clasts</li> <li>occasional Rad chert bed @ bottom</li> <li>@ 246.38 - 247.67m, more massive, well minersilzed<br/>section (gal. 5ph) followed by weaker shale inter-<br/>laminated section to 249.55m</li> <li>@ 249.55m, Gal. in carbonate knots &amp; silvery (Sph?)<br/>sulphide bands present</li> <li>@ 268.0 - 272.0m, narrow shale interbeds</li> <li>Mineralization weakens after 269.05m (more<br/>country rock)</li> <li>abading becomes increasingly contorted towards<br/>fault below.</li> <li>towards the base of the interval, there is a<br/>gradational decrease in sulphide and a decrease<br/>in the degree of recrystallization of concretions</li> </ul> | © 236m<br>p 060°<br>© 243m<br>b 015°<br>© 249.55m<br>b 065°<br>(sh. lam)<br>© 260m<br>b 030°<br>© 270m<br>b 000°-010° | © 237.25m<br>Fault ©<br>030* | © #37867 -<br>Massive Sulph<br>- High grade<br>Zn, Pb | 100<br>100<br>100<br>75<br>43<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>10 | 37877<br>37878<br>37879<br>37880<br>37881<br>37882<br>37883<br>37884<br>37885<br>37886<br>37886<br>37886<br>37889<br>37890<br>37890<br>37891<br>37892<br>37893<br>37893<br>37894<br>37893<br>37894<br>37895<br>37896<br>37895<br>37896<br>37897<br>37896<br>37899<br>37896<br>37699<br>37655<br>37655<br>37655<br>37655<br>37655<br>37656<br>37656<br>37665<br>37665<br>37665<br>37664<br>37665<br>37666<br>37666<br>37666 | 234.42<br>235.16<br>236.21<br>237.21<br>239.88<br>241.05<br>242.76<br>242.76<br>243.76<br>245.0<br>246.38<br>247.57<br>250.0<br>251.0<br>252.0<br>253.0<br>254.0<br>255.0<br>256.0<br>255.0<br>256.0<br>255.0<br>256.0<br>257.0<br>258.0<br>259.0<br>260.0<br>261.0<br>262.0<br>263.0<br>264.0<br>265.0<br>266.0<br>267.0<br>268.0<br>266.0<br>267.0<br>268.0<br>269.0<br>269.0<br>269.0<br>269.0<br>269.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>275.0<br>2 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235.18<br>236.21<br>237.21<br>239.88<br>241.05<br>241.76<br>242.76<br>243.76<br>245.0<br>246.38<br>247.67<br>249.02<br>250.0<br>255.0<br>255.0<br>255.0<br>255.0<br>255.0<br>255.0<br>255.0<br>255.0<br>255.0<br>255.0<br>255.0<br>255.0<br>255.0<br>256.0<br>257.0<br>256.0<br>266.0<br>266.0<br>266.0<br>266.0<br>266.0<br>266.0<br>266.0<br>266.0<br>266.0<br>266.0<br>266.0<br>266.0<br>266.0<br>266.0<br>266.0<br>266.0<br>266.0<br>266.0<br>267.0<br>266.0<br>267.0<br>271.0<br>272.0<br>273.0<br>273.0<br>274.0<br>275.0<br>275.0<br>276.0<br>275.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>277.0<br>276.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>277.0<br>2 | 0.76<br>1.03<br>1.0<br>2.77<br>1.17<br>0.73<br>1.0<br>1.0<br>1.22<br>1.38<br>1.29<br>1.35<br>0.98<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0 | 1.02<br>1.98<br>2.35<br>0.56<br>1.66<br>4.52<br>4.32<br>0.42<br>0.49<br>12.5<br>1.35<br>2.57<br>2.50<br>3.04<br>2.63<br>2.72<br>2.62<br>2.62<br>2.62<br>2.62<br>2.53<br>2.62<br>2.53<br>2.64<br>2.53<br>2.53<br>2.64<br>2.53<br>2.64<br>2.53<br>2.64<br>2.53<br>2.64<br>2.54<br>1.35<br>2.54<br>2.24<br>1.35<br>2.54<br>2.24<br>1.35<br>2.54<br>2.24<br>1.35<br>2.54<br>2.24<br>1.35<br>2.54<br>2.24<br>1.35<br>2.54<br>2.54<br>2.54<br>2.54<br>2.54<br>2.54<br>2.55<br>2.54<br>2.54 | 0.08<br>0.16<br>0.19<br>0.06<br>0.14<br>0.18<br>0.25<br>1.50<br>0.34<br>0.24<br>0.33<br>0.17<br>0.15<br>0.14<br>0.24<br>0.33<br>0.17<br>0.15<br>0.14<br>0.19<br>0.15<br>0.14<br>0.19<br>0.15<br>0.14<br>0.19<br>0.19<br>0.19<br>0.11<br>0.15<br>0.14<br>0.19<br>0.15<br>0.14<br>0.15<br>0.14<br>0.15<br>0.15<br>0.14<br>0.25<br>0.15<br>0.15<br>0.15<br>0.14<br>0.25<br>0.15<br>0.15<br>0.15<br>0.15<br>0.14<br>0.25<br>0.16<br>0.25<br>0.14<br>0.25<br>0.25<br>0.14<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25<br>0.25 | 1.3<br>1.7<br>1.5<br>0.1<br>0.7<br>0.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.8<br>1.7<br>1.5<br>1.7<br>1.8<br>1.7<br>1.5<br>1.7<br>1.5<br>1.7<br>1.5<br>1.7<br>1.5<br>1.7<br>1.5<br>1.7<br>1.5<br>1.7<br>1.5<br>1.7<br>1.5<br>1.7<br>1.5<br>1.7<br>1.5<br>1.7<br>1.5<br>1.7<br>1.5<br>1.7<br>1.5<br>1.7<br>1.5<br>1.7<br>1.5<br>1.7<br>1.5<br>1.7<br>1.5<br>1.7<br>1.5<br>1.7<br>1.5<br>1.7<br>1.5<br>1.7<br>1.5<br>1.7<br>1.5<br>1.7<br>1.5<br>1.5<br>1.5<br>1.5<br>1.5<br>1.5<br>1.5<br>1.5 | 0.63<br>0.54<br>0.17<br>0.14 |       |

