BRITISH COLUMBIA

Ministry of Energy & Mines
Energy & Minerals Division
Geological Survey Branch

ASSESSMENT REPORT
TITLE PAGE AND SUMMARY

TITLE OF REPORT [type of survey(s)]	Geochemical	TOTAL COST	$81,410.00

AUTHOR(S) George Owsiacki, P.Geo. SIGNATURE(S)

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S) YEAR OF WORK 2006

STATEMENT OF WORK - CASH PAYMENT EVENT NUMBER(S)/DATE(S) 4128852 Feb.13/07

PROPERTY NAME Chilkoot

CLAIM NAME(S) (on which work was done) Anne 94, 98, 66, 56, 20; Bre 45; Brea 1, 43, 49

COMMODITIES SOUGHT Au, Ag, Pb, Zn, Cu

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN 104M 001, 2, 32, 46, 52, 58, 59, 62, 81, 83

MINING DIVISION Atlin NTS 104M/15, 10, 14E, 16W, 09W

LATITUDE 59 o 51 ' 49 " LONGITUDE 134 o 39 ' 21 " (at centre of work)

OWNER(S)

1) Xplorer Minerals Inc. 2)

MAILING ADDRESS

Suite 307, 1500 Hardy St.
Kelowna, B.C. V1Y 8H2

OPERATOR(S) [who paid for the work]

1) as above 2)

MAILING ADDRESS

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

Quartz-base metal sulphide veins containing gold occur within Boundary Ranges metamorphic suite rocks. Some veins are associated with Eocene volcanic or related hypabyssal intrusions (e.g. Crine). Several other areas remain to be prospected that have to date suggested an enrichment in precious metal and base metal mineralization. Upper Triassic strata on the property hosts gold-bearing copper skarn mineralization at the Mill showing just north of the shoreline of Tutshi Lake

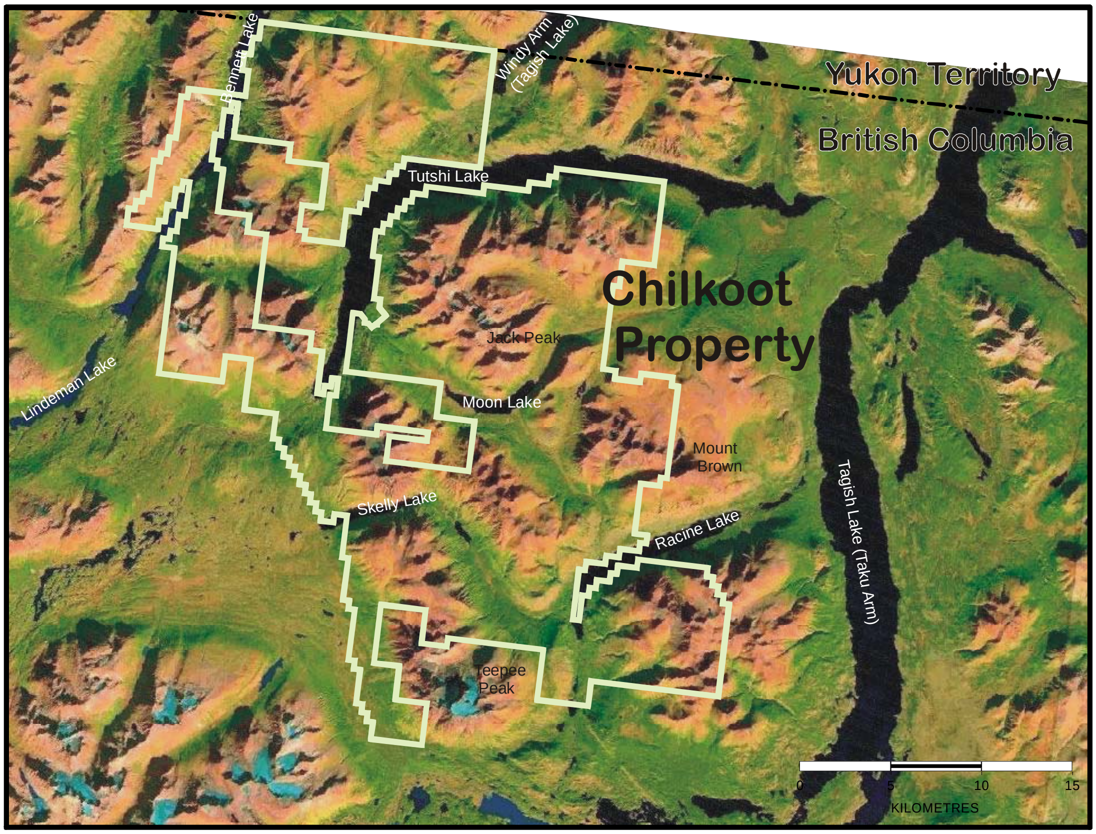
REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS 6882, 7417, 9454, 10417, 10425, 10426, 10428, 10740, 15808, 17583, 17992, 18649, 18766, 19186, 19438, 20032, 20790, 23736, 25095

(OVER)

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for ...)			
Soil		Anne 94, 98, 66, 56, 20	
Silt	100	Bre 45	
Rock	5	Brea 1, 43, 49	
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY/PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other			
		TOTAL COST	81,410.00

Report on the 2006 Reconnaissance Sampling Program on the Chilkoot Property, Northwest British Columbia

Atlin Mining Division
NTS mapsheets: 104M/15, 104M/10, 104M/14E, 104M/16W, 104M/09W
TRIM mapsheets: 104M.095, 096, 097, 098, 086, 087, 088, 076, 077, 078, 067, 068
Latitude: 59 51'49" N
Longitude: 134 39'21" W
UTM: 6636275 N, 519267 E, Zone 8



FOR:
XPLORER MINERALS INC.
Suite 307, 1500 Hardy Street
Kelowna, British Columbia V1Y 8H2

PREPARED BY:
George Owsiacki, P.Geo.

DATE:
May 20, 2007

TESS
Total Earth Science Services

TABLE OF CONTENTS

FIGURES

TABLES

APPENDICES

1.0 SUMMARY

This report was prepared by George Owsiacki, P.Geo. at the request of Xplorer Minerals Inc. (“Xplorer Minerals”) to describe and evaluate the results of a reconnaissance stream sediment sampling program conducted on the Chilkoot Property in the fall of 2006. In addition, a property examination and rock chip sampling was completed by the author. Overall, the 2006 exploration program totalled 5 rock chip samples and 100 stream sediment samples.

The 163 claims that comprise the property are 100% owned by Xplorer Minerals and total about 62,500 hectares, covering an area approximately 26 by 35 kilometres. The property is in the Atlin Mining Division, situated in the northwest corner of British Columbia just south of and along the Yukon-BC border. The claims are 70 kilometres northwest of the community of Atlin, or 90 kilometres south of the city of Whitehorse, Yukon.

The area presently held as the Chilkoot property received exploration from numerous exploration companies in the past who have identified and isolated areas containing a wide variety of mineralization and deposit types. Gold-bearing polymetallic vein occurrences account for almost half of the mineral showings on the property. Other significant mineralization comprise an epithermal gold-silver showing, a gold-bearing copper skarn, an iron skarn, and a porphyry molybdenum showing. The property encompasses a wide variety of lithotectonic terranes, several intrusive events, and is cut by major, long-lived faults. Thus, it provides tectonic and lithologic environments favorable for a wide variety of mineral occurrences and deposit types.

Quartz-base metal sulphide veins containing gold occur within Boundary Ranges metamorphic suite rocks. Some veins are associated with Eocene volcanic or related hypabyssal intrusions (*e.g.* Crine). Regional geochemical surveys show that Boundary Ranges suite rocks exhibit a clear anomalous gold signature. Due to the abundance of gold occurrences, the anomalous geochemical response, and the relative lack of exploration within the Boundary Ranges suite rocks, future exploration efforts aimed at gold-bearing vein systems are well founded. The 1989-90 drill program on the Crine showings, located on the Chilkoot property, by Cyprus Gold (Canada) Ltd. suggest that the vein structures are highly variable, and pinch and swell along strike. Several other areas remain to be prospected that have to date suggested an enrichment in precious metal and base metal mineralization.

Boundary Ranges metamorphic suite rocks also appear to offer a high potential for discovery of volcanogenic massive sulphide deposits based on the Big Thing occurrence located near the southeast end of Tutshi Lake (not on, but adjacent the Chilkoot property). The showing may be an isolated lens of Kuroko-type volcanogenic massive sulphide mineralization. Age data and correlations suggest that the Boundary Ranges suite is a metamorphosed equivalent of the Stikine assemblage which hosts the Tulsequah Chief volcanogenic massive sulphide deposit located approximately 125 kilometres south-southeast of the property boundary. To the north, in the Finlayson Lake district of

the Yukon, the Fyre Lake, Kudz Ze Kayah and Wolverine volcanogenic massive sulphide deposits are part of the Yukon-Tanana Terrane that may correlate with the Stikine assemblage.

Upper Triassic strata on the property hosts gold-bearing copper skarn mineralization at the Mill showing just north of the shoreline of Tutshi Lake where it bends to the east. Hostrocks are carbonate and conglomerate; similar mineralization occurs in correlative hostrocks in the Whitehorse copper belt to the north.

Epithermal gold-silver deposits can occur in almost any type of hostrock, although volcanic rocks are most common because of the association of epithermal deposits with felsic volcanic fields. Two main elements are large, sustained open fracture systems and extended periods of hydrothermal activity. The Ben-Southeast showing in Lower to Middle Jurassic volcaniclastic breccia and tuffaceous conglomerate, consists of vuggy quartz veins containing galena and chalcopyrite mineralization with silver-gold values.

The Chilkoot property area is part of the Tintina Gold Belt that stretches from central Alaska through the Dawson area, Yukon and down into northern British Columbia. This belt is host to a number of intrusion-hosted, or intrusion-related gold and copper-gold deposits. The Cretaceous intrusions on the property are similar in age to many of the intrusions in the Tintina Gold Belt and have a similar geochemical signature. The large Donlin Creek gold deposit in southwest Alaska has spatial and temporal associations with Cretaceous granitic to granodiorite magmatism; bismuth-tungsten-tellurium signatures in granitoid stocks and arsenic-antimony+/-mercury signatures where hosted by sedimentary rocks and hypabyssal dikes.

The similarity of the geological setting and geochemical fingerprint of the Tutshi Lake area to that of the Eskay Creek area is recognized. Eskay Creek is a gold-silver rich volcanogenic massive sulphide deposit where mineralization is interpreted to have formed in a subaqueous, near-shore, hotspring environment in an active arc setting. The volcanic strata on the Chilkoot property are coincident with a regional geochemical province displaying an elevated gold-antimony-arsenic signature; a geochemical fingerprint also seen in the belt hosting the Eskay deposit.

The potential for precious metal vein formation is moderate to high where Laberge Group strata occur together with high level magmatic rocks, especially in proximity to large structures such as the Llewellyn fault.

The Chilkoot property contains numerous base and precious metal-bearing mineral zones that require carefully planned and executed exploration and development work in order to outline economic mineralization. In order to advance exploration on the property, a 2 phase fieldwork program focused on exploring and expanding known mineralization is recommended. A first phase program of geological mapping and geochemical sampling is recommended to further define and expand mineralization present on the property, and to assess the potential of new mineral deposit type settings. A budget of C$150,000 is proposed for phase 1. A second phase of exploration should include an airborne geophysical survey to outline and further define favourable stratigraphy and deposit settings followed up by an exploration drill program in order to test subsequent targets and extend known mineralization. The budget for Phase 2 is estimated to be C$575,000.

2.0 INTRODUCTION

In July of 2006 Mr. Ernie Bergvinson of Xplorer Minerals Inc. requested that the author, George Owsiacki, P.Geo. visit, review and report on all relevant information on the Chilkoot Property and recommend a work program to qualify targets for future mineral exploration and development within the subject property. The author visited and sampled the property between August 21-26, 2006. A reconnaissance stream sediment sampling program was conducted between August 17 and September 1, 2006 by Geotronics Consulting Inc. under the supervision of David Mark, P.Geo.

The property is about 40 kilometres northwest of the past producing Engineer gold-silver mine and covers ten mineral showings documented in the British Columbia provincial mineral database, MINFILE. These showings are the Gridiron (MINFILE 104M 001), Silver Queen (MINFILE 104M 002), Bennett Lake (104M 032), Ben-Southeast (104M 046), Selly (104M 052), Net 6 (MINFILE 104M 058), Net 3 (MINFILE 104M 059), Pike (MINFILE 104M 062), Crine (MINFILE 104M 081), and Mill (MINFILE 104M 083) (Figure 1).

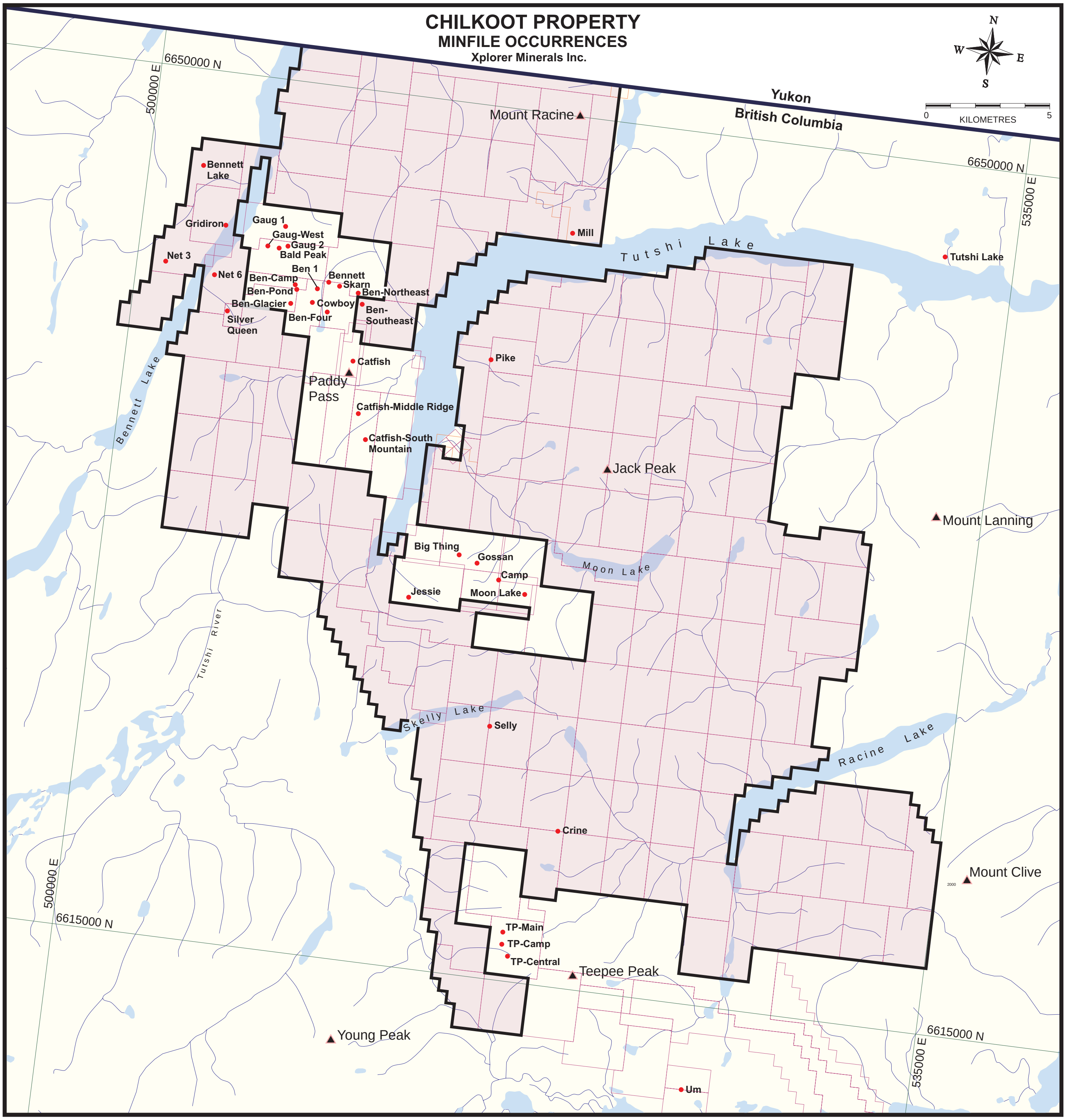
Results from previous and current exploration have been positive and a two-phase program of property scale and detailed geological mapping, geochemical sampling, airborne geophysical surveying followed up by a drill program with a proposed budget of C$725,000 is recommended.

3.0 RELIANCE ON OTHER EXPERTS

This report is based in part on documents and technical reports prepared by various authors and the portions of this report that provide that information are referenced. The documents and technical reports were used to compile the Chilkoot property history, geology and mineralization and are listed in Section 19.0, References.

4.0 PROPERTY DESCRIPTION AND LOCATION

The Chilkoot property area is situated in the Atlin Mining Division in the northwest corner of British Columbia just south of and along the Yukon-BC border. The property is 70 kilometres northwest of the community of Atlin, or 90 kilometres south of the city of Whitehorse, Yukon. The port community of Skagway, Alaska is 60 kilometres southwest. A major portion of the property is located on NTS mapsheet 104M/15 extending south onto 104M/10E and 104M/09W (TRIM mapsheets 104M.095-098, 086-



MINFILE OCCURRENCES*

Chilkoot claims held by Xplorer Minerals Inc.

Outline indicating all claims in Chilkoot property vicinity

• MINFILE Occurrence

*Red text in Legend indicates occurrences on Chilkoot claims

104M 001	GRIDIRON	104M 043	BEN-GLACIER	104M 061	CATFISH
104M 002	SILVER QUEEN	104M 044	BENNETT	104M 062	PIKE
104M 003	BEN 1	104M 045	BEN-NORTHEAST	104M 071	BIG THING
104M 004	TUTSHI LAKE	104M 046	BEN-SOUTHEAST	104M 074	CATFISH-MIDDLE RIDGE
104M 027	JESSIE	104M 047	BEN-FOUR	104M 075	CATFISH-SOUTH MOUNTAIN
104M 028	BALD PEAK	104M 048	TP-MAIN	104M 081	CRINE
104M 032	BENNETT LAKE	104M 049	TP-CAMP	104M 083	MILL
104M 038	GAUG-WEST	104M 050	TP-CENTRAL	104M 084	UM
104M 039	GAUG 2	104M 052	SELLY	104M 085	SKARN
104M 040	GAUG 1	104M 057	MOON LAKE	104M 086	COWBOY
104M 041	BEN-POND	104M 058	NET 6	104M 090	CAMP
104M 042	BEN-CAMP	104M 059	NET 3	104M 091	GOSSAN

Figure 1. MINFILE Occurrences - Chilkoot Property and Vicinity

088, 076-078, 067, 068). The property is centred at a latitude of 59 51'49" N and longitude 134 39'21" W (Figure 2).

The Chilkoot property consists of 163 claims totalling 62,553.134 hectares (Figure 3). The property area is about 26 kilometres east-west by 35 kilometres north-south. Table 1 lists the claims which are 100% owned by Xplorer Minerals Inc.

The Chilkoot property has not been legally surveyed. The author is not aware of any planned or existing land use that would adversely affect development of mineral resources on the property.

TABLE 1. CLAIMS OWNED BY XPLORER MINERALS INC.

Tenure Number	Claim Name	Good Until (y/m/d)	Area (ha)
517171	NNE 1	20080101	48.719
517305	NNE 3	20080101	162.594
517313	NNE 4	20080101	130.305
517323	NNE 5	20080101	32.542
517330	NNE 6	20080101	48.838
528294	ANNE 5	20070615	405.407
528297	ANNE 6	20070615	405.224
528298	ANNE 7	20070615	389.075
528299	ANNE 8	20070615	389.045
528302	ANNE 88	20070615	407.465
528304	ANNE 9	20070615	407.449
528306	ANNE 10	20070615	407.196
528315	ANNE 11	20070615	407.703
528325	ANNE 12	20070615	407.691
528327	ANNE 13	20070615	407.929
528330	ANNE14	20070615	407.92
528332	ANNE 15	20070615	391.627
528333	ANNE 16	20070615	408.223
528335	ANNE 17	20070615	406.78
528337	ANNE 18	20070615	406.725
528339	ANNE 19	20070615	406.962
528340	ANNE 20	20070615	407.015
528341	ANNE 21	20070615	406.069
528342	ANNE 22	20070615	405.841
528343	ANNE 23	20070615	406.107
528344	ANNE 24	20070615	407.437
528345	ANNE 25	20070615	406.99
528346	ANNE 26	20070615	406.654
528347	ANNE 27	20070615	406.663
528348	ANNE 28	20070615	406.676
528349	ANNE 29	20070615	406.416

TABLE 1. CONTINUED

528350	ANNE 30	20070615	324.956
528351	ANNE 32	20070615	146.203
528352	ANNE 33	20070615	388.885
528354	ANNE 34	20070615	405.103
528355	ANNE 35	20070615	388.695
528356	ANNE 36	20070615	407.495
528357	ANNE 37	20070615	407.512
528358	ANNE 38	20070615	407.719
528360	ANNE 39	20070615	390.839
528361	ANNE 41	20070615	407.525
528362	ANNE 42	20070615	408.173
528397	ANNE 44	20070615	390.094
528398	ANNE 45	20070615	390.385
528399	ANNE 46	20070615	407.398
528401	ANNE 50	20070615	408.174
528402	ANNE 51	20070615	407.749
528404	ANNE 52	20070615	407.766
528405	ANNE 53	20070615	407.911
528406	ANNE 54	20070615	407.883
528407	ANNE 55	20070615	359.097
528408	ANNE 56	20070615	405.611
528430	ANNE 57	20070615	407.861
528431	ANNE 58	20070615	408.23
528432	ANNE 59	20070615	408.506
528433	ANNE 60	20070615	408.476
528434	ANNE 61	20070615	392.065
528435	ANNE 62	20070615	408.81
528436	ANNE 63	20070615	408.737
528438	ANNE 64	20070615	406.168
528444	ANNE 65	20070615	404.957
528605	ANNE 66	20070615	405.433
528606	ANNE 67	20070615	404.98
528607	ANNE 68	20070615	405.223
528608	ANNE 69	20070615	404.979
528609	ANNE 70	20070615	405.24
528610	ANNE 71	20070615	404.978
528611	ANNE 72	20070615	405.419
528612	ANNE 73	20070615	407.673
528613	ANNE 74	20070615	407.422
528615	ANNE 75	20070615	407.184
528616	ANNE 76	20070615	407.172
528618	ANNE 75	20070615	406.931
528619	ANNE 77	20070615	406.921
528621	ANNE 78	20070615	407.672
528622	ANNE 79	20070615	407.422

TABLE 1. CONTINUED

528623	ANNE 80	20070615	407.172
528624	ANNE 81	20070615	406.921
528626	ANNE 82	20070615	408.075
528627	ANNE 83	20070615	408.078
528628	ANNE 84	20070615	408.33
528629	ANNE 85	20070615	408.329
528631	ANNE 86	20070615	407.861
528633	ANNE 87	20070615	390.407
528634	ANNE 88	20070615	390.414
528635	ANNE 89	20070615	407.63
528637	ANNE 90	20070615	407.423
528638	ANNE 91	20070615	407.116
528656	ANNE 92	20070615	406.321
528660	ANNE 93	20070615	405.89
528672	ANNE 94	20070615	405.4
528673	ANNE 95	20070615	405.167
528674	ANNE 96	20070615	388.751
528675	ANNE 97	20070615	388.631
528676	ANNE 98	20070615	388.854
528678	ANNE 99	20070615	226.705
528701	ANNE 100	20070615	408.077
528702	ANNE 101	20070615	408.326
528709	ANNE 102	20070615	407.83
530627	BRE 1	20070615	405.915
530628	BRE 2	20070615	405.887
530630	BRE 3	20070615	405.887
530631	BRE 4	20070615	405.898
530633	BRE 5	20070615	405.916
530634	BRE 6	20070615	405.923
530635	BRE 7	20070615	405.691
530636	BRE 8	20070615	405.692
530637	BRE 9	20070615	405.69
530639	BRE 10	20070615	406.408
530641	BRE 11	20070615	406.161
530642	BRE 12	20070615	405.711
530643	BRE 13	20070615	405.755
530644	BRE 14	20070615	405.509
530645	BRE 15	20070615	243.469
530646	BRE 16	20070615	406.136
530647	BRE 17	20070615	406.385
530648	BRE 18	20070615	406.634
530649	BRE 19	20070615	406.137
530650	BRE 20	20070615	406.386
530651	BRE 21	20070615	406.636
530652	BRE 22	20070615	390.354

