Geological Mapping with Rock and Till Sampling on the Doug 1, 2 & 4 Claims, MacDougal Creek, Clearwater, BC

Kamloops Mining Division
92P/9E and 82M/12W
Long.: 120°00', Lat.: 51°33'
5715075N 707900E, UTM Zone 10

July, 2000

Owner/Operator: Spokane Resources Ltd.

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Table of Contents

List of Figures

List of Tables

List of Appendices

Summary

The McDougal Creek claims are located 120 kilometers north of Kamloops, BC and 10 kilometers south of Clearwater, BC. The property covers parts of map sheets 92P/9E and 82M/12W and the main grid start point is at 5715075N 707900E, UTM Zone 10 (92P/9E). The property is in the Adams Plateau region and is rugged, hilly upland. Barrier Reef Resources Ltd. first staked claims in the area of McDougal Creek in 1978 as part of an area play following the discovery of mineralization at the Chu Chua deposit 10 kilometers south southwest. Craigmont Mines Ltd optioned the claims as part of the play. They did an airborne EM/mag survey but little else on the Barrier Reef Resources Ltd. claims. Craigmont's primary interest was in the Foghorn property three kilometers south east of the claims. Craigmont had disappointing drill results on the Foghorn property and as a result dropped all its options. Esso Resources Ltd. optioned several claim groups in the area and did follow up ground geophysics. Shortly after this work, Esso dropped its options. Lucero Resources Ltd. staked the MC claims following the discovery of the Samatosum deposit in 1987 and optioned them to Pilgrim Holdings Ltd. They did more, detailed geophysics and geochemical work in 1988. The property was subsequently optioned to Initial Developers Ltd. in 1990. They drilled five diamond drill holes. Of the five holes, one cut zinc-lead mineralization with a best intercept of 2.48% zinc, 0.88% lead and 40 g/t silver over 2 meters within a broad stringer zone. The claims were later allowed to lapse.

In November 1998, Spokane Resources Ltd. staked three blocks of claims, totalling 55 units, covering the central MC ground including the main geophysical anomalies and drilling sites. A program of line cutting, ground HLEM and prospecting was done. In July and August of 2000, the Company performed a program of geological mapping with rock and till sampling. The Doug claims are underlain by a sequence of marine sediments and largely tuffaceous volcanic rocks. The package is folded into a tight synform and trends north northwest. Mineralization is strongest and most extensive within the sediments. Examination of the volcanic rocks did not show any significant alteration pipe or trend that might be associated with a VMS deposit. Lithogeochemical examination shows that the strongest metals and pathfinder anomaly is situated in the southwest corner of the grid and off it to the southwest. Till geochemistry works well and picks up the mineralized zone. It is unlikely that significant VMS mineralization is exposed at surface or near surface on the property. However, on the strength of the lithogeochemistry, till sampling, BCGS stream geochemistry and the presence of the Joseph showing, there may be stronger mineralization in the intervening ground south of the grid. The till sampling appears to work well and has good sensitivity to mineralization. Also, the HLEM in-phase geophysics did a good job of picking up the phyllite units and so serves as a good pathfinder for the sediment package. There is still good potential on the southern end of the property and across the creek valley to the Joseph showings.

Location and Access

The MacDougal Creek claims are located 120 kilometers north of Kamloops, BC and 10 kilometers south of Clearwater, BC (Figure 1). Access is from Highway 1 to the Clearwater ski hill and either left and up the Russel-Hascheck Creek forestry road or right and up the Blackpool forestry road. The Russel-Hascheck Creek road access leads directly to the base line at the south end of the grid. The Blackpool Creek road leads to a logging cut approximately 600 meters to the north end of the grid (Figure 1). Both roads are locked and access is monitored by the Clearwater Improvement District office in the town of Clearwater . Approximately three-quarters of the grid is within the Russel Creek community watershed.

The property covers parts of map sheets 92P/9E and 82M/12W and the main grid start point is at 5715075N 707900E, UTM Zone 10 (92P/9E). The UTM boundary between zones 10 and 11 roughly splits the property in half, north-south.

The property is in the Adams Plateau region and is a rugged, hilly upland. The area is characterized by the low valley bottom of the North Thompson River at about 455 meters elevation and rises sharply to about 1675 meters base elevation for the plateau. The mountain tops range from 1830 to 2130 meters elevation. The slopes are thick with tall, close spaced fir and spruce forest. Open areas are thick with buck brush and similar vegetation. Swamps and small lakes dot the uplands in virtually every depression. The mosquito population is generally very healthy and voracious. Close bush and rough slopes make travel difficult off the logging roads and cut lines. The region receives abundant rainfall in the summer and an equivalent amount of snow in winter.

