

**GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORTS**

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**ASSESSMENT REPORT
GEOLOGY, GEOCHEMISTRY AND LINECUTTING
ON THE
FLUKE PROPERTY
OMINECA MINING DIVISION
NTS: 94F/7W
LATITUDE: 57° 25' W LONGITUDE: 124° 54' W**

FILMED

OWNER: CIRQUE OPERATING CORP.

**R. Farmer
Project Geologist**

OPERATOR: TECK EXPLORATION LTD.

September, 1995

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

24,080

SUMMARY

A program consisting of geological mapping, limited geochemical sampling and linecutting was carried out on the Fluke property between June 19 and July 14, 1995.

Geological mapping included examination of the two known mineral occurrences and regional scale traverses across the Gunsteel Formation shale stratigraphy. The program was undertaken to assess the known mineralization and determine the immediate host stratigraphy and then attempt to trace the favourable stratigraphy into the southern, untested, portion of the property. Known mineralization is hosted by a sequence of black chert and siliceous, graphitic black shale containing local concretions, barite nodules and laminated pyrite. This sequence has been traced southeastwards across the property to the southern claim boundary. In South Fluke Bowl, near the southern boundary of the property, siliceous shale containing nodular barite and laminated pyrite was identified in four locations. This lithology is interpreted to occur proximal to mineralization, and has not been drill tested in this area.

Limited geochemical sampling of creeks and iron seeps indicates that mineralization and proximal stratigraphy contain anomalous concentrations of lead ($>100\text{ppm}$) and a low ph value (<7), relative to unmineralized stratigraphy ($<50\text{ppm Pb}$, $\text{ph}>7$). Geochemistry is an effective tool for identifying mineralization or mineralized stratigraphy.

A grid comprising 4.4 line kilometres was cut in the South Fluke Bowl to provide control for future detailed geological mapping and grid controlled soil sampling. The grid comprises an 800 metre baseline with cross lines every 100 metres, all marked with picketed stations every 25 metres. Additional linecutting is required to complete coverage of the prospective stratigraphy identified by geological mapping.

RECOMMENDATIONS

1. Complete the linecutting in South Fluke Bowl to cover all prospective stratigraphy.
2. Carry out grid controlled, detailed geological mapping and soil geochemical sampling over the entire grid area.
3. Upon favourable results of the above, diamond drill test the favourable stratigraphic sequence in the South Fluke Bowl area.

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INTRODUCTION

The Fluke property is located within the Gataga Pb-Zn district, northeastern B.C. and covers a thick succession of Upper Devonian Gunsteel Formation siliceous shale and chert. The Cirque deposit (38.5 mt @ 8.0% Zn, 2.2% Pb, 47.2g/t Ag), located 30 kilometres to the northeast, is hosted by these same shales and chert.

During June and July, 1995 an exploration program was undertaken on the Fluke Property in northeastern B.C. Exploration was carried out to assess sedex-style lead-zinc-silver-barite mineralization on the property and to attempt to trace mineralization southeastwards across the property, thereby generating new drill targets in the untested southeast portion of the property.

Geological mapping, limited geochemical sampling and linecutting comprised the exploration program in 1995.

This report will describe the work done and provide an interpretation of the results.