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| OEPTH<br>(meters)  | DESCRIPTION   | STRUCTURE  |       |   |          |                | SAMPLE           | DATA             |                    |              |              | RESULTS     |           |       |
|--------------------|---|--|-------|---|----------|----------------|------------------|------------------|--------------------|--------------|--------------|-------------|-----------|-------|
| FROM/TO            |   | ANGLES<br>to C.A.  | VEINS | COMMENTS  | RECOVERY | SAMPLE<br>NO.  | FROM             | то               | LENGTH<br>(meters) | Zn<br>(%-)   | Pb<br>(%)    | Ag<br>(g/t) | Ва<br>(%) | Other |
| 276.95 -<br>278.1  | Fault Zone @ 040° to C.A.<br>- late fault, late GV's are brecclated<br>- Prob. a major fault?   |  |       |   |          |                |                  |                  |                    |              |              |             |           |       |
| 278.10 -<br>293.59 | "TRANSITION ZONE"<br>- strong sulphide lams and concretions<br>- both decrease gradually downhole.<br>- Bottom contact is strongly gtz velned<br>(Possible Fault?)  | @ 280m<br>5 045*<br>cl 025*<br>@ 248m<br>5 070*<br>cl 035* |       | Younging down<br>hole, vergence<br>to the East<br>(Beds dip West)<br>Younging down<br>hole, vergence<br>to the East | 95<br>80 | 37668<br>37669 | 276.09<br>279.42 | 279 42<br>280.42 | 1.33<br>1.0        | 1.29<br>1.97 | 0.12<br>0.19 | 1.6<br>1.1  |           |       |
| 293.59 -<br>313.03 | Black, massive, Homogeneous shale<br>- poorly laminated, minor Py-bearing lams<br>(diagenetic)<br>- local Py-carb nods & possible rare 1-2cm Ba-Carb<br>lamination<br>Note: Not completely sure if this unit is the FW<br>massive shale or if the hole is still in<br>hanging wall rocks.<br>Note: Sulphide Zone & Transition are in reverse<br>order & appear overturned. Sulphide zone<br>itself appears overturned a sthe massive<br>sulphide zone & best mineralized sections<br>are near the top instead of the bottom.<br>Folding - minor sympathetic or F2? & faulting have<br>caused this apparent inversion. | @ 305.8m<br>b 040"<br>cl 035"                              |       | Vergence is<br>West (beds<br>dip East)  |          |                |                  |                  |                    |              |              |             |           |       |

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# TECK EXPLORATION LTD. Driftpile Creek PROJECT #1727 HOLE NO. 93-58

| NTS:<br>CLAIM:<br>ELEVATION: | 1268m         | DATE COLLARED:<br>DATE COMPLETED:<br>DATE LOGGED: | 31/7-03/8/93 | <u>DEPTH</u><br>Collar<br>12.19 | <u>DIP</u><br>-80<br>-80 | <u>AZ</u><br>055?<br>048 | LENGTH:<br>DEPTH OF OVB:<br>CASING REMAINING: | 367.89m<br>4.57m               |
|------------------------------|---------------|---|--------------|---------------------------------|--------------------------|--------------------------|---|--------------------------------|
| GRID COORD:                  | 12+87N, 1+86W | CORE SIZE:  | NQ           | 133.23                          | -78                      | 035                      | WATERLINE LENGTH:                             |                                |
| LOGGED BY:                   | R.F.          |   |              | 246.04                          | -78                      | 036                      | PROBLEMS:                                     | Ftg mrkrs wrongly placed twice |
|                              |               |   |              | 279.57                          | -78                      | 034                      |   | in 1st 500'. Broken ground.    |
|                              |               |   |              | 367.89                          | -76                      | 032                      |   |                                |

| DEPTH<br>(meters) | DESCRIPTION   | STRUCTURE  |  |          |          |               | SAMPLE | DATA |                    |            |           | RESULTS     | - <b>- <del>-</del> - <b>- - - - - - - - - </b></b> |       |
|-------------------|---|--|--|----------|----------|---------------|--------|------|--------------------|------------|-----------|-------------|---|-------|
| FROM/TO           |   | ANGLES<br>to C.A.                                  | VEINS  | COMMENTS | RECOVERY | SAMPLE<br>NO. | FROM   | то   | L£NGTH<br>(meters) | Zn<br>(%6) | Pb<br>(%) | Ag<br>(g/t) | Ba<br>(%)   | Other |
| 0 - 4.57          | Casing - OVB  |  |  |          |          |               |        |      |                    |            |           |             | 1   |       |
| 4.57 -<br>62.5    | Dark Grey, moderately laminated mdst/shale<br>(white slittle & black shale lams)<br>- Py-carb nodules common<br>- rare Carb-Bartle? necklace<br>- Rare concretion, increasing towards bottom<br>- local weak graphite<br>@ bottom gradational contact defined by increase in<br>concretions and the appearance of Fe-Carb & rare Py-lams. | © 10m<br>b 000*-010*<br>© 29m<br>b 020*<br>cl 010* | Note: 90<br>strike differ-<br>ence between<br>bedding &<br>cleavage, F <sub>2</sub><br>interference?<br>-Beds strike<br>Grid E-W &<br>Dip North?<br>-South limb<br>of an F <sub>2</sub><br>Antiform? |          |          |               |        |      |                    |            |           |             |   |       |

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| DEPTH<br>(meters)  | DESCRIPTION   | STRUCTURE   |  |   |          |               | SAMPLE | DATA |                    |            |           | RESULTS     |           |       |
|--------------------|---|---|--|---|----------|---------------|--------|------|--------------------|------------|-----------|-------------|-----------|-------|
| FROM/TO            |   | ANGLES<br>to C.A.   | VEINS                                    | COMMENTS  | RECOVERY | SAMPLE<br>NO. | FROM   | то   | LENGTH<br>(meters) | Zn<br>(%6) | Pb<br>(%) | Ag<br>(g/t) | Ba<br>(%) | Other |
| 62.5 -<br>116.75   | Same shale/mudstone       - concretions have increased & Fe-carb iams (1-3cm thick)<br>are common       - Py-carb nods still common       - Py-carb nods still common       - Py lams begin to appear & section becomes darker & more<br>graphic downhole.       - carb-Py ± Ba? Chicken track and necklace become common.       - after 114.0 chicken track & necklace are the dominant<br>feature       - concretions die off towards bottom, Py lams increase       - seems to be graeter thickness of massive mdst between<br>laminated sections downhole?       - Strong defin of chicken track & necklace textures near<br>bottom (along cleavage?) | © 75m<br>b 010'<br>ci040'<br>© 111.25m<br>b 030'<br>ci045'    | орро                                     | Cleavage can't<br>be resolved to<br>vertical dip!<br>Cleavage is<br>folded (or is<br>S <sub>2</sub> ?) - Younging<br>uphole.        |          |               |        |      |                    |            |           |             |           |       |
| 116.75 -<br>130.85 | Grey homogeneous shale/mdst., pooriy laminated<br>- local Py-carb hods<br>- blue powder on fractures?<br>@ 118.0 - 121.0 - Fault Zone<br>- angle uncertain, perhaps approx. 40°   |   |  |   |          |               |        |      |                    |            |           |             |           |       |
| 130.85 -<br>136.3  | "MAJOR FAULT ZONE"<br>- Some competent sections<br>- Bitho change & bedding rotation<br>- This is probably the major thrust/listric normal fault!<br>- strong veining & weak associated SIO <sub>2</sub> of country Rx<br>- Zone strongly graphitic   |   | Angle @ 40"<br>at top & 30"<br>at bottom |   |          |               |        |      |                    |            |           |             |           |       |
| 136.3<br>142.5     | Cryptic Pyrite Iam. turbidite (single grain width type),<br>grey shale/mdst host.<br>- strongly graphitic on fractures  | @ 141.0m<br>b 040*<br>cl 028*                                 |  | East vergence?<br>Beds dip West?  |          |               |        |      |                    |            |           |             |           |       |
| 142.5 -<br>166.5   | Grey Very Well Laminated Turbidite<br>- most lams <0.5cm thick, rare thick one.<br>- strongly graphitic on fractures, weak SIO <sub>2</sub><br>- rare mm scale Py lam<br>- common grey, SIO <sub>2</sub> rich situte lam.<br>- Socal thick (several cm), coarser light grey sity bed  | @ 157.58m<br>b 070°<br>cl 035°<br>@ 165m<br>b 060°<br>cl 030° |  | Younging up-<br>hole @ 150m<br>East vergence,<br>beds dip west<br>-Wast<br>Vergence-<br>beds dip slightly<br>North of grid<br>West? |          |               |        |      |                    |            |           |             |           |       |

