

**RECEIVED**  
APR 25 2006  
Gold Commissioner's Office  
VANCOUVER, B.C.

Assessment Report for the

**SAWYER Property**

Fort Steele Mining Division  
N.T.S. 82 F/ 10E, 15E  
Latitude 49° 45' N, Longitude 116° 34' W

for

Jasper Mining Corporation  
1020, 833 - 4<sup>th</sup> Avenue S.W.  
Calgary, Alberta  
T2P 3T5

Submitted by:

Richard T. Walker

of

Dynamic Exploration Ltd.  
656 Brookview Crescent  
Cranbrook, B.C.  
V1C 4R5

Submitted: April 17<sup>th</sup>, 2006

2006  
GEOLOGICAL SURVEY BRANCH

## **SUMMARY**

The Sawyer property is located approximately 65 kilometres northwest of Cranbrook, east of Kootenay Lake in the Purcell Mountains. The property can be reached by utilizing the St. Mary's River Forestry Service Road network west of Marysville. A reasonably well maintained forestry road follows the St. Marys River to the property, with access to the eastern margin of the property available along the Sawyer Creek Forestry Road.

The property covers a mapped exposure of felsic intrusive material interpreted to correlate to the Bayonne Magmatic Belt, comprised of Cretaceous age felsic intrusions extending from the Baldy Batholith north of Kamloops to the International Boundary with the United States south of Creston. The Sawyer Creek Stock may represent an apophyse of the Fry Creek Batholith, a large intrusive complex located eight kilometres to the northwest. Alternatively, it may represent a separate intrusion similar to the Hall Lake Stock, located 14 kilometres to the southeast.

The 2006 field program consisted of an initial reconnaissance in late May to evaluate the status and condition of the roads and, subsequently, a three day, limited soil sampling program along the road network to initiate a geochemical database for the property. A total of 82 soil samples were recovered from the property and submitted to Acme Analytical Laboratories in Vancouver for 41 element ICP analysis.

TABLE OF CONTENTS

	<u>Page</u>
Summary	i
Table of Contents	ii
List of Figures	iv
List of Tables	iv
List of Appendices	iv
Introduction	1
Location and Access	4
Physiography and Climate	4
Claim Status	5
History	5
Regional Geology	7
Stratigraphy	7
Proterozoic	7
Belt-Purcell Supergroup	7
Sheppard Creek Formation	7
Gateway Formation	7
Dutch Creek Formation	8
Mount Nelson Formation	8
Middle Carbonate Division	9
Upper Division	9
Van Creek Formation	10
Lower Gateway Formation	10
Dutch Creek Formation	11
Mount Nelson Formation	11
Windermere Supergroup	13
Toby Formation	13
Horsethief Creek Group	14
Mesozoic	15
Granitic Intrusions	15
Local Geology	17
Stratigraphy	17
Structure	17
2005 Program	
Results	
Geochemical Results	
Molybdenum	
Copper	

	<u>Page</u>
<b>Lead</b>	<b>24</b>
<b>Zinc</b>	<b>24</b>
<b>Correlations</b>	<b>26</b>
<b>Discussion</b>	<b>27</b>
<b>Conclusions</b>	<b>28</b>
<b>Recommendations</b>	<b>29</b>
<b>Proposed Budget</b>	<b>30</b>
<b>References</b>	<b>31</b>

**LIST OF FIGURES**

	<b>Page</b>
<b>Figure 1 - Regional Location Map</b>	<b>2</b>
<b>Figure 2 - Property Location Map</b>	<b>3</b>
<b>Figure 3 - Claim Location Map</b>	<b>6</b>
<b>Figure 4 - Soil Sample Location Map</b>	
<b>Figure 5 - Molybdenum in Soils</b>	<b>20</b>
<b>Figure 6 - Copper in Soils</b>	<b>22</b>
<b>Figure 7 - Lead in Soils</b>	<b>25</b>
<b>Figure 8 - Zinc in Soils</b>	<b>26</b>

**LIST OF TABLES**

<b>Table 1 - Statistical Summary for Selected Data from Soils</b>
<b>Table 2 - Correlation Coefficients for sub-set of Soil Analyses</b>

**LIST OF APPENDICES**

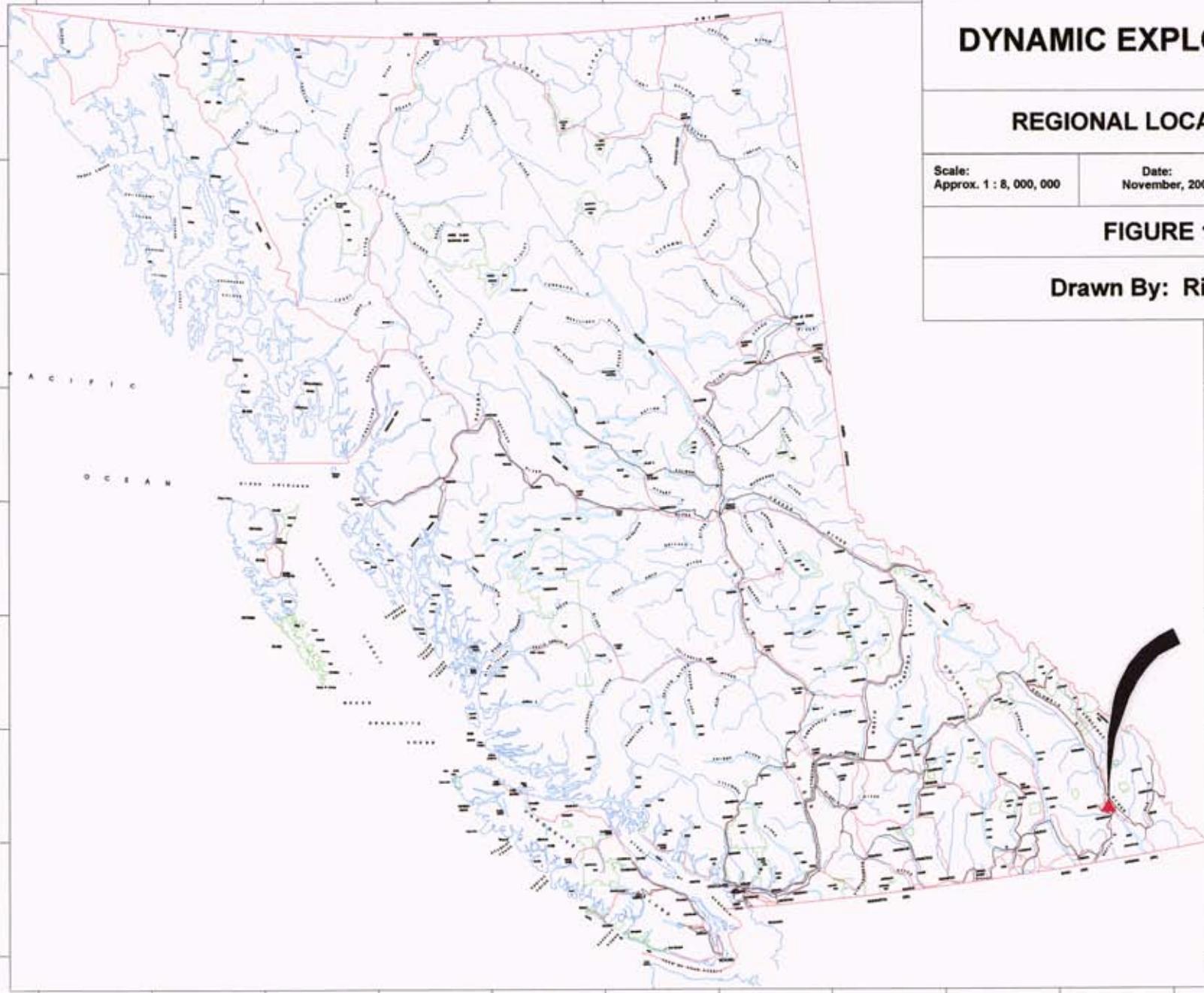
<b>Appendix A - Statement of Qualifications</b>
<b>Appendix B - Analytical Results</b>
<b>Appendix C - Soil Descriptions</b>
<b>Appendix D - Statement of Expenditures</b>

## **INTRODUCTION**

The Sawyer property is located approximately 65 kilometres northwest of Cranbrook, east of Kootenay Lake in the Purcell Mountains (Fig. 1 and 2). The property can be reached by utilizing the St. Mary's River Forestry Service Road network west of Marysville. A reasonably well maintained forestry road follows the St. Marys River to the property, with access to the eastern margin of the property available along the Sawyer Creek Forestry Road.

The property (Fig. 3) covers a mapped exposure of felsic intrusive material interpreted to correlate to the Bayonne Magmatic Belt, comprised of Cretaceous age felsic intrusions extending from the Baldy Batholith north of Kamloops to the International Boundary with the United States south of Creston. The Sawyer Creek Stock may represent an apophyse of the Fry Creek Batholith, a large intrusive complex located eight kilometres to the northwest. Alternatively, it may represent a separate intrusion similar to the Hall Lake Stock, located 14 kilometres to the southeast.

The 2006 field program consisted of an initial reconnaissance to evaluate the status and condition of the roads and, subsequently, limited soil sampling along the road network to initiate a geochemical database for the property. A total of 82 soil samples were recovered from the property and submitted to Acme Analytical Laboratories in Vancouver for 41 element ICP analysis.



**DYNAMIC EXPLORATION LTD**

**REGIONAL LOCATION MAP**

Scale:  
Approx. 1 : 8, 000, 000

Date:  
November, 2005

Mapsheet:  
N.T.S. 82G / 12E  
BCGS: 082G052

**FIGURE 1**

**Drawn By: Rick Walker**

**Property  
Location**

# DYNAMIC EXPLORATION LTD

## PROPERTY LOCATION MAP

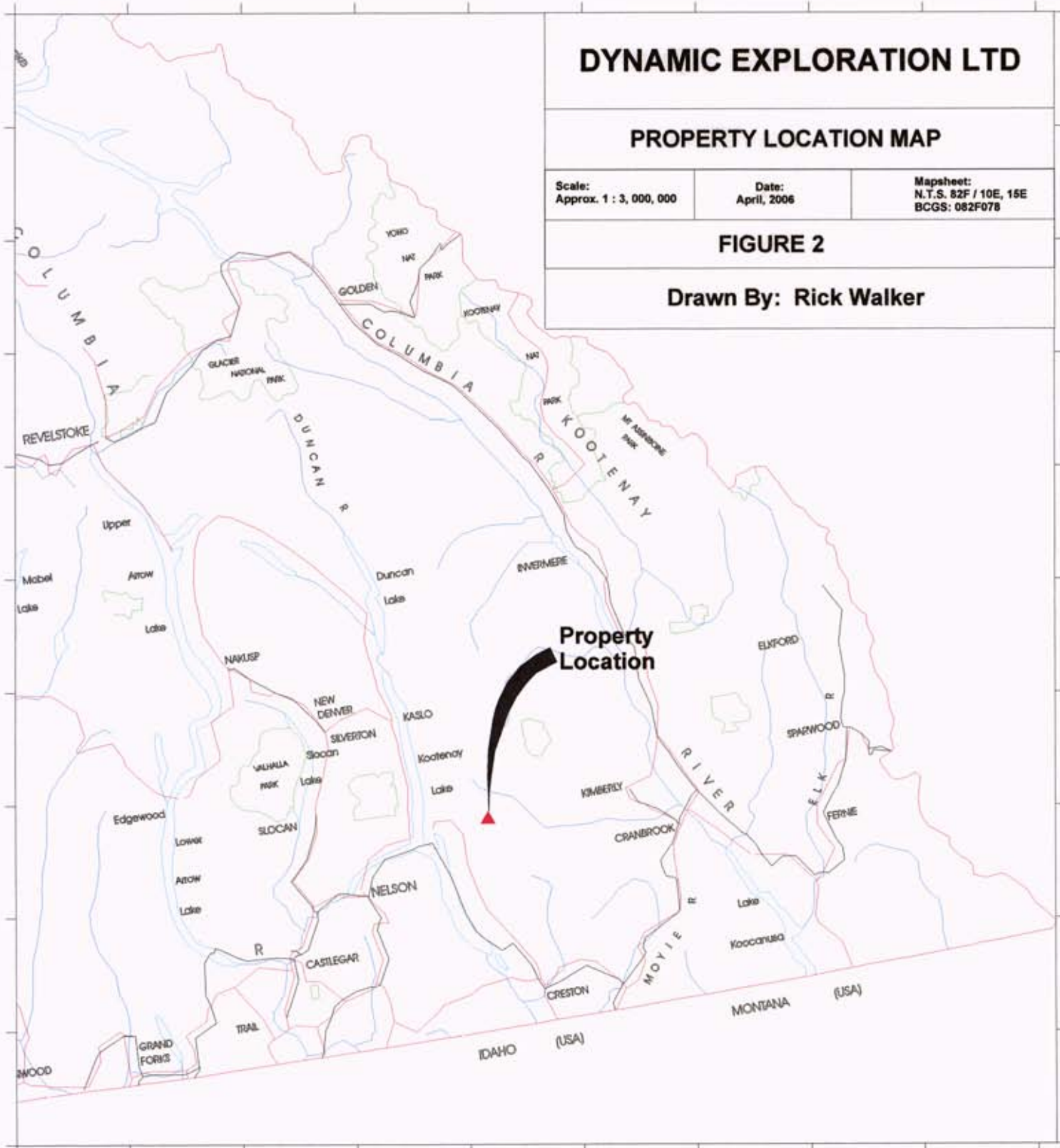
Scale:  
Approx. 1 : 3, 000, 000

Date:  
April, 2006

Mapsheet:  
N.T.S. 82F / 10E, 15E  
BCGS: 082F078

### FIGURE 2

Drawn By: Rick Walker





## **LOCATION AND ACCESS**

The SAWYER property is located in the western Purcell Mountains (Latitude 49° 45' N, Longitude 116° 34' W), approximately 65 kilometres northwest of Cranbrook, B.C. on N.T.S. mapsheet 82 F/10E, 15E ( Fig. 1 and 2). The property consists of 4 Mineral Tenures acquired through Mineral Tenures Online (Fig. 3).