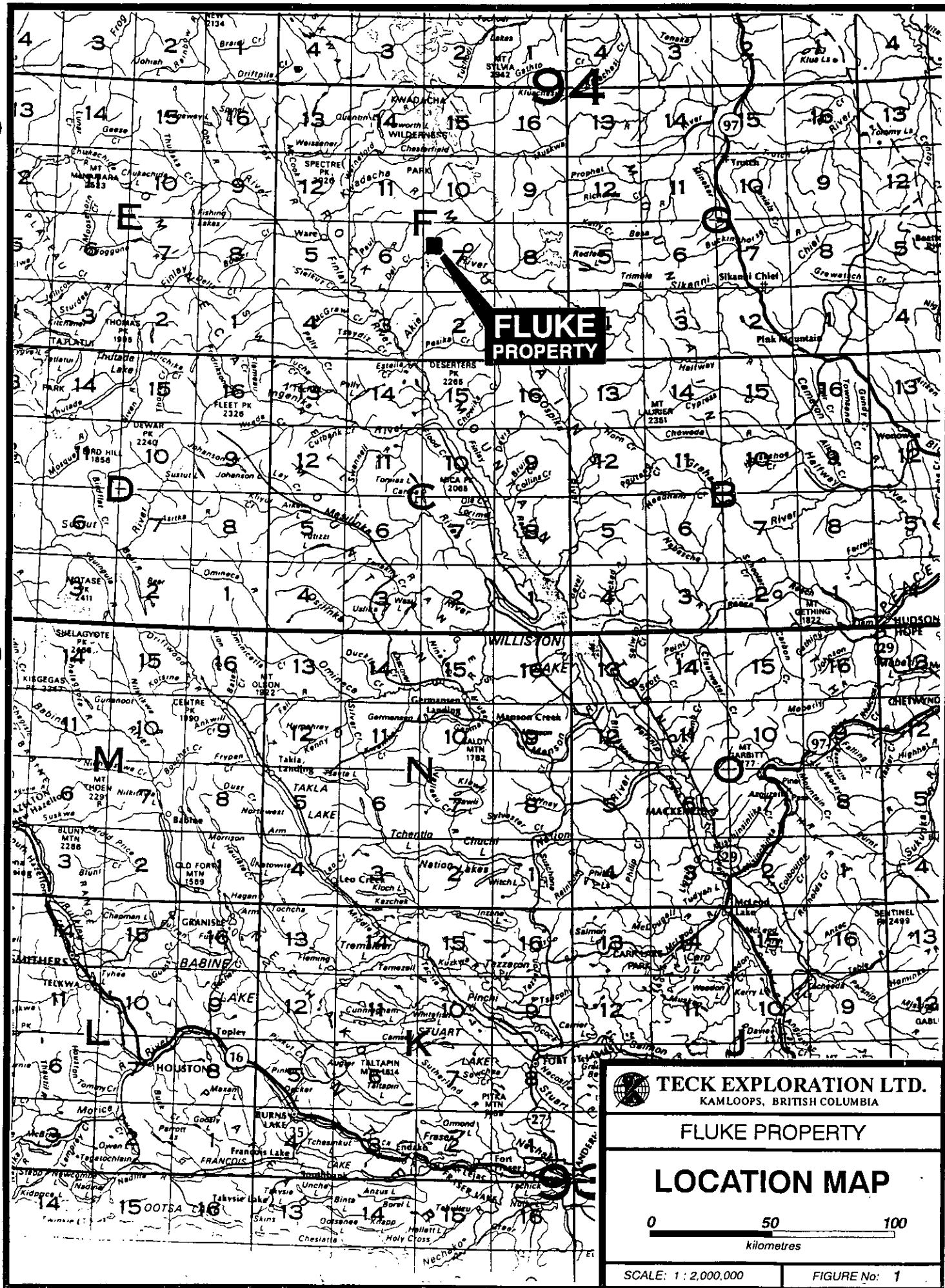
LOCATION AND ACCESS

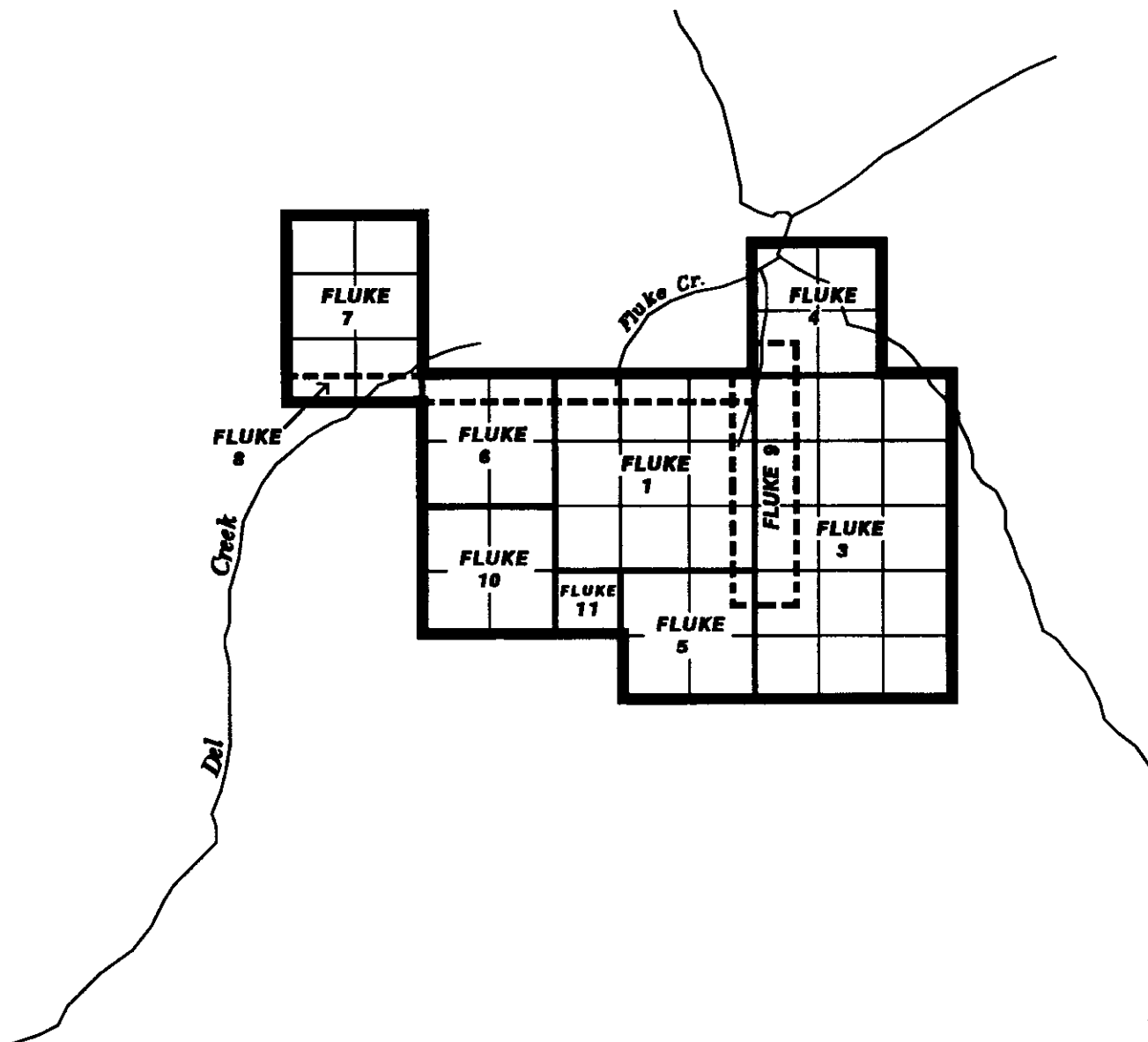
The Fluke property is located approximately 40 kilometres east of Fort Ware, in northeastern B.C. (figure 1). The claims cover the headwaters of Del Creek, an easterly tributary of the Finlay River (NTS 94F/7). The claims are only accessible by helicopter, the nearest base being a seasonal base at Finbow logging camp, 30 kilometres to the southwest. The Finbow camp area is accessed via fixed wing aircraft or barge from Mackenzie, 250 kilometres to the south.

Topography is rugged, with elevations varying from 1100 metres to 2000 metres. Approximately 70% of the property is above tree line and consists of rocky ridge lines, grassy alpine meadows and ravines choked with scrub hemlock and juniper. Lower elevations are heavily forested with spruce and fir.

CLAIMS

The property consists of the Fluke # 1, 3-11 claims comprising 60 units (figure 2). Cirque Operating Corp. is the registered owner of the claims. A summary of claim statistics is presented in Table 1 below.





TECK EXPLORATION LTD.
KAMLOOPS, BRITISH COLUMBIA

FLUKE GROUP CLAIM LOCATION

FIGURE 2

Table 1
Claim Statistics

CLAIM NAME	RECORD NUMBER	NUMBER OF UNITS	OWNER	EXPIRY DATE*
Fluke # 1	238024	9	Cirque Operating Corp.	August 1, 1999
Fluke # 3	238025	15	Cirque operating Corp.	August 1, 1998
Fluke # 4	238026	4	Cirque Operating Corp.	August 1, 1999
Fluke # 5	238027	4	Cirque Operating Corp.	August 1, 1999
Fluke # 6	238028	4	Cirque Operating Corp.	August 1, 1998
Fluke # 7	238130	8	Cirque Operating Corp.	July 16, 1998
Fluke # 8	238131	7	Cirque Operating Corp.	July 16, 1998
Fluke # 9	238132	4	Cirque Operating Corp.	July 16, 1999
Fluke # 10	238133	4	Cirque Operating Corp.	July 16, 1998
Fluke # 11	238134	1	Cirque Operating Corp.	July 16, 1999

Total: 60 Units

- * Expiry date based on acceptance of this report
- * Grouped as the Fluke 1 Group

PREVIOUS WORK

Cyprus Anvil Mining Corporation carried out exploration on the Fluke property during the period 1978 to 1982. This exploration included, geological mapping, stream and soil geochemical sampling, linecutting, orthophoto mapping, prospecting and diamond drilling. Seven holes totalling 3295.4 metres have been drilled to date on the property. There has been no work carried out on the property since 1982.

1995 PROGRAM

During June and July, 1995 an exploration program consisting of, geological mapping, geochemical sampling and linecutting was carried out on the Fluke property.

The purpose of the program was to re-locate the known showings and determine the lithological characteristics of the immediate host rocks to mineralization, and then attempt to trace this prospective lithological package across the untested southeastern portion of the property. As gridlines and sample locations from previous work can no longer be located, limited geochemical sampling of streams and iron-seeps were collected to assist in tracing the prospective lithological package.

Linecutting was undertaken in the southern portion of the property to provide grid coverage for detailed work over a prospective portion of stratigraphy and in preparation for future soil geochemical sampling to re-locate a strong geochemical anomaly identified by previous operators. Grid geological mapping and soil sampling were not completed in 1995 due to budget constraints.

LINECUTTING

Linecutting was carried out by Twin Mountain Enterprises Ltd. of Whitehorse, YT. A previously established grid in the area can no longer be located, and a new grid was established to facilitate future detailed geological mapping and soil geochemical sampling. The grid lines established during the current program are at a different azimuth (050°) than lines established by previous operators to better reflect the local lithologic strike.

The grid consists of an 800 metre baseline with cross lines 600 metres long spaced 100 metres apart. Due to slow progress and budget constraints the entire proposed grid was not completed. A total of 4.4 line kilometres were completed and completed lines are shown on figure 4. All lines were cut using a power saw. Azimuths were turned off using a brunton compass and maintained utilizing sight pickets. Distances were chained and slope corrected. Stations were established every 25 metres on cross lines and the baseline and are marked by wooden pickets with metal tags. The linecutting was done from July 8 to July 14, 1995 (7 days).

GEOLOGY

A. Regional Geology (Figure 3)

The best description of the geology of the Gataga district - Akie River area, including the Fluke property area is provided by MacIntyre (1981, 1992).