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|                               |   | 1                                    | _ <del></del> = |           |          |               |        |      |                    |           |           |             |           |       |
|-------------------------------|---|--------------------------------------|-----------------|-----------|----------|---------------|--------|------|--------------------|-----------|-----------|-------------|-----------|-------|
| DEPTH<br>(meters)             | DESCRIPTION   | STRUCTURE                            |                 |           |          |               | SAMPLE | DATA |                    |           |           | RESULTS     |           |       |
| FROM/TO                       |   | ANGLES<br>to C.A.                    | VEINS           | COMMENTS  | RECOVERY | SAMPLE<br>NO. | FROM   | то   | LENGTH<br>(meters) | Zn<br>(%) | Pb<br>(%) | Ag<br>(g/t) | Ba<br>(%) | Other |
| 166.5 -<br>168                | Stimongly velned, broken (gouge?) zone. Banded breccia Qtz<br>velins at top and bottom @ 30° to C.A.  |                                      |                 |           |          |               |        |      |                    |           |           |             |           |       |
| 168 -<br>178.98               | Single grain Py lams again, "Dashed" appearance from<br>occasional Py in carb, microlams.<br>• graphitic on fractures<br>• still well lam, turbidite  | @ 168.9m<br>b 045"<br>c! 030"        |                 | East dip? |          |               |        |      |                    |           |           |             |           |       |
| 176.98 -<br>190.55            | "Amoebold" texture cherty horizon<br>- irregular patches of white cherty material (disrupted<br>lams? Poorly developed concretions?)<br>- Abundant at top, decreasing to rare at bottom<br>Note: Possible HW Marker unit?                                 | @ 181m<br>b 065*<br>@ 188m<br>b 080* |                 |           |          |               |        |      |                    |           |           |             |           |       |
| 178.98 -<br>190.55<br>(con't) | Nocal Rad beds near top     SNO <sub>2</sub> shate     Nocal "striped" cryptic Ry-lams preserved     Nocal "striped" cryptic Ry-lams preserved     Nocal carb zones to 40cm - either mega-concretions or     Ist beds?     Nocal bladed carb development. |                                      |                 |           |          |               |        |      |                    |           |           |             |           |       |
| 190.55 -<br>192.33            | Grey. massive limestone or limy mud.  |                                      |                 |           |          |               |        |      |                    |           |           |             |           |       |
| 192.33 -<br>206.55            | Massive to cryptically Py-lam, dark shale.<br>- local small chert "Amoebas"<br>- graphitic on fractures   |                                      |                 |           |          |               |        |      |                    |           |           |             |           |       |
|                               | - 50cm Cg carb zone @ 194.88  |                                      |                 |           |          |               |        |      |                    |           |           |             |           |       |

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| DEPTH<br>(meters) | DESCRIPTION   | STRUCTURE  |                                  |   |                               |                         | SAMPLE                     | DATA                       |                    |                      |                      | RESULTS           |                      |       |
|-------------------|---|--|----------------------------------|---|-------------------------------|-------------------------|----------------------------|----------------------------|--------------------|----------------------|----------------------|-------------------|----------------------|-------|
| FROM/TO           |   | ANGLES<br>to C.A.  | VEINS                            | COMMENTS  | RECOVERY                      | SAMPLE<br>NO.           | FROM                       | то                         | LENGTH<br>(meters) | Zn<br>(%)            | Рb<br>(%)            | Ag<br>(9/1)       | Ba<br>(%)            | Other |
| 206.55 -<br>251.4 | Grey, moderately laminated turbidite<br>- Isms approx. 30cm apart<br>- Py-carb nods & concretions occur locally<br>- loc. Py lams & Fe-Carb lams<br>- rare Ba-carb lam.<br>- @ 206.98m, 4cm Sulphide-Carb bed (Upper Sulphide Pulse?)<br>- frequency of lams increases & thickness of massive<br>Interbeds decreases downhole.<br>- Py-carb nods & concretions do not show appreciable<br>variation.<br>- Fe-carb lams decrease downhole<br>- graphite has dropped off<br>Lower Contact Gradetional | © 211m<br>b 065'<br>cl 045'<br>© 215m<br>b 080'<br>cl 020'<br>© 230.2m<br>b 070'<br>cl 020'<br>© 240m<br>b 070'<br>cl 010' |                                  | West dip?<br>Younging up-<br>hole<br>East vergence<br>West dip?<br>Younging up-<br>hole<br>-East vergence<br>West bed dip<br>Younging up-<br>hole |                               |                         |                            |                            |                    |                      |                      |                   |                      |       |
| 251.4 -<br>284.1  | Well Laminated Turbidite<br>- Iams have increased in general<br>- thickness of massive interbeds decreases downhole<br>producing a more strongly laminated-looking rock<br>- Py lams and concretions increase downhole<br>- grey sittle lams become more common than black<br>shale ones  | © 255.3m<br>5 070°<br>cl 010°<br>© 274.3m<br>5 055°<br>© 280m<br>5 060°  | @ 263m<br>(smail gouge<br>@ 50*) | Younging up-<br>hole<br>Younging may<br>be up but con-<br>fidence low<br>(conflicting<br>signals)   |                               |                         |                            |                            |                    |                      |                      |                   |                      |       |
| 284.1 -<br>298.2  | Well Laminated - Py Laminated Turbidite<br>- Py lams, one every 20-30cm @ top, increasing towards<br>bottom<br>- thickness of the massive beds is down to ≤ 5cm.<br>- approx. 10% concretions, increasing downhole & becoming<br>recrystallized towards bottom<br>- Py-carb nods gone<br>- 35% Py by base.  | @ 287.5m<br>b 055*<br>@ 294.7m<br>b 045*<br>cl 025*?   |                                  |   | Recovery 95<br>95<br>95<br>95 | 37671<br>37672<br>37673 | 295.29<br>296.29<br>297.29 | 296.29<br>297.29<br>298.29 | 1.0<br>1.0<br>1.0  | 1.32<br>0.81<br>1.02 | 0.07<br>0.05<br>0.04 | 0.1<br>0.1<br>0.1 | 0.17<br>0.18<br>0.19 |       |