The property can be accessed by gravel Forest Service Roads (FSR) from Cranbrook / Kimberley along the St. Mary's Road. The road is well maintained west of St. Mary's Lake to Km 42. At km 45, continue north along the St. Mary's FSR for approximately 12 km to a fork in the road. Take the left fork and cross over the bridge, then the left fork again, crossing over another bridge. Approximately 3 km farther along, the road crosses another bridge to the south side of the St. Mary's River. Approximately 6 km further along the road, there is a branch road on the south side of the road which provides vehicle access to the east side of the Sawyer property. Continuing along the main logging road, continuing along the St. Mary's River, one crosses another bridge to the north side of the St. Mary's River and vehicle access to the northern portion of the property. All roads are negotiable using a 2WD vehicle although 4WD is recommended for better clearance.

Helicopter access is recommended for the western and central portions of the property.

## **PHYSIOGRAPHY AND CLIMATE**

The SAWYER property is located slightly east of Rose Pass (Fig. 2), approximately 65 km northwest of Cranbrook, on the east side of Kootenay Lake (Fig. 1). Relief in the area varies from 1200 metres (3,930 feet) along the St. Mary's River to approximately 2320 metres (7,611 feet) on an unnamed peak in the core of the property.

The claims are generally characterized by moderately to very steep topography, with generally north and south facing slopes along east-west oriented valleys. Sawyer Creek, along the eastern edge of the property is oriented roughly north-south.

Vegetation in the area consists predominantly coniferous, with deciduous trees preferentially located along the valley bottom. Undergrowth consists largely of small deciduous shrubs, with Devil's Club along watercourses and wet areas.

The claims are located east of Kootenay Lake along a regional topographic high, comprising the local drainage divide, and are therefore subject to heavier precipitation. As a result, the region is characterized by heavy snowfall during the winter months. The property is available for vehicle based, geological exploration from June to late October.

## CLAIM STATUS

The property consists of 4 Mineral Tenure On-line (MTO) mineral tenures (Fig. 3), acquired in accordance with existing government claim location regulations. Significant tenure information is summarized below:

<b>Tenure Name</b>	<b>Area (ha)</b>	<b>Tenure #</b>	<b>Expiry Date*</b>
Sawyer East	501.055	520997	Oct. 12, 2006
Sawyer North	375.644	509603	Mar. 24, 2007
Sawyer West	250.551	520998	Oct. 12, 2006
Intrusive	<u>438.339</u>	501293	Jan. 12, 2007
<b>Total:</b>	<b>1,565.589</b>		

Assessment was filed only on the Sawyer North and Intrusive Mineral Tenures

\*After 2005 assessment credit applied.

## HISTORY

1990 - Geological Development Report on the Lapointe Creek Property, M.B. Bapty, 50 pp. (unpub.)

1993 - Nelson (East Half) mapsheet, Geological Survey of Canada Open File 2721, Scale 1:100,000

1994 - Report on Sawyer Property, M.B. Bapty and Walker, R.T., 19 pp. (unpub.)

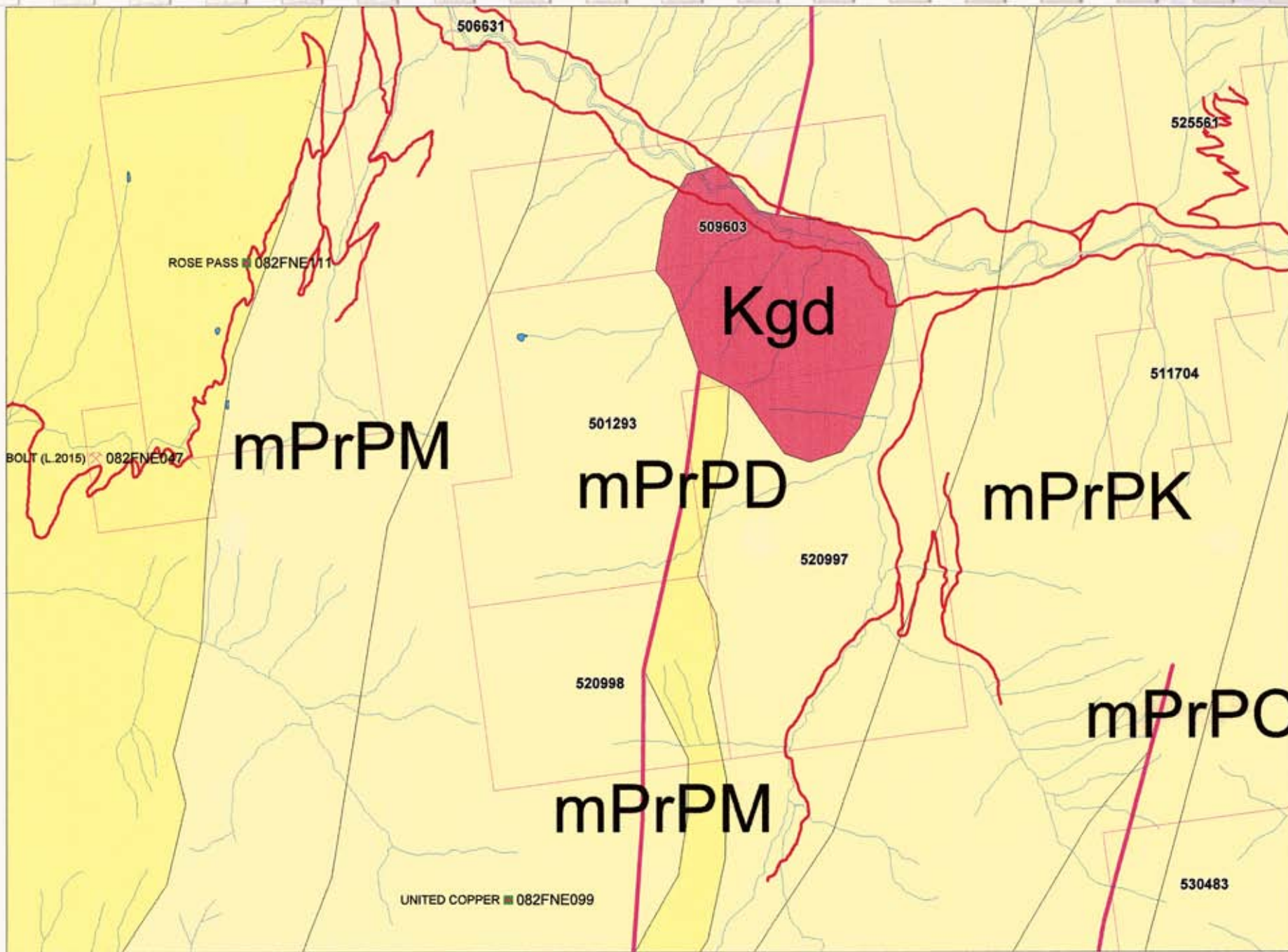
1994 - 1996 - Limited exploration undertaken on Sawyer property by Focal Resources under the direction of M.B. Bapty

1996 - Geology, Kootenay Lake, British Columbia. Geological Survey of Canada, Map 1864A, scale 1: 100 000

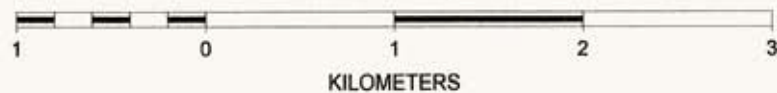
- Focal Resources Ltd. completed a limited exploration program with 2 BQ drill holes. The claims comprising the Sawyer property were subsequently allowed to lapse.

2005 - Initial Sawyer claims acquired through Mineral Tenure Online.

2006 - Two additional Mineral tenures acquired



SCALE 1 : 39,974



## **REGIONAL GEOLOGY**

The only previous work undertaken pertaining to the general area of the Sawyer claims was that of Reesor (1996, 1993) for the east side of Kootenay Lake. The stratigraphy of the Purcell Supergroup strata has been well described to the east by Höy (1993) and the Purcell and Windermere Supergroup to the north by Pope (1990).

### **Stratigraphy**

#### **Proterozoic**

##### **Belt-Purcell Supergroup**

The following has been modified from Höy (1993).

##### **Sheppard Creek Formation (Lower Dutch Creek Formation)**

The Sheppard Formation includes up to several hundred metres of stromatolitic dolomite, quartz arenite, siltstone and argillite lying above the Nicol Creek Formation. A dramatic increase in thickness in the Skookumchuk area is accompanied by prominent facies changes in the Sheppard Formation and in the overlying Gateway and Phillips formations.

The Sheppard Formation is characterized by an assemblage of green siltite, sandy dolomite, quartz wacke, distinctive stromatolitic dolomite and oolitic dolomite layers.

West of Skookumchuk, the formation is still recognizable but is referred to as the lower Dutch Creek Formation. It comprises green siltstone and argillite with minor dolomitic siltstone and, near the top, stromatolitic dolomite. This stromatolitic sequence can be traced north of Bradford Creek and marks the contact between the lower and upper Dutch Creek. It comprises cycles of rounded and gritty quartz wackestone, overlain by oolitic, stromatolitic or massive dolomite. These cycles may contain a few thin purple argillite beds with mud cracks and locally, rip-up clasts. They are overlain by and interbedded with light green siltstone-argillite couplets, usually lenticular, laminated and graded.

##### **Gateway Formation (Upper Dutch Creek Formation)**

The Gateway Formation is defined to include siltite, argillite, arenite and dolomite between the Sheppard Formation and red and maroon siltstone and argillite of the overlying Phillips Formation. It correlates with the lower part of the upper Dutch Creek Formation northwest of Skookumchuk.

The Gateway Formation comprises dominantly pale green siltstone and minor dolomitic or argillaceous siltstone.

... Salt casts and symmetrical ripples throughout the Gateway Formation suggest deposition in shallow water; dessication cracks, mud-chip breccias and oxidized facies indicate periods of

subaerial exposure. ... The formation thickens rapidly to the north in the Skookumchuk area primarily as the result of an increase in the pale green siltstone component. The absence of the overlying Phillips Formation, sparse outcrop and the similarity between lithologies in the upper Gateway and lower Roosville formations make it difficult to determine the thickness and extent of the Gateway Formation to the north and west. ...

### **Dutch Creek Formation**

The Dutch Creek Formation is defined as a group of rocks between the Purcell lavas (Nicol Creek Formation) and the Mount Nelson Formation. The lavas are not exposed in the Lardeau and Nelson east-half map areas and hence it is difficult to determine the exact thickness and extent of the Dutch Creek Formation there. It is estimated to be between 1200 and 1500 metres thick in the Windermere area and a 1300-metre section has been measured east of Kootenay Lake at Rose Pass.

In the Fernie west-half map area, the Dutch Creek Formation is only exposed northwest of Skookumchuck. The lower part of the formation is described in the section on the Sheppard Formation. The upper part includes the Gateway Formation the Roosville Formation and overlying rocks beneath the Mount Nelson Formation. The maximum thickness of the Dutch Creek Formation in the Bradford Creek area is estimated to be 4800 metres, including approximately 3300 metres of upper Dutch Creek.

The upper Dutch Creek is discontinuously exposed north of Skookumchuck. A carbonate marker bed approximately 200 metres thick occurs within the formation some 3000 metres above the Nicol Creek lavas. It is a massive, cream to tan-weathering, thick to medium-bedded dolomite and limestone unit. Crypto-algal features are present locally. The top and the base of the unit consist mainly of argillaceous silty dolomite. It is included within the Dutch Creek rather than the Mount Nelson Formation as the basal quartzite typical of the Mount Nelson is not exposed below it. Furthermore, green siltstone, black argillite and thin oolitic dolomite interbeds higher in the section probably correlate with similar facies in the Roosville Formation at Larchwood Lake.

### **Mount Nelson Formation**

The Mount Nelson Formation comprises a thick sequence of quartzite, dolomitic argillite and siltstone that conformably overlies the Dutch Creek Formation. It was restricted to include only the lower part of the formation. The upper part, informally named the Frances Creek Formation, is separated from the Mount Nelson Formation (new) by a disconformity.

The lower Mount Nelson Formation is divisible into three members in the Mount Forster map: a basal white orthoquartzite 100 to 200 metres thick, 100 to 300 metres of buff and grey dolomites and an upper unit, to 370 metres thick, of purple and red shale with buff dolomite interbeds. The overlying Frances Creek Formation comprises thick-bedded orthoquartzite, grey dolomite and interbedded sandstone and shale.