The Fluke 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 platform carbonates of the Macdonald Platform and to the west by carbonates of

MISSISSIPPIAN-TRIASSIC

MT DOLOMITIC SILTSTONE, LIMESTONE, CHERT

UPPER DEVONIAN-MISSISSIPPIAN

uDM EARN GROUP: CHERT, ARGILLITE, SHALE, SILTSTONE

ORDOVICIAN-SILURIAN-LOWER DEVONIAN

OSD ROAD RIVER GROUP: DOLOMITIC SILTSTONE, DOLOSTONE; GRAPTOLITIC SHALE, CHERT, CALCAREOUS SILTSTONE; LIMESTONE, MAFIC VOLCANIC ROCKS

CAMBRIAN-ORDOVICIAN

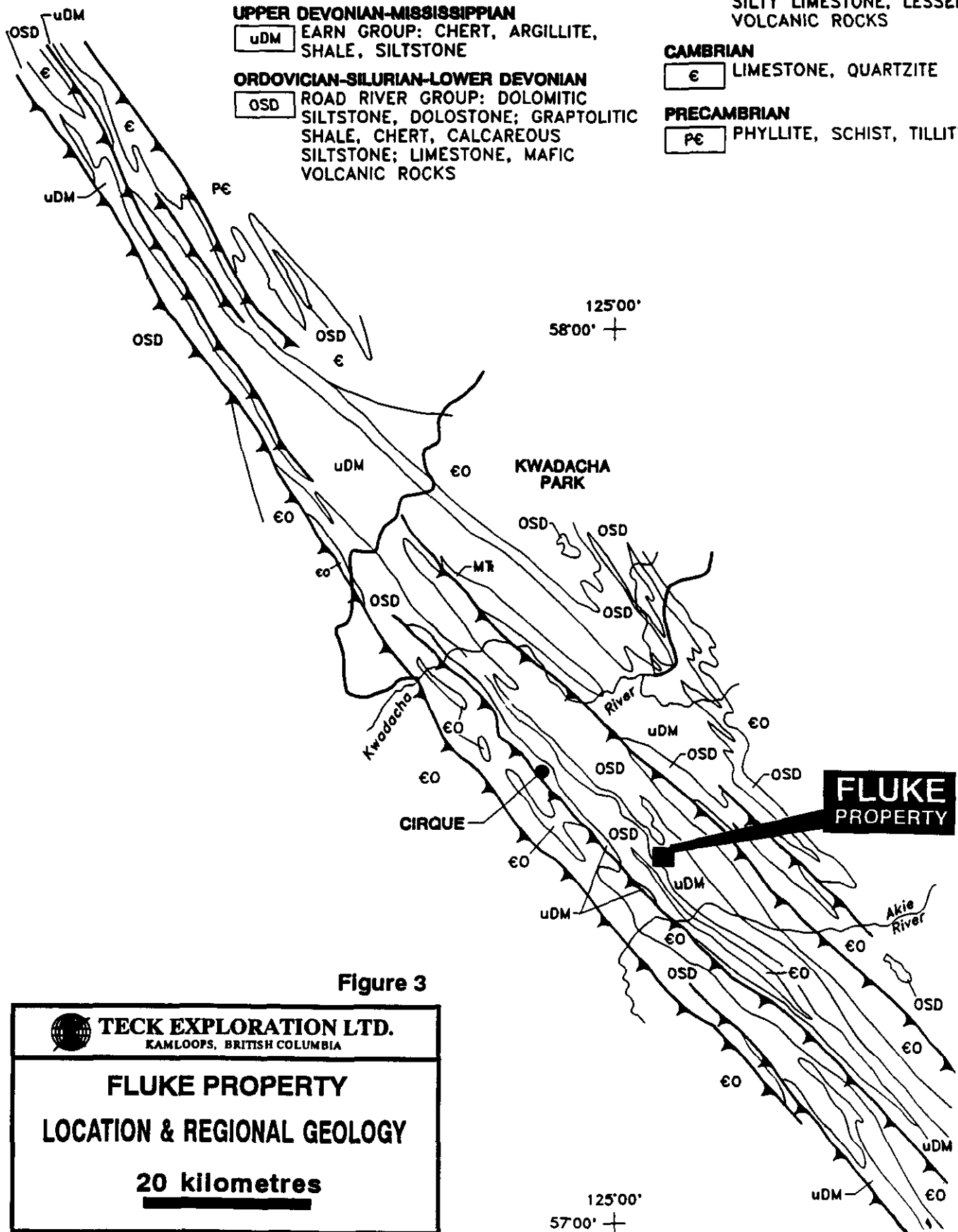
EO KECHIKA GROUP: NODULAR WAVY BANDED PHYLLITIC SILTY LIMESTONE, LESSER VOLCANIC ROCKS

CAMBRIAN

E LIMESTONE, QUARTZITE

PRECAMBRIAN

PE PHYLLITE, SCHIST, TILLITE

**Figure 3**

TECK EXPLORATION LTD.
KAMLOOPS, BRITISH COLUMBIA

FLUKE PROPERTY
LOCATION & REGIONAL GEOLOGY

20 kilometres

the Cassiar Platform. The Kechika Trough is underlain by predominantly clastic rocks, ranging from Proterozoic to Triassic in age which form a northwest trending linear belt. The Fluke property is underlain by black shale, siliceous shale and chert of the Gunsteel Formation, Lower Earn Group, of Upper Devonian age. The Stronsay (Cirque) deposit, located 30 kilometres to the northwest (38.5 mt @ 8.0% Zn, 2.2% Pb, 47.2g/t Ag), is hosted by the same Gunsteel Formation shales. Northeast directed compression has resulted in complex thrusting and related folding, resulting in difficult stratigraphic correlation.

Cyprus Anvil Mining Corporation carried out extensive work on the Fluke property during the period 1978-1982, including regional and detailed mapping and diamond drilling. From this work two showings were discovered on the Fluke property, a laminated pyrite occurrence in Fluke Creek (Fluke showing), and a massive barite-galena occurrence in the cliff above Pook Creek (Pook showing). Both showings are associated with black, siliceous shale.

B. Property Geology - 1995 Work

Geological mapping in 1995 included, detailed mapping and sampling of the Fluke and Pook showings to assess mineralization style and proximal host lithology, as well as, regional scale traverses across the Gunsteel sequence in an attempt to recognize and follow the favourable, mineralized lithologic sequence. Limited geochemical sampling of rocks, streams and iron-seeps was conducted in conjunction with mapping to assess *geochemical signatures of mineralization and lithology to determine if geochemistry is a viable tool in recognizing mineralization or prospective lithology.* Mineralization at the two showings will be described later, in the section entitled "Mineralization". Topography is rugged and traverses were completed, where possible, to examine as much of the Gunsteel sequence as possible, and were restricted to areas underlain by Gunsteel shales, as recognized by previous operators.

The Gunsteel sequence on the property trends in a northwest - southeast manner across the claims and is bounded to the southwest by Silurian calcareous siltstone, which has been thrust northeastwards onto the younger Gunsteel shales. To the northeast the Gunsteel shales are overlain by a siltstone/shale package termed by previous operators as the Conundrum Siltstone. The nature of the contact is not clear however, at one location in South Fluke Bowl, the contact is clearly a fault (figure 4).

Gunsteel shales form a belt several hundred metres thick on the property, however structural repetition is likely. Mapping in 1995 has recognized four distinctive subdivisions based on lithology, but stratigraphic relationships are unknown. The subdivisions include; undivided shales (unit 3d), chert (unit 3c), siltite laminated shale (unit 3b) and siliceous, graphitic shale (unit 3a). Siliceous graphitic shale of unit 3a is the host to mineralization. A description of lithological units is included in the "Lithology" section below. These different lithologies are distinctive in the field, however contacts are

gradational resulting in areas with characteristics of more than one lithology, and several outcrops are often necessary to distinguish lithological units.