TABLE 1. CONTINUED

530653	BRE 23	20070615	390.067
530654	BRE 24	20070615	373.594
530655	BRE 25	20070615	405.567
530656	BRE 26	20070615	405.816
530657	BRE 27	20070615	407.826
530658	BRE 28	20070615	408.071
530659	BRE 29	20070615	408.32
530661	BRE 30	20070615	407.988
530665	BRE 31	20070615	405.722
530666	BRE 32	20070615	405.97
530667	BRE 33	20070615	390.61
530668	BRE 34	20070615	405.354
530671	BRE 35	20070615	406.574
530672	BRE36	20070615	406.82
530673	BRE 37	20070615	406.821
530674	BRE 38	20070615	406.573
530683	BRE 39	20070615	406.321
530685	BRE 40	20070615	406.864
530687	BRE 41	20070615	406.863
530688	BRE 42	20070615	407.073
530765	BRE 43	20070615	406.659
530770	BRE 44	20070615	407.584
530771	BRE 45	20070615	407.317
530855	BRE 46	20070615	407.298
531555	ANNE 69	20070615	406.453
531556	ANNE 70	20070615	406.208
531557	ANNE 71	20070615	406.459
531558	ANNE	20070615	406.215
533330	BREA 1	20070615	389.697
533332	BREA 2	20070615	405.71
533333	BREA 3	20070615	405.468
533334	BREA 4	20070615	389.266
533335	BREA 31	20070615	405.564
533337	BREA 40	20070615	407.297
533341	BREA 43	20070615	407.923
533343	BREA 47	20070615	391.86
533345	BREA 48	20070615	408.168
533346	BREA 49	20070615	407.92
533348	TOP	20070615	243.613
533350	RUBY	20070615	64.959
533354	SNOUT	20070615	81.317
537382	BREANNE	20070718	194.558

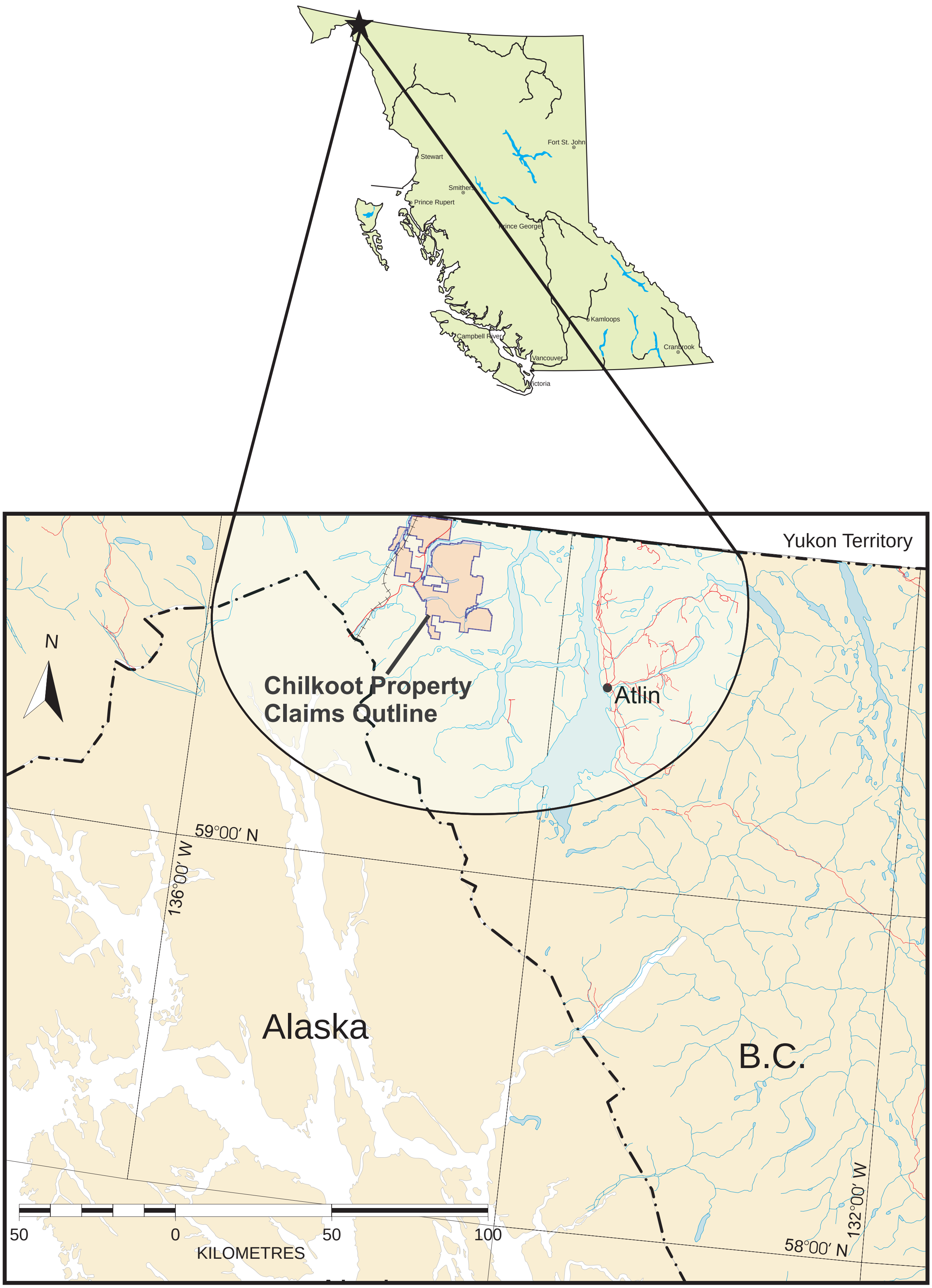
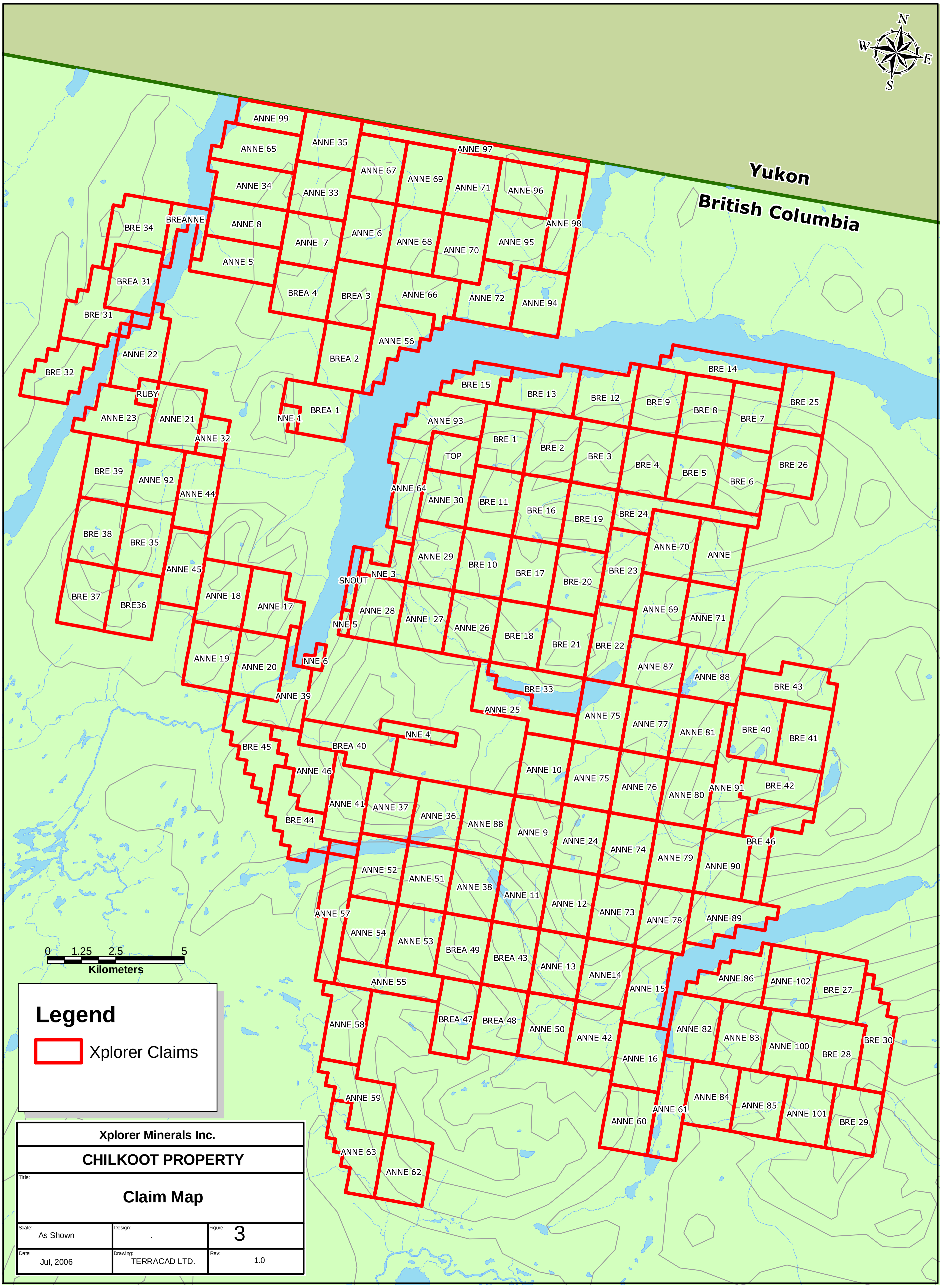


Figure 2. Location Map, Chilkoot Project.


N
W
E
S
Yukon
British Columbia
ANNE 99
ANNE 35
ANNE 65
ANNE 97
ANNE 67
ANNE 69
ANNE 71
ANNE 96
ANNE 34
ANNE 33
ANNE 98
BRE 34
BREANNE
ANNE 8
ANNE 6
ANNE 68
ANNE 70
ANNE 95
ANNE 7
ANNE 5
BREA 31
BREA 4
BREA 3
ANNE 66
ANNE 72
ANNE 94
BRE 31
ANNE 56
ANNE 22
BREA 2
BRE 14
BRE 32
BRE 15
BRE 13
BRE 12
BRE 9
BRE 8
BRE 25
RUBY
BREA 1
BRE 7
ANNE 23
ANNE 21
NNE 1
ANNE 93
ANNE 32
BRE 1
BRE 2
BRE 3
BRE 4
BRE 5
BRE 6
BRE 26
TOP
BRE 39
ANNE 92
ANNE 64
ANNE 44
ANNE 30
BRE 11
BRE 16
BRE 19
BRE 24
BRE 38
BRE 35
ANNE 70
ANNE
ANNE 29
BRE 10
BRE 17
BRE 20
BRE 23
ANNE 45
NNE 3
SNOUT
BRE 37
BRE36
ANNE 18
ANNE 17
ANNE 28
ANNE 27
ANNE 26
ANNE 69
ANNE 71
NNE 5
BRE 18
BRE 21
BRE 22
ANNE 19
ANNE 20
NNE 6
ANNE 87
ANNE 88
BRE 33
BRE 43
ANNE 39
ANNE 25
ANNE 75
ANNE 77
ANNE 81
BRE 40
BRE 41
NNE 4
BRE 45
BREA 40
ANNE 46
ANNE 10
ANNE 75
ANNE 76
ANNE 80
ANNE 91
BRE 42
ANNE 41
ANNE 37
ANNE 36
ANNE 88
BRE 44
ANNE 9
ANNE 24
ANNE 74
ANNE 79
BRE 46
ANNE 90
ANNE 52
ANNE 51
ANNE 38
ANNE 11
ANNE 12
ANNE 73
ANNE 78
ANNE 89
ANNE 57
ANNE 54
ANNE 53
BREA 49
BREA 43
ANNE 13
ANNE14
ANNE 15
ANNE 86
ANNE 102
BRE 27
ANNE 55
0 1.25 2.5 5
Kilometers
ANNE 58
BREA 47
BREA 48
ANNE 50
ANNE 42
ANNE 16
ANNE 82
ANNE 83
ANNE 100
BRE 28
BRE 30
ANNE 59
ANNE 84
ANNE 85
ANNE 101
BRE 29
ANNE 60
ANNE 61
ANNE 63
ANNE 62
Legend
Xplorer Claims
Xplorer Minerals Inc.
CHILKOOT PROPERTY
Title:
Claim Map
Scale:
As Shown
Design:
.
Figure:
3
Date:
Jul, 2006
Drawing:
TERRACAD LTD.
Rev:
1.0

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The Chilkoot property area straddles the South Klondike Highway (Highway 2) that runs from Carcross, Yukon south to the port community of Skagway, Alaska. The highway is paved and maintained year-round. Gravel bush roads extend from the South Klondike Highway to provide access to parts of the claim block along Paddy Pass and to a plateau area between Bennett Lake and Tutshi Lake. Helicopter support is provided from permanently based machines in Atlin, 70 kilometres to the southeast and Whitehorse, 90 kilometres to the north.

The project area is in the Coast Mountains. The topography is mountainous and can be extremely rugged and precipitous at higher elevations. Elevations range from about 700 metres above sea level (ASL) at Tutshi Lake to 2040 metres ASL. At lower elevations balsam and lodgepole pine dominate with willow and alder occurring in drainages and avalanche chutes. The alpine areas have scrub balsam, heather and alpine flora.

The area is affected by weather from the coast and receives abundant rain and snow. Snow generally begins accumulating in the alpine areas in mid-September and begins receding in late April to early May. The snow is generally melted back sufficiently by mid- to late May to allow for fieldwork at lower elevations.

Power is not available in the project area. The nearest source of power is in Carcross, 30 kilometres north by road. Carcross is connected to the Whitehorse hydroelectric grid. Water resources are abundant in the project area in numerous flowing streams and large lakes.

The nearest major city centre is Whitehorse, 110 kilometres by road north of the project area. Whitehorse is a supply centre for this northern region and has an ample labour force. Due to historic mining activity in the area, an experienced work force, including mining personnel are available here and in Atlin. The communities of Atlin and Whitehorse are government centres, and supply and service points for fuel, groceries, accommodation, etc. Whitehorse is serviced by major airlines and there are chartered flights to Atlin.

The author did not see any topographic or physiographic impediments for potential mine, mill, heap leach or waste disposal sites. Suitable lands occur throughout the project area that should allow development of such facilities. However, there are certain areas of steep terrain in which such facilities could not be located.

6.0 HISTORY

The Bennett Lake district was first explored by prospectors travelling along the major lakes and rivers in the early 1890s. The Klondike gold rush in the Yukon brought a great influx of people to the Bennett lake area in 1898. Gold and silver-bearing quartz veins were discovered around Bennett and Tagish lakes, and in the Wheaton River drainage. High grade mining operations at the Engineer mine beside Taku Arm (Tagish Lake), and at the Venus mine on Montana Mountain (Yukon) periodically produced gold and silver during the early to mid-1900s. The Venus mine is about 5 kilometres north of the northern Chilkoot property boundary and the Engineer mine is about 40 kilometres south-southeast of the Chilkoot property.

In the early 1900s, ridges in the area between Tutshi Lake and the south end of Windy Arm (Tagish Lake) were prospected for Venus vein-type occurrences. Seven pits in the old Venus mill site area (on the Chilkoot property) may date from this period. At the Venus mill site, an adit was driven into altered conglomerate and limestone during the 1970s. The pits were, with one exception, blasted in conglomerate or a fine grained felsic intrusion containing copper-lead-zinc mineralization. One pit was in limestone and contained copper mineralization. Showings on the Mill claims, which covered the old Venus mill site, were discovered during geological mapping and prospecting in 1987 by United Keno Hill Mines Limited. In 1988, United Keno conducted ground magnetic and VLF-EM surveying. In 1989, mapping, prospecting and sampling were done on the Mill 1 claim and two drillholes totalling 639 metres were completed on the newly staked Mill 2 claim. This showing is listed as 104M 083 in the provincial mineral inventory database, MINFILE.

Near Pavey on the White Pass and Yukon Railroad, two claims were staked by Fred H. Storey around 1913. The Silver Queen and Ruby Silver claims were staked to cover high grade silver mineralization. This showing is listed as 104M 002 (Silver Queen) in the provincial mineral inventory database, MINFILE and is located on the current Chilkoot property. Between 1916-17, the early workers built a 1200-metre tramway from the railroad at 660 metres elevation up the mountainside to 1400 metres elevation. They then drove a 300 metre-long adit to intersect the ruby silver (pyrargyrite) mineralization. Some ore was reportedly shipped in 1916, but there is no record of the tonnage. No significant silver mineralization was observed in or near the adit. Pyrite, chalcopyrite and malachite occur in material below the old aerial tramway constructed below the adit portal. A quartz-arsenopyrite vein occurs in a quartz-eye porphyry dike above the adit; a grab sample assayed 14.8 grams per tonne gold (Lueck, 1989). The adit remains open and in good shape (ca. 1989). Three shorter adits are located in a steep gully 2.5 kilometres to the north of the Ruby Silver adit but do not occur on the Chilkoot property; the history of these workings is unknown. In 1933, the Alaska Juneau Gold Mining Company carried out exploration work on the Silver Queen Group. The claims were held as the Dick 1-40 and Old 1-6 claims in 1970 by the Premier Mining Company who carried out an aeromagnetic survey. In 1971, Premier conducted geological mapping and trenching on the Old 5 and Dick 6 claims. Prospecting in 1987 located veins above the adit.

In the north part of the Chilkoot property near the BC-Yukon border, the Rigel 1 claim was staked in 1987 to cover a very rusty ridge consisting of pyritiferous cherts. United Keno Hills Mines Limited conducted 5.2 kilometres of ground magnetic and VLF-EM surveying. The Fin 1 claim was staked in 1987 by Noranda Exploration in the north part of the Chilkoot property between Bennett and Tutshi lakes to cover a large gossan. In 1988, Noranda completed prospecting, mapping and stream sediment sampling.

The Gridiron adit (MINFILE 104M 032) is located about 9 metres above the western shore of Bennett Lake on a west trending shear zone and is on the Chilkoot property. A clearly defined quartz vein about 0.2 metre wide near the adit portal was reported (1901) to carry high gold and silver values. In 1901, 68 tonnes of ore were mined producing 2582 grams of silver and 156 grams of gold. In 1981, Du Pont of Canada Exploration Limited staked the Ange 1 and Be 1 claims to cover the showing area and conducted soil and rock sampling. The Shui claim was staked in 1981 by Du Pont on the basis of an auriferous stream sediment anomaly. Follow-up work in July and August consisted of collecting 20 soil samples and 10 rock samples.

In 1978-79 and 1981, E & B Explorations Ltd. conducted geological mapping, rock and stream sediment sampling and prospecting for uranium on the Net property on the east and west sides of Bennett Lake. These surveys were follow up to geochemical anomalies in uranium derived from the analysis of sample pulps acquired from Kennco Explorations Ltd. Other work done on the property involved prospecting using hand held scintillometers. In the 1981 work, two galena occurrences were discovered but neither appeared to have any economic significance. One occurrence is within a narrow quartz vein in feldspar porphyry biotite quartz monzonite; the other is in a quartz-feldspar vein cutting equigranular quartz monzonite. One minor occurrence of molybdenite was also discovered close to the contact with feldspar porphyry biotite quartz monzonite (Net 6, MINFILE 104M 058; Net 3, 104M 059).

In the area where Tutshi Lake curves to the east, the Take claims were staked by Du Pont Exploration in 1981 and follow up of a cupriferous stream sediment sample was conducted later that year. Geological mapping and stream sampling were undertaken and the claims were allowed to lapse. In 1986, the Pike claim was staked and geological mapping, prospecting, and sampling were carried out during the field season by H. Copland which resulted in the discovery of anomalous gold values in quartz stringers (Pike, MINFILE 104M 062). In 1994, the Pike 1-2 claims were staked to cover this showing and geological mapping, rock and stream sediment sampling and a VLF-EM survey were completed by R.H. McMillan.
As a result of a large regional exploration programme known as the Kulta Project carried out in 1981 by Du Pont of Canada Exploration Limited, follow up heavy mineral, rock and soil sampling was conducted over a large area between Bennett Lake in the northwest to Teepee Peak in the southeast. An anomalous gold sample in a creek draining north into Skelly Lake led to the Selly claim being staked and rock, soil and stream sampling completed. This sampling resulted in the discovery of small mineralized skarns (Selly, MINFILE 104M 052).

The southern area of the Chilkoot property is adjacent to two significant skarn mineral occurrences, the TP Main (MINFILE 104M 048) and TP Camp (MINFILE 104M 049), which were discovered in 1983 on Teepee Peak by Trigg, Woollett, Olson Consulting Ltd. while exploring on behalf of Texaco Canada Resources Ltd. The TP claims were staked and a limited amount of prospecting, rock and stream sediment geochemical sampling and reconnaissance geological mapping were completed on and around the claims. The company kept the property in good standing but failed to continue work in this area until 1987 when Cyprus Gold (Canada) Ltd. optioned the property under joint venture agreement. It was the 1988 fieldwork conducted by Cyprus and the prospecting work done by BC Geological Survey geologists that first isolated new vein-type precious metal mineralization found on the TP 9 claim (located on the current Chilkoot property). In 1988, Cyprus expanded the property and completed an exploration program consisting of 650 kilometres of airborne magnetic and electromagnetic surveys, followed by reconnaissance geological mapping, geochemical (soil and rock sampling) and ground magnetic surveys. Prospecting in 1988 in an area of previous soil, rock and stream sediment sampling by Du Pont resulted in the discovery of an arsenopyrite-rich quartz vein with gold-silver values containing galena, sphalerite, tetrahedrite, and minor chalcopyrite that could be traced for 500 metres on a north-northwesterly trend (Crine vein). Cyprus Gold (Canada) Ltd. continued work in 1989 and the Crine #l vein, Crine #3 vein, Scotia vein, BX zone and Quartz zone were discovered. The Scotia vein is located approximately 550 metres west of the Crine #3 vein and exhibits the same mineralogy as the Crine veins. The BX zone is the northerly extension of the Crine #1 vein. The Quartz zone, located at the southeast end of the projected Scotia vein, consists of high grade gold assays found in a quartz-graphite mix. The Crine veins, Scotia vein, BX and Quartz zones are located wholly within the current Chilkoot property boundaries. Further work in 1989 consisted of sampling, geochemical and geophysical surveys and 1371 metres of diamond drilling. This work focused on the Crine veins, Scotia vein and Quartz zone. A total of 12 NQ drillholes totalling 1282 metres were drilled on the Crine and Scotia veins; 2 holes on the Crine #3 vein, 7 holes on the Crine #1 vein, 1 hole on the Scotia vein, and 2 holes on the Quartz zone. In 1990, Cyprus Gold conducted trenching, diamond drilling, prospecting and rock sampling on the Crine/Scotia veins, and BX and Quartz zones. Eleven NQ drillholes totalling 1336 metres were drilled on the Crine #1 vein, BX zone, Quartz Zone, and Scotia vein. Westmin Resources Limited planned to evaluate the area in 1996.

The mineral occurrences that occur on the Chilkoot property are listed below.

MINFILE NO.	**SHOWING NAME**					
104M 001	GRIDIRON	Silver	Gold	Lead	Zinc	
104M 002	SILVER QUEEN	Gold	Copper	Silver		
104M 032	BENNETT LAKE	Limestone				
104M 046	BEN-SOUTHEAST	Silver	Lead	Gold	Copper	
104M 052	SELLY	Copper	Lead			
104M 058	NET 6	Uranium	Thorium			
104M 059	NET 3	Silver	Uranium	Thorium	Molybdenum	Tungsten
104M 062	PIKE	Gold	Silver	Copper		
104M 081	CRINE	Gold	Silver	Lead	Zinc	Copper
104M 083	MILL	Copper	Silver	Gold		

The Chilkoot property also surrounds a significant area of mineralization hosting numerous mineral showings that is currently known as the Golden Eagle Project. The

Golden Eagle Project area is not part of the Chilkoot property but is herein briefly described as it shares similar geology. In 2003-04, Marksmen Resources Ltd. conducted a major exploration program on the Golden Eagle area covering 21 mineral showings that are documented in the provincial mineral inventory database, MINFILE.

The Golden Eagle area has a long history of mineral exploration, dating back to the Klondike gold rush, when the gold seekers came through the Bennett Lake valley on their way to the Klondike goldfields. Some old, undocumented adits may date back to this time. The majority of modern exploration in the area was conducted in the latter part of the 1980s and early to mid-1990s when major companies such as Du Pont, Noranda and Westmin conducted regional and property scale exploration in the district. This work identified base and precious metal mineralization in a variety of geological settings and deposit model types over a large area measuring at least 14 by 18 kilometres. The mineralization occurs as skarn-type mineralization in Devonian to Triassic metavolcanic rocks bordering Cretaceous intrusions; as gold-bearing arsenopyrite-quartz veins in rhyolitic intrusions and adjacent hostrocks; as disseminated copper-gold mineralization in Cretaceous intrusions; and as feeder zone mineralization in a possible volcanogenic massive sulphide setting.

The following list of mineral showings occur within the Golden Eagle project area. Refer to the online provincial mineral inventory database, MINFILE, at www.minfile.ca for geologic descriptions.