The total thickness of the Mount Nelson Formation (new) in the Mount Forster area varies from 500 metres to 1950 metres, due partly to erosion prior to deposition of the Frances Creek Formation or Windermere Supergroup and partly to syndepositional tectonics. The Frances Creek Formation varies in thickness from 750 metres to 1020 metres. At Rose Pass east of Kootenay Lake, the entire Mount Nelson Formation is approximately 750 metres thick.

In Fernie west-half map area, the Mount Nelson Formation is only exposed at Lookout Mountain along the northern edge of the map area. It has a gradational contact with the underlying Dutch Creek Formation; phyllitic black argillite-siltstone rocks become increasingly more quartzitic and the interbeds of quartz wacke become cleaner up-section. The basal quartzite of the Mount Nelson is a clean, well-rounded and well-sorted, medium-bedded orthoquartzite containing a few thin beds of sandy dolomite. The basal quartzite is overlain by a mixture of white, green and purple quartz arenite and dolomitic sandstone, locally gritty, as well as some purplish dolomite and argillite. Locally, the diagenetic character of these maroon beds is clearly demonstrated as the colouring crosscuts bedding planes and leaves spotty remnants of light green argillite. A buff weathering sequence of dolomite overlies these quartzwacke, siltstone and argillaceous dolomite beds. This package is overlain by more green siltstone and minor purple siltstone and argillite. The total exposed thickness of the Mount Nelson Formation is approximately 400 metres.

The following has been summarized from Aitken and McMechan (1991).

#### **Middle carbonate division**

A distinctive carbonate unit comprises the middle division of the Purcell (Belt) Supergroup. To the east, in the Rocky and eastern Purcell mountains, the middle division consists of the well known Kitchener Formation. In the west the middle carbonate division consists of the more basinal facies of the thick, lower subdivision of the Coppery Creek Group. The thick (1400 m) lower unit consists of dolomite interbedded with green, grey or black phyllite which grades upward to silvery and green phyllite, siltite and some carbonate.

#### **Upper division**

The strata comprising the Van Creek Sheppard, Gateway and Roosville formations of the Rocky and eastern Purcell Mountains pass laterally into a succession of grey and green siltite, argillite and phyllite, quartzite, argillaceous dolomite and dolomite. The volcanic (Nicol Creek) and red quartzite marker (Phillips) units thin and disappear to the west, making subdivision of the upper division impractical. Therefore, the upper two units of the 'Coppery Creek' and 'La France Creek' groups are interpreted to comprise the upper division along the western Purcell Mountains.

The upper two divisions of the Coppery Creek group consists of a middle unit approximately 200 m thick comprised of thinly laminated black phyllite and grey siltite. The upper unit consists of silvery phyllite, calcareous dark grey phyllite and dolomite, with a sequence of interbedded dolomite

and quartzite at the top and is approximately 300 metres thick.

The 'La France Creek group' of the western Purcell is approximately 1000 m thick, comprised of intensely deformed and metamorphosed sediments dominated by siltite, quartzite and phyllite. The group has been subdivided into a lower unit consisting of thinly interbedded, black phyllite and grey siltite and an upper unit of grey siltite and quartzite with black phyllite and carbonate-bearing siltite and phyllite near the top. The 'La France Creek group' gradationally overlies the upper unit of the 'Coppery Creek group'. In most areas, strata of the 'La France Creek group' grade into thicker-bedded quartzite at the base of the Mount Nelson Formation.

The Mount Nelson Formation consists of a cliff-forming, basal unit of white, grey or green orthoquartzite with rare argillaceous laminae and partings, overlain by brownish red to grey-weathering impure carbonate interbedded with black, purple or red argillite and grey siltite. Stromatolites and lenses or nodules of chert occur locally within the carbonate unit. The basal orthoquartzite, up to 70 m thick, thins gradually to the south. Interbeds of green, black or red argillite are common within the upper quartzite unit and green and black argillite and siltite form the top of the preserved formation. The carbonate unit is thicker in western exposures, where it is overlain by interbedded black phyllite and grey siltite. Cream-weathering dark-coloured dolomite and brown-weathering, white dolomite, locally interbedded with black phyllite, occur at the top of the formation as preserved. Mud cracks in argillite, ripple marks in quartzite and solution-breccias in dolomite are locally common in both area.

The Mount Nelson Formation, whose maximum preserved thickness is about 1000 m is unconformably overlain by conglomerate of the Toby Formation of the Upper Proterozoic Windermere Supergroup. Evidence for small-scale, pre-Toby block faulting is found locally. Regionally, the unconformity cuts out progressively older Purcell strata southward along the western Purcell Mountains".

The following has been modified from Pope (1990):

#### **Van Creek Formation**

The Van Creek Formation consists of coarse to medium-grained, light-grey or green to dark-green quartzites, siltstones and silty argillites. The beds have consistent thicknesses of between 20 to 50 centimetres with slightly undulose bases and truncated tops, together with internal cross and planar lamination and grading. Van Creek quartzites grade upward into thinly bedded pale green quartzites and then into thinly interbedded 2 to 20 centimetre pale green quartzites, silts and buff weathering dolomitic silts of the Lower Gateway Formation, Hg 1 member.

#### **Lower Gateway Formation**

The Lower Gateway Formation is subdivided into two members Hg1 and Hg2.

**Hg 1:** The contact between the Van Creek and Lower Gateway formations is gradational and in the absence of the Nicol Creek Formation can only be roughly estimated. The lowermost units of the Lower Gateway Formation are identified as where carbonate first occurs in the succession. The thin bedded quartzites in this transitional sequence are characterized by weathered pyrite, which imparts a distinctive red spotted appearance.

The Hgl member is estimated ... to be well in excess of 1000 metres thick. It consists of interbedded packages of quartzite, green siltstone and buff dolomitic siltstone and dolomite. Sedimentary structures such as cross lamination, grading, channelling and dewatering structures, are well preserved and compositional differences frequently enhance exposures. Siltstones in the dolomitic packages usually show an upwards gradation from dolomite free, finely cross-laminated silt and sand to dolomitic cross-laminated siltstone and cryptalgal to stromatolitic-laminated micritic dolomite. Bed thicknesses vary from generally 2 to 10 centimetres in the fine grained quartzite dominated lower part, to 10 to 50 centimetres in the upper dolomite dominated part of the Hg 1 member.

**Hg2:** The dolomite dominated upper part of the Hgl member passes into a 90-metres thick, cream to buff weathering dolomite unit. The dolomite displays cryptalgal and stromatolitic laminations, cream chert intercalations, rare halite casts and silty and sandy cross lamination. Bed thickness varies between 50 centimetres to 2 metres, and grain size varies from micrite, which is typically blue-grey, to coarse sucrose-textured, light coloured recrystallized dolomite.

### **Dutch Creek Formation**

The boundary between the Lower Gateway Formation and the Dutch Creek Formation is characterized by a narrow zone of rusty weathering. The contact is interpreted as a parallel unconformity and the rusty weathering zone marking a hiatus.

Within the Dutch Creek Formation there is not a clearly defined stratigraphy, but four basic lithofacies (A to D) have been distinguished. Beds are usually between 2 to 20 centimetres thick and consist of fine grained quartzite and argillite in graded couplets. Sedimentary structures include fine herringbone ripple and channel cross-laminations. The Dutch Creek Formation has a marked lack of carbonate.

**Lithofacies A** - Finely interlaminated green and dark grey to black graded siltstone-argillite couplets. Beds 1 - 10 cm thick.

**Lithofacies B** - Drab green to grey silt to fine sand quartzite and grey green to black silty argillite interbeds 5 - 20 cm thick.

**Lithofacies C** - Grey black argillite and siltstone with buff dolomitic siltstones.

**Lithofacies D** - Dark grey limestone and limey siltstone interbedded with argillite beds 10 cm to 1 m thick.



There is a great variation in thickness of the Dutch Creek Formation from an estimated 1000 metres to less than 300 metres over a lateral distance of 5 kilometres. Although the observed contact with the overlying Mount Nelson Formation is always paraconformable, the contact is very sharp and represents a major change in facies, hydrodynamic energy and sedimentary processes, and is therefore interpreted as an unconformity.

### **Mount Nelson Formation**

The Mount Nelson Formation has been subdivided into the:

- a) lower quartzite, a useful 50 to 150 metre thick marker horizon consisting of white, well-sorted, fine- to medium-grained pure quartz arenites,
- b) lower main dolomite - an approximately 400 metre thick sequence which conformably overlies and is gradational with the lower quartzite, comprised of cryptalgal to stromatolitic laminated, pale grey weathering dolomites with interbedded carbonaceous argillites capped by a cream-coloured stromatolitic, crystalline cherty-dolomite unit approximately 20 metres thick overlain in sharp contact by,
- c) the middle quartzite - an apple green coloured sequence consisting of massive, fine- to coarse-grained quartz arenites, impure sandstones and argillites having A-B to A-E Bouma sequences evident,
- d) orange dolomite sequence - approximately 180 metres thick consisting of varicoloured buff weathering dolomitic siltstones, argillites and impure sandstones underlying bright orange-buff weathering silty and sandy crystalline dolomites with abundant cryptalgal and stromatolitic laminations and intercalated chert.
- e) white markers conformably overlie the orange dolomite and are up to 70 metres thick. The white markers consist of cream, buff and silver-grey dolomites with purple, green and buff dolomitic mudstones and local interbeds of pure white magnesite up to 1 metre thick,
- f) purple sequence - gradationally overlies the white markers, consisting of purple weathering dolomitic sandstones and siltstones which grade upward into purple weathering argillite. Mudchip breccias and monomict pebble conglomerates are interbedded with siltstones and argillites and the sequence is overlain by a pebble to boulder conglomerate with a purple weathering sandy argillitic matrix in sharp contact with the purple shales. The pebble to boulder conglomerate is interpreted as the locus of an intraformational unconformity with a thickness between 2 and 10 metres thick,
- g) upper middle dolomite - approximately 80 metres thick and similar to the lower main dolomite. It is distinguished by abundant algal allochems which are typically replaced by black chert,

- h) upper quartzite - a distinctive cliff-forming unit consisting of white quartzites more than 260 metres thick (equivalent to the upper Mount Nelson Quartzite (Atkinson 1975)). The upper quartzite consists of well sorted medium- to coarse-grained, essentially pure arenites. They are distinguished from the lower quartzite on the basis of massive bedding and poorly preserved sedimentary structures.
- i) upper dolomite - the uppermost unit in the Belt-Purcell exposed below the Windermere unconformity. The upper dolomite is gradational with the underlying quartzite over 10 metres consisting of interbedded purple argillite, quartzite and dolomite. The upper dolomite is comprised of pale to dark grey dolomite interbedded with quartz and dolomite pebble conglomerates with dolomitic quartz sands.

### **Windermere Supergroup**

The Windermere Supergroup varies in thickness in the Toby Creek area, from 80 metres to over 3 kilometres and is in sharp contact with the underlying Belt-Purcell Supergroup across an unconformity with considerable topography, interpreted as a result of a local basement high, the "Windermere High" (Reesor 1973). The Windermere Supergroup was deposited above this unconformity and consists of a basal conglomeratic unit, the Toby Formation, and the overlying argillite and pebble conglomerate dominated Horsethief Creek Formation.

#### **Toby Formation**

The Toby Formation is the basal unit of the Windermere Supergroup and overlies different levels of the Belt-Purcell stratigraphy in the separate fault panels, interpreted to indicate active faulting during sedimentation (Pope 1990). Four distinct facies have been identified in the Toby Creek area but their stratigraphic position relative to one another is uncertain due to rapid lateral facies changes.

The Toby Formation consists of:

- a) a basal boulder breccia lithofacies consisting of monomict clast-supported boulder breccias.
- b) a diamictite lithofacies - the most commonly developed facies consisting of rounded quartzite and subangular dolomite boulders (derived from the immediately underlying Mount Nelson Formation) in a sandy argillite matrix.
- c) a sparse clast diamictite lithofacies consisting of graded fine to coarse-grained, poorly sorted arenites and argillites with a minor component of rounded quartzite pebbles or cobbles.
- d) a siltstone-argillite lithofacies which comprises the bulk of, and is the dominant lithology in, the upper portion of the Toby Formation, consisting of well-sorted and graded fine quartz arenites and argillites which typically exhibit complete Bouma sequences.

The Toby volcanics are the oldest igneous rocks identified in the Toby Creek area and are believed to be altered submarine basalts related to regional Hadrynian extension. The flows are holocrystalline and glomeroporphyritic basaltic andesites, having plagioclase phenocrysts in a fine-grained plagioclase groundmass.

Green metadiabase dykes have also been identified and have been interpreted as the metamorphic equivalent to the Toby volcanics. They are the most common igneous rocks and are always intruded at a high angle to bedding. They are typically altered, consisting of anhedral masses of chlorite, anhedral to euhedral carbonate and sericite and skeletal opaques. Chlorite pseudomorphs after pyroxene and amphibole have been identified. Bulk mineralogical proportions indicate these dykes were most probably originally basaltic in composition and have been subsequently hydrated.

### **Horsethief Creek Group**

The Toby Formation is gradational into the overlying Horsethief Creek Formation, in which five lithofacies have been identified. These lithofacies define a rudimentary stratigraphy of facies within the Horsethief Creek Formation as individual lithological units are inconsistent due to rapid lateral thickness and facies variations.