The shales have a general northwest strike with moderate dips to the southwest. Locally variable strikes and dips indicate complex structure, in terms of both folding and faulting. The scope of the current program did not allow sufficient detailed work to resolve the structure. Small scale (10's of metres), tight to isoclinal, often overturned folds are common and, in the area of the Pook Showing, plunge moderately to the south (40°). Similarly, the cliffs in Pook Bowl show a variety of low to high angle faulting with offsets varying from a few centimetres to tens of metres and more. These faults are difficult to recognize anywhere other than cliff faces.

Extensive chert is present, locally forming a discrete lithological unit, and varies from massive grey to black chert with abundant quartz veins to, a distinctive ribbon bedded chert containing thin shale interbeds. Previous operators suggested that chert was present only stratigraphically above mineralization, however chert beds varying from a few 10's of centimetres to 10's of metres thick occur throughout the sequence, both above and below mineralization.

The prospective portion of stratigraphy which occurs proximal to mineralization (units 3a, 3b) can be traced southeastwards from the showings, through Pook Bowl, over intervening ridges and across South Fluke Bowl (figure 4). This lithology is most abundant around the showings in Fluke Creek and Pook Bowl and in South Fluke Bowl, near the southern property boundary. Nodular barite +/- laminated pyrite interpreted to represent the mineralized horizon, or close proximity to it, has been identified in four places in South Fluke Bowl, as well as intervening ridges to the northwest towards Pook Bowl, indicating that the prospective stratigraphy hosting mineralization continues at least to the southern property boundary. A grid has been constructed in South Fluke Bowl to facilitate detailed geological and geochemical work in this highly prospective area in 1996.

C. Lithology

The following section describes lithologic units used on maps included in this report. Units are numbered from stratigraphically lowest to highest, although stratigraphic relationships within the Gunsteel Formation are not known at this time. Contacts between units belonging to the Gunsteel Formation (3a-3d) are gradational.

UNIT 1 - OSPIKA VOLCANICS

This unit consists of Ordovician, carbonate rich mafic volcanic flows and breccias. This unit is present regionally in the Fluke property area, but has not been recognized on the property to date, and as such, will not be described further here.

UNIT 2 - SILURIAN SILTSTONE

This is a distinctive package of rocks, including several lithologies which have not been subdivided. The most common and distinctive lithology consists of brown to buff weathering dolomitic siltstone. The siltstone varies from thin to thick bedded and locally contains thin interbeds of grey calcareous, shale. Occasionally, dark grey massive limestone is present as beds varying from a few centimetres to several ten's of metres thick. Rocks of Unit 2 have been thrust in a northeast direction over Devonian Gunsteel stratigraphy.

UNIT 3 - GUNSTEEL SHALES

Gunsteel shales are Upper Devonian in age and consist of grey to black shale, mudstone and chert. The sequence is host to Sedex Pb-Zn-Ag-Ba mineralization throughout the Kechika Trough and Selwyn Basin. Geological mapping on the Fluke property in 1995 has recognized four subdivisions within the Gunsteel shales, here designated units 3a to 3d.

Unit 3a consists of siliceous, graphitic black shale which locally contains carbonate concretions, nodular barite and/or laminated pyrite. This subunit is the direct host to mineralization on the property and seems to be restricted to a few ten's of metres vertically around mineralization (above and below), but can be quite extensive laterally, updip and downdip from mineralization. Due to the very siliceous to cherty nature of these rocks they tend to be non-fissile, in spite of being intensely graphitic. In addition, when present, concretions, barite nodules and pyrite laminations make this subunit readily identifiable. Carbonate concretions vary from less than one centimetre to in excess of one metre in diameter.

Subunit 3a grades into 3b which is similar but exhibits some important differences. Subunit 3b is variably siliceous and graphitic and can still contain pyrite laminations or barite nodules. It can be distinguished from 3a by the common presence of siltite laminations and the occasional presence of grey to black siltstone beds, generally less than 10 cm thick. Siltite laminations are usually less than one centimetre thick and grey in colour, locally imparting a striped appearance to the shales. Due to the generally decreasing silica content, rocks of this unit are also variably fissile in appearance. Shale of unit 3b is a common lithology in the area of 1995 mapping.

Extensive exposures of chert (unit 3c) were also identified during geological mapping, particularly in the area between Fluke and Pook creeks. Chert is present in two distinct forms, as massive, thick bedded grey to black chert and as black ribbon bedded chert. Both occur as interbeds within shale dominant sequences and as thick, chert dominant intervals. Massive cherts are often rusty on fracture surfaces and characteristically are cut by abundant, white, quartz veins and veinlets. Ribbon bedded

chert consists of 1-10 cm thick black chert beds separated by millimetre - scale black shale interbeds. Although previous work indicated that chert was present only stratigraphically above mineralization, the current work has located chert throughout the Gunsteel sequence, above and below mineralization.

Unit 3d includes all undivided Gunsteel shales. These shales are grey to black in colour, non-siliceous and non-graphitic. They often have a "silty" appearance and may locally grade into siltstone or mudstone. A ubiquitous slaty cleavage is particularly well developed in unit 3d, producing commonly fissile shale, locally to the point of paper thin plates.