MINFILE NO.	SHOWING NAME						
104M 003	BEN 1	Silver	Gold	Lead	Zinc	Antimony	
104M 027	JESSIE	Silver	Gold	Copper	Lead	Zinc	
104M 028	BALD PEAK	Gold	Silver	Lead	Antimony		
104M 038	GAUG-WEST	Gold	Silver	Lead	Antimony		
104M 039	GAUG 2	Gold	Silver	Zinc	Copper	Lead	
104M 040	GAUG 1	Silver	Copper				
104M 041	BEN-POND	Silver	Lead	Gold	Zinc	Antimony	
104M 042	BEN-CAMP	Silver	Gold	Lead	Zinc		
104M 043	BEN-GLACIER	Gold	Silver	Cobalt			
104M 044	BENNETT	Gold	Silver	Zinc	Copper	Lead	
104M 045	BEN-NORTHEAST	Gold	Silver				
104M 047	BEN-FOUR	Gold	Silver				
104M 057	MOON LAKE	Silver	Zinc	Lead	Copper	Gold	
104M 061	CATFISH	Silver	Gold	Zinc	Lead	Antimony	Copper
104M 071	BIG THING	Gold	Silver	Lead	Zinc	Copper	
104M 074	CATFISH-MIDDLE RIDGE	Gold	Silver	Copper	Lead	Zinc	
104M 075	CATFISH-SOUTH MOUNTAIN	Silver	Gold	Copper	Lead	Zinc	
104M 085	SKARN	Gold	Copper				
104M 086	COWBOY	Gold	Silver	Antimony	Lead	Copper	
104M 090	CAMP	Gold					
104M 091	GOSSAN	Gold	Lead	Copper			

7.0 GEOLOGICAL SETTING

7.1 REGIONAL GEOLOGY

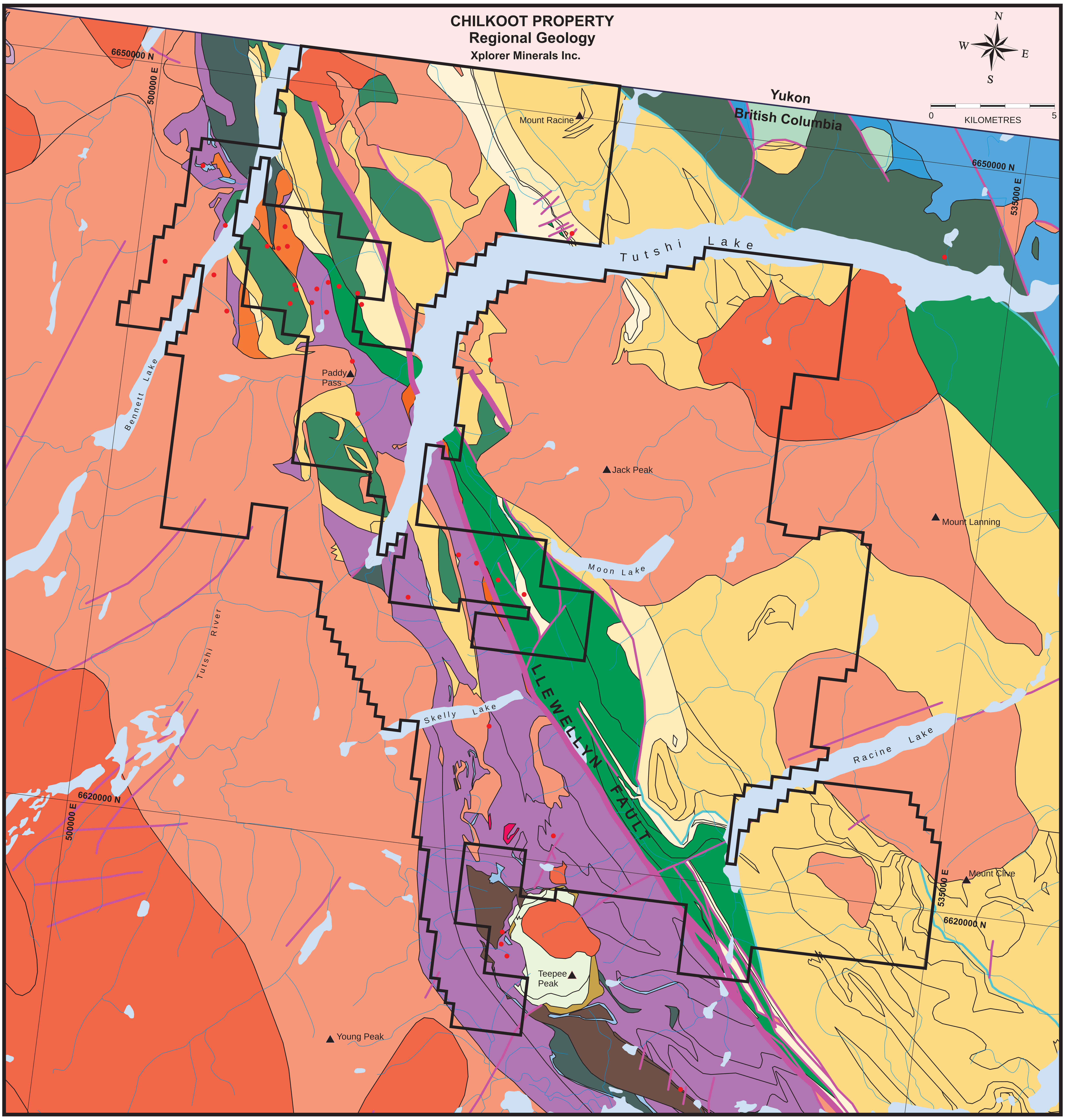
The regional geological description of the Chilkoot property is derived in whole or in part from Mihalynuk (1999, 2003), Casselman (2005) and Cuttle (1989, 1990). The property area occurs at the contact between the Coast Belt and the western margin of the Intermontane Belt. The Coast Belt is comprised predominantly of Late Cretaceous and Tertiary magmatic rocks, while the Intermontane Belt at this latitude is composed of Mesozoic arc volcanic and arc-derived sedimentary rocks.

According to Wheeler *et al.* (1991) the architecture of the area is a product of Late Triassic to Early Jurassic amalgamation of the following terranes (from east to west): mainly Paleozoic and lesser early Mesozoic oceanic crustal and supracrustal rocks of the Cache Creek Terrane; early Mesozoic arc volcanic and related sedimentary rocks of the Stuhini Group, at this latitude representing Stikine Terrane; and possibly(?) Late Proterozoic to Paleozoic metamorphosed epicontinental rocks of the Nisling Terrane. These terranes are overlapped by Lower to Middle Jurassic basinal turbidites of the Laberge Group that form part of the Inklin overlap assemblage. Laberge strata are succeeded by late Mesozoic and Tertiary mainly felsic volcanic strata of the Windy-Table and Montana Mountain complexes and the Sloko Group. Intrusive roots to the several volcanic episodes postdating Laberge deposition include the granitoids of the Whitehorse Trough and Coast Belt (Figure 4).

Current data indicate that both the Laberge Group and the Stuhini Group strata (which at this latitude represent Stikine Terrane) together constitute an overlap assemblage which is termed the Whitehorse Trough overlap assemblage. The nature of the Nisling rocks is in question; it is not certain that they really constitute a separate terrane. However, to maintain consistency with widespread current usage they are referred to collectively as the Yukon-Tanana Terrane.

The structural geology of the area is dominated by two major subparallel, north-northwest trending faults that divide and define the boundaries between the Cache Creek Terrane and the Whitehorse Trough, and between the Whitehorse Trough and the Yukon-Tanana Terrane. The Nahlin fault, east of and not in the project area, more or less marks the western extent of the Cache Creek Terrane and eastern extent of the Whitehorse Trough. It is a steeply dipping to vertical fault or series of faults and has been intermittently active, probably since the Late Triassic into the Tertiary. The Llewellyn fault (which transects the Chilkoot property area) marks the boundary between the regionally metamorphosed Yukon-Tanana Terrane in the west and the Whitehorse Trough in the east. It is also steeply dipping and appears to have been active from Late Triassic to Tertiary time.

The Intermontane Belt in the property area is divided into two packages: Yukon-Tanana Terrane to the west, and rocks of the Whitehorse Trough to the east. Overlapping these packages are Lower to Middle Jurassic volcanic rocks. The Yukon-Tanana Terrane



Geology Legend

Paleogene

- **ETgr** granite, alkali feldspar granite intrusive rocks
- **ETqm** quartz monzonitic intrusive rocks

Early Eocene

- **Eto** tonalite intrusive rocks

Sloko Group

- **EScg** conglomerate, coarse clastic sedimentary rocks
- **ESvf** rhyolite, felsic volcanic rocks
- **ESv** undivided volcanic rocks
- **ESvc** volcaniclastic rocks

Middle Eocene

- **Eg** intrusive rocks, undivided

Paleocene to Eocene

Sloko-Hyder Plutonic Suite

- **PeEShgr** granite, alkali feldspar granite intrusive rocks
- **PeEShqd** quartz dioritic intrusive rocks

Late Cretaceous

- **LKgr** granite, alkali feldspar granite intrusive rocks
- **LKqm** quartz monzonitic intrusive rocks

Windy Table Complex

- **LKWqd** quartz dioritic intrusive rocks

Mid-Cretaceous

- **MKgr** granite, alkali feldspar granite intrusive rocks

Mid-Cretaceous to Upper Cretaceous

- **luKWvf** rhyolite, felsic volcanic rocks
- **luKWv** undivided volcanic rocks

Early Cretaceous

- **EKdr** dioritic intrusive rocks

Early Middle Jurassic

Laberge Group

- **mJL** conglomerate, coarse clastic sedimentary rocks

Lower Jurassic to Middle Jurassic

- **lmJva** andesitic volcanic rocks
- **lmJLcg** conglomerate, coarse clastic sedimentary rocks

Early Jurassic

- **EJum** ultramafic rocks

Lower Jurassic

- **lJLIst** **Inklin Formation:** argillite, greywacke, wacke, conglomerate turbidites
- **lJLTst** **Takwahoni Formation:** argillite, greywacke, wacke, conglomerate turbidites
- **lJLIcg** **Inklin Formation:** conglomerate, coarse clastic sedimentary rocks
- **lJLTcg** **Takwahoni Formation:** conglomerate, coarse clastic sedimentary rocks
- **lJLIsf** **Inklin Formation:** mudstone, siltstone, shale fine clastic sedimentary rocks
- **lJL** undivided sedimentary rocks

Triassic to Jurassic

- **TrJg** intrusive rocks, undivided

Upper Triassic to Lower Jurassic

- **uTrJcg** conglomerate, coarse clastic sedimentary rocks

Middle Triassic to Early Jurassic

Cache Creek Complex

- **mTrJCva** andesitic volcanic rocks

Late Triassic

Stikine Plutonic Suite

- **LTrStdg** monzodioritic to gabbroic intrusive rocks

Upper Triassic

Stuhini Group

- **uTrSst** argillite, greywacke, wacke, conglomerate turbidites
- **uTrSvb** basaltic volcanic rocks
- **uTrSca** calc-alkaline volcanic rocks
- **uTrScg** conglomerate, coarse clastic sedimentary rocks
- **uTrSSls** **Sinwa Formation:** limestone bioherm/reef
- **uTrSlm** limestone, marble, calcareous sedimentary rocks
- **uTrSvf** rhyolite, felsic volcanic rocks
- **uTrSv** undivided volcanic rocks

Upper Permian to Jurassic

Cache Creek Complex

Mississippian to Triassic

- **MTrCK** **Kedahda Formation:** chert, siliceous argillite, siliciclastic rocks

Upper Mississippian to Permian

- **uMPCN** **Nakina Formation:** basaltic volcanic rocks
- **uMPCH** **Horsefeed Formation:** limestone, marble, calcareous sedimentary rocks

Early Mississippian

- **EMgr** granite, alkali feldspar granite intrusive rocks

Devonian to Middle Triassic

Boundary Ranges Metamorphic Suite

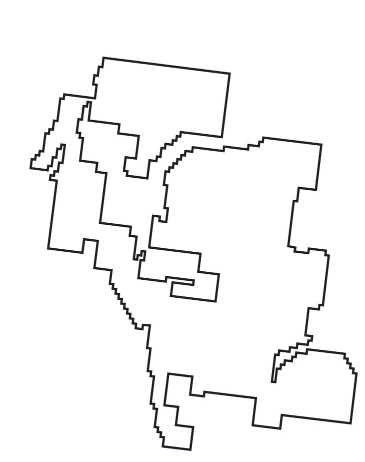
- **DTrBRvb** basaltic volcanic rocks
- **DTrBRgs** greenstone, greenschist metamorphic rocks
- **DTrBRlm** limestone, marble, calcareous sedimentary rocks
- **DTrBR** metamorphic rocks, undivided

Middle Devonian

- **mDpg** paragneiss metamorphic rocks

Geological map and legend compiled from:

Mihalynuk, M., Bellefontaine, K., Brown, D., Logan, J., Nelson, J., Legun, A. and Diakow, L. (1996): Digital Geology, Northwest British Columbia (94/E, L, M; 104/F, G, H, I, J, K, L, M, N, O, P; 114/I, O, P); *B.C. Ministry of Energy, Mines and Petroleum Resources*, Open File 1996-11.



Chilkoot Project Claim Boundary

Xplorer Minerals Inc.

CHILKOOT PROPERTY
Regional Geology

- Fault
- Thrust Fault
- Contact
- Rivers
- MINFILE Occurrence

Figure 4

consists primarily of the Boundary Ranges metamorphic suite, a belt of polydeformed rocks bounded on the east by the Llewellyn fault and on the west by mainly intrusive rocks of the Late Cretaceous to Tertiary Coast Plutonic Complex. The Boundary Ranges metamorphic suite is comprised of a wide range of protoliths from quartzose to pelitic or carbonaceous and calcareous sediments through volcanic tuffs or flows to small lenses to large bodies up to several kilometres across of gabbroic, dioritic, granodioritic and granitic intrusions and ultramafite. These rocks are believed to be Devonian to Middle Triassic in age.
The Whitehorse Trough is bounded by the Llewellyn fault to the west, and by the Nahlin fault to the east near Taku Arm (Tagish Lake). In the property area, the Whitehorse Trough rocks consist of the Upper Triassic Stuhini Group and Lower Jurassic Laberge Group. The Stuhini Group is comprised of basic to intermediate subalkaline volcanic flows, pyroclastics and related arc sediments. These rocks are intruded by Late Cretaceous and Paleogene granodioritic intrusions. The upper part of the Stuhini Group is comprised of conglomerate, limestone, shale and wacke. The Stuhini Group is correlative with the Lewes River Group in the Yukon and this sequence extends from central Yukon down to the Tulsequah River area in British Columbia.

The Laberge Group is divided into the Takwahoni and Inklin formations. They are dominated by immature marine clastics that are regionally metamorphosed to prehnite-pumpellyite and epidote-albite facies. Adjacent to plutons they are hornfelsed to a higher grade. The Takwahoni Formation is of Early to Middle Jurassic age and consists of Stikinia-derived, conglomerate-rich clastic rocks. The Inklin Formation consists of an Early Jurassic, mainly fine grained clastic succession of rhythmically bedded argillites and greywackes with locally abundant thin conglomerate units. The argillite can be non-calcareous to weakly calcareous to siliceous. Conglomerate units in both the Takwahoni and Inklin formations are polymictic with clasts of well rounded volcanic, sedimentary and intrusive lithologies.

The overlapping Lower to Middle Jurassic volcanic rocks crop out northwest and southeast of Tutshi Lake. They are composed of andesitic to dacitic bladed feldspar porphyry flows and tuffs, dacitic lapilli tuff, rhyolite flows and ash flows, variegated feldspar-phyric flows or coarse pyroclastics, and polymictic felsic lapilli tuffs. In many instances volcanism appears to have been focused along major structural breaks, such as the Nahlin and Llewellyn faults.

7.2 PROPERTY GEOLOGY

The Chilkoot property geology description is sourced in whole or in part from Mihalynuk (1999, 2003), Casselman (2005) and Cuttle (1989, 1990).

The crustal-scale Llewellyn fault transects the Chilkoot property on a north-northwesterly trend. The steeply dipping fault marks the boundary between regionally metamorphosed rocks of the Yukon-Tanana Terrane in the west and Whitehorse Trough rocks to the east (Figure 4). The Yukon-Tanana Terrane rocks consists primarily of the Devonian to Middle Triassic Boundary Ranges metamorphic suite where locally preserved relic textures display a wide range of protoliths from quartzose to pelitic or carbonaceous and calcareous sediments through volcanic tuffs or flows to small lenses to large bodies up to several kilometres across of gabbroic, dioritic, granodioritic and granitic intrusions and ultramafite. The Boundary Ranges suite are bounded on the east by the Llewellyn fault and on the west by mainly granitic intrusive rocks of the Late Cretaceous to Tertiary Coast Plutonic Complex. The Whitehorse Trough rocks consist of the Upper Triassic Stuhini Group and Lower Jurassic Laberge Group and are bounded by the Llewellyn fault to the west, and the Laberge Group sediments and Late Cretaceous and Paleogene granodioritic intrusions to the east. The Stuhini Group is comprised of mafic to intermediate subalkaline volcanic flows, pyroclastics and related arc sediments. The upper part of the Stuhini Group is comprised of conglomerate, limestone, shale and wacke. The Stuhini Group is correlative with the Lewes River Group in the Yukon and this sequence extends from central Yukon down to the Tulsequah River area in British Columbia.

Intrusive rocks that dominate the western and eastern margins of the Chilkoot property are part of the Coast Plutonic Complex. Magmatic rocks that are genetically integral to the Coast Plutonic Complex range in age from Jurassic to Early Tertiary. Caught within this plutonic collage are scraps of older, metamorphosed intrusive and layered rocks. Metamorphosed intrusive bodies of Jurassic and older age may be highly deformed, exhibiting a strong, pervasive, northwest-trending fabric. Most plutons are dominantly granodiorite and quartz monzonite, and mid-Tertiary, Late Cretaceous and older non-migmatitic tonalite orthogneiss and weakly to nonfoliated granite.

The lithologic diversity of the Boundary Ranges rocks are similar to that in the Whitehorse map area, suggesting a correlation with the metamorphic rocks there. Original thicknesses are difficult to estimate due to the high degree of deformation, and particularly, non-coaxial folding and interstratal slip. These same factors make it very difficult to trace specific layers more than a few hundred metres in outcrop. Biotite schists form a belt along the western edge of the metamorphic belt. Biotite schists generally display a strong foliation which is disrupted by minor folds. They form compact, low outcrops that weather rusty, dark grey and may also contain impure metaquartzite layers. Resistant, yellow, orange and tan-weathering, medium-grained marble layers up to 200 metres thick are the best marker units within the metamorphic package. Locally the marble is well banded with grey graphite-bearing, green chlorite-bearing or orange iron oxide stained septa. Unfortunately, like all other rocks within this polydeformed metamorphic domain, these units are discontinuous on a scale of kilometres or even hundreds of metres. Finely crystalline graphite and muscovite(?) schist generally form rubbly to blocky outcrops depending on the degree of induration. They may grade into actinolite chlorite schists and commonly contain calcareous interlayers. The graphite muscovite schist host base metal-gold-arsenopyrite veins and tectonic breccia zones at the Crine showing. Muscovite schists are generally closely associated with the graphite muscovite schist unit, but lack carbonaceous partings and rarely enclose carbonate bands. Chlorite actinolite schists are the most abundant rocks of the metamorphic suite. Plagioclase and quartz may comprise up to 50 per cent or more of the rock, which results in mineral segregation so that the outcrop displays gneissic green and white banding. Biotite and rare garnet may be present as accessory phases. Pyroxene plagioclase schists with lesser chlorite and actinolite form conspicuous units several hundreds of metres thick north of Fantail Lake. They also occur as volumetrically minor layers within chlorite actinolite schist. In the Tutshi Lake area similar schists grade into a weakly foliated gabbroic body.

Stuhini Group lithologies are diverse: basic to intermediate subalkaline volcanic flows, pyroclastics and related arc sediments. Characteristic lithologies include coarse augite porphyry and bladed feldspar porphyry, as well as widespread upper Norian carbonate known as the "Sinwa Formation". Two major divisions are developed in the area. A poorly exposed lower, foliated division is intruded by granodioritic plutons which are nonconformably overlain by upper division strata. At the base of the upper division, a granitoid-rich boulder conglomerate gives way upward to pebble conglomerate rich in metamorphic fragments and finally into wackes and argillites. These rocks are succeeded by a thick succession of augite-phyric pillow basalts interlayered with fossiliferous siltstone. Topping the succession is quartz-rich volcanic sandstone and conglomerate capped by upper Norian limestone. Evidence for the lower division occurs in deformed strata adjacent the Llewellyn fault. Screens and sheared rocks along the fault are dominated by chlorite epidote schist with relict textures showing pyroxene-phyric clasts. Contacts between the Stuhini Group and metamorphic strata of the Boundary Ranges metamorphic suite are not well exposed in the area but may coincide with structural boundaries. An orange to tan weathering, clast-supported limestone boulder conglomerate separates Stuhini Group strata and Sinemurian Laberge Group argillites. It forms a laterally continuous belt extending from Tagish Lake to Moon Lake. A conglomerate unit that straddles Bennett Lake was previously mapped as Paleozoic to Triassic in age but is now known to be at least as young as Late Triassic. This unit sits above foliated Late Triassic granodiorite and contains abundant clasts of both granodiorite, and highly stretched quartz-rich metasediments. Locally it is foliated.

Coarse pyroxene-phyric basalt is a characteristic lithology of the Stuhini Group. These basalts commonly display evidence of subaqueous eruption and may be well pillowed or they may comprise massive flows with interflow marine sediments. Dark green to grey or maroon heterolithic lapilli tuff is a common lithology, occurring at several horizons within the Stuhini Group. Late Triassic intrusions are common in northern Stikine terrane, where they are collectively known as the Stikine plutonic suite. They are generally cospatial with the thickest accumulations of Stuhini Group volcanic rocks, and with hornblendite and hornblende-clinopyroxenite ultramafites. They range from granodiorite to alkali granite to gabbro.

Strata of the Lower Jurassic Laberge Group are dominated by immature marine clastics preserved in a northwest trending fold and thrust belt. They are regionally metamorphosed to prehnite-pumpellyite and epidote-albite facies and, adjacent to plutons, are hornfelsed to higher grade. An informal definition of the Takwahoni and Inklin formations is most suited to the Laberge Group in this area. That is: the name Takwahoni Formation is applied to Stikinia-derived, conglomerate-rich clastic rocks. The name Inklin Formation is applied to a mainly fine grained clastic succession with locally abundant wackes and thin conglomeratic units. Inklin Formation rocks which underlie much of the area are crosscut by numerous granitoid stocks. Widespread folding and thrust faulting make thicknesses difficult to assess. Typical Laberge Group lithologies include conglomerate, greywacke, diamictite, immature sandstone and siltstone, and both noncalcareous and lesser calcareous argillite. The dominant lithology is brown to green weathering, medium grained, thick bedded lithic wacke with thin shale and sand interlayers. Conglomerates and greywackes generally occur as massive beds while argillites and siltstones are normally thinly bedded and may be laminated. Conglomerates commonly form tabular or lensoid bodies reflecting deposition in channels. Contacts between the Laberge Group and older rocks are seen at only a few localities in the area. At two localities in the Tutshi Lake area, fossiliferous Laberge or Laberge-like strata rest unconformably on metamorphic rocks. On the ridges north of Skelly Lake, coarse clastic strata of Laberge Group character rest with angular unconformity on Boundary Ranges metamorphic rocks. Another example is north of Paddy Pass where well exposed Laberge wackes overlie metamorphic rocks. Although the contact between the Laberge Group and underlying Stuhini Group is commonly disrupted, locally its fundamental character is that of a disconformity. Apparently disconformably overlying the Laberge Group are Lower to Middle Jurassic volcanic strata. Younger still are Eocene Sloko Group epiclastic and felsic volcanic rocks that overlie deformed Laberge strata.

Intermediate pyroclastic and flow units of probable Lower to Middle Jurassic age crop out both northwest and southeast of Tutshi Lake. These volcanics are distinguished from Stuhini Group volcanic rocks because they lack both voluminous augite-phyric basalt flows and granite boulder conglomerate interlayers. Further, they are interlayered with conglomerates most likely derived from the Laberge Group. A variety of lithologies are common within this rock package. These include bladed feldspar porphyry flows and tuffs, dacitic lapilli ash tuff, dark angular lapilli tuff, rhyolite flows and ash flows, variegated feldspar-phyric flows or coarse pyroclastics, and polymictic felsic lapilli tuffs. An average composition for the suite is probably andesite to dacite, albeit small amounts of rhyolite to basalt are common.

The Llewellyn fault is a major north-northwest-trending fault that transects the Chilkoot property. It is locally a discreet, near vertical structure only a few tens of metres across but is commonly 1 to 3 kilometres across and comprised of numerous elongate lenses of various, nearly vertical lithologies. Lithologies within the fault zone are commonly silicified, sericitized, argillically altered, and pervasively cleaved. The crustal-scale fault, as well as related secondary faults, provide conduits for pluton emplacement and mineralizing hydrothermal systems. It is an important environment where high mineral potential exists and the juxtaposition of two disparate crustal fragments, Yukon-Tanana terrane and Whitehorse Trough, has created mineral exploration opportunities for a number of deposit types.