The lithofacies identified in the Horsethief Creek Formation are as follows:

- a) siltstone-argillite - dominant in the lower half of the Horsethief Creek Formation and separate the remaining lithofacies throughout the formation. This lithofacies consists of thick sequences of thin bedded (1 to 10 cm), graded siltstone and argillite and finely laminated (1 to 5 mm), black, green and grey argillite.
- b) black carbonate - an easily traced marker used to identify and map the base of the Horsethief Creek Formation consisting of thin bedded (5 to 20 cm), dark grey to black limestone, with variable quartz sand and silt in a calcitic matrix, and thin calcareous quartz-arenite beds.
- c) dolomite - buff weathering dolomite, up to 30 metres thick, dolomite pebble-conglomerate beds and dolomite supported quartzite occur throughout the Horsethief Creek Formation.
- d) quartz feldspar arenites and pebble conglomerates - consist of pebble conglomerates comprised of grain-supported, moderately sorted crystalline quartz and quartz feldspar clasts with variable red jasper, green to grey argillite, quartzite and dolomite clasts in a quartz, feldspar, carbonate, sericite and chlorite matrix. Clasts are generally 1 to 2 centimetres in diameter but may exceed 10 centimetres in length. Coarse arenite beds are similar to the pebble conglomerates but have a greater proportion of matrix and are generally poorly sorted.
- e) red and varicoloured argillites - are present at the top of the Horsethief Creek Formation and consist of variably coloured argillites with interbedded pink carbonate, and varicoloured impure arenites.

## Mesozoic

### Granitic Intrusions

Cretaceous intrusives of broadly "granitic" composition are present in a belt extending from the westernmost Rocky Mountains to Kootenay Lake, northward to the Baldy Batholith. Intrusions range from small dykes and sills to larger intrusive complexes such as the Mt. Skelly Batholith and are collectively referred to as the Bayonne Magmatic Belt (or Suite).

"Intrusive rocks ... include a number of small post kinematic mesozonal quartz monzonite, monzonite and syenitic plutons, numerous small quartz monzonite to syenite dikes and sills probably related to these stocks, and late mafic dikes. The Kiakho and Reade Lake stocks, two of the larger of the mesozonal plutons, cut across and apparently seal two prominent east-trending faults that transect the eastern flank of the Purcell anticlinorium, and hence place constraints on the timing of latest movement on these faults.

The Kiakho stock is exposed on the heavily wooded slopes of Kiakho Creek approximately 10 kilometres (west-southwest) ... of Cranbrook ... Exposures consist mainly of large, fresh angular boulders of boulder fields. Although contacts with country rock were not observed, regional mapping indicates that it intrudes clastic rocks of the Aldridge and Creston formations. The distribution of outcrops and a pronounced aeromagnetic anomaly indicate that it cuts the east-trending Cranbrook normal fault with no apparent offset. ...

The Kiakho stock is similar to the Reade Lake stock with the dominant phase being a light grey, medium-grained quartz monzonite. It is generally equigranular but grades into a hypidiomorphic granular porphyritic phase with prominent plagioclase and light grey to flesh-coloured potassic feldspar phenocrysts; both are up to several centimetres in diameter in a granular groundmass of white subhedral plagioclase, light grey potassic feldspar, quartz and black hornblende" (Höy 1993).

The Bayonne Granitic Suite is a composite batholith comprised of a number of smaller Jurassic to Cretaceous age granitoid stocks and plutons which extends from near the International Boundary across Kootenay Lake. On the east side of the Kootenay Lake, the Bayonne Granitic Suite locally includes the Mount Skelly Pluton, a biotite (hornblende) monzogranite with megacrysts of potassium feldspar (Reesor 1996). Rice (1941) grouped these granitoids under the broad heading of the Bayonne Batholith, as described below.

"The Bayonne batholith varies in composition from a granite to a calcic granodiorite; the average composition is that of a fairly alkaline granodiorite. ... Much of the rock has an equigranular texture, but a porphyritic phase occurs in many places, at some of which phenocrysts of potash feldspar 2 or 3 inches long are present. The potash feldspar may be orthoclase or microcline and in some specimens both occur. The plagioclase is oligoclase, generally well twinned and frequently in zoned

crystals. Dark brown biotite is the only ferromagnesian mineral abundant, but grains of hornblende occur in rare instances. The usual accessories are present. Sericite and epidote are the commonest secondary minerals, but neither occur in significant amounts except where the rock has been altered.

A marked feature of the Bayonne batholith is its highly variable nature. This is observable not only in the range of composition but in the appearance of the rock. Coarse-grained and fine-grained, porphyritic and non-porphyritic, pink and light or dark grey phases may occur in a single exposure, in some places in streaks and patches. Masses of pegmatite and dykes of pegmatite and aplite occur everywhere. Some of the pegmatite dykes are over 100 feet wide. A few large crystals of blue-green beryl, pink garnet, magnetite, and a little black tourmaline were seen in these pegmatites.

Large inclusions of granitized sediments are locally abundant. ... These inclusions vary in size from a foot to some hundreds of feet. Alteration is severe, but the sedimentary nature of the original rock is, in most cases, still recognizable and the boundary between the granite and the inclusion is generally fairly sharp. Other inclusions or xenoliths (sic.) from a few inches to a foot long also occur, which can readily be distinguished from the first type mentioned. They parallel one another, are darker coloured, their original texture and composition has been more or less completely altered, they are fairly uniform in size, and they usually grade imperceptibly into the granite. They are more widely distributed, indeed very few exposures of any size were examined that did not contain some of these xenoliths (sic.), and in places they are extremely abundant. The xenoliths (sic.) are often most common in the porphyritic phases and scarcer in the non-porphyritic phases of the granite ...".

### Structure

Four major phases of deformation have been identified in the Toby Creek area, Helikian-Devonian extension (D1), Jurassic-Paleocene contraction (D2-D3) and Eocene extension (D4).

The first phase of deformation resulted in unconformities at the base of the Dutch Creek and Mount Nelson Formations (D1a) and the unconformity at the base of the Windermere Supergroup (D1b). Thinning of Paleozoic strata onto the Windermere High is interpreted to reflect the effects of D1c deformation together with the development of small fault-bounded sub-basins.

Contraction during the Columbian (D2) and Laramide (D3) orogenies resulted in a series of northeast vergent thrust faults and the development of a regional foliation (S1). Three major thrust sheets are evident in the Toby Creek area with one, the Mount Nelson thrust sheet, comprised of four smaller fault panels. The three major thrust sheets represent out-of-sequence faults, having propagated toward the hinterland, carried in the hanging wall of the Purcell Thrust.

Contraction during D2 and D3 produced east-vergent imbricate thrust faults and west vergent backthrusts. Many of these faults were subsequently reactivated during the fourth phase (D4) of deformation. High angle brittle faults are also a result of D4.

## **LOCAL GEOLOGY**

### **Stratigraphy**

The SAWYER property is underlain by south striking, moderately steeply west dipping panel of overturned Late Proterozoic age strata correlated to the uppermost Purcell Supergroup and lower Windermere Supergroup on the western limb of the Purcell Anticlinorium (Fig. 3). Correlations interpret the strata as belonging to the Dutch Creek and Mount Nelson formations, overlain by the Horsethief Creek Group, overthrust onto a continuous panel extending from the Creston Formation to the Horsethief Creek Group (Massey et al. 2005) (Fig. 4). In detail, displacement along the fault separating the two panels diminishes to the north, dying out into the Dutch Creek Formation.

Given the presence of the large Fry Creek Batholith approximately 8 km to the northwest, the Sawyer Creek Stock (Logan 2002) may be a small related satellite intrusion of apophyse. Alternatively, it may be a small unrelated Cretaceous intrusion, having been intruded during a regional Mesozoic intrusive event.

No geological mapping was undertaken on the property during the 2005 field season. As such, the author is not in a position to address possible stratigraphic correlations. The field data (soil sample) have been plotted on the digital geology for the property (Fig.4 - Massey et al. 2005).

### **Structure**

The structure of the SAWYER area is dominated by its position on the western flank of the Purcell Anticlinorium, a north plunging fold of regional significance. The Purcell Anticlinorium is allochthonous with respect to North American cratonic basement, having been transported northeastward in the hanging wall of the Purcell Thrust. This major structure has been complicated slightly by a number of regional and local faults, discussed below with reference to the Kootenay Lake mapsheet of Reesor (1996). An early folding event has been proposed for early structures interpreted to have developed in the Late Proterozoic during the Goat River Orogeny (Höy 1993).

The prominent faults in the SAWYER area are interpreted to be predominantly the result of the Laramide orogeny, characterized by east-verging, west-dipping thrust faults. The major fault system of the area is the St. Mary / Hall Lake fault system, interpreted to be a long lived fault initiated in the Late Proterozoic as a growth fault and periodically active at least into the Laramide orogeny. Eastward directed movement across the St. Mary / Hall Lake fault resulted in steeply dipping strata on the western limb of the Purcell Anticlinorium being juxtaposed against relatively shallowly to moderately dipping strata closer to the hinge axis.

Significant dip displacement is indicated across the fault east of Sanca Creek where Proterozoic lower Creston strata has been juxtaposed against early Paleozoic Cambrian Eager Formation strata. Later thrust faults are evident in the hanging wall of the St. Mary / Hall Lake fault. The Redding

Creek fault is locally significant fault. It is a west dipping, east verging thrust fault that juxtaposes middle Creston strata against the lower member of the Coppery Creek group. A number of smaller, normal faults are indicated in the hanging wall of the Redding Creek Fault, all of which appear to have minor dip (and probably strike-slip) movement. All of the faults in the hanging wall of the St. Mary / Hall Lake fault are interpreted to be older than the Cretaceous Mount Skelly Pluton (Bayonne Magmatic Belt) as all are truncated at the contact of the pluton.

## **2005 PROGRAM**

One day was spent in early May to ascertain the condition of available vehicle access to the property. In particular, some time was spent attempting to locate an old road indicated on the TRIM maps extending from the Sawyer Creek road westward along the south side of St. Marys River.

A total of three days were spent collecting 82 soil samples, taken on, and immediately adjacent to, the SAWYER property (see Appendix B for Analytical Results and Appendix C for Soil Descriptions). The samples were taken from the "B Horizon" and placed in Kraft bags at the sample site. The samples were dried in Cranbrook, then shipped by Greyhound Courier to Acme Analytical Laboratories Ltd in Vancouver. Samples were analyzed using Acme's Group 1EX (41 element ICP) package.

## **RESULTS**

### **Geochemical Results**

The objective of the program was to evaluate the property for Intrusion-related gold potential. Secondary objectives were to follow up on previously identified base metal mineralization and possible porphyry-style mineralization associated with intrusive lithologies correlated to the Bayonne Magmatic Belt.

Below is a brief discussion of several of the more significant results arising from the soil sampling program. A total of 82 soil samples were recovered and submitted for analysis (Fig. 4). Statistics and correlation coefficients were determined using the statistical package SPSS. The following table summarizes basic statistical data for the elements of initial interest.