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| DEPTH<br>(meters)<br>FROM/TO | DESCRIPTION  | STRUCTURE<br>ANGLES<br>to C.A.                               | veins | COMMENTS  | RECOVERY                                     | SAMPLE<br>NO.                                      | SAMPLE  | DATA<br>TO  | LENGTH<br>(meters)                             | Zn<br>(%)                                    | Pb<br>(%)                                    | RESULTS<br>Ag<br>(gA)                  | Ba<br>(%) | ,<br>Other |
|------------------------------|--|--|-------|---|--|--|---|---|--|--|--|--|-----------|------------|
| 298.2 -<br>304.5             | "TRANSITION ZONE"<br>- High sulphide & recrystallized concretions (carb knots)<br>35% sulphide, but shale lams persist<br>- weakly graphtic<br>- yell-org mineral common, No Base Metals<br>Note: May be what's left of main sulphide pulse!?  |  |       |   | Recovery 100<br>100<br>75<br>90<br>95<br>100 | 37674<br>37675<br>37676<br>37677<br>37678<br>37679 | 298.29<br>299.5<br>300.5<br>301.5<br>302.5<br>303.5 | 299.29<br>300.5<br>301.5<br>302.5<br>303.5<br>304.5 | 1.21<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0 | 1.44<br>1.36<br>1.25<br>1.69<br>1.56<br>1.44 | 0.15<br>0.13<br>0.19<br>0.15<br>0.24<br>0.13 | 1.3<br>1.7<br>1.1<br>1.5<br>1.6<br>1.7 | (#)       |            |
| 304.5 -<br>305.06            | Quartz Vein (Low angle to Core)<br>- No obvious gouge  |  |       |   |  |  |   |   |  |  |  |  |           |            |
| 305.06 -<br>367.89           | Massive, Homogeneous, Pooriy lam. Dark grey to black<br>mdst/shale<br>- non siliceous<br>@ 306.7 - 307.75m, Quartz vein.<br>@ 314.67 - 315.47m, breccia zone<br>- grey mdst, black shale, pyrite and rad chert clasts<br>in grey mdst, black shale, pyrite and rad chert clasts<br>in grey mdst, black shale, pyrite and rad chert clasts<br>in grey mdst, black shale, pyrite and rad chert clasts<br>in grey mdst, black shale, pyrite and rad chert clasts<br>in grey mdst, black shale, pyrite and rad chert clasts<br>in grey mdst, black shale, pyrite and rad chert clasts<br>in grey mdst, black shale, pyrite and rad chert clasts<br>in grey mdst, black shale, pyrite and rad chert clasts<br>in grey mdst, black shale, pyrite and rad chert clasts<br>in grey mdst, black shale, pyrite and rad chert clasts<br>@ approx, 322m Fe-carb lams become common<br>- No concretions!<br>@ 327m, 30cm zone, disrupted (Bx?) with 10% diagenetic py.<br>- one of two concretions around 323-325m (only ones in<br>section)<br>- Py-carb nods persist to bottom<br>- seems to become slightly thiner bedded towards bottom<br>(mass mdst beds 10-20cm thick)<br>- Fe-carb lams persist sporadically<br>- generally non-to-weakly graphtic<br>@ 358.65m, 1m QV, graphtic at bottom contact. | @ 325m<br>b 065*<br>cl 020*<br>@ 381.5m<br>b 050*<br>cl 020* |       | Antiform (clev.<br>vergence) to E.<br>Beds dip West<br>Younging prob-<br>ably uphole,<br>but confidence<br>low (conficting<br>signals)<br>Vergence to E.<br>Beds dip W. |  |  |   |   |  |  |  |  |           |            |

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| DEPTH<br>(meters) | DESCRIPTION  | STRUCTURE         |       |          |          |               | SAMPLE | DATA |                    |           |           | RESULTS     | <u></u>   | <u></u> |
|-------------------|--|-------------------|-------|----------|----------|---------------|--------|------|--------------------|-----------|-----------|-------------|-----------|---------|
| FROM/TO           |  | ANGLES<br>to C.A. | VEINS | COMMENTS | RECOVERY | SAMPLE<br>NO. | FROM   | то   | LENGTH<br>(meters) | Zn<br>(%) | Pb<br>(%) | Ag<br>(g/t) | Ba<br>(%) | Other   |
|                   | Note 1:<br>Seems to be a fairly normal footwall (but minus SiO <sub>2</sub> ).<br>Note 2:<br>Sulphide Zone <u>does not</u> achieve the complete recrystalization<br>(concretions) seen in good mineralized zones<br>- weaker system? |                   |       |          |          |               |        |      |                    |           |           |             |           |         |
|                   | END OF HOLE  |                   |       |          |          |               |        | -    |                    |           |           |             |           |         |

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# TECK EXPLORATION LTD.

Driftpile Creek PROJECT #1727 HOLE NO. 93-59

| NTS:        |              | DATE COLLARED:  |          | DEPTH  | DIP  | <u>AZ</u>   | LENGTH:           | 316.08m |
|-------------|--------------|-----------------|----------|--------|------|-------------|-------------------|---------|
| CLAIM:      |              | DATE COMPLETED: | 05/08/93 | 11.28  | -80° | 54°         | DEPTH OF OVB:     | 4.57    |
| ELEVATION:  |              | DATE LOGGED:    | Aug 6-7  | 111.86 | -80° | 54°         | CASING REMAINING: | 4.57    |
| GRID COORD: | 11+00N-1+16W | CORE SIZE:      | NQ       | 212.44 | -80° | 51°         | WATERLINE LENGTH: | 400m    |
|             |              | LOGGED BY:      | R.F.     | 316.08 | -80° | <b>44</b> ° | PROBLEMS:         |         |

| DEPTH<br>(meters)<br>FROM/TO | DESCRIPTION   | STRUCTURE  |                                      |          |          |               | SAMPLE | DATA |                    |            | <del></del> | RESULTS     | <u> </u>  |       |
|------------------------------|---|--|--------------------------------------|----------|----------|---------------|--------|------|--------------------|------------|-------------|-------------|-----------|-------|
| Phone/10                     |   | ANGLES<br>To C.A.                                  | VEINS                                | COMMENTS | RECOVERY | SAMPLE<br>NO. |        | то   | LENGTH<br>(meters) | Zn<br>(%%) | Pb<br>(%)   | Ag<br>(g/t) | Fe<br>(%) | Other |
| 0 - 4.57                     | Casing - OV8  | @ 7.8m<br>5 020"<br>cl 030" (oppo)                 |                                      | E. Dip?  |          |               |        |      |                    |            |             |             |           |       |
| 4.57 -<br>22.5               | Grey sitty mudstone, locally siliceous<br>- poorly laminated, local white<br>carbonate, dotted lams & rare 0.33mm<br>discontinuous black chert lams<br>- Core badly broken<br>At 15-22m several small gouges and major fit. zone, (last 2*) at<br>17.37<br>- minor gouges @ 60-70* to C.A. Possible significant fault?<br>- small gouge @ 19.1m @ 20* | © 11.28m<br>b 020"<br>c 1000"<br>@ 22.3m<br>b 070" | @ 11.5-12.8m<br>minor gouge<br>@ 020 |          |          |               |        |      |                    |            |             |             |           |       |