8.0 DEPOSIT TYPES

The deposit types discussion is derived in whole or in part from Mihalynuk (1999), Cuttle (1990) and Casselman (2005). The Tutshi Lake area is part of a geochemical province with high background gold, arsenic and antimony regional stream sediment geochemistry. The area encompasses a wide variety of lithotectonic terranes, it records several intrusive events, and it is cut by major, long-lived faults. Thus, it provides tectonic and lithologic environments favorable for a wide variety of mineral occurrences. Past exploration, however, has mainly focused on precious and base metal mineralization in both sulphide-poor and sulphide-rich veins. The descriptions of the following mineral showings are all located on the Chilkoot property, unless otherwise indicated.

The Bennett Lake-Tutshi Lake area has the potential to host several deposit types: base and precious metal polymetallic veins, copper and iron skarns, porphyry molybdenum, epithermal gold-silver veins, and Eskay-type volcanogenic massive sulphide deposits. Shear-related gold-bearing quartz veins are hosted by the Llewellyn fault zone or by kinematically linked structures. This area of northwestern British Columbia and Southern Yukon has had an extensive history of exploration for high-grade gold veins and has had some production from the Venus mine on Montana Mountain in the Yukon, 5 kilometres northeast of the northern Chilkoot property boundary, and from the Mount Skukum gold mine in the Yukon, 28 kilometres to the northwest of the northern property boundary. The Venus is a silver-gold base metal sulphide vein deposit; the Mount Skukum is an epithermal gold vein deposit.

The Chilkoot property area is part of the Tintina Gold Belt that stretches from central Alaska through the Dawson area, Yukon and down to northern British Columbia. This belt is host to a number of intrusion-hosted, or intrusion-related gold and copper-gold deposits. The Cretaceous intrusions on the property are similar in age to many of the intrusions in the Tintina Gold Belt and have a similar geochemical signature. The large Donlin Creek gold deposit in southwest Alaska has various similar characteristics, among which are spatial and temporal associations with Cretaceous granitic to granodiorite magmatism; bismuth-tungsten-tellurium signatures in gold deposits in granitoid stocks and arsenic-antimony+/-mercury signatures where hosted by sedimentary rocks and hypabyssal dikes.

Mihalynuk recognized the similarity of the geological setting and geochemical fingerprint of the Tutshi Lake area to that of the Eskay Creek area of British Columbia (Mihalynuk et al., 2003). Eskay Creek is a gold-silver rich volcanogenic massive sulphide deposit. The ore-forming horizons at Eskay Creek occur at the interface between Middle Jurassic argillaceous strata and felsic volcanic units in the Bowser Basin. The mineralization is interpreted to have formed in a subaqueous, near-shore, hotspring environment in an active arc setting. Volcanic textures well preserved in the Tutshi Lake area suggest a similar transition from submarine to subaerial volcanism. The volcanic strata are coincident with a regional geochemical province displaying an elevated gold-antimony-arsenic signature; a geochemical fingerprint also seen in belts hosting shallow submarine volcanogenic massive sulphide (Eskay-style) deposits. Many of these features are observed in the Tutshi Lake area.

Like classical polymetallic vein systems, the Tutshi Lake area polymetallic veins occur in regions of high permeability that result from the development of fabric in metamorphic rocks or fracturing associated with faulting. Thus, they are predominantly but not exclusively hosted in medium to high-grade metamorphic rocks. Most are also associated with calcalkaline, granite to diorite intrusions, dikes and dike swarms. Typical veins are discordant, steeply dipping and occur in clusters or subparallel sets which in many cases follow specific structural trends in the hostrock. At nearly all occurrences the ore minerals are mainly confined within the veins, but mineralization may also be disseminated in the adjacent wallrocks. Sulphide mineralogy of the polymetallic veins varies between and within vein systems. It is as much a reflection of mineral zoning within the veins as it is of different metal source areas. Most veins consist of vuggy and drusy quartz that is typically iron-oxide stained (both galena- and arsenopyrite-rich veins). Where the veins are thickest, they are typically banded. Late chalcedonic veins locally crosscut mineralized veins (e.g. the Pike showing; MINFILE 104M 062). An example of a galena-rich polymetallic vein is the Gridiron showing (MINFILE 104M 001); an example of an arsenopyrite-rich polymetallic vein is the Crine showing (MINFILE 104M 081). Chalcopyrite-rich polymetallic veins include the Silver Queen showing (MINFILE 104M 002).

Structural control of polymetallic veins in the Tutshi Lake area appears to vary with the hostrock lithology. In metamorphic hostrocks, mineralized veins tend to be discordant and oriented parallel to dominant joint or fracture sets such as at the Crine occurrence. The original Crine vein showing was discovered by BC Geological Survey Branch mapping crews on the eastern flank of Teepee Peak and received considerable work in 1989-90 by Cyprus Canada (Gold) Ltd. It is near-vertical, and tabular to podiform, with maximum widths of up to 4 metres and has been traced for 650 metres.

The age of mineralization of polymetallic veins in the Tutshi Lake area is uncertain, but based on the wide range of host lithologies, it probably varies. Most appear to be linked to magmatic events concomitant with the development of the Late Cretaceous to Eocene Coast Plutonic Complex. Lead-lead data from the Crine vein suggest a Cretaceous age with isotopic characteristics similar to those of veins related to Cretaceous plutonic intrusions (Mihalynuk, 1999). The widespread occurrence of auriferous polymetallic veins in the Tutshi Lake area is an indication that zones of abundant veining could exist. Such zones might be amenable to bulk mining techniques and are potential exploration targets.

Copper skarn mineralization has historically been prominent just to the north in the Whitehorse copper belt of the Yukon. Near the north shore of Tutshi Lake, auriferous copper skarn mineralization was encountered in a drill program conducted by United Keno Hill Mines Ltd. in the summer of 1989. Drilling intersected several extensive zones of massive sulphide which replace conglomerate clasts and matrix within a unit stratigraphically underlying the “Sinwa” limestone of the Upper Triassic Stuhini Group.

The massive sulphide mineralization consists of chalcopyrite, pyrite, and pyrrhotite. Copper skarn mineralization at the Mill showing (MINFILE 104M 083) is located at the same stratigraphic interval as other deposits in the Whitehorse copper belt. Its occurrence in northernmost British Columbia suggests that the Whitehorse copper belt extends 20 kilometres further south than its present known limit (Mihalynuk, 1999).

Iron skarns were once a principal source of iron, but due to their relatively small size and irregular form, they have been replaced worldwide by iron formations. Iron skarns can, however, contain appreciable amounts of gold or have an association with peripheral gold deposits. This is the case for iron skarns in the Tutshi area that are clustered on Teepee Peak and the Selly showing (MINFILE 104M 052). All are hosted in Boundary Ranges metamorphic suite marbles, along contacts with Coast Belt granitoid intrusions.

Epithermal gold-silver deposits may occur in almost any type of hostrock, although volcanic rocks are most common because of the association of epithermal deposits with felsic volcanic fields. Two main requirements are large, sustained open fracture systems and extended periods of hydrothermal activity. The Ben-Southeast showing (MINFILE 104M 046) consists of vuggy quartz veins striking 060 degrees and dipping vertically. The veins occur in Lower to Middle Jurassic volcaniclastic breccia and tuffaceous conglomerate and contain galena and chalcopyrite mineralization.

Porphyry molybdenum deposits display a strong geochemical signature, both in rocks adjacent to the deposits (molybdenum, tungsten, copper and iron) and peripherally (lead, zinc, silver). Typical, strong dispersion of molybdenum into stream sediments and water can be effectively utilized in exploration for these deposits. Porphyritic quartz monzonite and monzonite most commonly host porphyry molybdenum deposits, although subvolcanic granite to granodiorite intrusions are also known hostrocks. Thus, intrusions of monzonite composition along the eastern margin of the Coast Belt may have some potential, as do multiphase hypabyssal Coast Belt intrusions and satellite bodies that intrude the Whitehorse Trough strata. The Net 3 (MINFILE 104M 059) is an example of a molybdenum occurrence within quartz monzonitic to granodioritic intrusions. Mineralization at the Net 3 was discovered during a regional uranium exploration program in the late 1970s. It comprises veins and veinlets of native silver, molybdenum and scheelite along an intensely altered fracture zone. Given that economic molybdenum deposits are huge and geochemically conspicuous, and that the region has been explored for this type of deposit in the past, it is not likely that an outcropping deposit is present within the map area. Undiscovered deposits of this type may, however, exist in the near subsurface.

Upper Triassic arc rocks of the Whitehorse Trough are lithologically and temporally equivalent to those hosting important copper-molybdenum-gold porphyry deposits in southern BC. Upper Triassic arc rocks of the Whitehorse Trough are lithologically and temporally equivalent to those hosting important copper-molybdenum-gold porphyry deposits in southern BC. Minor synsedimentary volcanic rocks in the Early Jurassic trough strata may hold potential for shallow subaqueous hotspring deposits rich in gold and silver like those at the Eskay Creek mine.

9.0 MINERALIZATION

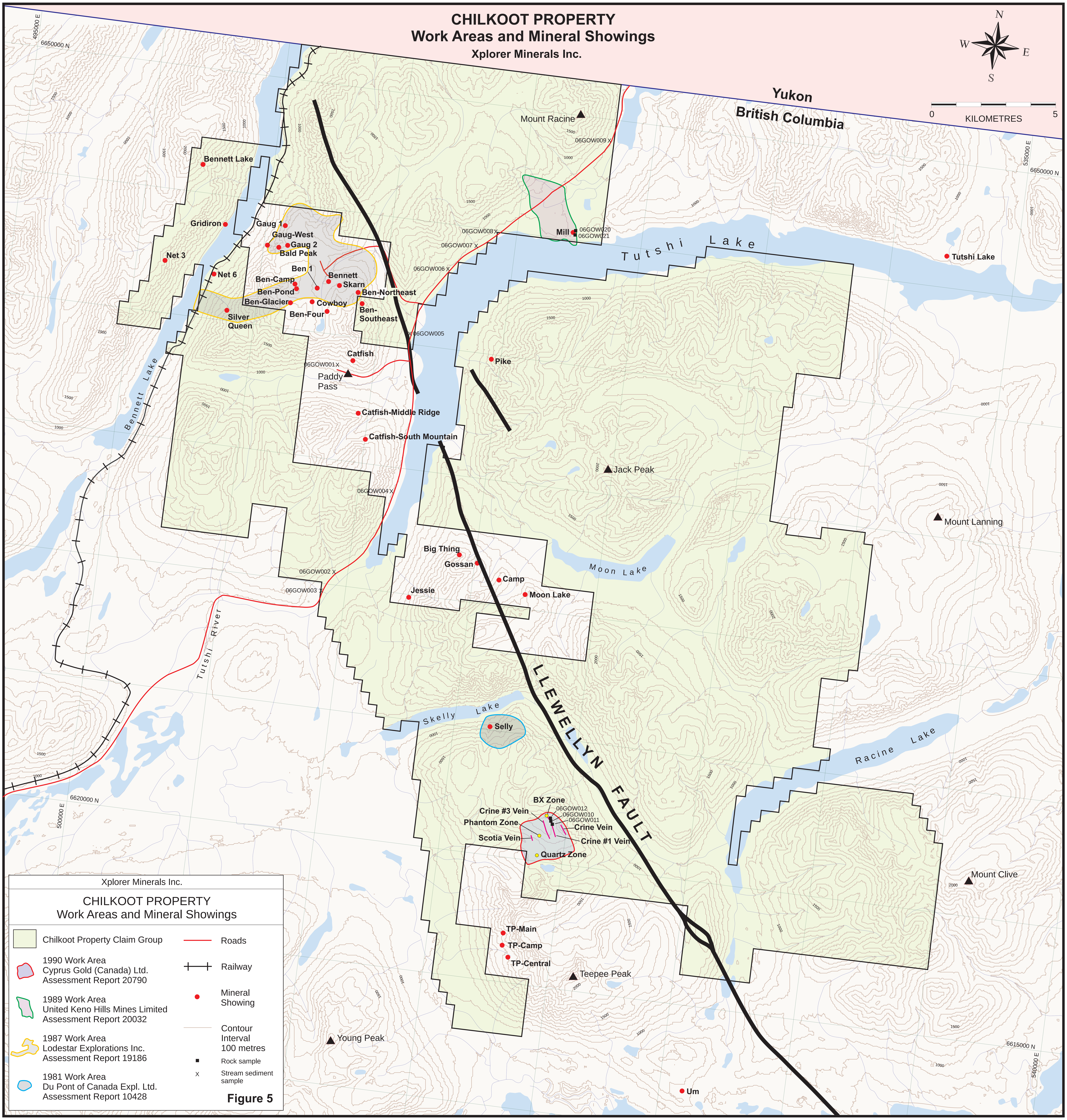
The Chilkoot property area is part of a geochemical province with high background gold, arsenic and antimony regional geochemical stream sediment results (Mihalynuk, 1999). The area encompasses a wide variety of lithotectonic terranes, it records several intrusive events, and it is cut by major, long-lived faults. Thus, it provides tectonic and lithologic environments favorable for a wide variety of mineral occurrences. Potential for other deposit types may become more apparent as new deposit models are developed.

There are 10 documented mineral occurrences on the property. Four are gold-bearing polymetallic veins, one an epithermal gold-silver vein, one a copper skarn, one an iron skarn, one a uranium showing, one porphyry molybdenum showing, and one is a limestone showing (Figure 5).

MINFILE NO.	SHOWING NAME					
104M 001	GRIDIRON	Silver	Gold	Lead	Zinc	
104M 002	SILVER QUEEN	Gold	Copper	Silver		
104M 032	BENNETT LAKE	Limestone				
104M 046	BEN-SOUTHEAST	Silver	Lead	Gold	Copper	
104M 052	SELLY	Copper	Lead			
104M 058	NET 6	Uranium	Thorium			
104M 059	NET 3	Silver	Uranium	Thorium	Molybdenum	Tungsten
104M 062	PIKE	Gold	Silver	Copper		
104M 081	CRINE	Gold	Silver	Lead	Zinc	Copper
104M 083	MILL	Copper	Silver	Gold		

Like classical polymetallic vein systems, Chilkoot property area polymetallic veins occur in regions of high permeability that result from the development of fabric in metamorphic rocks or fracturing associated with faulting. Thus, they are predominantly but not exclusively hosted in medium to high-grade metamorphic rocks. Most are also associated with calcalkaline, granite to diorite intrusions, dikes and dike swarms. Typical veins are discordant, steeply dipping and occur in clusters or subparallel sets which in many cases follow specific structural trends in the hostrock. At nearly all occurrences the ore minerals are mainly confined within the veins, but mineralization may also be disseminated in the adjacent wallrocks. The four gold-bearing polymetallic vein occurrences are the Gridiron, Silver Queen, Ben-Southeast and Crine.

The Crine occurrence is located on the eastern flank of Teepee Peak over a 1 kilometre area and comprise a series of strike persistent, precious and base metal-bearing quartz veins that occupy zones of weakness parallel to the Llewellyn fault system. The Crine showing consists of the Crine, Crine #1, Crine #3 and Scotia veins, and the BX and Quartz zones (Figure 5). The Crine, Crine #1, Crine #3 and Scotia veins are all arsenopyrite-rich veins with gold, silver, galena, sphalerite, tetrahedrite and minor chalcopyrite. Areas of the veins exhibit a massive nature to the galena and sphalerite although along strike the veins change to dominant arsenopyrite in a quartz host with a lower base metal content. The width of the veins vary from 10 centimetres to 4.1 metres



CHILKOOT PROPERTY
Work Areas and Mineral Showings
Xplorer Minerals Inc.
Yukon
British Columbia
KILOMETRES
0
5
Mount Racine
Bennett Lake
Gridiron
Net 3
Net 6
Gaug 1
Gaug-West
Gaug 2
Bald Peak
Ben 1
Bennett
Skarn
Ben-Camp
Ben-Pond
Ben-Glacier
Cowboy
Ben-Four
Ben-Northeast
Ben-Southeast
Silver Queen
Mill
Tutshi Lake
Catfish
Paddy Pass
Pike
Catfish-Middle Ridge
Catfish-South Mountain
Jack Peak
Mount Lanning
Big Thing
Gossan
Camp
Jessie
Moon Lake
Tutshi River
Bennett Lake
Skelly Lake
Selly
Racine Lake
LLEWELLYN FAULT
BX Zone
Crine #3 Vein
Phantom Zone
Crine Vein
Scotia Vein
Crine #1 Vein
Quartz Zone
Mount Clive
TP-Main
TP-Camp
TP-Central
Teepee Peak
Young Peak
Um
Xplorer Minerals Inc.
CHILKOOT PROPERTY
Work Areas and Mineral Showings
Chilkoot Property Claim Group
1990 Work Area
Cyprus Gold (Canada) Ltd.
Assessment Report 20790
1989 Work Area
United Keno Hills Mines Limited
Assessment Report 20032
1987 Work Area
Lodestar Explorations Inc.
Assessment Report 19186
1981 Work Area
Du Pont of Canada Expl. Ltd.
Assessment Report 10428
Roads
Railway
Mineral Showing
Contour Interval 100 metres
Rock sample
Stream sediment sample
Figure 5

and can be traced intermittently on surface for up to 1.7 kilometres. The veins strike between 150 to 160 degrees and dip 44 to 70 degrees west. The BX zone, exposed along a steep hillside, is the northerly extension of the Crine #1 vein. The Quartz zone is located at the southeast end of the projected Scotia vein.

The Crine vein occurs in a vertical, brecciated, sheared and silicified zone. The quartz vein is podiform, pinching and swelling up to 4 metres in width and has been traced for 650 metres at a strike of 150 degrees. The vein becomes wider where crosscutting, sometimes multiple parallel andesitic dikes occur. The faulted western margin is in some places well defined. The vein has zones of massive arsenopyrite and scorodite, pyrite and disseminated galena with small amounts of sphalerite. Some sections of the vein contain up to 50 per cent sulphide mineralization as lenses of pyrite, pyrrhotite, arsenopyrite and/or stibnite. Samples from the vein assayed 3.64 to 33.2 grams per tonne gold (Durfeld, 1989). Fourteen chip samples of 1 to 3 metres width over the 650 metre strike length average 4.45 grams per tonne gold, 29.8 grams per tonne silver and 5.45 per cent arsenic (Cuttle, 1989).

The Crine #1 and Crine #3 arsenopyrite-rich veins strike 150 degrees and may be persistent along strike for up to 700 metres as traced by float. These contain small pods of massive to disseminated dark brown sphalerite and galena with disseminated pyrite. Drilling on the Crine #3 vein intersected narrow vein material, up to 0.50 metre, dipping steeply to the west between 69 and 73 degrees. A drill core sample across 0.50 metre assayed 0.78 gram per tonne gold, 20.22 grams per tonne silver, 0.92 per cent arsenic, 0.78 per cent lead and 1.46 per cent zinc (Cuttle, 1989).

The Crine #1 vein, up to 4.11 metres wide, is podiform. The vein is highly brecciated and silicified and dips 43 to 50 degrees west. Massive and disseminated arsenopyrite, galena, sphalerite and lesser pyrite are common. Drilling suggests this vein to be fairly shallow, tabular and possibly zoned, becoming more silver-rich to the south. A feldspar porphyry dike commonly occurs as a footwall marker. A drill core sample across the 4.11 metre width assayed 3.70 grams per tonne gold, 326.69 grams per tonne silver, 3.45 per cent arsenic, 0.67 per cent lead and 2.30 per cent zinc (Cuttle, 1989).

The BX zone, exposed along a steep hillside, is the northerly extension of the Crine #1 vein and, due to the low gold values, possibly indicates mineral zonation. The zone exhibits intense quartz stockwork and brecciation in a clay altered felsite dike. Mineralization consists of disseminated chalcopyrite, tetrahedrite, galena, arsenopyrite, pyrite and minor sphalerite. The zone outcrops over 100 metres and is 0.50 to 1.8 metres wide. Chip samples assayed from 34.28 to 377.08 grams per tonne silver (Cuttle, 1989).

The Scotia vein is about 550 metres west of the Crine #3 vein. This arsenopyrite-rich vein trends 160 degrees and pinches and swells over a 700 metre strike length as indicated by float samples. Drilling in 1989 indicated that the vein is narrow, less than 1 metre, and dips 69 degrees west. Drilling in 1990 indicated that there is a small higher grade pod of mineralization plunging southeast. A drill core sample taken in 1989 over

0.95 metre assayed 7.98 grams per tonne gold, 14.05 grams per tonne silver, 8.70 per cent arsenic, 0.13 per cent lead and 0.84 per cent zinc (Cuttle, 1989).

The Quartz zone, located at the southeast end of the projected Scotia vein, consists of a quartz-graphite mix with high gold values. The vein is generally narrow, less than 1 metre, poddy and dips 60 to 70 degrees west. Minor pyrite and arsenopyrite occur with small amounts of silver indicated from assays. Drilling shows a flat lying zone, while float found on the surface indicates a steeply west dipping zone; faulting is suggested to explain this. Drilling has also indicated the similarity between this zone and the Crine and Scotia veins. A drill core sample over 3 metres assayed 4.76 grams per tonne gold, 15.08 grams per tonne silver, 0.69 per cent arsenic, 0.09 per cent lead and 0.09 per cent zinc (Cuttle, 1989).

In the northwest portion of the property the Gridiron showing is located on the west shore of Bennett Lake where an adit follows a crushed zone of quartz and talcose matter carrying several per cent galena, tetrahedrite, arsenopyrite, pyrite and minor sphalerite. This showing is an example of a galena-rich polymetallic vein. A sample of the quartz vein taken in 1982 assayed 3.2 grams per tonne gold, 315 grams per tonne silver, 2.05 per cent lead and 1.34 per cent arsenic (Neelands and Copland, 1982).

The Silver Queen showing, located 3 kilometres south of the Gridiron and on the east side of Bennett Lake, consists of a 300-metre long adit that was driven (ca. 1916-17) to intersect pyrargyrite (ruby silver) mineralization. Pyrite, chalcopyrite and malachite occur in material below the old aerial tramway constructed below the adit portal. A quartz-arsenopyrite vein occurs in a quartz-eye porphyry dike above the adit. A grab sample assayed 14.8 grams per tonne gold (Lueck, 1989). This showing is an example of a chalcopyrite-rich polymetallic vein.

Polymetallic veins at the Ben-Southeast occurrence are hosted in Lower to Middle Jurassic volcaniclastic breccia and tuffaceous conglomerate. Galena and chalcopyrite mineralization occurs as either disseminations within fracture and shear zones or in veins with cockscomb and vuggy textures. The vuggy quartz veins strike 060 degrees and dip vertically. The vein is about 30 centimetres wide, pinches out at one end, and is talus covered at the other. A grab sample assayed 253.7 grams per tonne silver, 1.34 per cent lead and 0.07 gram per tonne gold (Lhotka and Olson, 1983).

A number of models have been developed over the last decade to aid exploration for epithermal veins. Epithermal gold deposits may occur in almost any type of hostrock, although volcanic rocks are most common because of the association of epithermal deposits with felsic volcanic fields. Two main ingredients are large, sustained open fracture systems and extended periods of hydrothermal activity. The Pike showing is located on the east side of Tutshi Lake across from Paddy Pass. The showing outcrops in a creek bed between 900 and 1060 metres elevation and is hosted in pyritic Stuhini Group andesite. The andesite is argillically altered and intense gossans occur along with numerous highly fractured zones. The zones range from one to several metres across and contain intense alteration associated with slickensides on the margins. Very fine grained quartz stringers and small veins, up to 2 centimetres wide, contain pyrite and minor amounts of chalcopyrite. The highest value came from a grab sample of quartz veinlets in the andesite which assayed of 0.59 gram per tonne gold and 0.5 gram per tonne silver (Copland, 1987). Late chalcedonic veins locally crosscut mineralized veins (Mihalynuk, 1999).

Copper skarn mineralization has historically been prominent just to the north in the Whitehorse copper belt of the Yukon. Near the north shore of Tutshi Lake, auriferous copper skarn mineralization was encountered in a drill program conducted by United Keno Hill Mines Ltd. in the summer of 1989. Drilling intersected several extensive zones of massive sulphide which replace conglomerate clasts and matrix within a unit stratigraphically underlying the "Sinwa" limestone of the Upper Triassic Stuhini Group. The massive sulphide mineralization consists of chalcopyrite, pyrite, and pyrrhotite. The copper skarn mineralization at the Mill showing is located at the same stratigraphic interval as other deposits in the Whitehorse copper belt. Its occurrence in northernmost British Columbia suggests that the Whitehorse copper belt extends 20 kilometres further south than its present known limit (Mihalynuk, 1999). The zone is strongly fractured and brecciated with extensive epidote and chlorite alteration. Geochemical results from drill core yielded 2.06 grams per tonne gold, 41.14 grams per tonne silver and 1.58 per cent copper over 1.40 metres (Ouellette, 1990). Several small intrusive apophyses have been mapped in the vicinity of the drillholes and drill core revealed numerous felsic dikes at depth.

Iron skarns can contain appreciable amounts of gold or have an association with peripheral gold deposits. This is the case for iron skarns in the Tutshi Lake area that are clustered on Teepee Peak and at the Selly showing. The Selly showing, located just south of Skelly Lake, consists of small skarn zones developed in rocks of the Boundary Ranges metamorphic suite adjacent to a north trending intrusive contact with Coast Plutonic Complex granodiorite. Mineralization consists of minor disseminated pyrite, pyrrhotite, chalcopyrite and galena.