**Table 1 - Summary of Descriptive Statistics**

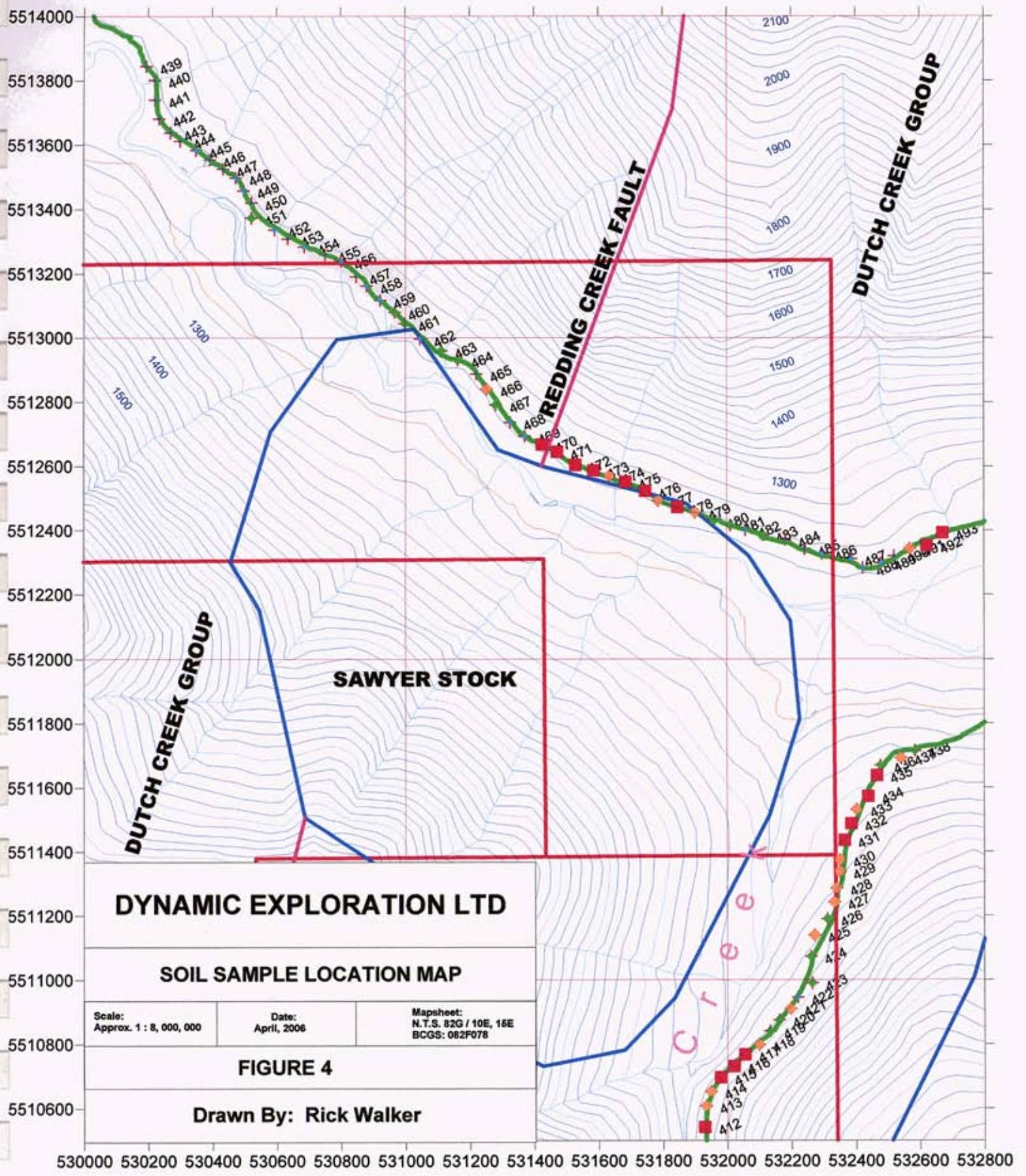
<b>Element</b>	<b>Minimum ppm</b>	<b>Maximum ppm</b>	<b>Mean</b>	<b>Standard Deviation</b>
Mo	0.4	63.70	4.10	7.471
Cu	13.30	135.10	39.55	25.607
Pb	11.90	72.70	31.64	13.374
Zn	56	700	146.35	95.496
Ag	0.10	0.50	0.22	0.129
Fe	2.46	8.57	3.75	1.069
As	4	21	8.38	3.512
U	1.8	11.7	3.45	1.718
Th	10.6	25.8	15.32	2.712
Sb	0.2	0.8	0.37	0.114
Bi	0.4	1.7	0.98	0.316
Na	0.73	1.74	1.29	0.193
K	1.56	3.42	2.33	0.358
W	1.8	13.4	3.41	2.050
Sn	2.1	4.5	3.22	0.442

Note: In a program to evaluate the potential for intrusion-related gold, gold was not detected in the package utilized for analysis.

### **Molybdenum**

The minimum value for molybdenum, based on the 82 soil samples recovered, is 0.4 and the maximum is 64 ppm. The mean is 4.10 ppm, with a standard deviation of 7.471. The value at the 50% is 2.1 ppm. Therefore, there are only four anomalous results, assuming anomalous values are those in excess of the  $2.1 + 1$  standard deviation (9.5 ppm) and strongly anomalous values are those in excess of the  $2.1 + 2$  standard deviations (17.042 ppm). Two of the results are anomalous and two are highly anomalous, according to the criteria above. The anomalous results occur proximal to the mapped contact of the intrusion (Fig. 5), with one located at the northern contact and the second slightly southeast of the eastern contact. In addition to the anomalous values, there are a number of weakly anomalous values (slightly above background), which define two possible trends of interest.





**DYNAMIC EXPLORATION LTD**

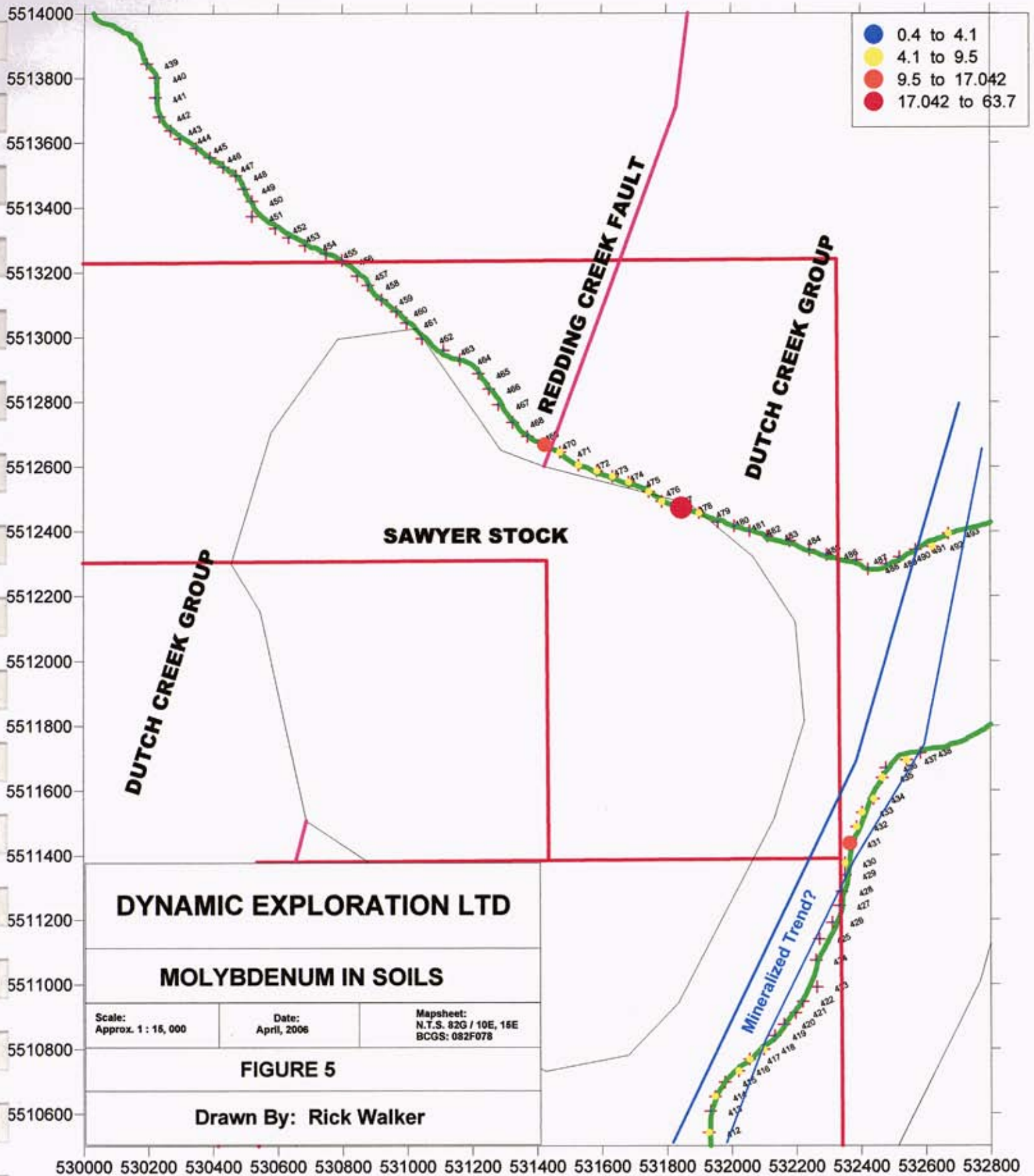
**SOIL SAMPLE LOCATION MAP**

Scale: Approx. 1 : 8, 000, 000	Date: April, 2006	Mapsheet: N.T.S. 82G / 10E, 16E BCGS: 082F078
-----------------------------------	----------------------	---

**FIGURE 4**

**Drawn By: Rick Walker**

530000 530200 530400 530600 530800 531000 531200 531400 531600 531800 532000 532200 532400 532600 532800



**DYNAMIC EXPLORATION LTD**

**MOLYBDENUM IN SOILS**

Scale:  
Approx. 1 : 15, 000

Date:  
April, 2006

Mapsheet:  
N.T.S. 82G / 10E, 15E  
BCGS: 082F078

**FIGURE 5**

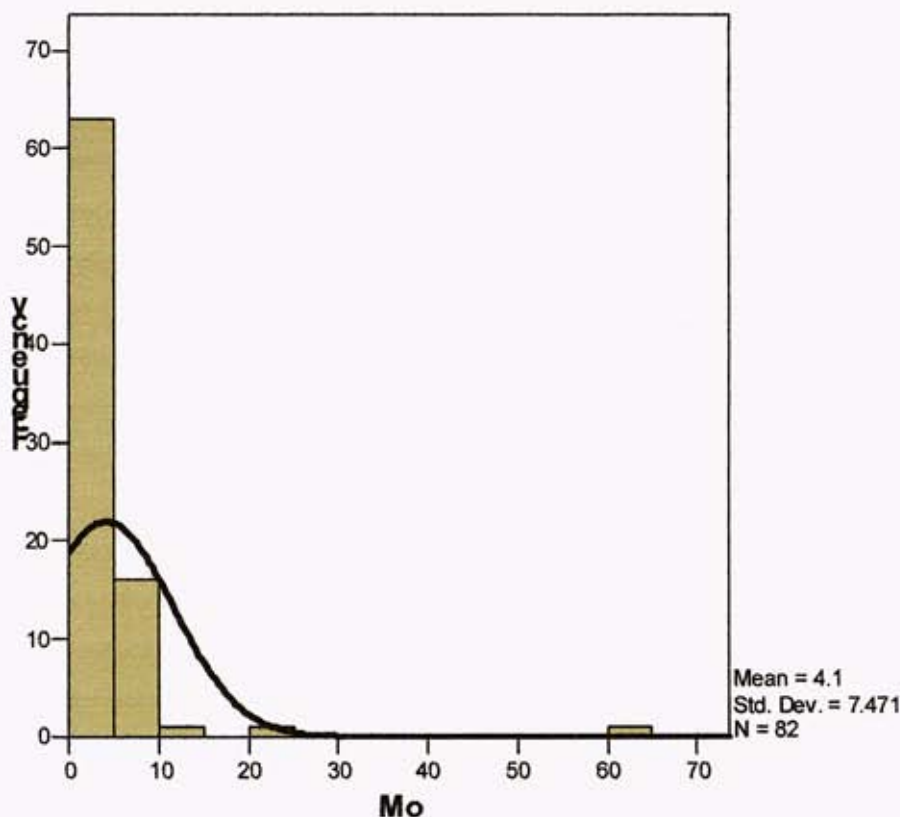
**Drawn By: Rick Walker**

530000 530200 530400 530600 530800 531000 531200 531400 531600 531800 532000 532200 532400 532600 532800

first is an apparent elevation of analytical values in the footwall of the Redding Creek fault, juxtaposing strata correlated to the Dutch Creek Formation against Dutch Creek strata. This apparent concentration is evident in plots of some of the other elements (see below). A second possible trend is weakly developed sub-parallel to the regional trend east of the mapped contact of the intrusive (see Fig. ).

In general, the results appear to agree with the mapped contact of the intrusion, with slight elevation adjacent to the contact, together with a limited number of anomalous results.

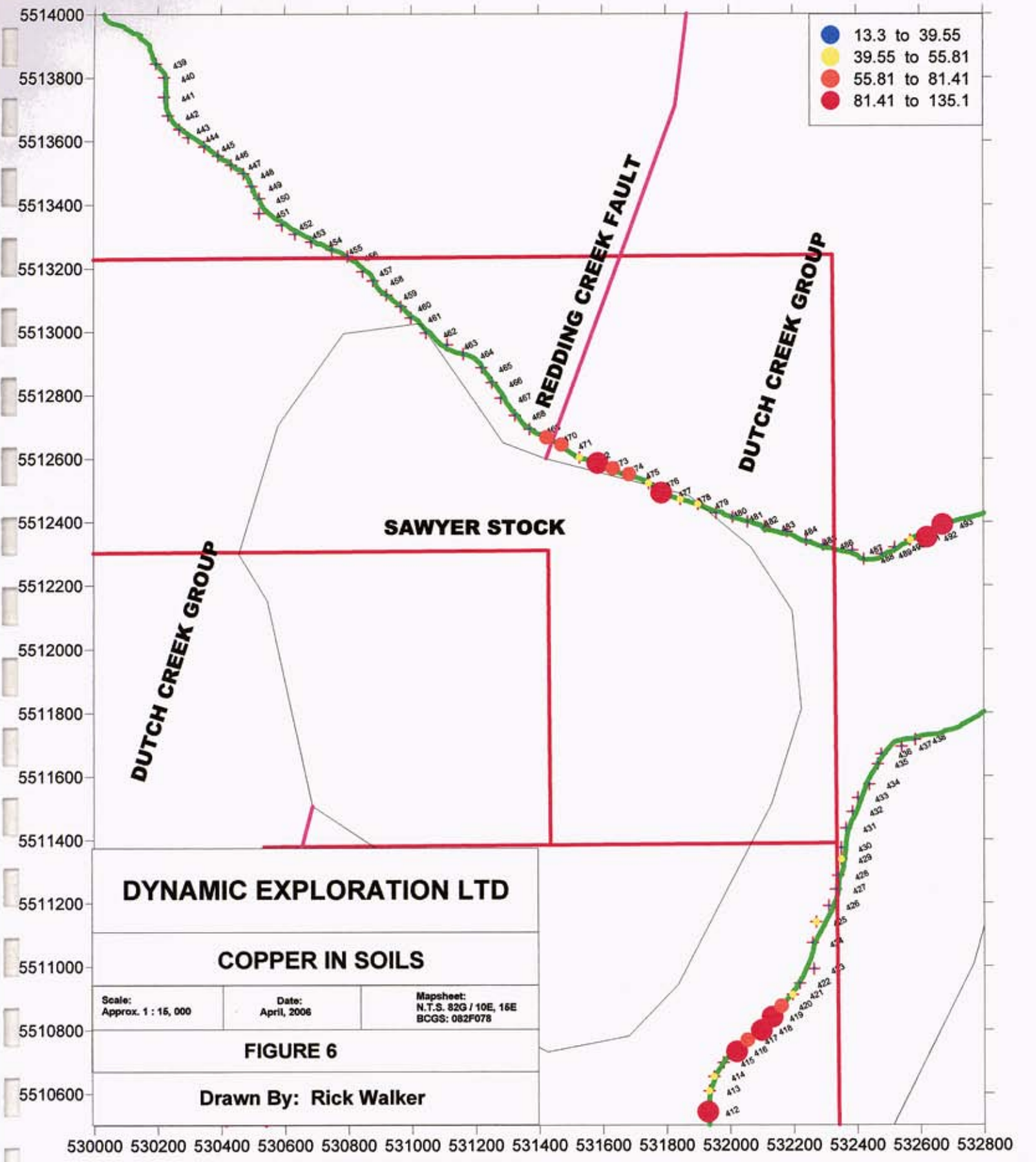
### Mo



### Copper

Analyses for copper range from a minimum of 13.3 ppm to a maximum of 135.1 ppm, with a mean of 39.55 and a standard deviation of 25.607. The 50% percentile occurs at a value of 30.2 ppm. Anomalous values are those in excess of 55.81, with highly anomalous values in excess of 81.41 ppm.