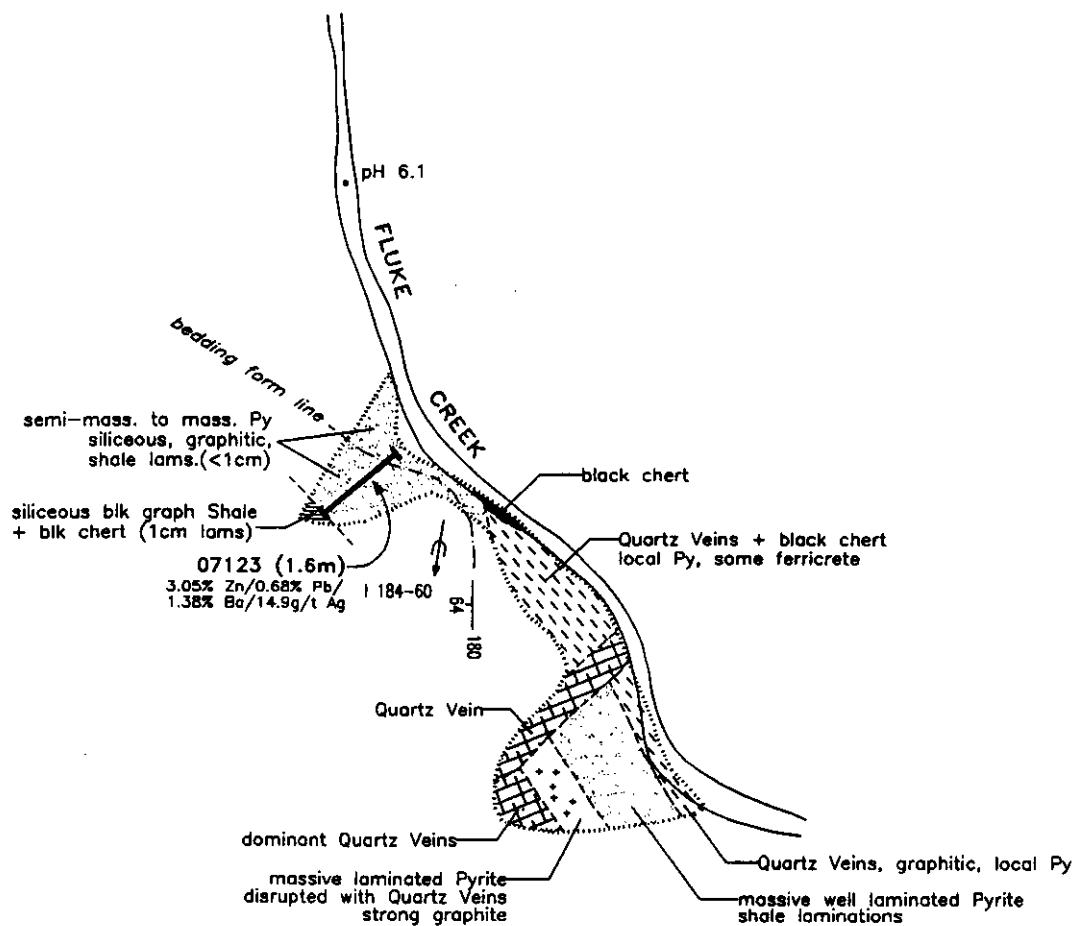
UNIT 4 - CONUNDRUM SILTSTONE

Unit 4 overlies the Gunsteel shales but is likely still of Upper Devonian age. This unit probably correlates with the Conundrum Siltstone as described by Cyprus Anvil geologists (Roberts, 1981; Pigage, 1982), and consists of a siltstone dominant sequence. Main rock types include; grey, brown, to black weathering, grey to black thick bedded (2-50cm) siltstone; locally grey shale interbeds produce a well bedded siltstone- shale lithology. Occasional coarser, gritty beds may be present. The siltstone and shale are often, but not always, mildly calcareous. Contact relationships between units 3 and 4 are not known on the Fluke property, in other areas however, the contact is often faulted. There is some suggestion of a broad transition between upper Gunsteel Fm. and Conundrum siltstone. This transition is in the form of increasing siltstone content towards the top of the Gunsteel Fm., becoming siltstone dominant in Unit 4. Additional work is necessary to confirm this however, if correct, may be indicative of a marine regression in the uppermost Devonian, allowing a rapid influx of coarser clastic material.

D. Mineralization

Two showings are presently known on the property, both discovered by Cyprus Anvil Mining Corp. during the period 1978 -1982. The showings are known as the Fluke Creek and Pook occurrences, respectively and are about 750 metres apart along strike (figure 4). Both showings were mapped and sampled in 1995 to determine mineralization styles and host lithologies.

The Fluke Creek occurrence is poorly exposed within and on the bank of Fluke Creek. Mineralization consists of semi-massive to massive, laminated pyrite with interbedded siliceous, graphitic shale laminations (figure 5). Individual laminations are generally less than one centimetre in thickness. Bedding within the sulphide shows strong transposition into cleavage. The exposure is strongly folded on a small scale (1 metre limb to limb), with a fold axis dipping 60° to the south (towards 184°). Mineralization is pyrite dominant, barite is not apparent and only a trace of sphalerite was noted. The exposed mineralization is a maximum of 2.0 metres thick, but the section is intensely faulted, as



INTENSELY FOLDED ON 10-30cm SCALE
STRONG BEDDING TRANSPOSITION INTO
CLEAVAGE (Brighter Remobilized Py)

— BEDDING
— FOLD AXIS-SYNFORM

0 2 4
metres



FIGURE 5

TECK EXPLORATION LTD. KAMLOOPS, BRITISH COLUMBIA		
FLUKE PROPERTY		
FLUKE CREEK SHOWING		
DATE DRAWN: SEPT. 1, 1995	SCALE: 1:100	DWG. NAME:
COMPILED BY: R. Farmer	JOB No: 1754	FLU-SHW
DRAWN BY: S.A.	NTS No: 94F/7W	

evidenced by the presence of abundant quartz veining containing fragments of laminated pyrite, particularly on the south and east sides of the exposure.

Stratigraphy at the showing strikes north-south and dips 64° to the west. Mineralization is immediately overlain by siliceous, graphitic shale containing 1 cm thick beds of black chert, and is underlain by thick, poorly bedded black chert, strongly invaded by quartz veins. This is contained within a broader area characterized by siliceous black shale which is variably graphitic and locally contains pyrite. Sample number 07123 was collected across 1.6 metres over the north end of the mineralized exposure and graded; 3.05% Zn, 0.68% Pb, 1.38% Ba, 4.9g/t Ag (figure 5).

The Pook showing is located in Pook Bowl, near the base of a high cliff on the northwest side of the bowl (figure 4). The showing consists of a 1.8 metre thick mineralized zone, the central 1.0 metre of which is massive, well laminated barite containing galena as disseminations and millimetre scale laminations (figure 6). This is surrounded on both sides by interlaminated black, graphitic, silty shale; barite and rare pyrite. Mineralization strikes 152° and dips 58° to the southwest. Talus covers the southeast strike extension however, despite good exposure, mineralization can only be traced for approximately 10 metres to the northwest. A bedding parallel quartz vein 1.5 metres below mineralization likely represents a fault, but does not appear to intersect the mineralized horizon. Small scale isoclinal folding with southerly plunge is readily apparent in the area and is the most plausible explanation for lack of strike extent to the northwest. If correct, this would suggest the showing is considerably thinner than 1.8 metres, due to fold repetition. The mineralization is overlain by black, very graphitic shale containing local pyrite laminations, in turn overlain by well bedded siliceous shale. Ribbon bedded chert 2-3 metres thick is exposed approximately 20 metres upsection. Underlying mineralization is again black graphitic shale, in turn underlain by black, poorly bedded chert cut by abundant quartz veins. Below this is a 1-2 metre thick quartz vein parallel to bedding and possibly representing a fault. Below the vein is a thick section of well bedded siliceous shale with common concretions to one metre, before exposure disappears under talus.

Sample number 07302 is a chip across 1.55 metres of the best mineralization and grades; 0.75% Zn, 4.41% Pb, 35.8% Ba, 37.8g/t Ag.

Although both showings are very different in their mineralogy (pyrite-zinc vs barite-lead), both are hosted by siliceous, graphitic shale and chert and could represent different levels of a similar mineralizing system.

GEOCHEMISTRY

A total of 24 samples were collected as part of the 1995 exploration program, comprising 6 rock samples, 5 soil samples and 13 silt samples. Silt samples include moss mat samples from creeks, prefixed with an "M" on figure 4 and Table 2, and samples from