Limestone outcrops in several locations on Bennett Range, 0.5 to 2.5 kilometres northwest of Bennett Lake. The Bennett Lake limestone showing occurs within the Boundary Ranges metamorphic suite which is intruded to the west by granite and granodiorite of the Coast Plutonic Complex. The strata have been warped into a gently plunging, tight to open syncline-anticline pair.

The Net 6 showing is located east of Bennett Lake between the Gridiron showing to the north and the Silver Queen showing in the south. Uranium exploration began in the area near Partridge Lake in 1979 when E & B Exploration Ltd. ran a regional exploration program. The area of the showing is underlain by feldspar porphyry biotite quartz monzonite of the Coast Plutonic Complex in contact with Stuhini Group volcanics and sediments. The plutonic rocks are cut by radioactive aplite and pegmatite dikes. A sample of an aplite dike assayed 0.034 per cent uranium (Beaty and Culbert, 1978).

Porphyritic quartz monzonite and monzonite most commonly host porphyry molybdenum deposits, although subvolcanic granite to granodiorite intrusions are also known hostrocks. Thus, intrusions of monzonite composition along the eastern margin of the Coast Belt may have some potential, as do multiphase hypabyssal Coast Plutonic Complex intrusions and satellite bodies that intrude the Whitehorse Trough strata. The Net 3 showing is an example of a molybdenum occurrence within quartz monzonitic to granodioritic intrusions. Mineralization at the Net 3 was discovered during a regional uranium exploration program in the late 1970s. It comprises veins and veinlets of native silver, molybdenum and scheelite along an intensely altered fracture zone (Mihalynuk, 1999).

10.0 2006 EXPLORATION PROGRAM

Fieldwork carried out on the Chilkoot property claims by the writer between August 21 and August 26, 2006 consisted of limited geological examination and rock chip and stream sediment sampling. This work was relevant to the exploration of precious and base metal-bearing mineralization. Fieldwork resulted in 5 rock chip, 1 moss mat and 8 stream sediment samples sent for analysis. Each rock sample consisted of about 2-5 kilograms of rock chips (1-4 centimetres width). The stream sediment samples were taken from active creek beds, and where creeks were dry from appropriate channel material. One moss mat sample was taken from a dry creek bed/avalanche chute that contained rock fragments and/or felsenmeer. The rock chip, stream sediment and moss mat samples were placed in marked bags and shipped to ALS Chemex, North Vancouver, B.C. for gold FA-AA (fire assay-atomic absorption) finish and 34 element aqua regia ICP-AES analysis. Analytical results are shown in Appendix A.

A subsequent helicopter and boat-supported reconnaissance stream sediment sampling program was conducted between August 17 and September 1, 2006 by Geotronics Consulting Inc. under the supervision of David Mark, P.Geo. A total of 91 samples were obtained and sent for analysis. The stream sediment samples were taken from active creek beds, and where creeks were dry from appropriate channel material and placed in marked bags. All samples were later sent for analysis to Acme Analytical Laboratories Ltd., Vancouver, B.C. for 36 element aqua regia ICP-ES analysis. Analytical results are shown in Appendix C.

Examination of rock outcrops was carried out along roadcuts on the South Klondike Highway which transects the property and exposes most of the major lithologic units that host mineralization in the project area. The author identified quartz monzonite of the Late Cretaceous to Tertiary Coast Plutonic Complex, mafic volcanic rocks and pebble conglomerate of the Upper Triassic Stuhini Group, argillites and wackes of the Lower Jurassic Laberge Group, schists and metaquartzite of the Devonian to Middle Triassic Boundary Ranges metamorphic suite, andesitic tuffs assigned to the Lower to Middle Jurassic ‘unnamed volcanics’, and limestone of the ‘Sinwa Formation’ (Stuhini Group).

A helicopter and all-terrain vehicle (ATV) was used to gain access to the Crine showing (MINFILE 104M 081) and Mill showing (MINFILE 104M 083), respectively. Both showings were examined and rock chip samples taken. Across the Chilkoot property numerous streams drain the major lithologic units; access to stream sediment sample sites was from the South Klondike Highway. See Figure 5 for work area locations.

A helicopter was used to land near the Crine #1 vein showing where two significant quartz vein outcroppings were sampled. An additional sample was taken of the hostrock. The samples are described as follows:

06GOW010 – Grab sample of limonitic, massive quartz vein up to 2 metres wide but disrupted as if it had been blasted. Projects out of scree/outcrop over a distance of 20 metres. No attitude possible. Hostrock is schisty quartzose rock.

06GOW011 – Rock chip sample across 2 metres of a massive, limonitic quartz vein containing minor pyrite. Outcrop is intermittently exposed over about 35 metres. Hostrock is graphitic siliceous schist.

06GOW012 – Rock chip sample of hostrock consisting of rusty weathering, foliated to laminated siliceous schist; phyllitic, graphitic and partly micaceous.

Results from the three samples are not significant and are shown in Appendix A.

An all-terrain vehicle was used to access the Mill showing. Two rock chip samples were taken and described as follows:

06GOW020 – Rock chip sample of limonitic pebble conglomerate containing rounded and flattened clasts of chert and volcanic rock. Clasts are up to 6 centimetres.

06GOW021 – Rock chip sample from subcrop of a limonitic, pyritic, siliceous, aphanitic felsic intrusive unit adjacent the conglomerate. Some malachite is present.

The sample of the limonitic pebble conglomerate yielded 164 parts per billion gold. The sample of the siliceous felsic rock yielded 9.3 grams per tonne silver, 0.139 per cent copper, 0.227 per cent lead, and 1.18 per cent zinc. See Appendix A for complete analytical results.

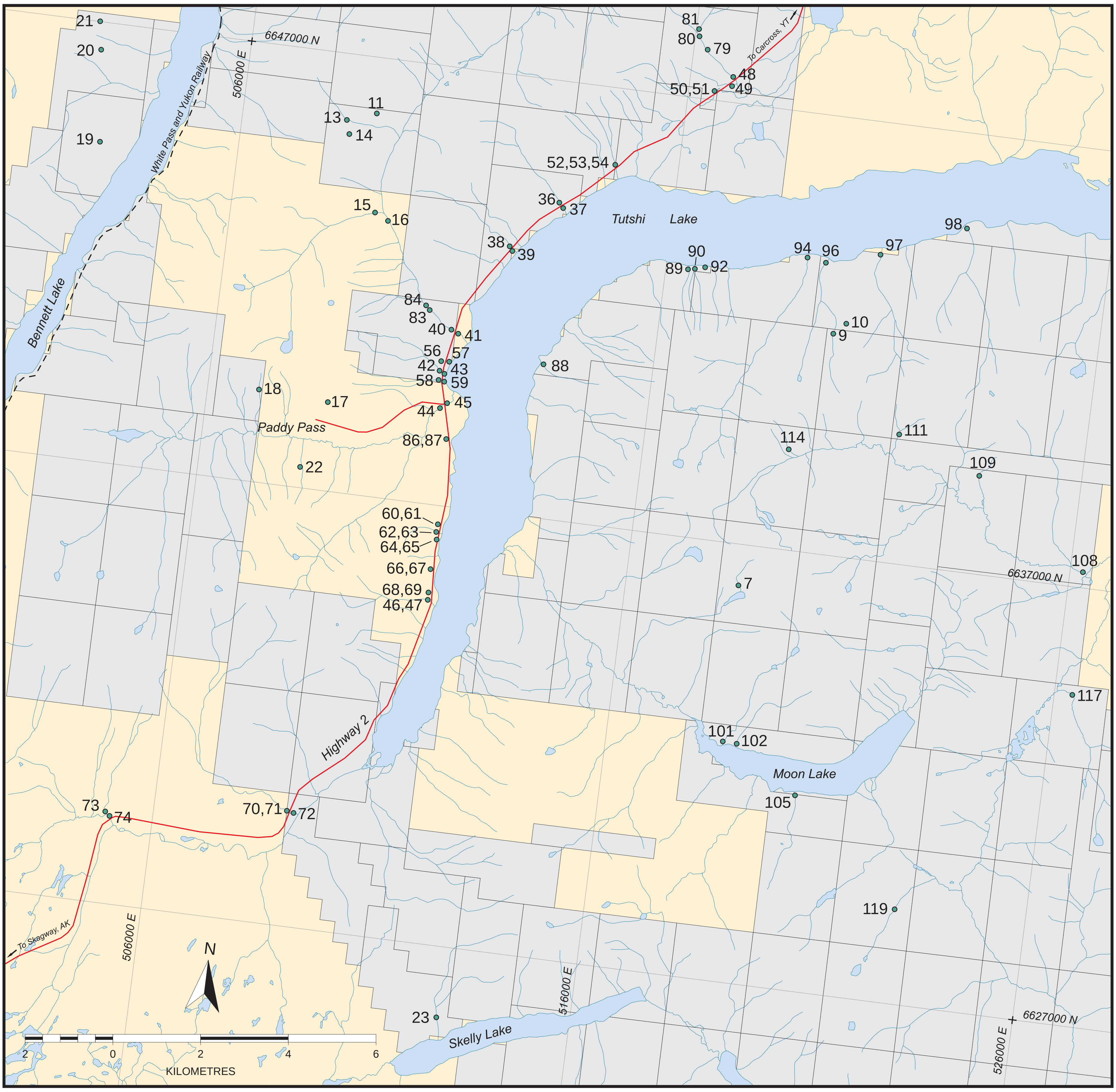
UTM Coordinates and Elevations* for Samples Taken

06GOW001 –	6638768 N, 508584 E	1106 metres	moss mat - stream
06GOW002 –	6630377 N, 509479 E	751 metres	stream sediment
06GOW003 –	6629568 N, 509067 E	728 metres	stream sediment
06GOW004 –	6633907 N, 511465 E	762 metres	stream sediment
06GOW005 –	6640145 N, 511280 E	733 metres	stream sediment
06GOW006 –	6642985 N, 512467 E	738 metres	stream sediment
06GOW007 –	6644085 N, 513463 E	742 metres	stream sediment
06GOW008 –	6644771 N, 514303 E	735 metres	stream sediment
06GOW009 –	6649172 N, 518341 E	695 metres	stream sediment
06GOW010 –	6621743 N, 519302 E	1825 metres	grab, Crine #1 vein
06GOW011 –	6621711 N, 519336 E	1816 metres	rock chip, Crine #1 vein
06GOW012 –	6621793 N, 519304 E	1815 metres	rock chip, Crine showing hostrock
06GOW020 –	6645328 N, 517299 E	799 metres	rock chip, Mill showing
06GOW021 –	6645261 N, 517237 E	791 metres	rock chip, Mill showing

**all UTM coordinates are NAD 83, UTM Zone 08, in metres. Elevations are in metres above sea level.*

11.0 SAMPLING METHOD AND APPROACH

On August 21 to August 26, 2006 the author conducted limited geological examination and sampling relevant to the exploration of precious and base metal-bearing mineralization. Fieldwork resulted in a total of 5 rock and 9 stream sediment samples sent for analysis (Figure 5). Rock chip samples were collected from bedrock using a rock hammer and each sample consisted of about 2-5 kilograms of rock chips (1-4 centimetres width). The stream sediment samples were taken from active and non-active creek beds. The rock chip and stream sediment samples were placed in marked bags and shipped to ALS Chemex, North Vancouver, B.C. for gold FA-AA (fire assay-atomic absorption) finish and 34 element aqua regia ICP-AES analysis. The helicopter and boat-supported reconnaissance stream sediment sampling program conducted between August and September 2006 by Geotronics Consulting Inc. under the supervision of David Mark, P.Geo. resulted in a total of 91 samples sent for analysis (Figure 6). The stream sediment samples were taken from active creek beds, and where creeks were dry from appropriate channel material and placed in marked bags. All samples were later sent for analysis to Acme Analytical Laboratories Ltd. In the author's opinion the sampling procedures are consistent with accepted industry practice.



Selected Results

SAMPLES	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	As ppm	Au ppb	Sb ppm
7			27.4			16.6			
11		104.5	34.9	229		26.8	157.9	15.4	
17		36.5				12.6	338.6	90.1	8.6
19						12.1	285.8	28.7	
20		38.5	21.6			12.1	109.8	11.3	
21		24.8					103.1		
22		54.5		199	193.9	17.3	136.8		
23		47.7		176		14.1	135.2		
36		84.6	43						
37	25.9	45.3	29.3	199		22.2	350.2		
39		20.6				11.8			
41		66.8	40.7	118		21.3	213.9		
45		31.1			119.2	10.6			
46		43.2	21.3			22.2	203.4		
47		24.1				12.1			
48		95.8	34.7	177		23.8		10.9	
49		33.5				10			
50		37.8		112		14.3		42.3	
51		36				15.5			
53		67.5	23.2				113.5	15.6	
54		30.6	34.2						
56		38.8	31.7			10.8	107.4		
57		44.5		161					
58		45.2				13.2		12.6	
59		73.2	30.7	186		17.7	105.7	10.5	
60		62.9	24.5	122		20.8	160.3	17.7	13.3
61		52.7	21.5	176		13.7		24.6	
62		96.5	30.8	117		21.3	198.2	35.9	14.9
63		72.2	21.3	126		17.9	118.8	26	
64		35.8	21.5			12.5	115.6	32.4	
65		30.8	24.1			10.7	116.4		
66		32.4	22.8			14.9			
67		43.7				11.2		11.1	19.1
68		59.6	20.8	113		11.7		15.1	
69		29.6				20.1	174.1	15.6	
70		33.3		114		20.6	141.2		
79		37.8				12.7			
80		55.3				13.2			
83		27.2	35.2			12.2			
84		69							
96		22.4	37.5						
97		48.7	30.3	111		13.2			
98		63.2				15.3			
105		42.7				16.5			
109		52.6	39.5	419					
111		103.3	44.6	141		21			
117		39.3				12.7			
119		59.2				19.2			

Stream Sediment Sample
Chilkoot Property Claims
Road
Railway

Figure 6. Stream Sediment Sample Location Map.

The analytical certificates from ALS Chemex and Acme Analytical Laboratories Ltd. are in Appendices A and C, respectively and show the results, methods and procedures for fire assay and multi-element ICP analysis.

12.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

Rock and stream sediment samples taken on the Chilkoot property were not tampered with by anyone. The samples were prepared using standard analytical procedures by ALS Chemex and by Acme Analytical Laboratories Ltd. (see Appendices B and D, respectively).

13.0 DATA VERIFICATION

ALS Chemex and Acme Analytical Laboratories Ltd. performs internal quality control by performing routine check analysis on random samples to verify data. The author did not include duplicate and/or blank samples in the shipments sent in for geochemical analysis of rock chip and stream sediment samples. The intent was to identify weak, moderate or strong areas of metallic mineralization and perform follow up exploration in the most prospective areas.

Generally, the results indicate that the assay data are accurate, precise, free from contamination, and in control.

14.0 ADJACENT PROPERTIES

The author is aware of adjacent properties to the Chilkoot property that contain similar mineralization. An exploration program in 2003-04 on behalf of Marksmen Resources Ltd. on their Golden Eagle Project confirmed the presence of high-grade gold mineralization in quartz-arsenopyrite veins and the presence of precious and base metals-rich skarns and possible volcanogenic massive sulphide zones. This project is located in an area trending southeast between Bennett Lake to Tutshi Lake, continuing southeasterly to an area between Moon and Skelly lakes (Figure 5). The showings listed in the table below are located on the Golden Eagle project claims (ca. 2005) except for the TP showings (104M 048-50) and UM showing (104M 084) which are on and near Teepee Peak.

As on the Chilkoot property, numerous auriferous polymetallic veins are evident on the Golden Eagle project claims. Most of the veins are also associated with calcalkaline, granite to diorite intrusions, dikes and dike swarms. Typical veins are discordant, steeply dipping and occur in clusters or subparallel sets which in many cases follow specific structural trends in the hostrock. At nearly all occurrences the ore minerals are mainly confined within the veins, but mineralization may also be disseminated in the adjacent wallrocks. Polymetallic veins are more abundant than other vein types in the area. The veins can consist of vuggy and drusy quartz that is typically iron-oxide stained (both galena- and arsenopyrite-rich veins). Some examples of chalcopyrite-, galena- and arsenopyrite-rich veins include the Ben 1, Jessie, Gaug 2, Gaug 1, Ben-Glacier, Bennett, Ben-Four, Catfish, Catfish-Middle Ridge, and Catfish-South Mountain showings (see table below).

Zones of sheared and quartz-carbonate altered basalt, such as the Moon Lake base metal showing, can be traced for at least 2.5 kilometres within Stuhini Group volcanics and interbedded carbonates. The main mineralized zone at Moon Lake measures about 100 by 300 metres and contains up to 25 per cent combined galena and sphalerite (over narrow widths) and significant amounts of chalcopyrite, arsenopyrite, and gold. While the mineralization has features similar to carbonate-hosted zinc-lead-type deposits, the deposit form is vein-like and exhibits replacement-style mineralization that has been strongly deformed within the Llewellyn fault zone.

Rocks of the Boundary Ranges hold promise to host undiscovered volcanogenic massive sulphide and gold vein deposits. One massive sulphide occurrence within these rocks may be of volcanogenic origin. The Big Thing showing is located 4 kilometres east of the south end of Tutshi Lake. Structurally (and stratigraphically?) concordant argentiferous galena and sphalerite occur as brown matrix material in a 3 by 3 metre silicified carbonate breccia zone. Grab samples yielded assays of 78 grams per tonne gold and 617 grams per tonne silver. Associated lithologies include metamorphosed fine grained felsic volcanic rocks and sedimentary strata (Mihalynuk, 1999).

In the south portion of the Chilkoot property, iron skarns are clustered on Teepee Peak at the Main, Camp and Central showings (MINFILE 104M 048-50). All are hosted in Boundary Ranges metamorphic suite marbles, along contacts with Coast Plutonic Complex granitoid intrusions. The Main showing is a semi-concordant cobalt-gold-bearing magnetite skarn approximately 200 metres long by 15 metres wide.

Stibnite veins and stibnite-bearing quartz and/or carbonate veins occur along or near shear zones in sedimentary or metasedimentary rocks; the most significant of this style is the Cowboy showing (104M 086) located between Bennett and Tutshi lakes. This deposit occurs at the sheared contact between actinolitic schist (metawacke?) and Laberge Group wacke and is adjacent to the Llewellyn fault or its splays. The veins are concordant to discordant and attain thicknesses of up to 1.2 metres. Gangue mineralogy is mainly quartz and lesser carbonate, although fragments of country rock are common. The Gaug-West showing (104M 038) may also be an example of this deposit type and is located just east of Bennett Lake and Pavey.

Listwanite-associated gold-quartz veins were essentially unknown west of the Atlin placer camp until 1990 when the UM showing was discovered by Cyprus Gold (Canada) Limited (Cuttle, 1990) between Teepee Peak and Fantail Lake. The UM vein (MINFILE 104M 084) is up to 2.20 metres wide and dips steeply and is located along a faulted contact between a tabular peridotite-dunite body and Boundary Ranges chlorite schists. The UM is the best example of a possible mesothermal gold-quartz vein occurrence in the area. Features characteristic of the deposit type include its genetic association with a strong fault that extends at least 11 kilometres, strong quartz-ferroan carbonate-mariposite alteration of mafic to ultramafic hostrocks that are cut by abundant quartz veins, and distinctive orange-brown limonite weathering. Unlike most mesothermal gold-quartz veins, however, it has a moderately high silver:gold ratio of 12 (based upon an average of 15 chip samples). Silver:gold ratios of typical gold-quartz veins are less than 1 and commonly less than 0.1 (Mihalynuk, 1999). The potential for deposits of this type in the Tutshi area is largely untested. Primary targets are mafic and ultramafic rocks of greenschist grade, particularly where cut by secondary or tertiary shears related to the Llewellyn or other crustal scale faults.

The following table lists occurrences covered by the Golden Eagle project of Marksmen Resources Ltd. (ca. 2005). The TP showings (104M 048-50) and UM showing (104M 084) are located adjacent to the south part of the Chilkoot property. The TP showings are currently covered by a claim owned by NVI Mining Ltd.; the UM showing is covered by claims owned by G.L. Corcoran and K.R. Ralfs. Detailed geological descriptions of all showings can be searched and viewed on the online provincial mineral inventory website at www.minfile.ca.

MINFILE NO.	SHOWING NAME						
104M 003	BEN 1	Silver	Gold	Lead	Zinc	Antimony	
104M 027	JESSIE	Silver	Gold	Copper	Lead	Zinc	
104M 028	BALD PEAK	Gold	Silver	Lead	Antimony		
104M 038	GAUG-WEST	Gold	Silver	Lead	Antimony		
104M 039	GAUG 2	Gold	Silver	Zinc	Copper	Lead	
104M 040	GAUG 1	Silver	Copper				
104M 041	BEN-POND	Silver	Lead	Gold	Zinc	Antimony	
104M 042	BEN-CAMP	Silver	Gold	Lead	Zinc		
104M 043	BEN-GLACIER	Gold	Silver	Cobalt			
104M 044	BENNETT	Gold	Silver	Zinc	Copper	Lead	
104M 045	BEN-NORTHEAST	Gold	Silver				
104M 047	BEN-FOUR	Gold	Silver				
104M 057	MOON LAKE	Silver	Zinc	Lead	Copper	Gold	
104M 061	CATFISH	Silver	Gold	Zinc	Lead	Antimony	Copper
104M 071	BIG THING	Gold	Silver	Lead	Zinc	Copper	
104M 074	CATFISH-MIDDLE RIDGE	Gold	Silver	Copper	Lead	Zinc	
104M 075	CATFISH-SOUTH MOUNTAIN	Silver	Gold	Copper	Lead	Zinc	
104M 085	SKARN	Gold	Copper				
104M 086	COWBOY	Gold	Silver	Antimony	Lead	Copper	
104M 090	CAMP	Gold					
104M 091	GOSSAN	Gold	Lead	Copper			

15.0 INTERPRETATION AND CONCLUSIONS

The Chilkoot property claims of Xplorer Minerals hosts several deposit types: base and precious metal polymetallic veins, copper and iron skarns, porphyry molybdenum and epithermal gold-silver veins. The property covers the Llewellyn fault system, an important crustal-scale feature that provides conduits for pluton emplacement and mineralizing hydrothermal systems. A belt of anomalously high regional gold-arsenic and antimony stream sediment geochemistry extends the length of the area, coextensive with the Llewellyn fault. The property area is richly endowed with mineral showings. The Engineer mine, located 40 kilometres south of the property, produced over 560,000 grams of gold and is an example of deep epithermal gold mineralization developed adjacent splays of the Llewellyn fault.

High mineral potential exists on the Chilkoot property for a number of deposit types with the juxtaposition of Yukon-Tanana Terrane and Whitehorse Trough lithologies. A number of geologic tracts in the area have moderate to high mineral potential, particularly for precious metals. Ten of the most prospective tracts are presented here:

(1) Quartz veins in the Boundary Ranges metamorphic suite rocks

Exploration for occurrences of this type should focus on late crosscutting metal-bearing veins rather than the abundant, concordant quartz sweats which are generally barren. Like classical polymetallic vein systems, the Tutshi Lake area polymetallic veins occur in regions of high permeability that result from the development of fabric in metamorphic rocks or fracturing associated with faulting. Thus, they are predominantly but not exclusively hosted in medium to high-grade metamorphic rocks. Most are also associated with calcalkaline, granite to diorite intrusions, dikes and dike swarms. Typical veins are discordant, steeply dipping and occur in clusters or subparallel sets which in many cases follow specific structural trends in the hostrock.

(2) Veins adjacent to the Llewellyn fault zone

The most prospective veins are those hosted by Laberge Group strata and associated with fault splays, fault-related folds, and dioritic intrusions and volcanics adjacent to the splays.

(3) Quartz-carbonate-clay-altered shear zones

Several altered shear zones within and adjacent to the Llewellyn fault zone are known to be anomalous in gold. Structurally controlled, calcareous sediment-hosted disseminated gold-silver deposits of the Carlin type may occur in such environments. They are recognized mainly in passive continental margin successions which are affected by much younger deformation and intrusions, but are also known to occur in arc settings. Two settings are most prospective in the area: extensively faulted and intruded ‘Sinwa Formation’ and underlying, fine grained calcareous sediments; and well bedded, fine grained calcareous strata within the Laberge Group, especially where it is near the Llewellyn fault or its subsidiary splays.

(4) Contacts between Boundary Ranges metamorphic suite and Eocene volcanic or subvolcanic intrusive rocks

An example are the volcanic rocks at Teepee Peak. Skarn development and/or polymetallic replacement in Boundary Ranges suite marbles are good exploration targets.

(5) Contacts between Stuhini Group and Laberge Group where adjacent to Cretaceous plutons

For example, copper skarn mineralization is recognized in the subsurface conglomerates that overlie the 'Sinwa Formation' at the Mill showing. This may be the southern limit of the Whitehorse copper belt, a string of deposits formed within and adjacent to Sinwa carbonates as far north as Whitehorse.