On the basis of these criteria, there are 6 anomalous values and 9 highly anomalous values. Spatially, the data compare with the molybdenum results relative to the contact of the intrusion. Specifically, elevated copper values are again apparent in the footwall of the Redding Creek Fault and there may be a weak mineralized trend evident sub-parallel to the regional trend immediately east of the intrusive contact.



**DYNAMIC EXPLORATION LTD**

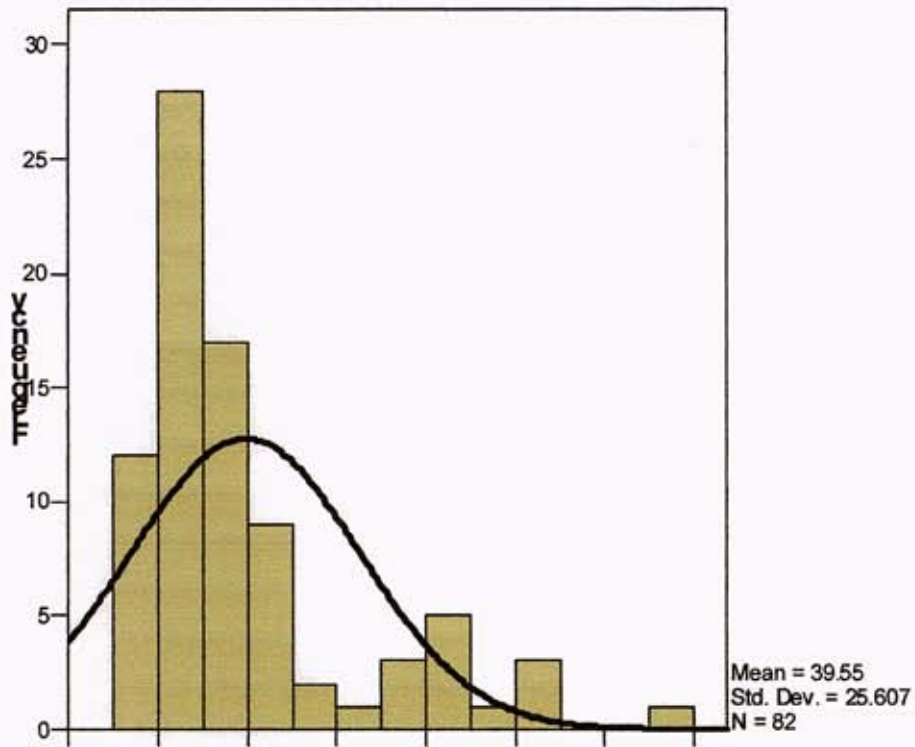
**COPPER IN SOILS**

Scale: Approx. 1 : 15, 000      Date: April, 2006      Mapsheet: N.T.S. 82G / 10E, 16E BCGS: 082F078

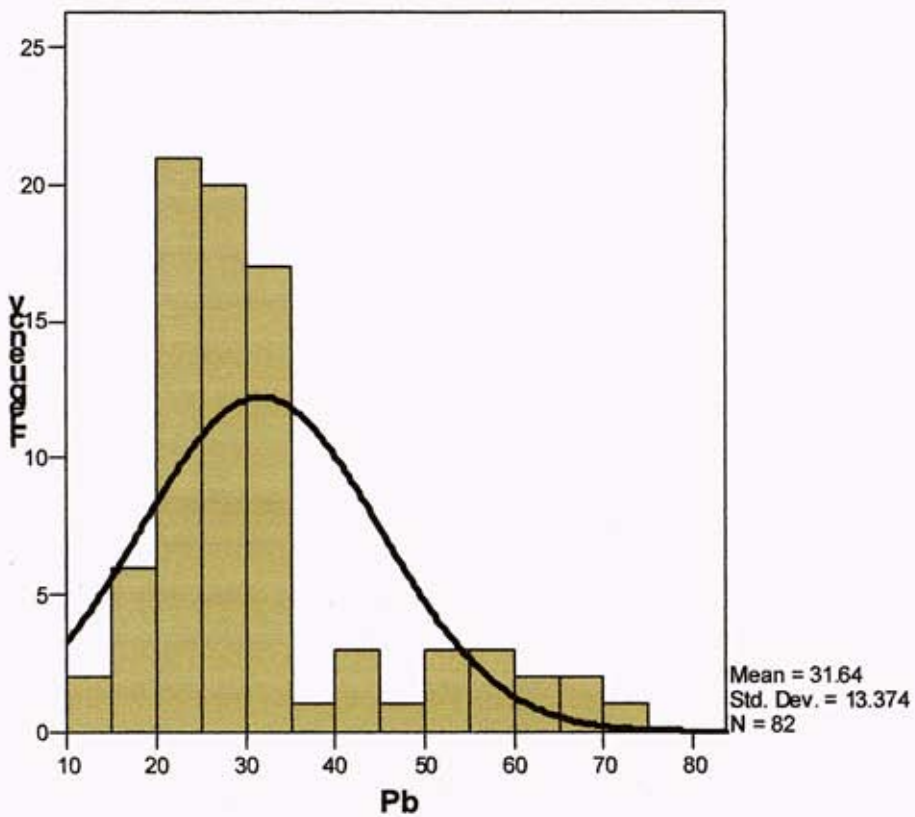
**FIGURE 6**

Drawn By: Rick Walker

### Cu



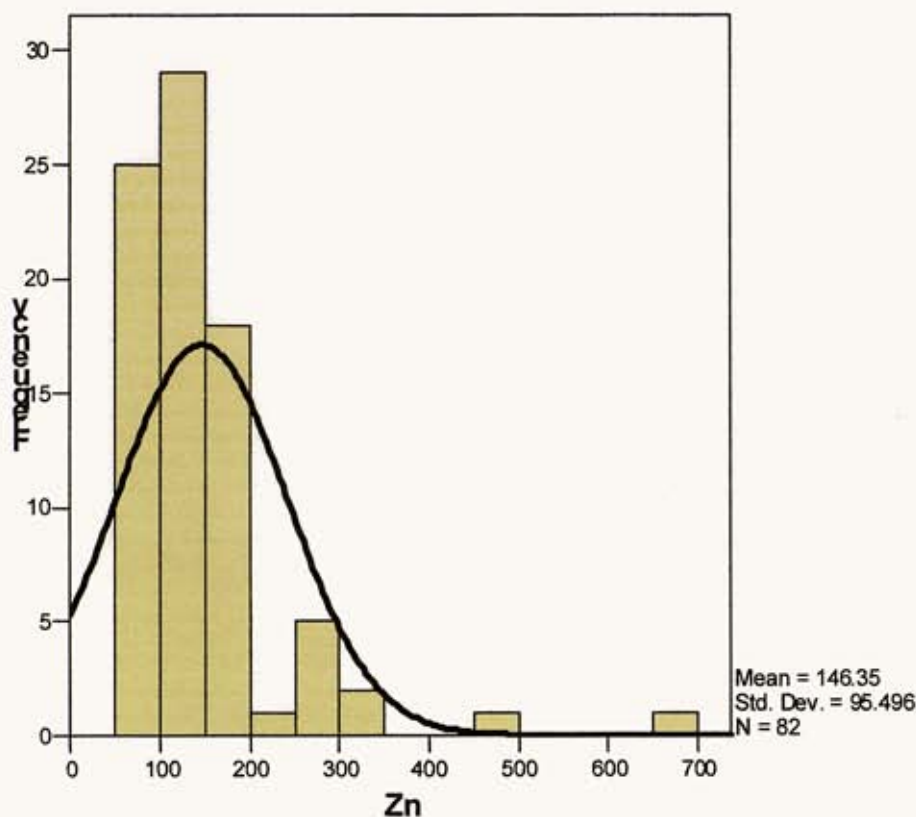
### Pb



### Lead

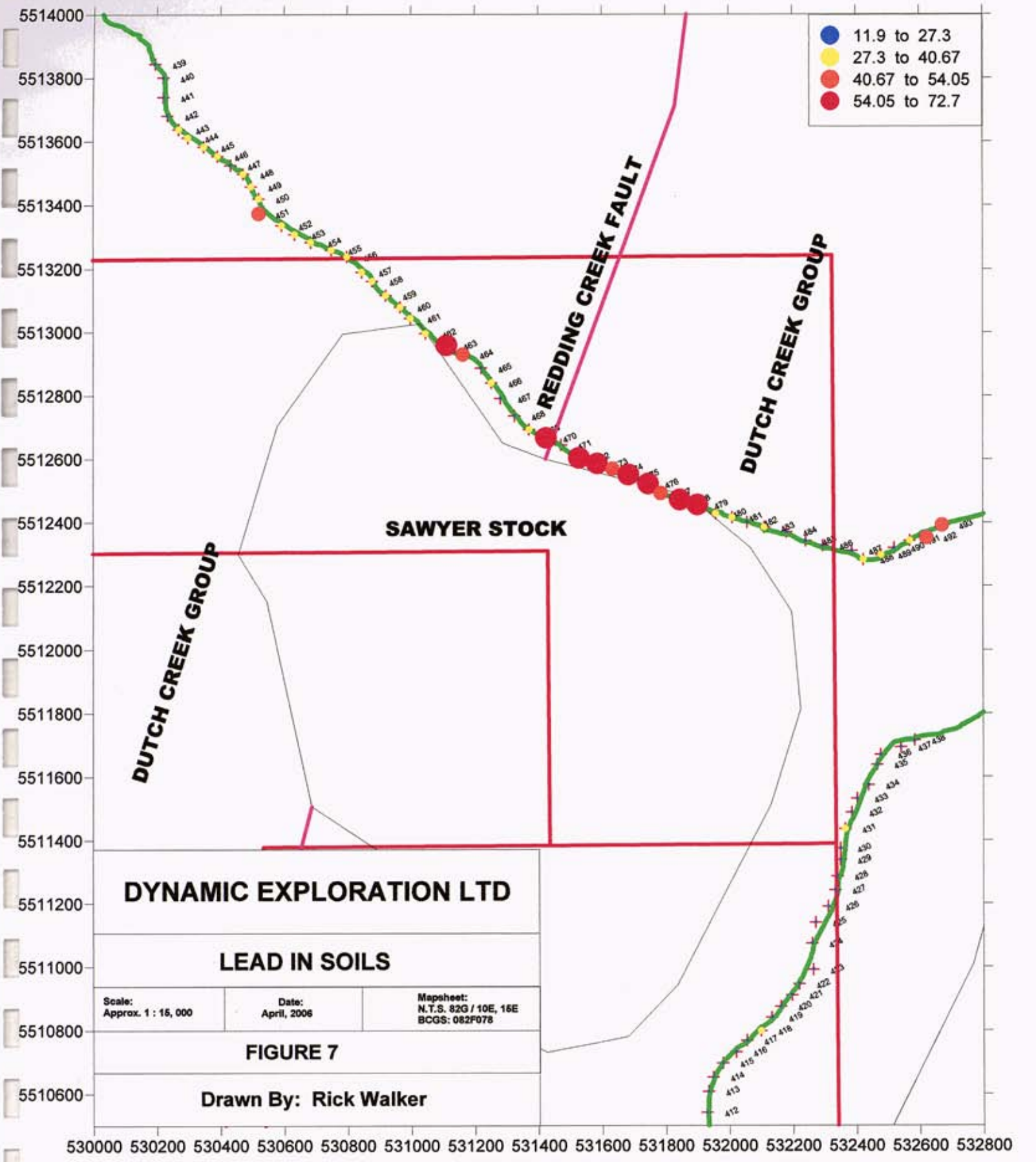
The minimum for lead is 11.9 ppm, a maximum of 72.7 ppm and a mean of 31.64 ppm. The 50 % value is approximately 27.3. Anomalous values are those in excess of 40.67 ppm, while highly anomalous values are those in excess of 54.05 ppm.