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| DEPTH<br>(meters)<br>FROM/TO | DESCRIPTION   | STRUCTURE<br>ANGLES<br>To C.A.   | VEINS | COMMENTS  | RECOVERY | SAMPLE<br>NO. | SAMPLE | DATA<br>TO | LENGTH<br>(meters) | Zn<br>(%) | Pb<br>(%) | RESULTS<br>Ag<br>(g/t) | Fe<br>(%) | Other |
|------------------------------|---|--|-------|---|----------|---------------|--------|------------|--------------------|-----------|-----------|------------------------|-----------|-------|
| 22.5 - 74.36                 | Cryptic Py-lam Turbidite<br>- dotted carb lams become single grain cryptic<br>Py (dotted @ top, more continuous down hole)<br>- still poorly lam, other than Py<br>- locally somewhat siliceous<br>- rock remains a grey, silty mdst.<br>- locally becomes a true cryptic pyrite (eg±35.5m), but Py<br>very variable<br>- beds contorted (angle changes dramatically, frequently)<br>- moderately graphitic, locally strong<br>- No concretions or nods.<br>- @ 57-61m, black chert beds common again & cryptic Py<br>drops off. Bedding/am still contorted.<br>- locally the black chert seems to replace carbonate?<br>- @ 62-74.36m, seems to be a gradual increase in chert & SiO <sub>2</sub><br>content, decrease in Pyrite (back to dotted carbonate ± Py) | @ 23.5m<br>b 045"<br>cl 025"<br>@ 36.2m<br>b 075"<br>@ 40m<br>b 045"<br>@ 50.9m<br>b 020"<br>cl 040"<br>@ 58.5m<br>b 050"<br>@ 73m<br>b 055" |       | antiform to<br>East?<br>Beds dip<br>towards grid<br>NW?<br>Clev difficult<br>to distinguish.<br>Possibly<br>±10°-20°<br>Beds sub<br>vertical to steep<br>to grid WSW?<br>Direction of<br>Dip unknown. |          |               |        |            |                    |           |           |                        |           |       |

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|                   |   |  |       |   |  |  | <u> </u>  |  |  |  | <u> </u>                                     |  |           |       |
|-------------------|---|--|-------|---|--|--|---|--|--|--|--|--|-----------|-------|
| DEPTH<br>(meters) | DESCRIPTION   | STRUCTURE  |       |   |  |  | SAMPLE  | DATA   |  |  |  | RESULTS                                |           | ,     |
| FROM/TO           |   | ANGLES<br>To C.A.  | VEINS | COMMENTS  | RECOVERY   | SAMPLE<br>NO.  | FROM  | то   | LENGTH<br>(meters)   | Zn<br>(%)                                    | Pb<br>(%)                                    | Ag<br>(9/1)                            | Fe<br>(%) | Other |
| 74.36 -<br>96.28  | <ul> <li>Black, locally graphtic, locally siliceous to cherty interval - strong qtz veining</li> <li>74.36-86.48m, black shale with blebby barite as blades in beds, local grey chert bands</li> <li>86.48-89.26m, very strongly laminated (grey chert, rad beds, shale, loc. amoeba chert (may in part be disrupted veins?)</li> <li>89.26-92.55m, block shale and grey chert laminations - local barite?</li> <li>92.55-93.57m, breccia zone of above lithotypes</li> <li>93.57-96.26m, cryptic pyrite with local grey chert beds - disruption and brecciation continues sporadically to 96.28</li> </ul> | © 87.7m<br>b 060"<br>cl 030"<br>b 030" cl 025"<br>same direction<br>© 101.7m<br>b 070" |       | antiform to<br>East? Beds dip<br>West?<br>West?<br>@104m<br>Younging<br>uphole? from<br>subpide |  |  |   |  |  |  |  |  |           |       |
| 96.28 -<br>109.98 | tow subhide, moderate to strong graphite.icol bartle.     Homogeneous, massive, non-laminated shale, locally siliceous     first appearance of concretions, (small @ top, larger towards     bottom)     at top have bands of nodular bartle ± Pyrite grading     downwards to more frequent Ba-Py-concretions, laminations     and bartle becomes blebby     rare thinly laminated sections     - at bottom thinly laminated/mineralized sections are 10-30     cm's apart.     "Transition-like Zone" with bartle?  |  |       | grading?  |  |  |   |  |  |  |  |  |           |       |
| 109.98 -<br>116.3 | Homogeneous, massive shale, weaker & more diagenetic -<br>looking sulphide-barke.   | ଡୁ 112.1<br>b 040°<br>ci 010°?   |       |   | Recovery 100<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>100 | 37680<br>37681<br>37682<br>37683<br>37684<br>37685<br>37686<br>37686<br>37686<br>37688 | 107.26<br>108.25<br>108.81<br>116.3<br>117.14<br>118.14<br>119.14<br>120.14<br>120.14<br>121.14 | 108.25<br>108.81<br>109.98<br>117.14<br>118.14<br>119.14<br>120.14<br>120.14<br>121.14<br>122.14 | 0.99<br>.56<br>1.17<br>0.84<br>1.0<br>1.0<br>1.0<br>1.0<br>1.0 | 1.27<br>0.60<br>2.86<br>2.58<br>4.57<br>2.48 | 0.14<br>0.06<br>0.18<br>0.17<br>0.38<br>0.24 | 1.6<br>1.2<br>2.1<br>1.4<br>1.3<br>2.1 |           |       |

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|------------------------------|---|---|---|----------|----------|--------------|----------------|------------|--------------------|-----------|-----------|-------------|-----------|-------|
| DEPTH<br>(meters)<br>FROM/TO | DESCRIPTION   | STRUCTURE<br>ANGLES<br>To C.A.  | VEINS                                     | COMMENTS | RECOVERY | SAMPLE<br>NO | SAMPLE<br>FROM | DATA<br>TO | LENGTH<br>(meters) | Zn<br>(%) | Pb<br>(%) | Ag<br>(g/t) | Fe<br>(%) | Other |
| 116.3 -<br>122.14            | "Mineralized Zone"<br>- Sulphide-carbonate-barite<br>- usual sulphide-carbonate but here has obvious barite<br>- also a black earthy mineral in fractures within carbonate-<br>barite (Pyrobitumin?)<br>- yellow mineral (Fe-dol) present<br>- 30% sulphide, Tr.Sph. after 121.0m   |   |   |          |          |              |                |            |                    |           |           |             |           |       |
| 122.14 -<br>180.02           | Grey, somewhat siliceous mdst/sh<br>- moderately microlaminated<br>- becomes better laminated with local weak cryptic Py lams<br>downhole<br>- weakly graphite<br>- weakly graphite<br>- very well laminated (<0.5cm) after 141-144m<br>- 144-145m - occasional Rad Bed<br>- erratically siliceous<br>- Section is generally cryptic pyrite laminated, but irregular<br>- occasional light grey calcareous slittle bed & it grey<br>siliceous Rad bed<br>- @ 159m, 1-2 cm Cg pyrite lam.<br>- very rare concretion<br>- bedding still contorted<br>- more classical cryptic Pyrite laminations near bottom<br>- rare concretion near bottom | © 125.5m<br>b 035"<br>cl 025"<br>© 141m<br>b 060"<br>cl 015"<br>© 165m<br>b 030"<br>cl 020"<br>© 176.3m<br>b 060" | Beds dip W<br>or NW?                      |          |          |              |                |            |                    |           |           |             |           |       |
| 180.02 -<br>183.03           | Siliceous argillite with <u>Rad Beds</u> and <u>Amoeba Chert</u> patches<br>• Weakly graphitic and Pyrfic<br>• gouge @ bottom, contact at <u>+</u> 25"?   |   |   |          |          |              |                |            |                    |           |           |             |           |       |
| 183.03 -<br>204.63           | Dark grey to black, massive, homogeneous mdst/shale.<br>- very poor to non-laminated<br>- local zones of greyish mdst.<br>- moderately siliceous (Could be mapped as FW!!)<br>- weak, sporadic cryptic Pyrite development.<br>@ 198.5m, broken core - possible fault?   | @ 202m<br>b 050°<br>ci 020°   | antiform to<br>East?<br>Beds dip<br>West? |          |          |              |                |            |                    |           |           |             |           |       |
| 204.63 -<br>207.11           | Siliceous argilite with Rad beds, graphitic on fractures  |   |   |          |          |              |                |            |                    |           |           |             |           |       |