(6) Quartz-carbonate+/-mariposite alteration of mafic and ultramafic bodies

Potential for lode gold quartz veins of the mesothermal Motherload type is greatest adjacent to a crustal scale fault like the Llewellyn fault.

(7) Copper-gold porphyry mineralization in alkalic phases of the Stikine plutonic suite

Mapping at the margins of these bodies reveals striking textural and structural similarities to border phases of the Hogem and Copper Mountain bodies, both of which host porphyry copper deposits. However, no obvious correlation exists between elevated regional geochemical copper values and these plutons.

(8) Shallow submarine hotspring gold-silver deposits

A prime example is the Eskay Creek mine which is hosted within strata that have age equivalents in the Whitehorse Trough.

(9) Boundary Ranges metamorphic suite rocks and volcanic-associated deposits

These rocks appear to offer a high potential for discovery of volcanic-associated deposits based upon the Big Thing occurrence (MINFILE 104M 071) located near the southeast end of Tutshi Lake. The showing may be an isolated lens of Kuroko-type volcanogenic massive sulphide mineralization. Age data and correlations suggest that the Boundary Ranges suite is a metamorphosed equivalent of the Stikine assemblage which hosts the Tulsequah Chief volcanogenic massive sulphide deposit located approximately 125 kilometres south-southeast of the property boundary.

(10) Intrusion-hosted, or intrusion-related gold and copper-gold deposits

The Cretaceous intrusions on the property are similar in age to many of the intrusions in the Tintina Gold Belt that stretches from central Alaska through the Dawson area, Yukon and down to northern British Columbia and have a similar geochemical signature. The large Donlin Creek gold deposit in southwest Alaska has various similar characteristics, among which are spatial and temporal associations with Cretaceous granitic to granodiorite magmatism; bismuth-tungsten-tellurium signatures in gold deposits in granitoid stocks and arsenic-antimony+/-mercury signatures where hosted by sedimentary rocks and hypabyssal dikes.

While the property has seen several years of exploration including 23 diamond-drill holes on the Crine veins, prospective vast areas of the property remain untested and further exploration is required to fully delineate its potential. The varied mineralization types known to occur on and in the vicinity of the Chilkoot property represent significant targets and opportunities for new discoveries.

The sampling program and property visit conducted in 2006 confirmed the geological setting underlying portions of the property and provides important information on the logistical concerns relevant to future exploration.

16.0 RECOMMENDATIONS

The potential for discovering new mineralization on the Chilkoot property is very high and should be further evaluated. Previous literature and exploration by several mining companies has outlined mineralized zones, and the potential of discovering new deposit types will require additional follow-up fieldwork to determine their economic viability.

Based on the high potential for discovery of new mineralization and extending known mineralization, a 2 phase program of geological mapping, geochemical sampling, airborne geophysical surveying, and core drilling is recommended.

PHASE 1

Property scale geological mapping and detailed geological mapping of showing areas is recommended in conjunction with soil, stream sediment and rock sampling to outline or expand mineralized zones, and identify favourable stratigraphy that may host potential new deposit-type targets. The budget for phase 1 totals C$150,000.

PHASE 2

Contingent on the results of phase 1, a combined airborne magnetic and electromagnetic survey totalling 1000 line kilometres is recommended to be flown on prospective areas identified in phase 1. Line spacing of 150 metres should be used in high potential areas, and reconnaissance lines spaced at 500 metres to trace favourable stratigraphy and to aid in interpreting the regional geology in areas with limited outcrop exposure. Follow-up drilling totalling 1500 metres is also recommended to test the geophysical responses as they relate to geological mapping and sampling results. The budget for phase 2 is approximately C$575,000.

PROPOSED BUDGET - PHASE 1

Item	Description	Amount (Cdn$)
Personnel:		
Geologists (x2)	90 days x $500/day	45,000
	90 days x $500/day	45,000
Accommodation, food, travel, fuel, rental vehicle, helicopter, expenses, field supplies		38,000
Analytical – rock, soil, stream sediment samples	400 samples @ $30/sample	12,000
Communication – telephone, fax, mobile/satellite phone		2000
Report and drafting		8000
Total		150,000

Total Phase 1 = $ 150,000

PROPOSED BUDGET - PHASE 2

Item	Description	Amount (Cdn$)
Personnel:		
Geologists (x2)	50 days x $500/day	25,000
	50 days x $500/day	25,000
Equipment, saws, field supplies		1800
Drilling, includes site preparation, helicopter support and related costs	1500 metres @ $175/metre	262,500
Analytical – core, soil, rock samples	200 samples @ $30/sample	6000
Airborne magnetic-EM surveying	1000 line kilometres	227,500
Accommodation, food, travel, fuel, rental vehicle, helicopter, expenses		16,200
Communication – telephone, fax, mobile/satellite phone		1000
Report and drafting		10,000
Total		575,000

Total Phase 2 = $ 575,000

TOTAL PHASE 1 AND 2 = $ 725,000

In the author's opinion, the proposed recommendations are warranted as outlined, and phase 1 and 2 should be completed within the calendar years of 2007 and 2008.

17.0 STATEMENT OF EXPENDITURES

A reconnaissance stream sediment sampling survey as well as geological examination and rock chip sampling were carried out on the Chilkoot Property, which occurs on and around Tutshi and Bennett lakes, within the northwestern corner of British Columbia, 90 kilometres south of the city of Whitehorse, Yukon, from August 17th to September 1st, 2006, to the value of the following:

MOB/DEMOB, PROJECT COSTS	
Airline and vehicle travel expenses to/from Whitehorse, groceries, camp and field supplies (for 10 persons in the period Aug.17-Sept.1/06)	5,750.00
Room and board ($150/day per man between Aug.17-Sept.1/06)	2,960.00
Truck rental, fuel and mileage costs (two 4x4 crewcab trucks for 22 man-days at approximately $136/day per truck)	5,984.00
TOTAL	14,694.00
FIELD: (Aug.17-Sept.1/06)	
Geological mapping, examination and sampling (2 geologists for 6 days from Aug.21-26 at $500/day per geologist)	6,000.00
5-man soil sampling crew, 1 day @ $1600/day ($320/day per man)	1,600.00
4-man crew, 16 days @ $1400/day ($350/day per man)	22,400.00
Helicopter, 10 days @ $1400/day	14,000.00
Boat rental, 5 days @ $100/day (including fuel)	500.00
ATV Rental, 5 days @ $90/day	450.00
Railway Car Rental with operator, 1 day @ $300/day	300.00
TOTAL	45,250.00
LABORATORY:	
Multi-element testing, 91 samples @ $40/sample, (Acme)	3,640.00
Multi-element testing, 14 samples @ $40/sample, (Chemex)	560.00
TOTAL	4,200.00
REPORT:	
Senior geologist, 6 days @ $500/day	3,000.00
Computer drafting	2,500.00
Photocopying and report compilation	550.00
Contingency/management fee (10%)	6,970.00
TOTAL	13,020.00
GRAND TOTAL	**$77,164.00**

18.0 STATEMENT OF QUALIFICATIONS

GEORGE OWSIACKI
1350 Kristine Rae Lane, Victoria, British Columbia Canada V8Z 7L1
Tel: 250.704.0060
Email: george@tessco.ca

I, George Owsiacki, am a self-employed Professional Geoscientist and do hereby certify that:

1. I graduated with an Honours Bachelor of Science degree in Geology from Queen's University, Kingston, Ontario in 1981.

2. I am registered as a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of the Province of British Columbia.

3. I have worked as a geologist for twenty-six years since my graduation from university.

4. I am responsible for all sections of the assessment report titled "Report on the 2006 Reconnaissance Sampling Program on the Chilkoot Property, Northwest British Columbia" and dated May 20th, 2007. I examined and sampled the property between August 21 to 26, 2006 and was responsible for the overall supervision of the stream sediment sampling program conducted by Geotronics Consulting Inc. between August 17 and September 1, 2006.

Dated this 20th day of May 2007.

____

George Owsiacki, P.Geo.

DAVID MARK
Geotronics Consulting Inc.
6204 – 125 Street, Surrey, British Columbia V3X 2E1
Telephone: 1-604-596-4564
Email: davidgmark@shaw.ca

I, David Mark, am a self-employed Professional Geoscientist and do hereby certify that:

1. I graduated with a Bachelor of Science degree in Geophysics from the University of British Columbia, Vancouver, British Columbia in 1968.
2. I am registered as a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
3. I have worked as a geophysicist for thirty-nine years since my graduation from university.

19.0 REFERENCES

Beaty, R.J. and Culbert, R.R. (1978): Geological and Geochemical Report on the Net Property, Bennett Lake, B.C.; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 6882.

Casselman, S. (2005): Report on the 2003 and 2004 Mineral Exploration Programs on the Golden Eagle Project; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 27674.

Christie, R.L. (1957): Bennett, Cassiar District, British Columbia; *Geological Survey of Canada*, Preliminary Map 19-1957.

Copland, H. (1987): Geological and Geochemical Report on the Pike Claims; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 15808.

Culbert, R.R. (1979): Geological and Geochemical Report on the Net 1, 2, 3, 5 and 6 Mineral Claims, Bennett Lake, B.C.; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 7417.

Cuttle, J. (1989): Teepee Mountain Project 1989; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 19438.

Cuttle, J. (1990): Teepee Mountain Project 1990; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 20790.

Durfeld, R.M. (1989): Report on the Teepee Property; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 18766.

Gabrielse, H. and Taylor, G.C. (1982): Geological Maps and Cross Sections of the Northern Canadian Cordillera from Southwest of Fort Nelson, British Columbia to Gravina Island, Southeastern Alaska; *Geological Survey of Canada*, Open File 864.

Lambert, M.B. (1974): The Bennett Lake cauldron subsidence complex, British Columbia and Yukon Territory; *Geological Survey of Canada*, Bulletin 227.

Lhotka, P.G. and Olson, R.A. (1983): Exploration on the TP Mineral Claim; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 11300.

Lhotka, P.G. and Olson, R.A. (1983): Exploration on the Ben Mineral Claim; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 12554.

Lueck, B.A. (1989): Summary Report on the Pavey and Willard Property (Pavey 1-6, LQ and Ben 1-4 Claims) Bennett Lake Area; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 19186.

MacKay, G. (1988): Geological and Geochemical Report on the Fin Claims; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 17992.

Mark, D.G. (1997): Geophysical Report on a VLF-EM Survey over the Bennett Lake Claim Group, Tutshi Lake Area; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 25095.

McMillan, R.H. (1995): Geological, Geophysical and Geochemical Report on the Pike 1 & 2 Claims; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 23736.

Mihalynuk, M.G. and Rouse, J.N. (1988): Geology and Regional Geochemical Survey of the Tutshi Lake Map Area (104M/15); *B.C. Ministry of Energy, Mines and Petroleum Resources*, Open File 1988-5.

Mihalynuk, M.G. and Rouse, J.N. (1988): Preliminary Geology of the Tutshi Lake Area, Northwestern British Columbia (104M/15); *in* Fieldwork 1987, *B.C. Ministry of Energy, Mines and Petroleum Resources*, Paper 1988-1, pages 217-231.

Mihalynuk, M.G., Mountjoy, K.J., Currie, L.D., Smith, M.T. and Rouse, J.N. (1997): Geology of the Tagish Lake Area, NTS 104M/8, 9, 10E, 15 and 104N/12W; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Geoscience Map 1997-1.

Mihalynuk, M.G. (1999): Geology and Mineral Resources of the Tagish Lake Area, NTS 104M/8, 9, 10E, 15 and 104N/12W), Northwestern British Columbia; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Bulletin 105.

Mihalynuk, M.G. (2003): Marksmen Partnership - Potential for Shallow Submarine VMS (Eskay-Style) and Intrusive-Related Gold Mineralization, Tutshi Lake; *B.C. Ministry of Energy, Mines and Petroleum Resources*, GeoFile 2003-9.

Neelands, J.T. (1982): Geological, Geochemical Report on the Late, Lame, Flood, Tail, Aloon, Yat, Eglen, Antz, Lure, Anki Claim Groups Liard Mining Division and the Narrs, Haker, Akum, Race, Creed, Keap, Take, Peng, Tshik, Annig, Undas Claim Groups Atlin Mining Division; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 10417.

Neelands, J.T. and Copland, H.J. (1982): Geological and Geochemical Report on the Ange Claims; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 10425.

Neelands, J.T. and Copland, H.J. (1982): Geological and Geochemical Report on the Crine Claims; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 10426.

Neelands, J.T. and Strain, D.M. (1982): Geological and Geochemical Report on the Selly Property; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 10428.

Neelands, J.T. and Copland, H.J. (1982): Geological and Geochemical Report on the Shui Property; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 10429.

Ouellette, D.J. (1988): Report on the Geophysical Survey of the Rigel 1 Claim; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 17583.

Ouellette, D.J. (1989): Report on the Geophysical Survey of the Mill 1 Claim; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 18649.

Ouellette, D.J. (1990): 1989 Diamond Drilling Report on the Mill 1 & 2 Claims; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 20032.

Pegg, R.S. (1981): Geochemical and Geological Report, Net Claims, Bennett Lake Area; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 9454.

Schroeter, T.G. (1986): Bennett Project; *in* Geological Fieldwork 1985, *B.C. Ministry of Energy, Mines and Petroleum Resources*, Paper 1986-1, pages 184-189.

Stephen, J.C. and Webster, M.P. (1982): Geological, Geochemical Report on the Key Mineral Claim; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 10740.

Wheeler, J.O., Brookfield, A.J., Gabrielse, H., Monger, J.W.H., Tipper, H.W. and Woodsworth, G.J. (1991): Terrane map of the Canadian Cordillera; *Geological Survey of Canada*, Map 1713A.

APPENDIX A

ALS CHEMEX ANALYTICAL CERTIFICATES

ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: XPLORER RESOURCES INC.
307 - 1500 HARDY STREET
KELOWNA BC V1Y 8H2

Finalized Date: 26-SEP-2006
Account: XPLRES

CERTIFICATE VA06087344

Project: Chilkoot
P.O. No.:
This report is for 5 Rock samples submitted to our lab in Vancouver, BC, Canada on 29-AUG-2006.

The following have access to data associated with this certificate:

GEORGE OWSIACKI	ACCOUNTS PAYABLE	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES
Zn-AA46	Ore grade Zn - aqua regia/AA	AAS
Au-AA23	Au 30g FA-AA finish	AAS

To: XPLORER RESOURCES INC.
ATTN: GEORGE OWSIACKI
1350 KRISTINE RAE LANE
VICTORIA BC V8Z 7L1

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: XPLORER RESOURCES INC.
307 - 1500 HARDY STREET
KELOWNA BC V1Y 8H2

Finalized Date: 26-SEP-2006
Account: XPLRES

Project: Chilkoot

CERTIFICATE OF ANALYSIS VA06087344

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
06G0W010		2.16	<0.005	<0.2	0.15	44	<10	20	<0.5	<2	0.05	<0.5	<1	16	11	0.76
06G0W011		2.34	<0.005	<0.2	0.06	11	<10	10	<0.5	<2	0.02	<0.5	<1	21	7	0.46
06G0W012		2.14	<0.005	0.3	0.96	11	<10	100	<0.5	<2	0.13	<0.5	1	16	21	1.45
06G0W020		3.38	0.164	<0.2	0.86	19	<10	130	<0.5	<2	0.53	<0.5	5	19	11	2.06
06G0W021		4.76	0.016	9.3	0.39	126	<10	60	0.5	<2	9.58	155.0	9	17	1390	3.09

ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: XPLORER RESOURCES INC.
307 - 1500 HARDY STREET
KELOWNA BC V1Y 8H2

Finalized Date: 26-SEP-2006
Account: XPLRES

Project: Chilkoot

CERTIFICATE OF ANALYSIS VA06087344

Sample Description	Method Analyte Units LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
06G0W010		<10	<1	0.03	<10	0.04	40	2	<0.01	4	50	<2	<0.01	<2	<1	5
06G0W011		<10	<1	0.01	<10	0.01	87	<1	<0.01	7	20	<2	<0.01	<2	<1	2
06G0W012		<10	<1	0.13	10	0.23	191	2	0.01	18	240	8	0.07	<2	2	26
06G0W020		<10	<1	0.14	20	0.21	300	<1	0.01	16	450	6	0.02	<2	2	61
06G0W021		<10	1	0.19	10	1.28	662	44	0.01	28	910	2270	0.61	80	6	432

ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: XPLORER RESOURCES INC.
307 - 1500 HARDY STREET
KELOWNA BC V1Y 8H2

Finalized Date: 26-SEP-2006
Account: XPLRES

Project: Chilkoot

CERTIFICATE OF ANALYSIS VA06087344

Sample Description	Method Analyte Units LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	Zn-AA45 Zn % 0.01
06G0W010		0.01	<10	<10	3	<10	13	
06G0W011		<0.01	<10	<10	<1	<10	22	
06G0W012		0.08	<10	<10	19	<10	28	
06G0W020		<0.01	<10	<10	17	<10	40	
06G0W021		<0.01	<10	<10	20	<10	>10000	1.18

ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: XPLORER RESOURCES INC.
307 - 1500 HARDY STREET
KELOWNA BC V1Y 8H2

Finalized Date: 26-SEP-2006
Account: XPLRES

CERTIFICATE VA06087343

Project: Chilkoot
P.O. No.:
This report is for 9 Stream Sediment samples submitted to our lab in Vancouver, BC, Canada on 29-AUG-2006.

The following have access to data associated with this certificate:

GEORGE OWSIACKI	ACCOUNTS PAYABLE	

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
SCR-41	Screen to -180um and save both

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
ME-ICP41	34 Element Aqua Regia ICP-AES	ICP-AES

To: XPLORER RESOURCES INC.
ATTN: GEORGE OWSIACKI
1350 KRISTINE RAE LANE
VICTORIA BC V8Z 7L1

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Keith Rogers, Executive Manager Vancouver Laboratory

ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: XPLORER RESOURCES INC.
307 - 1500 HARDY STREET
KELOWNA BC V1Y 8H2

Finalized Date: 26-SEP-2006
Account: XPLRES

Project: Chilkoot

CERTIFICATE OF ANALYSIS VA06087343

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01
06G0W001		0.92	0.040	0.9	3.20	376	<10	150	0.8	14	1.06	2.4	33	89	325	6.02
06G0W002		0.82	0.006	<0.2	0.57	7	<10	30	<0.5	<2	0.21	<0.5	2	5	4	1.18
06G0W003		0.98	0.009	0.2	0.92	50	<10	60	0.5	<2	0.30	<0.5	4	13	7	2.26
06G0W004		1.00	0.014	<0.2	2.23	121	<10	290	0.9	<2	0.81	<0.5	19	12	46	5.28
06G0W005		1.14	0.010	0.3	1.36	181	<10	70	0.5	<2	1.91	0.5	7	30	44	2.00
06G0W006		0.98	0.049	<0.2	1.37	29	<10	400	0.5	3	0.59	<0.5	9	15	16	3.74
06G0W007		0.58	0.005	0.3	1.52	180	<10	190	0.6	<2	0.75	<0.5	10	21	36	3.70
06G0W008		0.66	<0.005	<0.2	1.12	49	<10	90	<0.5	<2	0.55	<0.5	4	17	12	1.76
06G0W009		0.54	0.006	<0.2	0.28	<2	<10	60	<0.5	<2	>25.0	<0.5	1	4	22	0.40

ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: XPLORER RESOURCES INC.
307 - 1500 HARDY STREET
KELOWNA BC V1Y 8H2

Finalized Date: 26-SEP-2006
Account: XPLRES

Project: Chilkoot

CERTIFICATE OF ANALYSIS VA06087343

Sample Description	Method / Analyte / Units / LOR	ME-ICP41 Ga ppm 10	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1
06G0W001		10	<1	0.63	20	1.60	1275	18	0.05	61	1160	46	0.13	15	9	81
06G0W002		<10	<1	0.10	10	0.27	244	<1	0.01	2	300	5	0.02	<2	1	15
06G0W003		<10	<1	0.14	30	0.34	419	2	0.01	8	550	13	0.02	<2	3	28
06G0W004		10	<1	0.23	30	0.89	1350	2	0.03	13	1390	19	0.04	3	6	125
06G0W005		10	<1	0.11	10	0.48	676	1	0.02	11	950	12	0.12	6	2	125
06G0W006		<10	<1	0.08	20	0.57	569	<1	0.02	8	850	13	0.02	<2	4	71
06G0W007		<10	<1	0.09	20	0.76	621	4	0.02	17	900	29	0.05	4	4	72
06G0W008		<10	<1	0.10	20	0.43	517	3	0.03	9	500	9	0.02	<2	2	61
06G0W009		<10	<1	0.03	<10	0.32	85	<1	0.02	14	250	3	<0.01	<2	1	929

ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: XPLORER RESOURCES INC.
307 - 1500 HARDY STREET
KELOWNA BC V1Y 8H2

Finalized Date: 26-SEP-2006
Account: XPLRES

Project: Chilkoot

CERTIFICATE OF ANALYSIS VA06087343

Sample Description	Method Analyte Units LOR	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2
06G0W001		0.14	<10	10	93	50	207
06G0W002		0.02	<10	<10	13	<10	30
06G0W003		0.07	<10	10	29	<10	56
06G0W004		0.07	<10	<10	64	<10	107
06G0W005		0.04	<10	30	44	<10	53
06G0W006		0.05	<10	<10	64	<10	49
06G0W007		0.03	<10	<10	48	<10	89
06G0W008		0.04	<10	<10	33	<10	39
06G0W009		0.01	<10	<10	4	<10	44

APPENDIX B

ALS CHEMEX SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

ALS Chemex

Sample Preparation Package – PREP-31

Standard Sample Preparation: Dry, Crush, Split and Pulverize

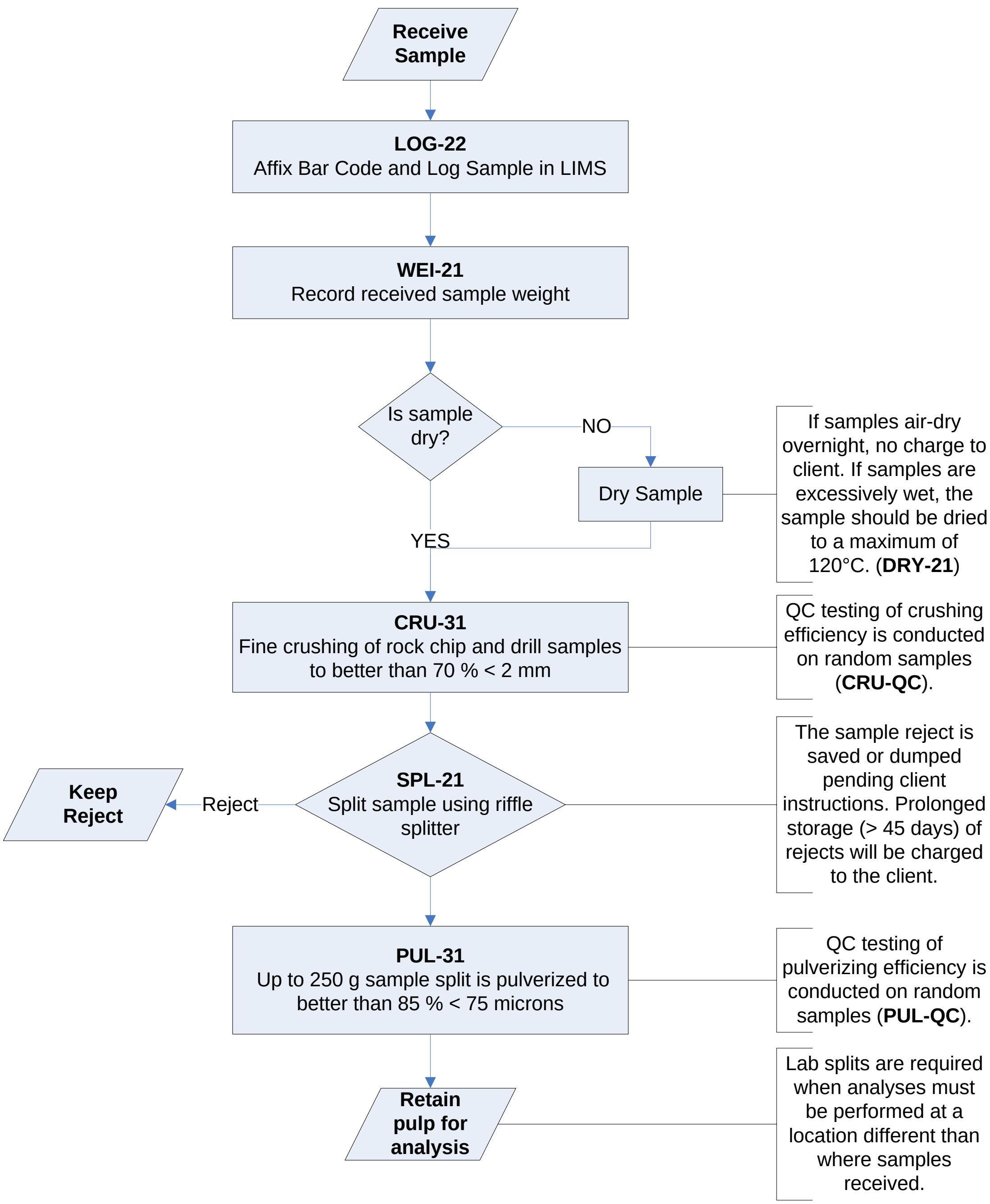
Sample preparation is the most critical step in the entire laboratory operation. The purpose of preparation is to produce a homogeneous analytical sub-sample that is fully representative of the material submitted to the laboratory.