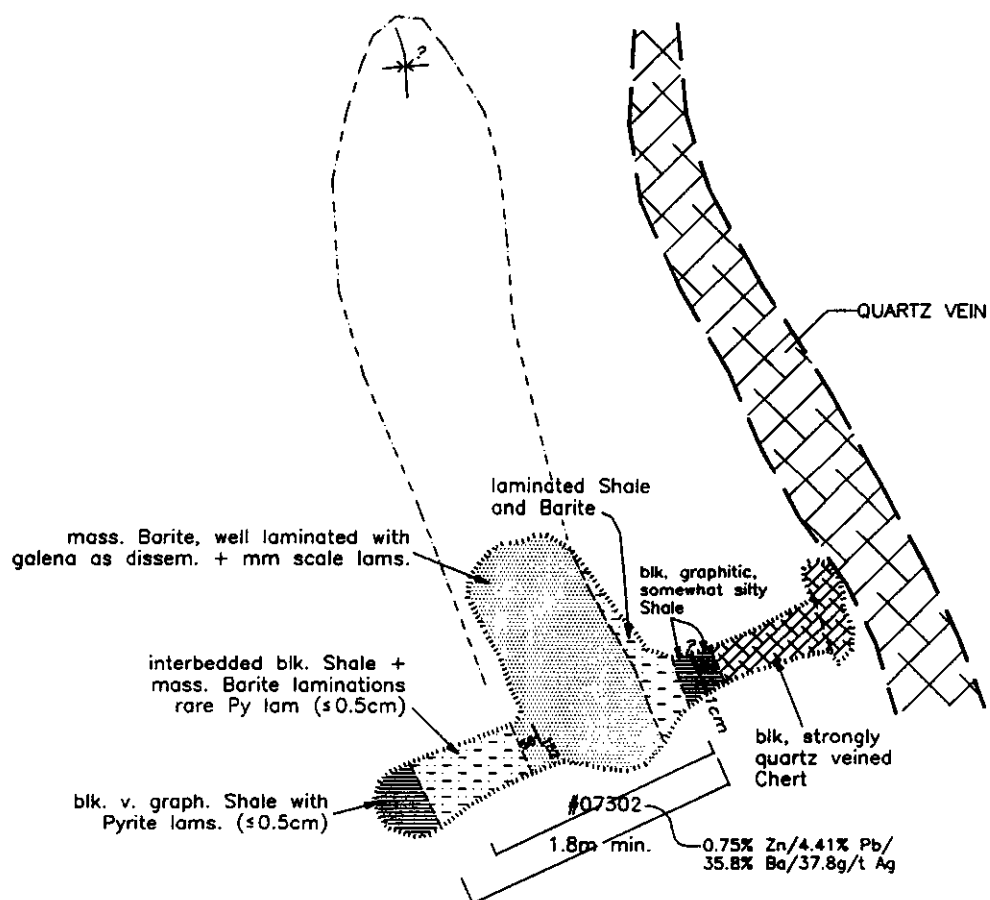



FIGURE 6



 TECK EXPLORATION LTD. KAMLOOPS, BRITISH COLUMBIA		
FLUKE PROPERTY		
POOK SHOWING		
DATE DRAWN: SEPT. 7, 1995	SCALE: 1:50	DWG. NAME: FLU- PK
COMPILED BY: R. Former	JOB No: 1754	
DRAWN BY: S.A.	NTS No: 94F/7W	

iron seepage zones, prefixed with a "G". All samples were sent to Min-En laboratories in Vancouver, B.C. for analysis. Three rock samples were analysed for Zn, Pb, Ba and Ag by assay methods, while all other samples were analysed for 31 elements by ICP plus Ba. Sample locations and results for Pb, Zn, Ag, Ba are shown on figures 4, 5 and 6 and complete results are listed on the Certificates of Analyses located in Appendix III. A sample list is included in Table 2 below.

Five soil samples were collected on the ridge south of Pook basin in an attempt to confirm a strong Pb in soil anomaly identified by previous operators. Samples were collected from the "B" horizon, when possible, and placed in Kraft paper bags. Soil horizons in the area sampled are thin and poorly developed, much of the soil appears to be talus with little or no horizon development. The soils collected did not contain highly anomalous concentrations of Pb (63ppm was highest value obtained). Poor soil development is the likely cause of low metal concentrations, however as sample locations from the previous survey could not be located, it is possible that the samples were collected in the wrong location to identify the previous anomaly.

The 13 silt samples include 5 moss mat samples collected from creeks and 8 samples from iron seepage zones. Moss growing on rocks within creeks inherently collects and holds the correct size fraction for silt sampling and as such provides a quick and reliable method of collecting samples which minimizes sample collection errors. In the case of iron seepage zones, the seepages can be both, directly related to mineralization and, related to collection of metals by groundwater circulation through metalliferous black shale, then brought to surface along faults. Previous work in the belt indicates that the two types of seepages can be distinguished by lead content, which tends to be high when associated with mineralization and low when related to groundwater circulation in shales. Gossan samples were collected from close to discharge points or just from ferricrete in the case of ancient seepages.

As part of the program pH was measured from many of the creeks and gossans. pH values are plotted on the geology and Sample Location Map (figure 4).

Although additional work is required to confirm results, geochemical results, particularly for Pb and Ag, are enhanced in creeks and seepages associated with mineralization or the siliceous and graphitic sequence associated with mineralization. Drainage from shales and cherts tends to produce Pb values which are <60ppm, whereas drainage from mineralization or the sequence hosting mineralization tend to be >100ppm. Similarly, pH values for water, from creeks and seepages, shows a strong variation depending on lithology in the drainage. Preliminary results indicates that unmineralized shales and drainage from faults tends to yield pH values of >7, often >8. Drainage issuing from, or immediately below mineralization yield values of 5 or less. The mineralized sequence (siliceous shale with local pyrite or barite), yields values in between, ie 5-7.

Results indicate that geochemistry can be a useful tool to aid in the location of mineralization, or in tracing the favourable lithologic package.

Table 2
Sample List

SAMPLE NUMBER	DESCRIPTION	RESULTS (ppm unless otherwise stated)			
		Zn	Pb	Ba	Ag
G07301	Iron Seepage	2245	198	301	0.1
07302	Pook Showing - massive barite + pyrite, 1.55m chip	0.75%	4.41%	35.8%	37.8g/t
G07303	Iron Seepage	2500	601	86	2.1
G07304	Iron Seepage	>10,000	423	251	0.1
G07305	Iron Seepage	1365	345	239	1.0
G07306	Iron Seepage	61	213	525	2.0
G07307	Iron Seepage	118	248	1510	1.2
M07107	Moss Mat - Upper Fluke Creek	831	66	927	0.4
G07108	Iron Seepage	2569	337	304	0.1
07109	0.5m chip of shale with nodular barite	0.01%	0.18%	6.58%	1.4g/t
M07110	Moss Mat - small creek with Fe precipitate	91	144	313	14.7
G07111	Iron Seepage	2186	291	511	0.1
S07112	Soil Sample, ridge south of Pook Bowl	42	20	182	0.1
S07113	Soil Sample, ridge south of Pook Bowl	27	13	175	0.1
S07114	Soil Sample, ridge south of Pook Bowl	66	63	253	0.2
S07115	Soil Sample, ridge south of Pook Bowl	75	44	1014	0.3
S07116	Soil Sample, ridge south of Pook Bowl	61	29	853	0.5
07117	1.5m chip of black, siliceous pyritic shale	8	4	2.42%	0.4
M07118	Moss Mat - Creek in South Fluke Bowl	144	99	8420	0.6
07119	1.0m chip of black shale with barite nod and pyrite	77	1	4.24%	0.7
07120	2.0m chip of black shale with barite nod and pyrite	59	60	1.05%	1.9
M07121	Moss Mat - small creek in Pook Bowl	186	48	4950	0.6
M07122	Moss Mat - small creek in Pook Bowl	111	58	9810	2.2
07123	1.6m chip - Fluke Showing, massive laminated pyrite	3.05%	0.68%	1.38%	4.9g/t

CONCLUSIONS

Geological mapping was undertaken on the property in 1995, in the area between upper Fluke Creek in the northwest and the southern property boundary. Mapping indicates that the two showings are hosted by a sequence of black chert and siliceous, and graphitic black shale with local concretions, barite nodules and pyrite laminations. This sequence has been traced southeastwards across the property to the southern claim boundary. Approximately 1.5 km of this strike extent has not been drill tested. In the South Fluke Bowl, near the south property boundary, nodular barite and laminated pyrite in shale has been identified in four areas. This lithology is considered to occur proximal to mineralization.

A grid comprising 4.4 line kilometres was cut over this area in South Fluke Bowl to provide control for future detailed geological mapping and grid controlled soil sampling. The grid comprises an 800 metre baseline with cross lines every 100 metres, with picketed stations every 25 metres along lines. Due to slow progress and a tight budget all lines on the grid were not completed.

Limited geochemical sampling indicates that streams and iron seeps draining mineralization or mineralized stratigraphy contain anomalous concentrations of lead (>100 ppm). Ph measurements of small streams and seepage zones similarly indicates lower ph values associated with mineralization or mineralized stratigraphy as compared to other portions of Gunsteel or other stratigraphy (ph <5-7 vs >7). Additional sampling is required to verify these findings.