The data are generally comparable to copper and molybdenum along the northern mapped contact (Fig. 7), however, analytical results along the eastern contact are essentially background values. Furthermore, the anomalous values are localized in the footwall of the Redding Creek Fault mapped at the northern contact of the intrusion, which juxtaposes strata correlated to the Dutch Creek against Dutch Creek. Previous work for Focal Resources (Bapty and MacLachlan 1996, Bapty and Walker 1994) documented base metal mineralization in a small tributary into Sawyer Creek from the core of the property, interpreted to be localized within and/or proximal to the Toby Formation at the contact between the Purcell and Windermere Supergroups.



### Zinc

Preliminary data for zinc document a minimum of 56 ppm, a maximum of 700 ppm with a mean of 146.35. The 50% percentile value of 117 ppm and a standard deviation of 95.496 yields anomalous values as those in excess of 212.496 and highly anomalous values in excess of 307.992 ppm. Under these parameters, there are 7 anomalous and 3 highly anomalous lead values, however, in the author's experience these cut-offs are high relative to regional values which is interpreted to suggest



- 11.9 to 27.3
- 27.3 to 40.67
- 40.67 to 54.05
- 54.05 to 72.7

**DUTCH CREEK GROUP**

**SAWYER STOCK**

**REDDING CREEK FAULT**

**DUTCH CREEK GROUP**

**DYNAMIC EXPLORATION LTD**

**LEAD IN SOILS**

Scale:  
Approx. 1 : 15, 000

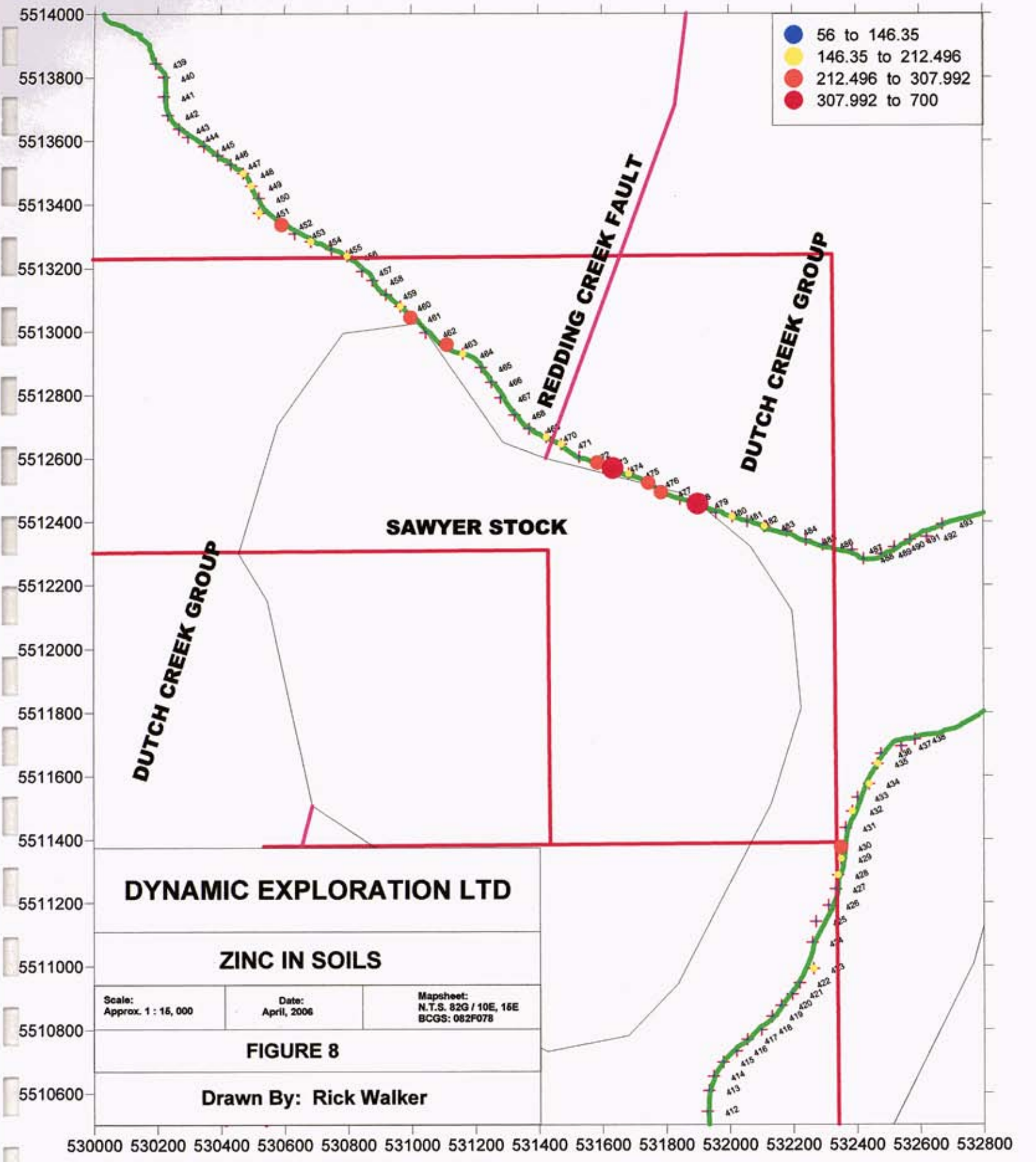
Date:  
April, 2006

Mapsheet:  
N.T.S. 82G / 10E, 16E  
BCGS: 082F078

**FIGURE 7**

**Drawn By: Rick Walker**

530000 530200 530400 530600 530800 531000 531200 531400 531600 531800 532000 532200 532400 532600 532800



530000 530200 530400 530600 530800 531000 531200 531400 531600 531800 532000 532200 532400 532600 532800



the soils were generally recovered from within an anomaly, minimizing or eliminating values more consistent with regional background values.

With the exception of a single "anomalous" value adjacent to the eastern margin of the mapped intrusive contact, the anomalous and highly anomalous values are, again, generally localized in the footwall of the Redding Creek Fault within the Dutch Creek Formation with some scattered anomalous values documented in the hanging wall.

### Correlations

Table 2 is a table of correlation coefficients for the elements of interest in this initial study.

	Mo	Cu	Pb	Zn	Ag	Fe	As	U	Th	Sb	Bi	Na	K	W	Sn
Mo	1	0.578	0.087	0.216	0.033	0.326	0.313	0.237	0.146	0.100	0.215	-0.115	-0.154	0.014	0.095
Cu	0.578	1	0.250	0.190	0.058	0.595	0.594	0.409	0.429	0.212	0.468	-0.256	-0.115	-0.041	0.321
Pb	0.087	0.250	1	0.633	0.410	0.529	0.769	0.732	0.521	-0.184	0.400	0.575	0.315	-0.252	0.254
Zn	0.216	0.190	0.633	1	0.654	0.296	0.492	0.593	0.248	-0.023	0.439	0.254	-0.002	-0.039	0.168
Ag	0.033	0.058	0.410	0.654	1	0.324	0.348	0.457	0.042	-0.062	0.207	0.347	-0.148	-0.104	0.044
Fe	0.326	0.595	0.529	0.296	0.324	1	0.705	0.537	0.511	-0.071	0.338	0.029	0.132	-0.120	0.444
As	0.313	0.594	0.769	0.492	0.348	0.705	1	0.682	0.445	0.014	0.639	0.250	0.033	-0.069	0.348
U	0.237	0.409	0.732	0.593	0.457	0.537	0.682	1	0.606	-0.277	0.426	0.329	0.139	-0.162	0.211
Th	0.146	0.429	0.521	0.248	0.042	0.511	0.445	0.606	1	-0.154	0.430	0.181	0.379	-0.166	0.302
Sb	0.100	0.212	-0.184	-0.023	-0.062	-0.071	0.014	-0.277	-0.154	1	0.217	-0.259	-0.290	0.159	0.157
Bi	0.215	0.468	0.400	0.439	0.207	0.338	0.639	0.426	0.430	0.217	1	0.005	-0.039	0.271	0.408
Na	-0.115	-0.256	0.575	0.254	0.347	0.029	0.250	0.329	0.181	-0.259	0.005	1	0.253	-0.158	-0.071
K	-0.154	-0.115	0.315	-0.002	-0.148	0.132	0.033	0.139	0.379	-0.290	-0.039	0.253	1	-0.089	0.517
W	0.014	-0.041	-0.252	-0.039	-0.104	-0.120	-0.069	-0.162	-0.166	0.159	0.271	-0.158	-0.089	1	0.255
Sn	0.095	0.321	0.254	0.168	0.044	0.444	0.348	0.211	0.302	0.157	0.408	-0.071	0.517	0.255	1

As a general statement, the elements for which correlation coefficients were determined, representing primary metals of interest (Ag, Cu, Mo, Pb and Zn) as well as possible pathfinders (As, Bi, Sb and W) are interpreted to suggest possible association with the intrusive as a possible source for the metals. Given the proximity to the possible source, however, the correlation coefficients are surprisingly low.

The relatively strong coefficients between silver (Ag), lead (Pb) and zinc (Zn) were expected given the known occurrence of galena + sphalerite mineralization previously documented on the property. However, the coincidence of elevated values north of the mapped contact of the intrusion provides a second general area to evaluate.

The relatively high coefficients between arsenic (As), bismuth (Bi), copper (Cu), iron (Fe), molybdenum (Mo), Thorium (Th) and Uranium (U) are interpreted to reflect the presence of high temperatures mineralization from the adjacent intrusive. Furthermore, the coefficients may suggest that arsenopyrite + copper mineralization is distinct from base metal (galena + sphalerite) mineralization.

To qualify these interpretations, it must be emphasized they are based on an initial program of 82 soil samples. However, the results are interpreted to indicate further work is justified.

## DISCUSSION

The 2005 field program was intended to provide a preliminary data set with which to evaluate the property. Analytical results returned from a series of road traverses along and/or adjacent to the north and east mapped contacts of the intrusion appear to confirm weak base metal mineralization, particularly in the footwall of Redding Creek Fault. In addition, a second possible weak mineralized trend was tentatively identified east of the intrusive contact and sub-parallel to the regional geological trend.

On the basis of mapping by Reesor (1996), the Toby Formation is present in the footwall of the Redding Creek Fault south of the Sawyer Creek Stock and has been cut-out along trend to the north (i.e. north of the Sawyer Creek Stock). Bapty and MacLachlan (1996) described a pod and/or lens of massive galena, sphalerite and tetrahedrite in one of the chutes on the south side of a small tributary into Sawyer Creek. Previous mapping (Bapty and Walker 1994) located evidence of similar mineralization on a ridge top traverse and descent through the north facing cliffs. The pod described by Bapty and MacLachlan (1996) is probably the source of mineralization described in 1994.

Geochemical evidence for mineralization north of the Sawyer Creek Stock, located in the footwall of the Redding Creek Fault, suggests additional pods, or perhaps larger bodies of galena+sphalerite+tetrahedrite mineralization may be present. The mineralization was described in 1996 as being "... a small limestone-replacement deposit with a sedimentary-exhalative origin". The author believes a replacement (manto) style deposit is possible, given the presence of carbonate-bearing intervals (limestone and dolomite) in the Mount Nelson and Dutch Creek formations. Intrusion of the Sawyer Creek Stock along the Redding Creek Fault (given that Reesor (1996) does not extend the fault trace through the stock, indicating the intrusion post dates the fault), would provide a proximal heat source, both to dissolve carbonate-bearing intervals and provide possible metalliferous fluids to precipitate within the resulting void space along, and adjacent to, the Redding Creek Fault.

## CONCLUSIONS

The 2005 program included soil sampling (82 samples) and limited prospecting. Soil samples were taken along the existing road network and identified anomalous soil values, spatially associated with the mapped contacts of a felsic intrusion (Sawyer Creek Stock) along the Redding Creek Fault.

From a preliminary evaluation of the correlation matrix from the 2005 soil samples, it is evident that there are a number of relationships that warrant further evaluation. In particular, the apparent association of Pb (probably as galena), Zn (probably as sphalerite) with silver (as argentiferous galena) in the immediate footwall of the Redding Creek Fault north of the Sawyer Creek Stock suggests mineralization similar to that previously described in a similar structural position south of the stock. A possible association of elements typically considered to be associated with intrusion-related occurrences, namely, As + Bi + Sb + W, may be present but is not clearly and unambiguously evident in the correlation matrix. However, weakly anomalous values have been documented for arsenic (As  $\leq$  21 ppm), bismuth (Bi  $\leq$  1.7 ppm), antimony (Sb  $\leq$  0.8 ppm) and tungsten (W  $\leq$  13.40 ppm). In addition, the Cretaceous intrusions of the southern Bayonne Magmatic Suite typically have anomalous levels of molybdenum associated with them. Furthermore, the anomalous values in uranium and thorium are interpreted to characterize proximity to the Cretaceous felsic intrusion and metasomatic exchange in the associated thermal aureole surrounding the intrusion.