The sample is logged in the tracking system, weighed, dried and finely crushed to better than 70 % passing a 2 mm (Tyler 10 mesh) screen. A split of up to 250 g is taken and pulverized to better than 85 % passing a 75 micron (Tyler 200 mesh) screen. This method is appropriate for rock chip or drill samples.

Method Code	Description
LOG-22	Sample is logged in tracking system and a bar code label is attached.
CRU-31	Fine crushing of rock chip and drill samples to better than 70 % of the sample passing 2 mm.
SPL-21	Split sample using riffle splitter.
PUL-31	A sample split of up to 250 g is pulverized to better than 85 % of the sample passing 75 microns.

ALS Chemex

Flow Chart - Sample Preparation Package – PREP-31
Standard Sample Preparation: Dry, Crush, Split and Pulverize



ALS Chemex

Fire Assay Procedure – Au-AA23 & Au-AA24
Fire Assay Fusion, AAS Finish

Sample Decomposition: Fire Assay Fusion (FA-FUS01 & FA-FUS02)
Analytical Method: Atomic Absorption Spectroscopy (AAS)

A prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6 mg of gold-free silver and then cupelled to yield a precious metal bead.

The bead is digested in 0.5 mL dilute nitric acid in the microwave oven, 0.5 mL concentrated hydrochloric acid is then added and the bead is further digested in the microwave at a lower power setting. The digested solution is cooled, diluted to a total volume of 4 mL with de-mineralized water, and analyzed by atomic absorption spectroscopy against matrix-matched standards.

Method Code	Element	Symbol	Units	Sample Weight (g)	Lower Limit	Upper Limit	Default Overlimit Method
Au-AA23	Gold	Au	ppm	30	0.005	10.0	Au-GRA21
Au-AA24	Gold	Au	ppm	50	0.005	10.0	Au-GRA22

ALS Chemex

Geochemical Procedure - ME-ICP41
Trace Level Methods Using Conventional ICP-AES Analysis

Sample Decomposition: Nitric Aqua Regia Digestion (GEO-AR01)
Analytical Method: Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP - AES)

A prepared sample (0.50 g) is digested with aqua regia for 45 minutes in a graphite heating block. After cooling, the resulting solution is diluted to 12.5 mL with demineralised water, mixed and analyzed by inductively coupled plasma-atomic emission spectrometry. The analytical results are corrected for inter-element spectral interferences.

Element	Symbol	Units	Lower Limit	Upper Limit	Default Overlimit Method
Silver	Ag	ppm	0.2	100	Ag-AA46
Aluminum*	Al	%	0.01	25	
Arsenic	As	ppm	2	10000	
Boron*	B	ppm	10	10000	
Barium*	Ba	ppm	10	10000	
Beryllium*	Be	ppm	0.5	100	
Bismuth	Bi	ppm	2	10000	
Calcium*	Ca	%	0.01	25	
Cadmium	Cd	ppm	0.5	500	
Cobalt	Co	ppm	1	10000	
Chromium*	Cr	ppm	1	10000	
Copper	Cu	ppm	1	10000	Cu-AA46
Iron	Fe	%	0.01	50	
Gallium*	Ga	ppm	10	10000	
Mercury	Hg	ppm	1	10000	

Element	Symbol	Units	Lower Limit	Upper Limit	Default Overlimit Method
Potassium*	K	%	0.01	10	
Lanthanum*	La	ppm	10	10000	
Magnesium*	Mg	%	0.01	25	
Manganese	Mn	ppm	5	50000	
Molybdenum	Mo	ppm	1	10000	Mo-AA46
Sodium*	Na	%	0.01	10	
Nickel	Ni	ppm	1	10000	
Phosphorus	P	ppm	10	10000	
Lead	Pb	ppm	2	10000	Pb-AA46
Sulfur	S	%	0.01	10	
Antimony	Sb	ppm	2	10000	
Scandium*	Sc	ppm	1	10000	
Strontium*	Sr	ppm	1	10000	
Titanium*	Ti	%	0.01	10	
Thallium*	Tl	ppm	10	10000	
Uranium	U	ppm	10	10000	
Vanadium	V	ppm	1	10000	
Tungsten*	W	ppm	10	10000	
Zinc	Zn	ppm	2	10000	Zn-AA46

* Digestion will be incomplete for most sample matrices

Elements listed below are available upon request

Element	Symbol	Units	Lower Limit	Upper Limit	Default Overlimit Method
Cerium*	Ce	ppm	10	10000	
Hafnium*	Hf	ppm	10	10000	

Element	Symbol	Units	Lower Limit	Upper Limit	Default Overlimit Method
Indium*	In	ppm	10	10000	
Lithium*	Li	ppm	10	10000	
Niobium*	Nb	ppm	10	10000	
Rubidium*	Rb	ppm	10	10000	
Selenium	Se	ppm	10	10000	
Silicon*	Si	ppm	10	10000	
Tin*	Sn	ppm	10	10000	
Tantalum*	Ta	ppm	10	10000	
Tellurium*	Te	ppm	10	10000	
Thorium*	Th	ppm	20	10000	
Yttrium*	Y	ppm	10	10000	
Zirconium*	Zr	ppm	5	10000	

* Digestion will be incomplete for most sample matrices

ALS Chemex

Quality Assurance Overview

LABORATORY REGISTRATION

ISO 9001:2000

0007629

ALS Chemex laboratories in North America are registered to ISO 9001:2000 for the "provision of assay and geochemical analytical services" by QMI Quality Registrars.

In addition to ISO 9001:2000 registration, ALS Chemex's North Vancouver laboratory has received ISO 17025 accreditation from the Standards Council of Canada under CAN-P-1579 "Guidelines for Accreditation of Mineral Analysis Testing Laboratories". CAN-P-1579 is the Amplification and Interpretation of CAN-P-4D "General Requirements for the Accreditation of Calibration and Testing Laboratories" (Standards Council of Canada ISO/IEC 17025). The scope of the accreditation includes the following methods:

- Au and Ag by Fire Assay/Gravimetric Finish
- Au by Fire Assay/AAS Finish
- Au, Pt, Pd by Fire Assay/ICP Finish
- Ag, Cu, Pb, Zn by Aqua Regia Digestion/AAS Finish
- Co, Ni by 4-Acid Digestion/AAS
- Cu, Ni, Co by Sodium Peroxide Fusion/ICP Finish
- Multi-element package by Aqua Regia Digestion/ICP Finish

The ISO 9001:2000 registration provides evidence of a quality management system covering all aspects of our organization. ISO 17025 accreditation provides specific assessment of our laboratory's analytical capabilities. In our opinion, the combination of the two ISO standards provides our clients complete assurance regarding the quality of every aspect of ALS Chemex operations.

Aside from laboratory accreditation, ALS Chemex has been a leader in participating in, and sponsoring, the assayer certification program in British Columbia. Many of our analysts have completed this demanding program that includes extensive theoretical and practical examinations. Upon successful completion of these examinations, they are awarded the title of Registered Assayer.

QUALITY ASSURANCE PROGRAM

The quality function is an integral part of all day-to-day activities at ALS Chemex and involves all levels of staff. Responsibilities are formally assigned for all aspects of the quality assurance program. As well, all senior staff is expected to actively participate in the quality program through regular Quality Assurance and Technical Meetings.

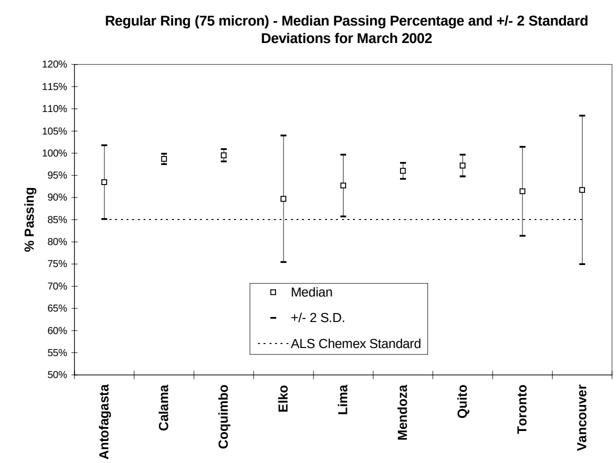
Sample Preparation Quality Specifications

Standard specifications for sample preparation are clearly defined and monitored. The specifications are as follows:

- Crushing
  > 70% of the crushed sample passes through a 2 mm screen
- Ringing
  > 85% of the ring pulverized sample passes through a 75 micron screen (Tyler 200 mesh)
- Samples Received as Pulps
  >80% of the sample passes through a 75 micron screen (Tyler 200 mesh)

These characteristics are measured and results reported and logged to verify the quality of sample preparation. Our standard operating procedures require that at least one sample per day be taken from each sample preparation station. Measurement of sample preparation quality allows the identification of equipment, operators and processes that are not operating within specifications.

QC results from all sample preparation laboratories are reported to the QC department monthly. The data is combined and reported to senior management for monthly review of the performance of each preparation laboratory.



Other Sample Preparation Specifications

Sample preparation is a vital part of any analysis protocol. Many projects require sample preparation to other specifications, for instance > 90% of the crushed sample to pass through a 2 mm screen. These procedures can easily be accommodated and the Prep QC monitoring system is essential in ensuring the required specifications are routinely met.

Analytical Quality Control – Reference Materials, Blanks & Duplicates

The Laboratory Information Management System (LIMS) inserts quality control samples (reference materials, blanks and duplicates) on each analytical run, based on the rack sizes associated with the method. The rack size is the number of sample including QC samples included in a batch. The blank is inserted at the beginning, standards are inserted at random intervals, and duplicates are analysed at the end of the batch. Quality control samples are inserted based on the following rack sizes specific to the method:

Rack Size	Methods	Quality Control Sample Allocation
20	Specialty methods including specific gravity, bulk density, and acid insolubility	2 standards, 1 duplicate, 1 blank
28	Specialty fire assay, assay-grade, umpire and concentrate methods	1 standard, 1 duplicate, 1 blank
39	XRF methods	2 standards, 1 duplicate, 1 blank
40	Regular AAS, ICP-AES and ICP-MS methods	2 standards, 1 duplicate, 1 blank
84	Regular fire assay methods	2 standards, 3 duplicates, 1 blank

The laboratory staff analyses quality control samples at least at the frequency specified above. If necessary, laboratory staff may include additional quality control samples above the minimum specifications.

All data gathered for quality control samples – blanks, duplicates and reference materials – are automatically captured, sorted and retained in the QC Database.

Quality Control Limits and Evaluation

Quality Control Limits for reference materials and duplicate analyses are established according to the precision and accuracy requirements of the particular method. Data outside control limits are identified and investigated and require corrective actions to be taken. Quality control data is scrutinised at a number of levels. Each analyst is responsible for ensuring the data submitted is within control specifications. In addition, there are a number of other checks.

Certificate Approval

If any data for reference materials, duplicates, or blanks falls beyond the control limits established, it is automatically flagged red by the computer system for serious failures, and yellow for borderline results. The Department Manager(s) conducting the final review of the Certificate is thus made aware that a problem may exist with the data set.

Precision Specifications and Definitions

Most geochemical procedures are specified to have a precision of ± 10%, and assay procedures ± 5%. The precision of Au analyses is dominated by the sampling precision.

Precision can be expressed as a function of concentration:

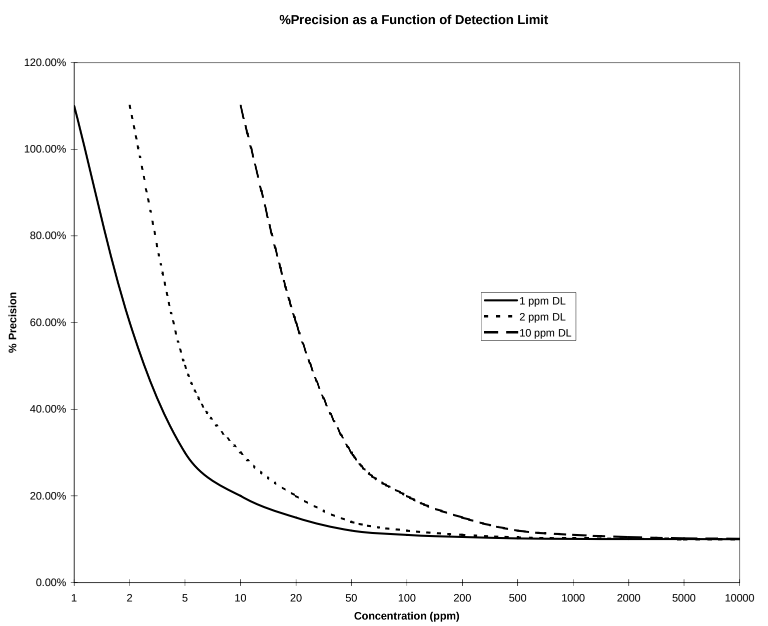
$$P_c = \left(\frac{DetectionLimit}{c} + P\right) \times 100\%$$

where P_c - the precision at concentration c

c - concentration of the element

P - the "Precision Factor" of the element. This is the precision of the method at very high concentrations, i.e. 0.05 for 5%.

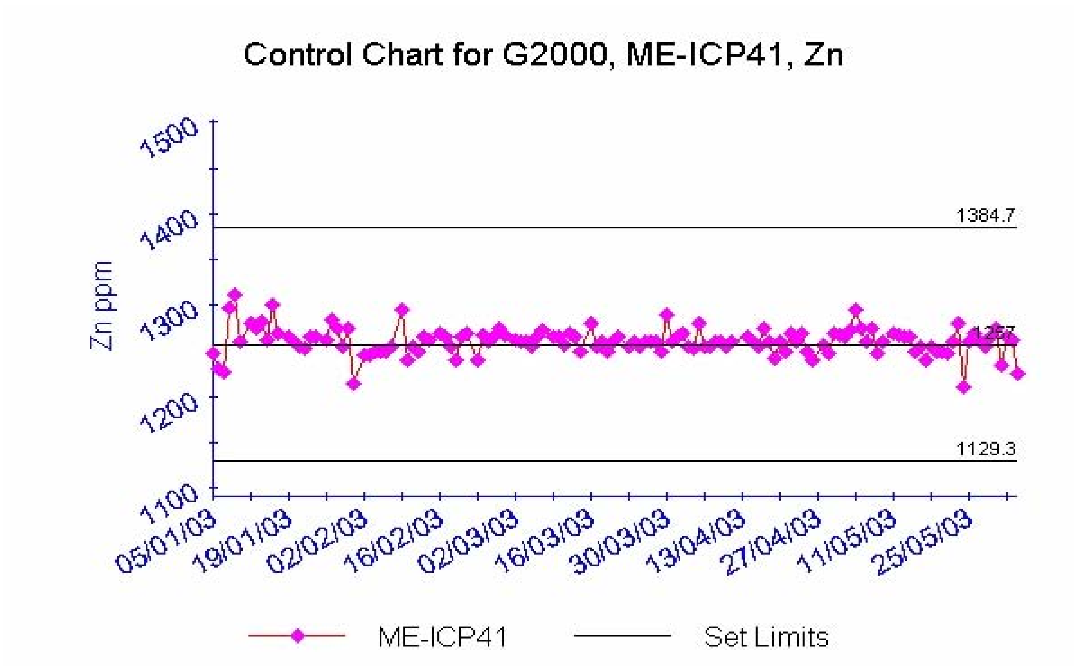
(M. Thompson, 1988. Variation of precision with concentration in an analytical system. Analyst, 113: 1579-1587.)



As an example, precision as a function of concentration (10% precision) is plotted for three different detection limits. The impact of detection limit on precision of results for low-level determinations can be dramatic

Evaluation of Trends

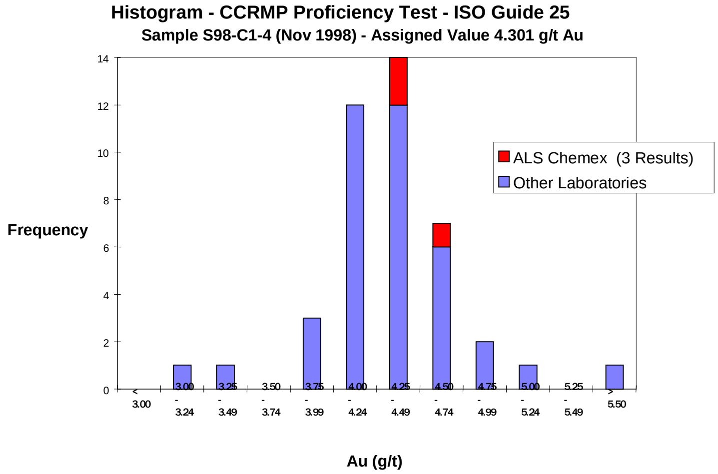
Control charts for frequently used method codes are generated and evaluated by the QA Department and distributed to Departmental managers for posting in the lab and review on a weekly basis. The control charts are evaluated to ensure internal specifications for precision and accuracy are met. The data is also reviewed for any long-term trends and drifts.



External Proficiency Tests

Proficiency testing provides an independent assessment of laboratory performance by an outside agency. Test materials are regularly distributed to the participants, ideally four times a year, and results are processed by a central agency. The results are usually converted to some kind of score, such as Z-scores.

All ALS Chemex analytical facilities in North America participate in proficiency tests for the analytical procedures routinely done at each laboratory. ALS Chemex has participated in several rounds of proficiency tests organized by organizations such as Canadian Certified Reference Materials Projects, and Geostats as well as a number of independent studies organized by consultants for specific clients. We have participated also participated in several certification studies for new certified reference materials by CANMET and Rocklabs.



ALS Chemex has obtained the highest rating for the results submitted, with a few minor exceptions. Feedback from these studies is invaluable in ensuring our continuing accuracy and validation of method.

Quality Assurance Meetings

A review of quality assurance issues is held regularly at Technical and Quality Assurance Meetings. The meetings cover such topics as:

- Results of internal round robin exchanges, external proficiency tests and performance evaluation samples
- Monitoring of control charts for reference materials
- Review of sample preparation quality control results from all branch offices
- Review of quality system failures
- Incidents raised by clients
- Results of internal quality audits
- Other quality assurance issues

The Quality Assurance Department and senior management participate in these meetings, either in person or by teleconference.

APPENDIX C

ACME ANALYTICAL LABORATORIES LTD. ANALYTICAL CERTIFICATES

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
Geotronics Surveys Ltd.
Acme file # A605977 Page 1 Received: AUG 29 2006 * 98 samples in this disk file.
Analysis: GROUP 1DX - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-MS.