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| DEPTH<br>(meters)  | DESCRIPTION   | STRUCTURE   |                    |   |  |   | SAMPLE   | DATA   |                                 |   |                            | RESULTS     |           |       |
|--------------------|---|---|--------------------|---|--|---|--|--|---------------------------------|---|----------------------------|-------------|-----------|-------|
| FROM/TO            |   | ANGLES<br>To C.A.   | VEINS              | COMMENTS  | RECOVERY                                 | SAMPLE<br>NO.                             | FROM   | то   | LENGTH<br>(meters)              | 2n<br>(%)                                     | Рb<br>(%)                  | Ag<br>(g/t) | Fe<br>(%) | Other |
| 207.11 -<br>224.67 | Grey, poorly-moderately laminated mdst/sh.<br>- first appearance of Py-carb nods (may be baritic here?)<br>- GV parallel to core axis to 209.4<br>- Strong qtz veining after 213.2m<br>@ 221.1 - 221.8m, fault gouge (50% recovery) at 60° to C.A.<br>- generally non-sillceous, rare concretion.   | @ 219m<br>b 040°<br>cl 045° (appo)                                      |                    |   |  |   |  |  |                                 |   |                            |             |           |       |
| 224.67 -<br>255.7  | Laminations increase to become moderate-well laminated<br>Turbidite<br>- dark grey with local light grey mdst.<br>- abundant Fe-carb laminations<br>- moderate - strong Py-carb ± Ba? nods and necklace<br>- concretions becoming more abundant and pyrite lams begin<br>to appear near base  | @ 240m<br>b 035°<br>c) 000°<br>@ 250.85m<br>b 015°                      | Younging<br>uphole |   |  |   |  |  |                                 |   |                            |             |           |       |
| 255.7 -<br>273,41  | Well laminated, Py-laminated Turbidite<br>- frequency of concretions & Pyrite laminations continues to<br>increase<br>- only 10-20cm between laminated sections now<br>- local Barite-carb blebby to laminated bands<br>- graphite on fractures increases towards bottom of interval<br>- white, sity laminations common  | @ 255m<br>b 055°<br>@261.1m<br>b 050°<br>@ 270.26m<br>b 040°<br>c) 000° |                    |   |  |   |  |  |                                 |   | :                          |             |           |       |
| 273.41 -<br>279.6  | "Transition Zone"<br>- strong concretions & Pyrite laminations (15-20% Py)<br>- moderately graphitic<br>- after 278.41, concretions drop off, are still py lams, but<br>much reduced<br>- weak to moderate recrystallization of concretions, strongest<br>at base<br>- mineralization dies out abruptly prior to significant<br>accummulation<br>- distal expression? |   |                    | Banding<br>contorted @<br>020° at top and<br>060° at bottom | Recovery 100<br>100<br>100<br>100<br>100 | 37689<br>37690<br>37691<br>37692<br>37693 | 273.41<br>274.41<br>275.41<br>275.41<br>277.41 | 274.41<br>275.41<br>276.41<br>277.41<br>278.41 | 1.0<br>1.0<br>1.0<br>1.0<br>1.0 | 1.32<br>7915ppm<br>1.12<br>7182ppm<br>3530ppm | 883ppm<br>519ppm<br>557ppm |             |           |       |

#### PAGE: 6 of 6

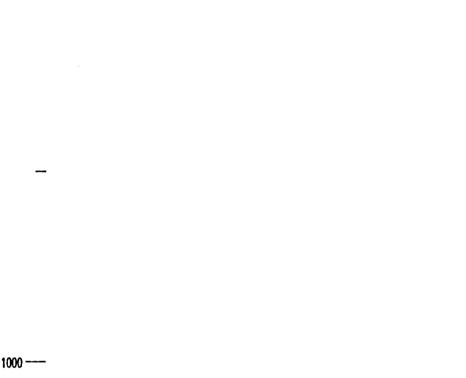
| DEPTH<br>(meters) | DESCRIPTION  | STRUCTURE  |       |  |          |               | SAMPLE | DATA |                    |           |           | RESULTS     |           |       |
|-------------------|--|--|-------|--|----------|---------------|--------|------|--------------------|-----------|-----------|-------------|-----------|-------|
| FROM/TO           |  | ANGLES<br>To C.A.  | VEINS | COMMENTS                                       | RECOVERY | SAMPLE<br>NO. | FROM   | то   | LENGTH<br>(meters) | Zn<br>(%) | Pb<br>(%) | Ag<br>(g/t) | Fe<br>(%) | Other |
| 279.6 -<br>316.08 | Massive, Homogeneous, poorly laminated (loc. moderate)<br>shale/mudstone (Thick Bedded)<br>- light grey, very fine, sitty lams to 2 cm with mm scale<br>black shale interlaminations<br>- no pyrite, generally no concretions<br>- local Fe-carb lamination Non SiO <sub>2</sub><br>- towards bottom of hole laminations increase somewhat, Fe-<br>carb lams become common (into 3cm). Minor Py-carb nods<br>appear and local CQ, diagenetic py is present in laminations<br>associated with carb. | @ 281m<br>b 040°<br>@ 293.5m<br>b 049°<br>@ 309m<br>b 040° |       | © 309.2m cren-<br>ulationAinks<br>© 015° - 5₂? |          |               |        |      |                    |           |           |             |           |       |
|                   | END OF HOLE  |  |       |  |          |               |        |      |                    |           |           |             |           |       |



• (<sup>1</sup>



1100 -----



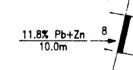
SAMPLE FROM No. (m) LENGTH (m)