The 2005 program failed to document gold in any of the 82 soil samples recovered, however, there may be evidence for an intrusion-related type of environment. In addition, there are coincident metal anomalies in the footwall of the Redding Creek Fault which are interpreted to indicate the possibility of base metal ( $\pm$  silver) potential similar to that previously described on the property and in the surrounding area.

Further evaluation of the Sawyer property is recommended.

## RECOMMENDATIONS

1. Compilation of results from previous programs should be undertaken to build an initial database of with which to continue evaluation of the property;
2. Continue the soil sampling program. Additional sampling should include acquisition of contour samples. Samples should be taken along a series of contours throughout the property to provide coarse coverage of the property, with smaller grids established to develop better resolution in areas of anomalous results;
3. Additional soil samples should be taken to better delineate potential mineralization in two areas, specifically, a) the footwall of the Redding Creek Fault, both north and south of the Sawyer Creek Stock and b) along the possible mineralized trend tentatively proposed east of the Sawyer Creek Stock;
- 4) Geological mapping should be undertaken to:
  - a) identify and/or re-establish known mineralized horizons,
  - b) identify and/or confirm the stratigraphy present on the property,
  - c) provide better structural control for the property, specifically whether the Redding Creek Fault pre- or post-dates the Sawyer Creek Stock, and
  - d) obtain rock and/or chip samples of mineralized horizons identified on the property;
5. Consider having an airborne survey flown of the property to identify magnetic and/or conductive sub-surface features for subsequent drill testing;
6. Consider diamond drilling to test surface anomalies identified on the basis of additional soil and rock sampling and/or sub-surface anomalies identified from airborne and/or ground-based geophysical surveys.

**PROPOSED BUDGET**

Pre-Field		
Permitting, Compilation, mobilization		\$ 2,000
<b>Phase I</b>		
Field Program		
Mapping		
5 man-days @ \$450 / day		\$ 2,250
Soil Sampling		
10 man-days at \$250 / day		\$ 2,500
Field Supplies		
15 man-days at \$15 / day		\$ 225
Equipment		
4WD Truck - 10 days at \$75 / day		\$ 750
Mileage - 1300 km at \$0.75 / km		\$ 975
Fuel		\$ 600
Analytical		
250 soil samples at \$20 / sample		\$ 5,000
	<b>Sub-Total:</b>	\$ 14,300
<b>Phase II</b>		
Diamond Drilling		
3,000 metres at \$100 / metre (all inclusive)		\$ 300,000
Analytical		
300 core samples at \$20 / sample		\$ 6,000
Post-Field		
Report Writing - 7 days at \$450 / day		\$ 3,150
Reproduction - 3 days at \$450 / day		\$ 1,350
	<b>Sub-Total:</b>	\$ 310,000
Contingency on Field Program (10%)		\$ 32,480
	<b>Total:</b>	<u>\$ 357,280</u>

## REFERENCES

- Bapty, M.B. and MacLachlan, J. 1996. Progress Report on Sawyer Property, Assessment Report 24,654, dated November 1996.
- and Walker, R.T. 1994. Report on Sawyer Property, unpublished report.
- Høy, Trygve. 1993. Geology of the Purcell Supergroup in the Fernie West-Half Map Area, Southeastern British Columbia, Ministry of Energy, Mines and Petroleum Resources, Bulletin 84, 157 p.
- Logan, J. 2002, Intrusion-Related Mineral Occurrences of the Cretaceous Bayonne Magmatic Belt, Southeast British Columbia (NTS 82 E, F, G, J, K, L, M, N), British Columbia Ministry of Energy and Mines Geoscience Map 2002-1, 1:500,000.
- Massey, N.W.D, MacIntyre, D.G., Desjardins, P.J. and Cooney, R.T. 2005. Digital Geology Map of British Columbia: Tile NM11 Southeast B.C., B.C. Ministry of Energy and Mines, Geofile 2005-4.
- Pope, A. 1990. The Geology and Mineral Deposits of the Toby-Horsethief Creek Map Area, Northern Purcell Mountains, Southeast British Columbia (82K), Ministry of Energy, Mines and Petroleum Resources, Open File 1990-26, 54 p.
- Reesor, J. E. 1996. Geology, Kootenay Lake, British Columbia. Geological Survey of Canada, Map 1864A, scale 1: 100 000
- , 1993. Nelson (East Half), Geological Survey of Canada Open File 2721, Scale 1:100,00 (2 sheets)
- Rice, H.M.A. 1941. Nelson Map-Area, East Half, British Columbia. Geological Survey of Canada Bulletin 228, 83p.

**Appendix A**

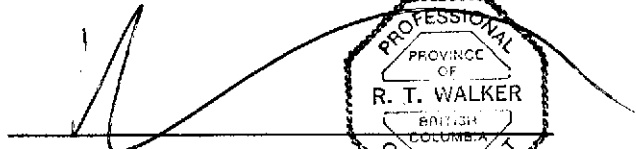
**Statement of Qualifications**

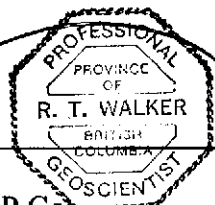
## STATEMENT OF QUALIFICATIONS

I, Richard T. Walker, of 656 Brookview Crescent, Cranbrook, BC, hereby certify that:

- 1) I am a graduate of the University of Calgary of Calgary, Alberta, having obtained a Bachelors of Science in 1986.
- 2) I obtained a Masters of Geology at the University of Calgary of Calgary, Alberta in 1989.
- 3) I am a member of good standing with the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
- 4) I am a consulting geologist and Principal with the firm of Dynamic Exploration Ltd. with offices at 656 Brookview Crescent, Cranbrook, British Columbia.
- 5) I am the author of this report which is based on work completed under my supervision between May 23<sup>rd</sup> and July 31<sup>st</sup>, 2005.
- 6) I was personally involved in the acquisition of the claims described herein.

Dated at Cranbrook, British Columbia this 17<sup>th</sup> day of April, 2006.

  
Richard T. Walker, P. Geol.





**Appendix B**  
**Analytical Results**







**Appendix C**  
**Soil Descriptions**

<u>Sample#</u>	<u>Eastng</u>	<u>Northing</u>	<u>Meters</u>	<u>Elevation</u>	<u>Depth</u>	<u>Colour</u>	<u>Description</u>
412	531929	5510541	0	1390	20	brown	clay/moist
413	531933	5510607	50	1398	20	brown	clay/moist
414	531948	5510652	100	1409	15	brown	clay/moist
415	531978	5510696	150	1389	20	brown	clay/moist
416	532020	5510731	200	1378	20	lgt.brown	stoney and moist
417	532054	5510767	250	1391	20	lgt.brown	stoney and moist
418	532098	5510798	300	1395	15	lgt.brown	sub-rounded stones
419	532132	5510840	350	1374	20	brown	moist
420	532161	5510875	400	1359	20	lgt.brown	stoney and moist
421	532196	5510910	450	1359	10	lgt.brown	moist
422	532219	5510945	500	1358	15	lgt.brown	sub-rounded stones
423	532263	5510990	550	1358	20	lgt.brown	sub-angular stones/wet
424	532260	5511073	600	1359	25	lgt.brown	moist and stoney
425	532271	5511139	650	1367	20	drk.brown	stoney and moist
426	532311	5511190	700	1356	20	drk.brown	moist
427	532333	5511242	750	1356	15	lgt.brown	stoney and moist
428	532340	5511286	800	1349	20	lgt.brown	stoney and moist
429	532350	5511337	850	1323	20	lgt.brown	moist/sub-rounded stones
430	532350	5511374	900	1322	20	brown	sub-angular stones/wet
431	532365	5511435	950	1310	10	brown	little stones/moist
432	532386	5511487	1000	1317	10	brown	moist/stoney
433	532403	5511531	1050	1304	15	brown	sub-angular stones/moist
434	532439	5511573	1100	1323	15	brown	sandy/moist/stoney
435	532466	5511638	1150	1245	15	grey/brown	stoney and moist
436	532477	5511669	1200	1288	15	grey/brown	stoney and moist
437	532541	5511693	1250	1298	15	grey/brown	stoney and moist
438	532584	5511715	1300	1296	10	brown	stoney and moist
439	530196	5513844	0	1243	15	brown	sub-rounded stones/moist
440	530222	5513801	50	1245	20	grey/brown	stoney and moist
441	530223	5513740	100	1256	20	brown	sandy/moist/stoney
442	530236	5513681	150	1257	25	brown	moist/sub-rounded stones
443	530271	5513638	200	1257	20	brown	sandy/moist/stoney
444	530300	5513612	250	1257	25	brown	moist/sub-rounded stones
445	530350	5513583	300	1257	20	brown	stoney and moist
446	530393	5513554	350	1257	15	brown	stoney and moist
447	530434	5513525	400	1258	15	brown	stoney and moist
448	530473	5513498	450	1258	20	brown	stoney and moist
449	530498	5513458	500	1258	15	brown	stoney and moist
450	530522	5513420	0	1256	20	orange	stones SR, sandy
451	530522	5513373	50	1248	20	brown	SA stones
452	530594	5513336	100	1258	15	brown	SA stones
453	530635	5513308	150	1258	20	brown	SR stones
454	530686	5513283	200	1246	25	brown	SR stones
455	530750	5513259	250	1223	20	brown	SR stones
456	530799	5513238	300	1240	20	brown	SR stones
457	530846	5513190	350	1248	20	brown	SA stones
458	530879	5513161	400	1244	15	brown	SA stones
459	530921	5513116	450	1231	20	brown	SA stones
460	530966	5513079	500	1231	20	brown	SR stones
461	530998	5513044	550	1239	20	brown	SR stones

<u>Sample#</u>	<u>Easting</u>	<u>Northing</u>	<u>Meters</u>	<u>Elevation</u>	<u>Depth</u>	<u>Colour</u>	<u>Description</u>
462	531046	5512996	600	1246	20	brown	SR stones
463	531112	5512959	650	1246	15	light brown	SR stones
464	531163	5512930	700	1256	25	light brown	SA stones, moist
465	531221	5512887	750	1247	15	light brown	SA stones, moist
466	531253	5512840	800	1246	20	light brown	SA stones, moist
467	531282	5512791	850	1248	20	light brown	SA stones, moist
468	531326	5512736	900	1261	15	light brown	SA stones, moist
469	531372	5512693	950	1242	20	light brown	SA stones, moist
470	531425	5512667	1000	1235	20	brown	SR stones, wet
471	531472	5512644	1050	1225	20	light brown	SA stones
472	531529	5512604	1100	1232	20	light brown	SA stones
473	531586	5512586	1150	1205	20	light brown	SA stones
474	531634	5512569	1200	1237	15	dark brown	SR stones
475	531684	5512551	1250	1239	25	brown	SR stones, moist
476	531746	5512522	1300	1247	20	brown	SR stones, moist
477	531786	5512492	1350	1243	15	brown	SA stones, moist
478	531846	5512472	1400	1248	20	brown	SR stones, moist
479	531901	5512456	1450	1240	25	brown	SR stones, moist
480	531959	5512428	1500	1237	15	brown	SR stones, moist
481	532010	5512416	1550	1245	20	brown	SR stones, moist
482	532057	5512401	1600	1237	15	light brown	SR stones, moist
483	532111	5512385	1650	1241	20	light brown	SR stones, moist
484	532181	5512370	1700	1234	25	light brown	SR stones
485	532242	5512342	1750	1234	20	beige	SR stones
486	532295	5512327	1800	1232	20	beige	SR stones
487	532387	5512311	1850	1215	15	light brown	SR stones
488	532423	5512283	1900	1232	20	light brown	SR stones
489	532479	5512298	1950	1232	20	light brown	SR stones
490	532520	5512320	2000	1233	15	light brown	SR stones
491	532569	5512343	2050	1231	20	light brown	SR stones
492	532622	5512352	2100	1235	15	light brown	SR stones
493	532671	5512392	2150	1232	15	light brown	SR stones

**Appendix D**

**Statement of Expenditures**



## STATEMENT OF EXPENDITURES

The following expenses were incurred on the SAWYER property for the purpose of geological exploration within the period June 1<sup>st</sup> to August 5<sup>th</sup>, 2005.

PERSONNEL	\$ 450.00
R.T. Walker, P.Geo., 1 days @ \$450 / day	\$ 1,750.00
Assistants - 7 days @ \$250 / day	
EQUIPMENT RENTAL	\$ 300.00
4 WD truck: 4 days @ \$75 / day	\$ 386.00
Mileage: 772 km @ \$0.50 / km	\$ 100.00
Fuel	
FIELD SUPPLIES	\$ 120.00
8 man-days @ \$15 / day	
ANALYSES	\$ 1,640.00
82 Soil Samples 41 Element ICP @ \$20 / sample	\$ 150.00
TRIM 1:20,000 maps 082 F 077 and 078	
DRAFTING	\$ 450.00
Drafting map - 1 day at \$450 / day	
REPORT/REPRODUCTION	\$ 900.00
R. T. Walker, P.Geo.: 2.0 days @ \$450/day	\$ 100.00
Photocopying / Binding / Plotting	
	<b><u>\$ 6,346.00</u></b>
<b>Total:</b>	