REFERENCES

- Cecile, M.P. and Norford, B.S. (1979): Basin to platform transition, lower Paleozoic strata of Ware and Trutch map-areas, northeastern B.C.; in Current Research, Part A, GSC Paper 79-1A, Report 36.
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- Taylor, G.C., and MacKenzie, W.S. (1970): Devonian stratigraphy of northeast B.C.; GSC Bulletin 186.
- Taylor, G.C., Cecile, M.P., Jefferson, C.W. and Norford, B.S. (1979): Stratigraphy of the Ware E1/2 map area; in Current Research, Part A, GSC Paper 79-1A, Report 37.

APPENDIX I : COST STATMENT

**FLUKE PROPERTY
COST STATEMENT**

1. GEOLOGY

R. Farmer (Geologist)
8 days @ \$268.00/day (June 19-26, 1995).....\$2144.00

Paul Watt (Assistant)
8 days @ \$232.00/day (June 19-26)\$1856.00

Subtotal:.....\$4000.00

2. ANALYTICAL

Rock samples assayed for Pb, Zn, Ag, Ba
3 samples @ \$26.30 each\$78.90

Rock samples analysed for 30 element ICP + Ba
3 samples @ \$16.30 each\$48.90

Soil and silt samples analysed for 30 element ICP + Ba
18 samples @ \$13.55 each\$243.90

Subtotal:.....\$371.70

3. HELICOPTER (Northern Mtn. Helicopters)

a) Geological / Geochemical
Hughes 500D, and Astar - 5.5 Hrs @ \$758.65/hr\$4172.57

b) Linecutting
Hughes 500D - 4.9 hrs @ \$735.80/hr\$3605.42

Subtotal:.....\$7777.99

4. BOARD

a) Cook (15 days) - 15 days @ \$246.00/day.....\$3690.00

b) Groceries (lump sum)\$1500.00

Subtotal:.....\$5190.00

5. LINECUTTING

a) Mobilization (proportionate share)	
1/2 of \$1500.00 lump sum	\$750.00
b) Daily work	
7 Days @ \$520/Day (July 8-14)	\$3640.00
Subtotal:	\$4390.00

6. COMMUNICATIONS

Satellite Telephone Rental (TD Communications Ltd)	
15 days @ \$144.00/Day	\$2160.00
Subtotal:	\$2160.00

7. REPORT AND DRAFTING

a) Report writing	
R. Farmer (Geologist) - 2 days @ \$268.00/day	\$536.00
b) Drafting	
2 days @ \$188.50/day	\$377.00
Subtotal:	\$913.00

Total Cost of Program:\$24,802.69



APPENDIX II : STATMENT OF QUALIFICATIONS

I, Randy Farmer, do hereby certify that:

- 1) I am a geologist and have practised my profession for more than 15 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 program on the Fluke 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 Fluke Property which is the subject of this report.
- 6) I am a Professional Geoscientist registered in the Province of British Columbia (Registration No. 20192).



Randy Farmer

Randy Farmer, P. Geo.
Senior Project Geologist
September, 1995

APPENDIX III : CERTIFICATES OF ANALYSES



**MINERAL
• ENVIRONMENTS
LABORATORIES**
(DIVISION OF ASSAYERS CORP.)

SPECIALISTS IN MINERAL ENVIRONMENTS
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

VANCOUVER OFFICE:
8282 SHERBROOKE STREET
VANCOUVER, B.C. CANADA V5X 4E8
TELEPHONE (604) 327-3436
FAX (604) 327-3423

SMITHERS LAB:
3176 TATLOW ROAD
SMITHERS, B.C. CANADA V0J 2N0
TEL (604) 847-3004
FAX (604) 847-3005

Assay Certificate

5V-0205-RA1

Company: **TECK EXPLORATION LTD KAMLOOPS**
Project:
Attn: **R. Farmer**

Date: **JUN-26-95**
Copy 1. Teck Exploration Ltd., Kamloops, B.C.

*We hereby certify the following Assay of 8 rock samples
submitted JUN-22-95 by R. Farmer.*

Sample Number	Ag g/tonne	Ag oz/ton	Ba %	Pb %	Zn %
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
07109	1.4	.04	6.58	.18	.01
07302	37.8	1.10	35.80	4.41	.75

Certified by _____

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FAX (604) 847-3005

Assay Certificate

5V-0219-RA1

Company: **TECK EXPLORATION LTD**
Project: 1754
Attn: Randy Farmer

Date: JUL-10-95

Copy 1. Teck Exploration Ltd., Kamloops, B.C.

*We hereby certify the following Assay of 2 rock samples
submitted JUN-30-95 by R. Farmer.*

Sample Number	Ag g/tonne	Ag oz/ton	Ba %	Pb %	Zn %
07123	4.9	.14	1.38	.68	3.05

Certified by _____

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SMITHERS LAB:
3176 TATLOW ROAD
SMITHERS, B.C. CANADA V0J 2N0
TEL (604) 847-3004
FAX (604) 847-3005

Geochemical Analysis Certificate

5V-0219-RG1

Company: **TECK EXPLORATION LTD**
Project: **1754**
Attn: **Randy Farmer**

Date: **JUL-10-95**
Copy 1. Teck Exploration Ltd., Kamloops, B.C.

*We hereby certify the following Geochemical Analysis of 3 rock samples
submitted JUN-30-95 by R. Farmer.*

Sample Number	Ba %
07117	2.42
07119	4.24
07120	1.05

Certified by _____

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SMITHERS, B.C. CANADA V0J 2N0
TEL (604) 847-3004
FAX (604) 847-3005

Geochemical Analysis Certificate

5V-0219-SG1

Company: **TECK EXPLORATION LTD**
Project: **1754**
Attn: **Randy Farmer**

Date: **JUL-10-95**
Copy 1. Teck Exploration Ltd., Kamloops, B.C.

We hereby certify the following Geochemical Analysis of 6 moss mat samples submitted JUN-30-95 by R. Farmer.

Sample Number	Ba PPM
MD7118	8420
MD7121	4950
MD7122	9810
G07306	525
G07307	1510

Certified by _____


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SMITHERS LAB:
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SMITHERS, B.C. CANADA V0J 2N0
TEL (604) 847-3004
FAX (604) 847-3005

Geochemical Analysis Certificate

5V-0205-SG1

Company: **TECK EXPLORATION LTD KAMLOOPS**

Date: **JUN-26-95**

Project:

Copy 1. Teck Exploration Ltd., Kamloops, B.C.

Attn: **R. Farmer**

We hereby certify the following Geochemical Analysis of 13 mossmat/silt/soil samples submitted JUN-22-95 by R. Farmer.

Sample Number	Ba PEM
M07107	>10000
G07108	628
M07110	2090
G07111	1740
07112	4070
07113	7250
07114	3910
07115	6740
07116	7110
G7301 (ROCK)	1940
G7303	103
G7304	377
G7305	3433

Certified by _____

MIN-EN LABORATORIES

ATTN: R. Farmer

TEL: (604) 327-3436 FAX: (604) 327-3423

• Moss Mat/Silt/Soil • (ACT:F31)

[illegible]

ATTN: Randy Farmer

TEL: (604) 327-3436 FAX: (604) 327-3423

* soil • (ACT:F31)