Ag Ba

3+00W

**79-2**7

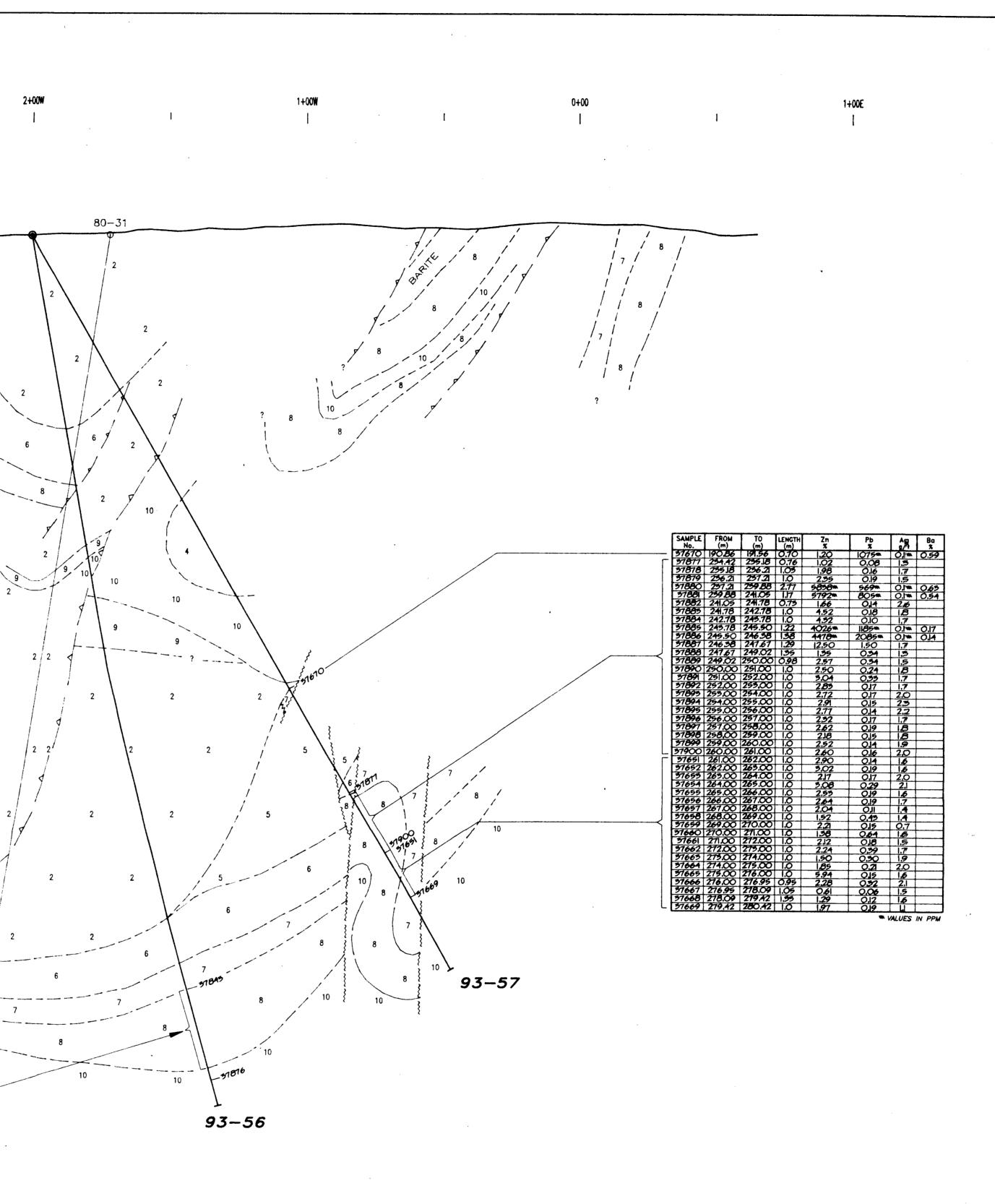
79-28



10

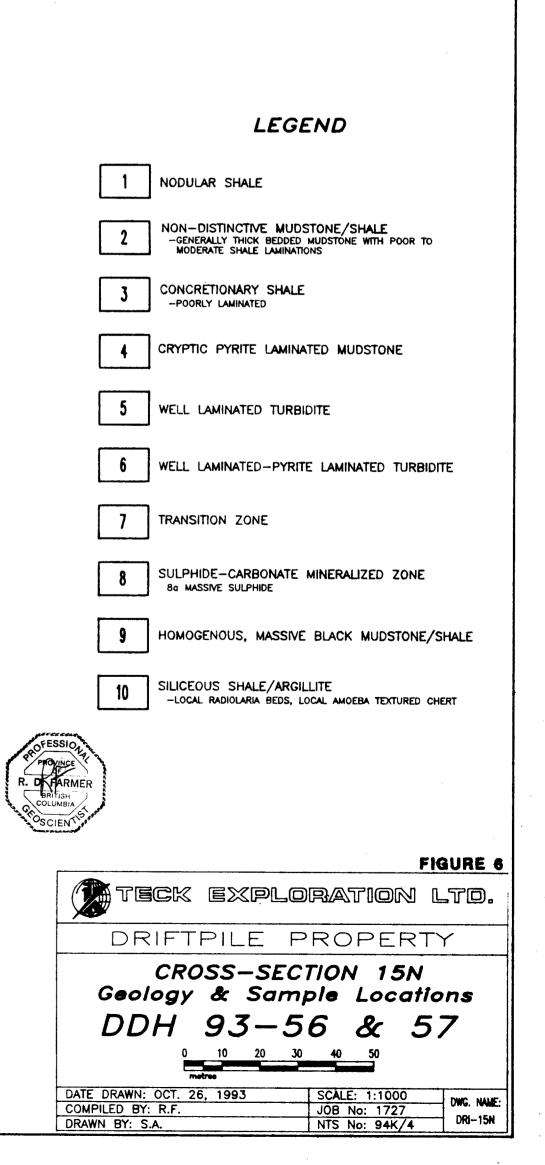
0 01 0.7 08 14 \* VALUES IN PPM

900 -----

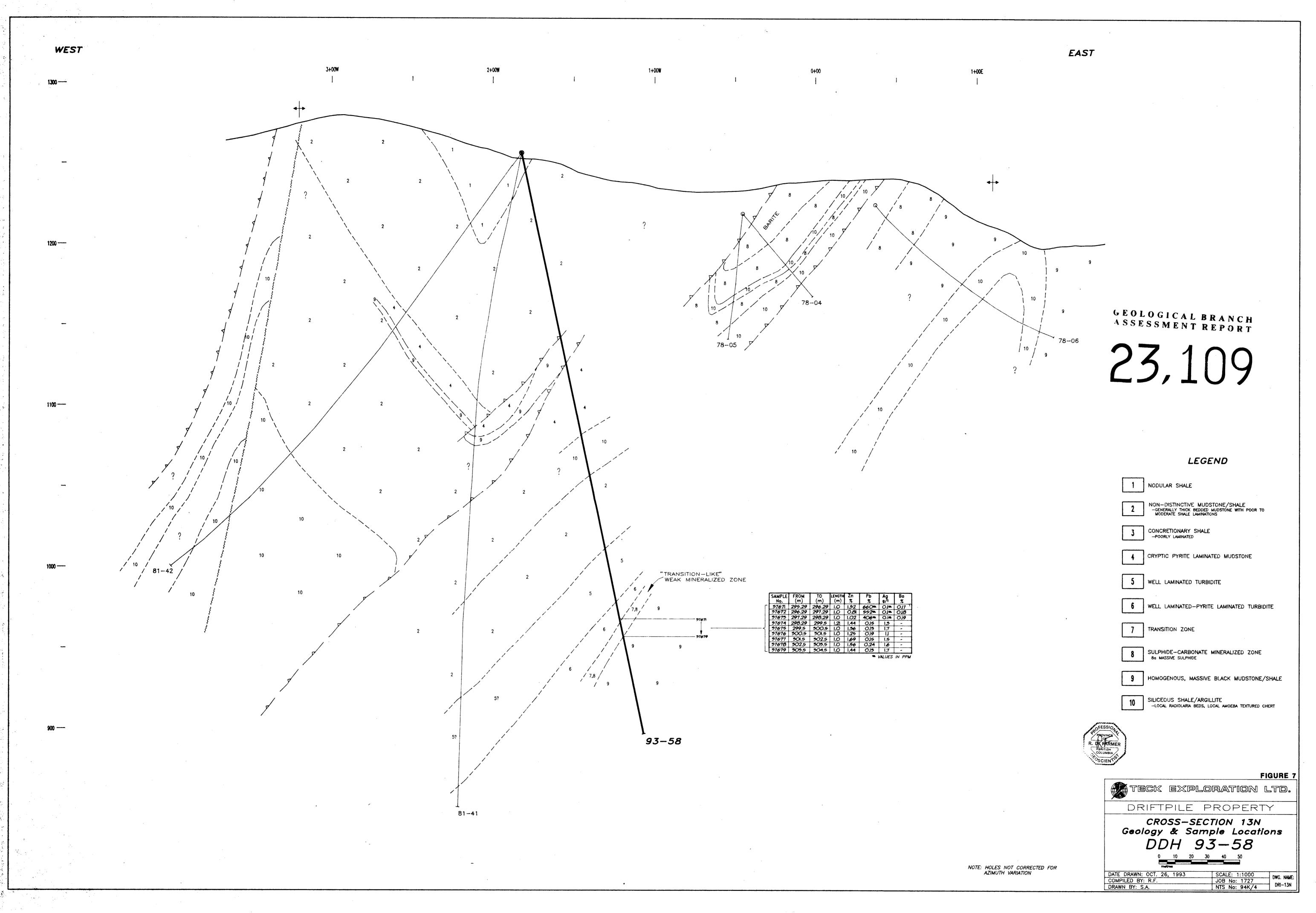


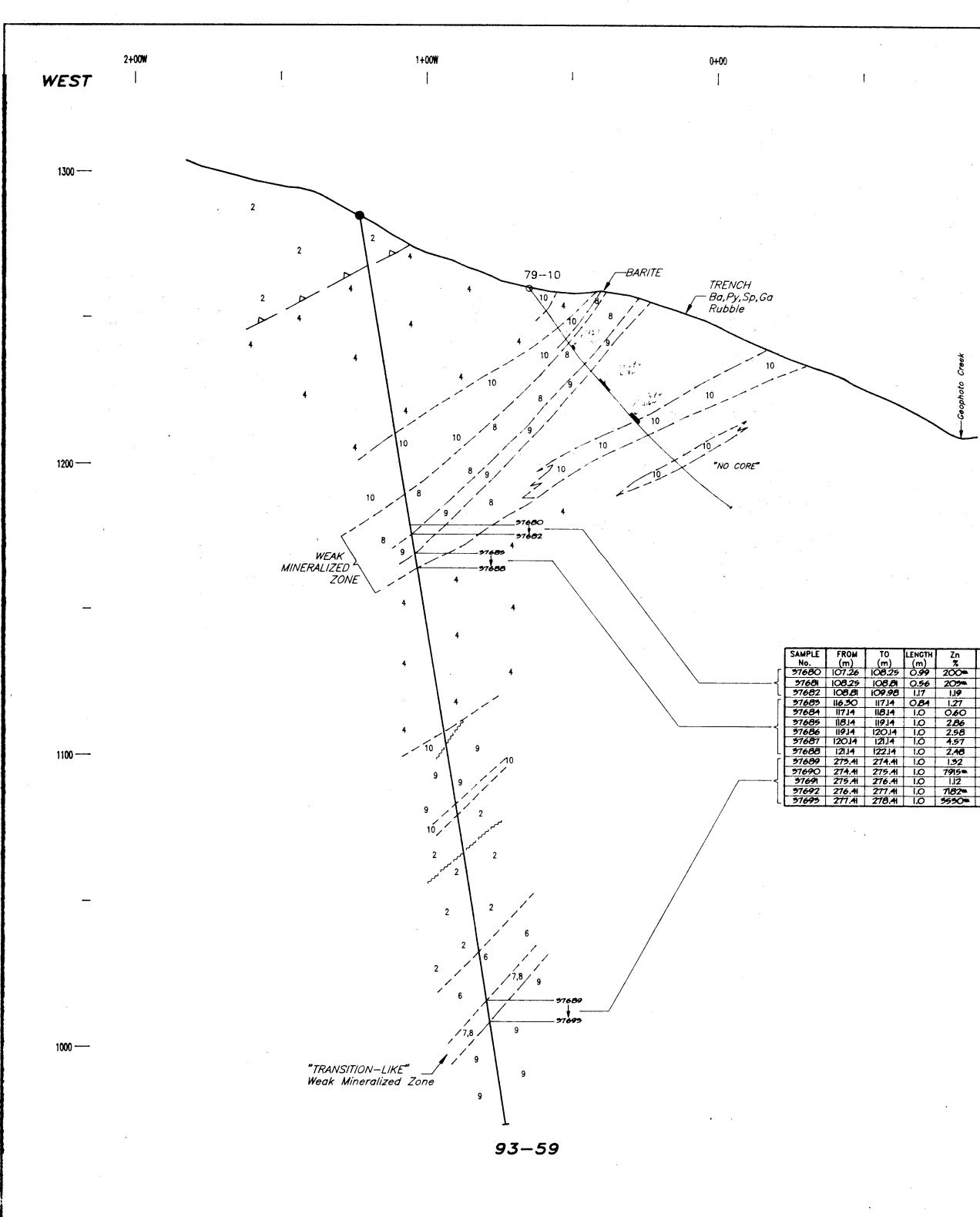


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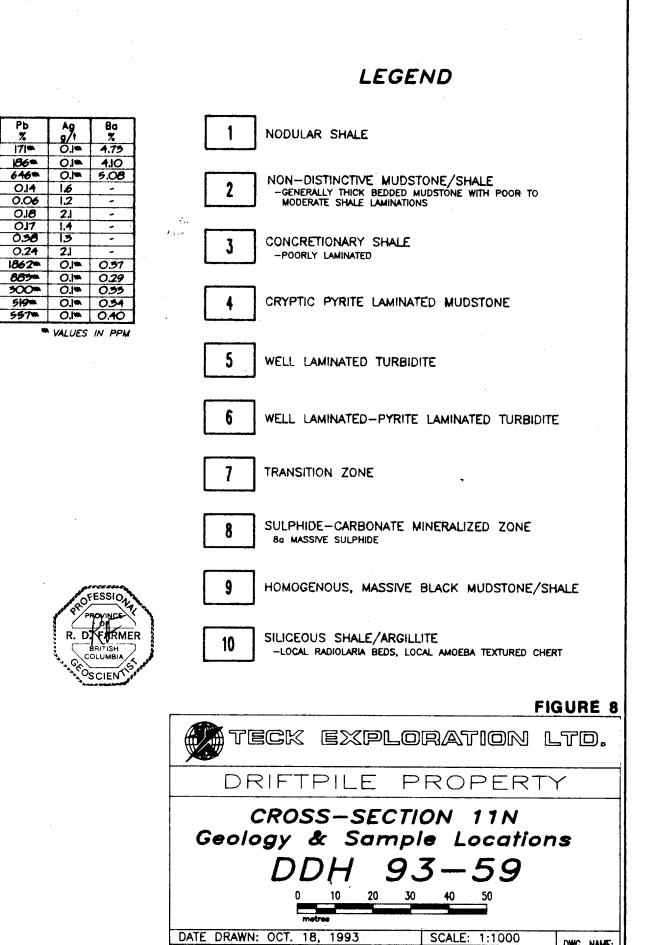




NOTE: HOLES NOT CORRECTED FOR AZIMUTH VARIATION

EAST

# GEOLOGICAL BRANCH ASSESSMENT REPORT 23,109



COMPILED BY: R.F.

DRAWN BY: S.A.

DWG. NAME:

DRI-11N

JOB No: 1727

NTS No: 94K/4

TO LENGTH Zn (m) (m) % 108.25 0.99 200\* 186\* 646**\*** 0.14 1.0 1.0 2.48 1.0 1.32

1+00E