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm
G-1	0.5	2	2.1	39	<.1	5.2	4	502	1.65	<.5	2.3	1.2	3.4	51	<.1	<.1	0.1	36
2	4.9	12.3	13.4	42	<.1	19.7	7	329	1.65	4.3	29.4	2.3	5.6	40	0.3	0.6	0.2	39
	27.4	16.2	5.3	85	<.1	17.1	15.5	14019	11.68	1410.5	20.4	1.1	1.8	132	1.1	2.4	0.1	128
4	2.1	10.4	17.6	78	<.1	6.8	1.9	397	1.31	11.4	35.5	0.7	17.2	15	0.8	0.4	0.7	13
5	9.2	10.1	20.5	59	0.1	15.7	7.7	1421	2.28	8.8	39	1.2	12.1	45	0.4	0.3	0.7	34
7	4.8	37	27.4	85	0.3	29.4	16.6	1067	2.95	51.5	3.1	8.5	9.8	34	0.3	2.3	0.4	61
9	3.7	13.9	20.3	50	<.1	13.8	6.6	910	1.8	12.8	79.5	1.5	6.2	104	0.2	0.7	0.9	26
10	7.5	5.5	9.5	29	<.1	46.5	4.1	367	1.69	3.4	6.4	1.2	29.3	8	0.1	0.1	9.5	30
11	8.8	104.5	34.9	229	0.4	64.6	26.8	1167	5.93	157.9	3.4	15.4	5.3	98	1.5	4.5	1	96
13	8.5	8.3	22.2	79	<.1	26.1	5.1	773	2.22	4.4	42.1	1.8	25.9	20	0.1	0.2	0.2	26
14	6.3	2.3	14.5	66	<.1	10.3	3.4	661	2.19	1.8	34.1	2.2	23	16	0.3	0.1	0.2	24
15	2.2	1.8	17.7	62	<.1	5.1	2.4	592	1.31	1.1	62.1	1.4	38.2	21	0.4	0.1	0.4	13
16	8.7	1.8	13.9	77	0.1	5	3	1003	1.62	1.3	46.6	2.3	21.9	14	0.7	0.1	0.5	17
17	3.4	36.5	17.1	82	0.2	22.1	12.6	710	3.2	338.6	5.5	90.1	6.7	81	0.4	8.6	0.4	69
18	3.5	2.3	12.8	71	0.1	5.4	4.1	712	2.03	1.9	56.9	1.2	21.1	24	0.5	0.1	0.4	24
19	3.5	34	17	73	0.2	23	12.1	718	3.21	285.8	6.2	28.7	8	82	0.5	8	0.4	67
20	4.6	38.5	21.6	81	0.2	33.7	12.1	685	2.66	109.8	3.7	11.3	4.7	90	1	4.9	0.2	33
21	1.7	24.8	16.3	74	0.2	17.7	9.3	483	2.36	103.1	2.8	8.8	5.4	72	0.9	3.5	0.2	33
RE 021	1.7	24.3	16.9	71	0.2	18.9	9	464	2.23	96.4	2.6	8.7	4.8	69	0.8	3.3	0.4	31
22	16.5	54.5	18.9	199	0.2	193.9	17.3	668	3.86	136.8	1.4	1.5	3.9	157	2	9.4	0.3	41
23	8.7	47.7	16.9	176	0.2	48.2	14.1	629	3.72	135.2	1.6	1.2	4.4	152	1.9	9.3	0.3	40
24	6.6	26.2	26.1	127	0.3	88.4	9.8	698	2.94	27.2	3.8	3.1	8.5	101	1.1	1.6	0.8	40
25	3.1	20.6	28.9	131	0.3	16.3	8.5	736	3.15	23.4	3.1	3.7	8.7	117	1.3	1.3	1.6	41
36	6.4	84.6	43	80	0.5	67.3	5.9	448	1.23	52.8	33.8	9.8	1.7	228	1.5	3.8	0.4	21
37	25.9	45.3	29.3	199	0.3	29.3	22.2	6617	3.35	350.2	16.3	5.8	3.6	146	2.3	3.3	0.9	48
038(M453154)	2.3	19.1	11.7	54	<.1	29.7	11.7	604	3.58	25.3	0.9	5.1	4.9	58	0.1	1.7	0.1	62
038(714112)	3.6	15.5	11.3	47	<.1	18.8	7.8	674	2.92	14.9	40.1	1.8	25.5	26	0.4	0.5	0.8	53
39	2	20.6	11.2	56	<.1	25.4	11.8	578	3.34	24.6	0.8	1.3	3.9	63	0.1	1.5	0.1	59
040(M453156)	4.2	60.3	23.4	100	0.3	32.2	21.2	894	4.35	229.1	4.7	7.9	5	132	0.9	9.6	1	82
040(714113)	13.3	18.7	8.9	65	0.2	114.7	10.7	1332	3.13	22.7	28.2	1.3	7.5	45	0.4	1.2	0.2	67
041(M453157)	3.9	66.8	40.7	118	0.4	31	21.3	781	4.46	213.9	4	6.6	6	122	0.8	9.2	1.8	93
041(714114) I.S.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
042(M453158)	8.8	107.8	19.4	355	0.2	34.4	20.1	1552	8.2	352	4.1	3	7.2	67	1.3	7.7	0.9	76
042(714117)	18.4	58.3	13.9	67	0.1	71.8	15.7	683	3.13	92.1	4.9	3.8	12.4	166	0.1	8.4	0.5	68
043(M453159)	3.2	49.8	15.1	80	0.2	18.3	13.6	618	3.12	257.8	7.9	3.7	4	78	0.6	6.7	1.2	73
STANDARD DS7	21.3	105.2	69.3	403	0.9	55.8	9.5	642	2.35	48.2	5.2	56.9	4.3	71	6.5	5.9	4.5	85
G-1	0.5	2.2	2.5	51	<.1	7.5	4.8	565	1.97	0.6	2.6	<.5	3.8	56	<.1	<.1	0.1	44
043(714116)	7.9	11.2	11.2	32	<.1	87.5	4.9	446	2.07	9.9	6.9	1.5	14.8	30	0.1	0.7	0.9	36
044(M453160)	10.9	26.6	17.2	88	0.3	14.7	12.7	2424	3.06	360.6	58.6	11.6	15.2	69	1.6	2.9	1.6	42
044(714115)	20	11.8	18.2	47	<.1	82.4	6.8	861	2.53	7.6	20.9	0.9	8.7	64	0.1	0.5	1.5	42
045(M453161)	3.3	17.3	11.5	67	0.1	17.4	7.6	543	2.19	102.1	14.9	4.1	9.9	31	0.3	2.8	0.4	39
45	6.4	31.1	13.5	70	<.1	119.2	10.6	549	2.88	43.3	8.5	1.1	20	26	0.1	1.3	0.2	60
46	2.8	43.2	21.3	85	0.3	37	22.2	1030	4.06	203.4	13.8	7.3	12.1	75	0.4	5	0.5	60
047(M453163)	4.9	30	15.8	78	0.2	76.5	18.1	784	3.84	170.3	9.6	5.6	11.3	59	0.3	3.9	0.2	65
47	6.2	24.1	12.2	89	0.2	26.3	12.1	1764	3.22	81.2	6.7	2.2	7.4	36	0.6	0.9	0.3	69
048(M453164)	3.3	34.6	13.4	75	0.1	68.7	10.8	451	2.88	40.3	1.6	7.2	5.5	36	0.4	1.7	0.4	52
48	2	95.8	34.7	177	0.5	48.9	23.8	966	4.93	75.2	7.3	10.9	3	133	0.9	3	0.4	123
49	2.4	33.5	14.4	78	0.1	55.6	10	423	2.68	29.9	1.4	6.6	4.1	45	0.4	1.7	0.2	48
50	2	37.8	19.8	112	0.2	21.9	14.3	3245	2.42	66.2	1.3	42.3	3.1	101	1.5	1.9	0.3	31
51	2.2	36	17.3	93	0.1	31.5	15.5	2569	2.22	60.9	0.9	4.5	3	65	1.3	1.8	0.2	29
52	2.6	17.5	17.9	59	<.1	13	8.7	972	2.27	28.9	1.5	3.2	4.2	75	0.3	1	0.2	41
053(M453169)	3.2	15.6	12.5	46	<.1	49.5	6.8	600	1.7	21.8	1.1	1.2	4.3	51	0.2	1	0.2	36
RE 053(M453169)	2.9	16.2	12	48	<.1	45.4	6.9	614	1.7	21.3	1	5	3.9	50	0.2	1	0.2	33
53	4.2	67.5	23.2	80	0.7	20.1	6.8	397	2.3	113.5	23.5	15.6	3.8	163	0.7	3.3	0.6	35
54	7.8	30.6	34.2	72	0.2	42.6	8	531	2.04	67.8	13.4	2.5	6.3	74	0.3	1.6	0.4	38
56	2.6	38.8	31.7	76	0.2	12.6	10.8	641	2.51	107.4	10	4.2	4.6	89	0.6	3.2	0.9	53
57	4.2	44.5	18	161	0.3	34.7	9.4	648	3.78	124	10.7	5.8	4.5	75	1	3.2	1.1	48
58	2.5	45.2	17.6	68	0.2	16.7	13.2	670	2.91	92.8	2	12.6	6.6	70	0.6	6.2	1.2	55
59	3.8	73.2	30.7	186	0.4	42.6	17.7	792	4.08	105.7	2.3	10.5	6.5	95	0.7	8.5	2	66
60	3.5	62.9	24.5	122	0.2	29.8	20.8	878	4.21	160.3	4.5	17.7	4.1	112	1.4	13.3	0.4	65
61	4.8	52.7	21.5	176	0.1	82.2	13.7	622	3.03	97.2	3.1	24.6	5	83	1.3	8.2	0.4	54
62	3.8	96.5	30.8	117	0.5	34.6	21.3	1188	6.44	198.2	8.9	35.9	5.5	107	1.2	14.9	0.7	76
63	4	72.2	21.3	126	0.3	65.6	17.9	822	4.62	118.8	3	26	5.8	69	0.8	9.3	0.5	61
64	2.6	35.8	21.5	79	0.2	18.4	12.5	557	3	115.6	7.6	32.4	6.5	64	0.5	7.4	0.3	60
65	5.2	30.8	24.1	76	0.2	89.7	10.7	451	2.66	116.4	3.7	6.8	5.4	53	0.3	5.5	0.2	51
66	4.1	32.4	22.8	59	0.2	13.9	14.9	1152	3.04	94.6	3.3	7.6	7.7	51	0.5	3.9	0.2	59
67	5.1	43.7	17.9	80	0.1	24.4	11.2	745	3.37	72.9	4	11.1	9.3	53	0.5	19.1	0.4	52
68	2.7	59.6	20.8	113	0.3	20	11.7	509	3.02	83.1	7.9	15.1	7.9	59	1.5	7.3	0.2	68
69	2.4	29.6	18.8	72	0.2	33	20.1	865	3.73	174.1	10.6	15.6	10.9	72	0.4	4.5	0.2	61
70	2.9	33.3	17.9	114	0.1	35.1	20.6	873	3.52	141.2	9.5	3.4	9.6	82	0.3	3.7	0.2	57
71	2.8	7.5	13.4	60	0.1	6.8	5.8	509	2.21	47.3	19.1	2.2	30.2	36	0.3	0.9	0.5	35
STANDARD DS7	21.1	108	70.4	405	0.9	56.3	9.7	640	2.41	47.6	4.9	67.4	4.4	73	6.5	6	4.6	86
G-1	0.6	2.7	2.6	46	<.1	6.3	4.5	529	1.82	0.5	2.5	<.5	4.1	55	<.1	<.1	0.1	39
72	2.3	7.6	11	50	0.1	9.8	4.5	408	2.85	30.6	15	6.6	46.4	24	0.3	0.9	4.6	46
73	1.9	2.7	10.2	65	<.1	4.9	4.6	486	1.9	6.2	13.5	<.5	21.7	21	0.1	0.2	0.3	23
74	1.9	1.9	8.7	55	<.1	4.5	4	465	2.22	5.5	9.7	<.5	24.7	15	0.1	0.2	0.2	31
79	1.6	37.8	16.7	88	0.1	24.3	12.7	641	3.18	31.5	1.3	3.4	4.4	44	0.4	2	0.2	52
80	1.2	55.3	14.5	75	0.2	29.3	13.2	521	2.85	21.1	0.7	2.8	4.3	90	0.4	2	0.2	45
81	0.9	44.4	8.3	56	0.1	19.7	6.6	367	1.48	14.3	0.9	3	1.3	268	0.9	1.5	0.2	25
82	4.8	57.8	21.5	96	0.3	25.6	17.8	749	3.9	182.9	4.2	6.1	5.1	127	1.1	8.6	1.1	75
83	2	27.2	35.2	70	0.1	37.2	12.2	528	2.59	10.8	4.4	1.7	10.9	60	0.5	0.9	0.5	49
84	6.4	69	15.4	61	0.1	15	7.2	393	1.48	19.6	8.7	1.8	2.4	55	1	0.8	0.2	28
85	35.5	18.4	13.7	29	0.2	10.4	6.4	1036	1.69	8.4	64.6	<.5	4.6	52	0.2	0.5	1	28
86	7.5	17.4	7.5	28	<.1	17.3	5.6	340	1.8	7.7	6.2	1.2	10.6	29	0.1	0.5	1	33
87	12.1	5.7	8	22	0.1	7	4.2	270	1.99	7.8	41.3	1.2	8.5	34	<.1	0.4	0.5	43
92	11.1	5.2	8.6	22	<.1	7.1	4.3	324	1.76	9.5	52	0.9	5.7	37	<.1	0.4	0.6	38
94	4.3	11.3	9.5	33	<.1	17.3	5.5	355	2.41	8.7	26.2	1.6	15.2	31	0.1	0.6	0.6	48
96	7.1	22.4	37.5	79	0.5	32.8	7.6	870	2.53	21.7	10.8	1.7	25.3	94	0.7	1.4	1.1	44
97	3.7	48.7	30.3	111	0.3	39.8	13.2	545	3.29	71	3.5	2.5	4.5	71	0.8	3.6	0.3	75
98	6.8	63.2	14.1	97	0.2	78.9	15.3	523	3.55	22.7	2.4	3.5	5.2	106	0.5	1.2	0.2	99
101	7.4	8.5	6.4	32	<.1	18.4	6.1	298	1.86	7.1	23.1	0.7	9.1	25	0.1	0.4	0.2	40
102	18.1	7.3	6.3	35	<.1	22	9.3	804	2.85	19.7	11.5	1.1	27.5	27	0.1	0.4	0.2	38
105	10.9	42.7	10.4	71	0.1	60	16.5	999	2.97	37.8	2.8	3.3	1.5	38	0.3	1.7	0.1	76
108	7.6	10.4	14	57	<.1	12.3	7.4	734	2.03	13.6	22.8	<.5	7.8	37	0.2	0.4	0.3	36
109	2.3	52.6	39.5	419	0.2	24.8	9	708	2.31	5.4	9.6	2.1	15.9	26	2.8	0.3	1.2	37
111	4.9	103.3	44.6	141	0.5	73.9	21	707	3.85	52.2	4	3.4	3.1	90	1.1	1.4	0.3	109
RE 111	4.6	105.3	44.5	144	0.5	76.7	22	702	3.8	54.4	3.8	2.3	3.1	84	1	1.5	0.3	105
114	2	4.1	10.3	33	<.1	7.2	3.3	400	1.8	1.8	10.1	<.5	11.9	30	0.2	0.1	0.2	28
117	2.4	39.3	15.5	93	0.2	32.3	12.7	487	2.83	21.9	10	5.3	4.5	65	0.6	1.2	0.2	68
119	0.8	59.2	9.5	69	<.1	61.7	19.2	627	3.52	17.9	0.9	3	5.5	38	0.2	1.6	0.1	83
STANDARD DS7	20.6	108.7	69.7	406	0.9	56.1	9.6	632	2.42	49.3	5	60.6	4.6	72	6.3	5.9	4.6	87

Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se
%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm
0.47	0.086	5	44	0.54	184	0.121	1	0.78	0.05	0.42	0.1	<.01	1.7	0.3	<.05	4	<.5
0.41	0.076	30	36	0.53	78	0.033	<1	0.99	0.015	0.07	0.9	0.02	1.8	0.1	<.05	4	0.8
1.18	0.335	8	44	0.46	864	0.03	2	0.88	0.023	0.08	17.2	0.03	2.7	0.5	0.1	4	2.6
0.17	0.036	22	12	0.12	59	0.023	<1	0.62	0.009	0.1	0.4	0.01	1	0.1	<.05	3	<.5
0.37	0.091	26	25	0.55	133	0.062	<1	1.23	0.019	0.13	0.8	0.01	2.5	0.3	<.05	4	<.5
0.23	0.101	20	38	0.77	84	0.068	1	1.51	0.014	0.17	0.3	0.04	4.5	0.3	<.05	6	<.5
0.72	0.083	26	25	0.5	219	0.011	<1	0.99	0.011	0.09	0.2	0.02	2	0.1	<.05	3	<.5
0.18	0.054	18	71	0.32	29	0.048	<1	0.5	0.009	0.06	0.7	0.01	1.3	0.1	<.05	3	<.5
0.67	0.109	15	51	1.08	192	0.058	<1	2.16	0.04	0.2	0.5	0.01	7.2	0.4	0.1	7	1.3
0.33	0.029	32	32	0.41	46	0.081	1	0.84	0.011	0.11	0.4	0.02	2.3	0.2	<.05	6	0.6
0.24	0.024	31	16	0.28	39	0.079	<1	0.72	0.009	0.09	0.1	0.01	2	0.2	<.05	5	<.5
0.37	0.037	28	8	0.18	30	0.013	<1	0.68	0.008	0.11	0.1	0.01	1.6	0.2	<.05	4	<.5
0.25	0.024	28	8	0.2	32	0.037	2	0.79	0.009	0.08	0.2	0.01	1.9	0.2	<.05	4	<.5
0.71	0.104	14	28	0.84	134	0.093	<1	2.02	0.046	0.25	0.9	0.02	4.1	0.3	<.05	7	1
0.42	0.033	31	10	0.27	41	0.074	3	1.13	0.012	0.1	0.2	0.01	2.1	0.2	<.05	5	<.5
0.72	0.102	15	29	0.78	125	0.08	1	1.81	0.043	0.23	1.3	0.02	3.6	0.3	<.05	6	0.8
0.73	0.089	15	47	0.67	207	0.016	2	0.91	0.014	0.13	0.2	0.03	2.6	0.1	<.05	3	<.5
0.52	0.068	15	30	0.59	193	0.026	3	0.96	0.018	0.12	0.3	0.02	2.5	0.1	<.05	3	<.5
0.46	0.069	15	28	0.55	202	0.024	1	0.9	0.016	0.11	0.3	0.01	2.2	0.1	<.05	3	<.5
1.69	0.109	10	301	0.39	187	0.003	1	0.46	0.01	0.1	0.9	0.1	5.9	0.6	0.2	1	2.3
1.48	0.119	12	12	0.38	194	0.003	1	0.48	0.01	0.1	0.3	0.08	5.3	0.6	0.19	1	2.5
0.84	0.083	18	143	0.53	169	0.028	<1	1.21	0.016	0.1	0.5	0.01	2.8	0.1	<.05	5	0.6
0.97	0.081	18	12	0.56	181	0.03	<1	1.26	0.015	0.11	0.2	<.01	2.9	0.1	<.05	4	<.5
2.7	0.115	24	102	0.34	217	0.015	7	0.69	0.036	0.11	1.7	0.08	2.3	0.2	0.22	2	7.6
1.33	0.115	18	22	0.54	407	0.024	3	1.17	0.021	0.14	0.6	0.04	2.5	0.2	0.09	4	3.5
0.51	0.079	17	52	0.54	371	0.035	1	1.23	0.023	0.09	0.3	<.01	3.3	0.1	<.05	4	<.5
0.37	0.092	28	36	0.47	80	0.053	2	0.87	0.028	0.12	0.8	0.01	1.8	0.2	0.06	3	0.8
0.53	0.086	14	39	0.58	307	0.033	1	1.31	0.022	0.09	0.3	0.01	3.2	0.1	<.05	4	<.5
0.93	0.116	15	43	1.02	227	0.077	1	2.55	0.065	0.27	3.4	0.04	5.5	0.4	<.05	7	1
0.54	0.099	21	208	0.48	256	0.047	<1	1.28	0.031	0.12	3.1	0.01	2.3	0.2	0.06	4	0.7
0.97	0.119	16	42	1.11	262	0.081	1	2.71	0.066	0.32	4.5	0.06	6.3	0.4	<.05	8	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.63	0.066	11	48	0.68	113	0.071	3	1.68	0.045	0.22	4.1	0.02	4.1	0.6	<.05	6	0.8
0.63	0.078	20	111	0.79	107	0.05	1	1.26	0.018	0.18	0.3	0.04	5.1	0.5	<.05	5	0.6
0.76	0.075	10	35	0.68	76	0.066	1	1.87	0.035	0.19	5.6	0.01	3.7	0.3	0.07	6	1
0.93	0.079	12	169	1.06	374	0.123	40	0.97	0.077	0.44	3.8	0.2	2.6	4.2	0.2	5	3.4
0.61	0.099	7	58	0.67	197	0.133	2	0.95	0.056	0.46	0.1	0.01	2.1	0.4	0.06	5	<.5
0.23	0.062	26	173	0.35	83	0.044	2	0.79	0.014	0.09	1.8	<.01	1.7	0.1	<.05	3	0.7
0.57	0.071	24	17	0.41	98	0.046	1	1.27	0.025	0.16	4.8	0.03	3.2	0.3	0.11	4	1.6
0.25	0.075	27	171	0.43	113	0.042	2	1.48	0.016	0.08	4.4	0.02	2.1	0.1	<.05	5	0.5
0.34	0.055	17	30	0.51	70	0.059	1	1.11	0.031	0.18	1.5	0.03	2.8	0.1	<.05	4	0.5
0.26	0.062	19	234	0.8	73	0.068	<1	1.24	0.012	0.15	1	0.02	4.3	0.1	<.05	5	0.6
0.49	0.1	31	36	0.9	178	0.029	<1	1.91	0.025	0.2	0.3	0.02	5.8	0.2	<.05	6	0.5
0.4	0.087	29	127	0.8	158	0.029	2	1.61	0.022	0.18	0.9	0.01	5.3	0.2	<.05	5	0.7
0.36	0.089	18	51	0.72	162	0.069	1	1.73	0.021	0.14	0.6	0.01	4	0.2	<.05	5	0.7
0.41	0.076	16	145	0.72	88	0.035	1	1.19	0.017	0.09	0.4	0.01	3.5	0.1	<.05	4	0.6
0.89	0.109	11	78	1.66	175	0.135	1	3.26	0.047	0.42	0.4	0.03	9.1	0.3	<.05	10	2.6
0.52	0.079	15	105	0.68	105	0.032	1	1.25	0.016	0.09	0.4	0.01	3.4	0.1	<.05	4	0.8
1	0.073	11	20	0.47	165	0.02	1	0.95	0.019	0.1	0.9	0.02	3.2	0.1	0.07	3	2.3
0.62	0.062	10	37	0.46	149	0.018	1	0.84	0.017	0.08	0.4	0.02	2.5	0.1	<.05	3	1.3
0.53	0.061	14	24	0.64	116	0.033	1	1.18	0.027	0.1	0.4	0.01	2.6	0.1	<.05	4	0.8
0.4	0.048	14	111	0.47	76	0.03	1	0.87	0.024	0.08	0.4	0.01	2.1	0.1	<.05	3	<.5
0.39	0.048	12	96	0.49	73	0.031	2	0.89	0.024	0.08	0.4	<.01	2.1	0.1	<.05	3	0.8
1.69	0.113	27	23	0.59	244	0.014	4	1.32	0.026	0.12	0.4	0.04	3.4	0.2	0.11	4	5.2
0.73	0.063	17	72	0.52	151	0.031	<1	1.19	0.026	0.12	1.4	0.02	3	0.1	<.05	4	1.7
0.88	0.072	15	28	0.53	81	0.047	1	1.41	0.031	0.14	7.1	0.03	3.2	0.2	<.05	5	1.3
0.75	0.061	14	77	0.44	69	0.041	<1	1.21	0.024	0.12	5.4	0.02	2.7	0.2	0.06	4	1.3
0.61	0.079	17	30	0.64	110	0.055	2	1.63	0.038	0.15	7.7	0.01	3.8	0.2	<.05	5	<.5
0.77	0.083	14	88	0.82	126	0.061	<1	2.01	0.028	0.18	5.5	0.02	5	0.3	<.05	6	1.1
1.18	0.075	16	40	0.81	132	0.053	3	1.93	0.034	0.22	1.3	0.03	4.1	0.2	0.09	6	1.4
0.82	0.061	17	174	0.71	113	0.06	<1	1.58	0.034	0.2	2.4	0.02	3.9	0.1	<.05	5	1.7
0.98	0.094	16	48	1.14	149	0.066	1	2.54	0.044	0.33	0.7	0.04	5	0.2	0.17	7	1.9
0.67	0.069	19	126	0.92	114	0.059	<1	1.9	0.038	0.27	0.9	0.01	4.2	0.2	0.2	6	0.7
0.82	0.079	19	30	0.67	91	0.059	1	1.65	0.04	0.21	0.8	0.02	3	0.1	<.05	5	1.5
0.59	0.068	15	194	0.68	79	0.066	<1	1.47	0.042	0.2	0.9	0.02	3.3	0.1	<.05	5	0.7
0.59	0.119	22	24	0.58	110	0.064	<1	2.17	0.031	0.23	0.5	0.02	4.1	0.2	<.05	5	0.8
0.52	0.076	25	46	0.58	145	0.07	<1	1.61	0.038	0.26	0.5	0.01	5.3	0.2	<.05	5	<.5
0.67	0.074	26	40	0.59	86	0.072	<1	1.61	0.048	0.23	1.2	0.03	4.2	0.2	<.05	4	0.8
0.48	0.087	31	34	0.77	169	0.031	2	1.73	0.024	0.18	0.2	0.01	5.3	0.1	<.05	5	0.7
0.55	0.097	28	38	0.77	157	0.031	<1	1.62	0.027	0.17	0.8	0.01	5.1	0.1	<.05	6	0.5
0.35	0.075	41	15	0.37	62	0.066	<1	1.01	0.018	0.16	0.5	0.01	2.8	0.2	<.05	5	0.5
0.94	0.08	12	183	1.05	380	0.125	40	0.98	0.078	0.45	3.7	0.21	2.6	4.3	0.18	4	3.6
0.57	0.092	7	53	0.61	199	0.13	1	0.93	0.058	0.49	0.1	<.01	1.9	0.4	<.05	5	<.5
0.27	0.061	40	19	0.3	46	0.055	1	0.72	0.015	0.14	0.7	0.01	2.1	0.2	<.05	4	<.5
0.26	0.074	31	8	0.37	104	0.042	<1	0.9	0.023	0.12	0.3	0.01	1.8	0.2	<.05	5	<.5
0.22	0.068	36	10	0.29	75	0.039	<1	0.68	0.008	0.08	0.3	0.01	1.5	0.2	<.05	4	<.5
0.53	0.101	16	35	0.8	117	0.041	2	1.4	0.017	0.09	0.3	0.02	3.5	0.1	<.05	5	0.5
1.38	0.084	14	32	0.9	91	0.049	3	1.46	0.023	0.11	0.3	0.02	4	0.1	<.05	4	1.6
9.62	0.076	8	21	0.52	92	0.019	9	0.8	0.018	0.07	0.2	0.03	2.2	0.1	0.13	3	3.8
0.92	0.11	16	34	0.92	228	0.064	1	2.39	0.063	0.27	4	0.04	4.9	0.3	0.07	7	1.4
0.64	0.088	17	60	0.97	146	0.054	1	1.3	0.023	0.12	0.2	<.01	3.2	0.1	<.05	4	<.5
0.66	0.05	15	19	0.39	79	0.028	2	0.88	0.024	0.07	0.1	0.02	2.2	0.1	<.05	3	0.6
0.6	0.047	35	17	0.32	171	0.017	<1	0.75	0.011	0.05	0.8	0.01	1.6	0.1	<.05	3	<.5
0.29	0.053	24	32	0.41	67	0.036	<1	0.58	0.011	0.07	0.7	<.01	1.7	0.1	<.05	3	<.5
0.26	0.043	23	20	0.3	84	0.024	<1	0.52	0.012	0.06	1.7	<.01	1.1	0.1	<.05	3	0.6
0.29	0.036	20	19	0.28	104	0.02	<1	0.59	0.01	0.05	2.1	0.01	1.2	0.1	<.05	3	0.8
0.34	0.077	24	33	0.42	76	0.039	1	0.73	0.019	0.09	0.7	<.01	1.7	0.1	<.05	3	<.5
2.51	0.073	16	49	0.63	51	0.041	<1	0.88	0.019	0.1	3.9	<.01	2.2	0.1	0.08	4	<.5
0.99	0.098	11	55	1.07	97	0.084	2	1.67	0.057	0.24	0.9	0.01	4.5	0.2	<.05	6	0.8
0.81	0.104	11	118	1.29	138	0.151	1	2.19	0.104	0.46	0.4	<.01	6	0.3	<.05	7	0.5
0.42	0.062	22	34	0.45	52	0.045	<1	0.73	0.015	0.08	1.9	0.01	1.3	0.1	<.05	4	<.5
0.3	0.067	15	32	0.42	51	0.043	<1	0.63	0.013	0.07	2.4	<.01	1.4	0.1	<.05	3	<.5
0.72	0.093	10	87	1.25	172	0.049	1	1.85	0.023	0.1	0.4	0.04	4.3	0.1	<.05	5	0.5
0.32	0.065	26	21	0.39	74	0.036	<1	0.79	0.014	0.08	0.6	0.01	1.7	0.1	<.05	3	<.5
0.34	0.077	22	38	0.51	73	0.058	<1	1.04	0.013	0.14	0.8	0.01	2.7	0.3	<.05	6	<.5
0.79	0.087	8	108	1.49	122	0.148	<1	2.3	0.045	0.43	0.3	0.01	8.1	0.4	<.05	8	0.5
0.85	0.091	8	105	1.36	120	0.146	<1	2.17	0.044	0.44	0.3	0.01	8.1	0.4	<.05	9	0.5
0.23	0.07	26	14	0.31	45	0.036	<1	0.55	0.011	0.06	0.4	<.01	1.4	<.1	<.05	3	<.5
0.53	0.084	13	52	0.8	89	0.082	1	1.79	0.034	0.18	0.3	0.02	4.8	0.2	<.05	7	2.4
0.5	0.107	11	96	1.5	108	0.119	<1	2.02	0.018	0.22	0.2	<.01	5.3	0.2	<.05	6	<.5
0.94	0.082	12	171	1.08	374	0.129	39	0.99	0.079	0.45	3.8	0.2	2.6	4.2	0.19	5	3.4

APPENDIX D

ACME ANALYTICAL LABORATORIES LTD. SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

ANALYTICAL METHODS

At Acme Analytical Laboratories Ltd., soil samples were dried at 60° C prior to sample preparation, then sieved to –80 mesh. A 50-gram sample was then leached with 3 millilitres of 2-2-2 $HCL-HNO_3-H_2O$ (Aqua Regia and water mixture) at 95º C for one hour, diluted to 10 millilitres and analyzed by inductively coupled plasma emission spectroscopy (ICP-ES) for 36 elements.