SAMPLE NUMBER	AG PPM	AL %	AS PPM	BA PPM	BE PPM	BI PPM	CA %	CD PPM	CO PPM	CR PPM	CJ PPM	FE %	GA PPM	K %	LI PPM	MG %	MN PPM	MO PPM	NA %	NI PPM	P PPM	PB PPM	SB PPM	SN PPM	SR PPM	TH PPM	TI %	U PPM	V PPM	W PPM	ZN PPM
M07118	.6	.37	14	601	.9	3	.91	.1	16	19	37	3.42	3	.36	2	.14	416	36	.01	117	1980	99	14	4	123	1	.01	1	38.0	2	1440
M07121	.6	.63	1	630	1.0	3	.78	27.5	24	21	106	3.15	3	.07	7	.14	506	13	.01	251	1060	48	6	4	44	1	.01	1	28.3	3	1864
M07122	2.2	.68	1	940	1.1	6	.74	1.9	23	35	78	3.87	4	.11	7	.10	589	34	.01	146	2450	58	16	4	346	1	.01	1	74.4	4	1119
G07306	2.0	1.22	292	254	6.4	24	.10	.1	75	159	85	>15.00	29	.02	1	.02	1611	224	.01	107	5600	213	14	47	1	1	.01	1	112.8	1	617
G07307	1.2	.56	302	249	6.2	49	.15	.1	76	170	27	>15.00	30	.03	2	.03	1191	26	.01	122	510	248	20	46	1	1	.01	1	119.7	1	1188

MIN-EN LABS — ICP REPORT
8282 SHERBROOKE ST., VANCOUVER, B.C. V5X 4E8
TEL: (604) 327-3436 FAX: (604) 327-3423

FILE NO: 5V-0219-RJ1
DATE: 95/07/10
* rock * (ACT:F31)

[illegible]

APPENDIX IV : ANALYTICAL PROCEDURES



**MINERAL
ENVIRONMENTS
LABORATORIES**

Division of Assayers Corp. Ltd.

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

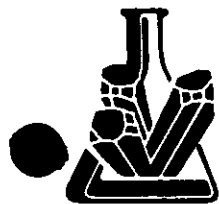
**Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cu, Fe, K,
Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sr, Th, Ti, V, Zn,
Ga, Sn, W, Cr**

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.



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 sub-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.



**MINERAL
• ENVIRONMENTS
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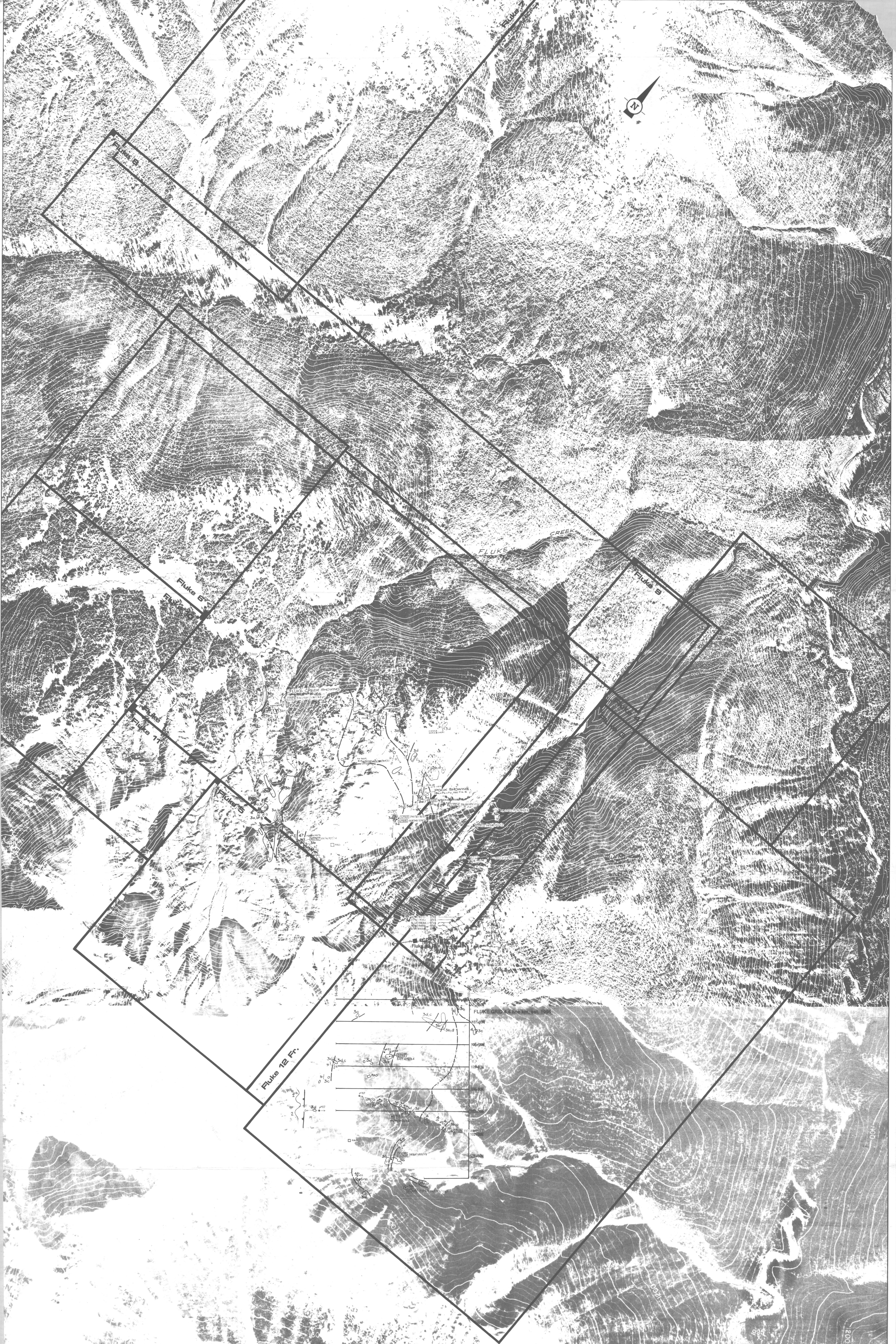
Division of Assayers Corp. Ltd.

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 HNO_3 - KClO_3 mixture and when reaction subsides, HCL is added before it is placed on a hotplate 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.



24,080



Claim post locations have not been verified on the ground. Claim locations are plotted from maps generated by previous operators.

LEGEND

4 SUPER DEVONIAN
CONJUGIAL SILTSTONE: Grey, brown to black weathering, black thick bedded siltstone, rhythmically bedded siltstone shale, local grit

38 GUNTEEL FORMATION
UNDEVELOPED: Generally includes all non-siltstone, non-graphitic grey to black shales. Thin bedded to poorly bedded, often fissile

3c CHERT: Grey to black massive, thick bedded chert, often strongly invaded by white quartz veins, also black ribbon bedded zone

3b VARIETY SLICEOUS and GRAPHITIC SHALE: often white laminated, local thin grey black, sliceous beds, shale nodules and/or pyrite laminations present locally

3a SLICEOUS to CHERT, GRAPHITIC BLACK SHALE, local concretions, barite nodules, pyrite laminations. Host to mineralization

3 BROWN to buff weathering DOLOMITIC SILTSTONE, local grey limestone

2 COPPER VOLCANICS: carbonate rich mafic flows and volcanics

SYMBOLS

THURST FAULT
FAULT
BEDDING: normal, vertical
CLEAVAGE: normal, vertical
ANTIFORM SYNCLINE: axial trace
SYNFORM SYNCLINE: axial trace
CONTACT: known, inferred
SCARP or OUTCROP
FLOOD
ROAD TRAIL
SEEP or SPRING, pH MEASUREMENT
SAMPLE No. and LOCATION
RESULTS: DTH, BULK
in ppm (parentheses), otherwise in %

TECK EXPLORATION LTD.
KAMLOOPS, BRITISH COLUMBIA

FLUKE PROPERTY

**GEOLOGY,
SAMPLE LOCATIONS
and GRID LOCATION**

0 100 200 METERS

DATE DRAWN: SEPT 28, 1995
COMPILED BY: R. Farmer
DRAWN BY: S.A.

SCALE: 1:5,000
DTH No. 1754
DTH No. 10770

FIGURE No.
4