History

Barrier Reef Resources Ltd. first staked claims in the area of McDougal Creek in 1978 as part of an area play following the discovery of mineralization at the Chu Chua deposit. Craigmont Mines Ltd. flew an airborne EM and magnetic survey and identified several conductors. No further work was donein the MacDougal Creek area due to a lack of access at the time. Craigmont Mines drilled several holes on the adjacent Foghorn property to the south and had discouraging results. They then dropped their option on the claims. Esso Resources Ltd. optioned the claims as well as the Foghorn ground in 1972. A ground EM survey was done over a target known as the "A" anomaly identified by Craigmont Mines Ltd. (*see* Figure 2: Previously drilled area) A road was started towards the "A" anomaly but never completed. (This access has since been extended by recent logging activity.) Esso Resources Ltd. dropped their option shortly thereafter and the claims were allowed to lapse.

Following the discovery of the Samatosum deposit in 1987, the MC claims were staked by Lucero Resources Ltd. to cover the original claim area and optioned to Pilgrim Holdings Ltd. They did more detailed geophysics and geochemical work in 1988 (J.M Dawson, 1988; P.E. Walcott, 1988). The property was subsequently optioned to Initial Developers Ltd. in 1990. They drilled five diamond drill holes on the "A" anomaly (N.

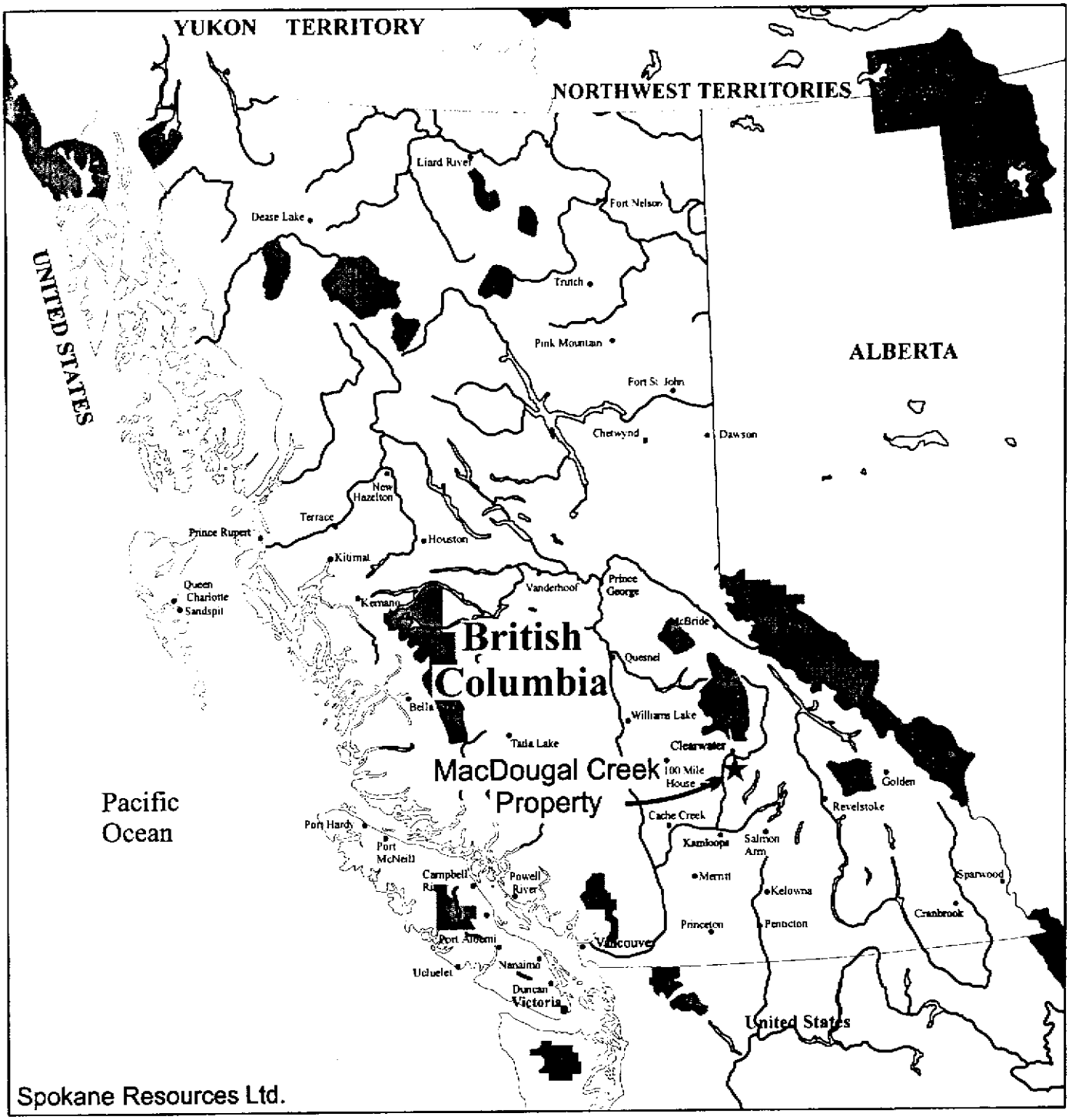
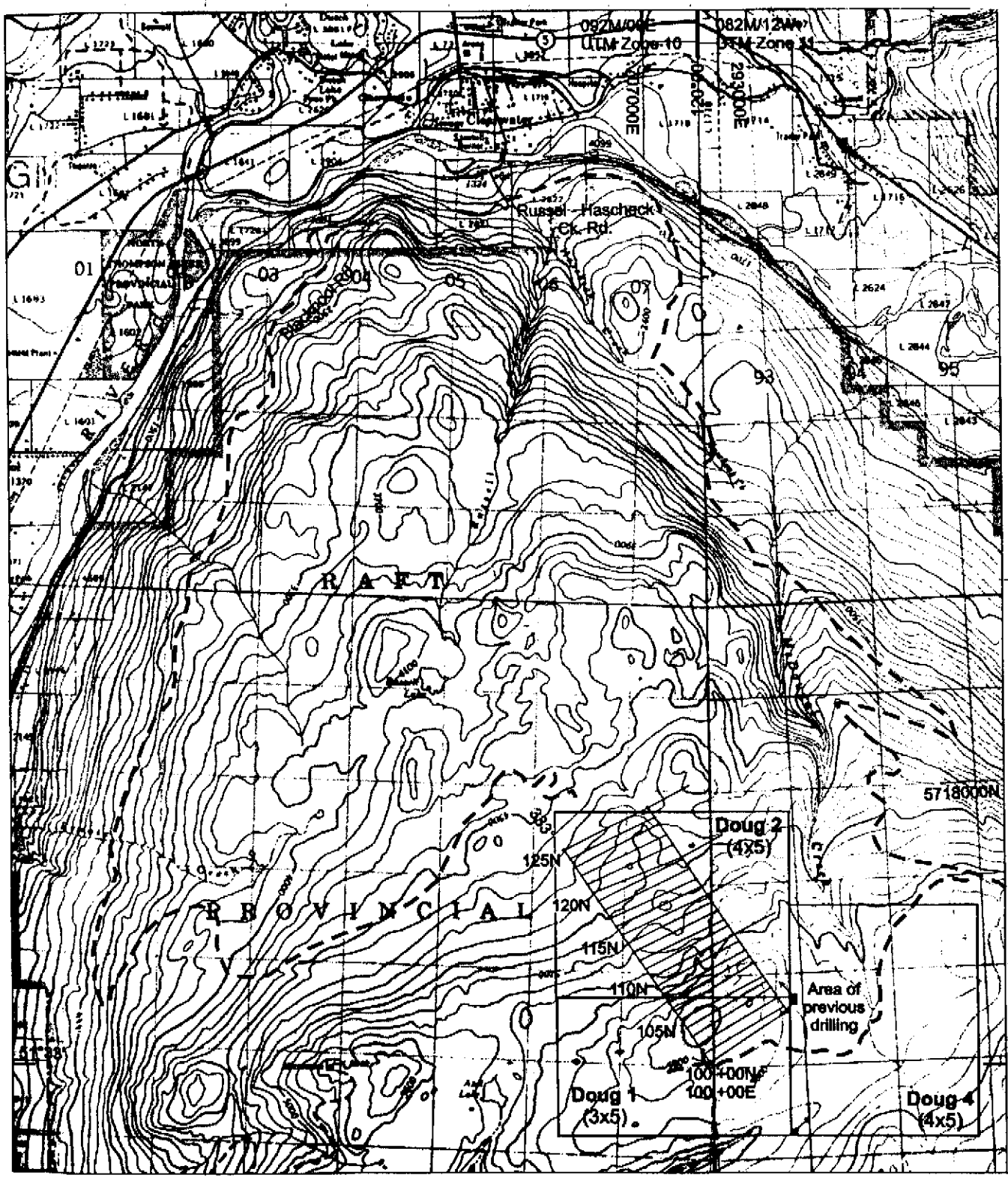


Figure 1: Location of MacDougal Creek Property



N

Legend

- Highway
- Secondary road
- Logging road (approx.)
- Claim block — Doug 1
- Legal Corner Post
- Cut lines

Scale

1000 0 1000 2000

meters

Spokane Resources Ltd.

Figure 2: Location of Claims, Grid and Previous Drilling

Vollo, 1990) (*see* Figure 2: Previously drilled area). Of the five holes, Hole 90-3 cut zinc-lead mineralization with a best intercept of 2.48% zinc, 0.88% lead and 40 g/t silver over 2 meters within a broad stringer zone. The mineralization was adjacent to the contact of andesite with rhyolite. Four other holes (90-1, 2, 4 & 5) cut broad zones, 14 to 15 meters wide, of semi-massive pyrite mineralization in altered or siliceous rhyolite. Following the drilling program there are no records of work and the MC claims lapsed.

The Doug claims were staked in late November 1998 and comprise 55 units in three blocks. The claims cover the central part of what was staked as the MC claims and includes the main geophysical anomalies and drilling sites.

Claims Status

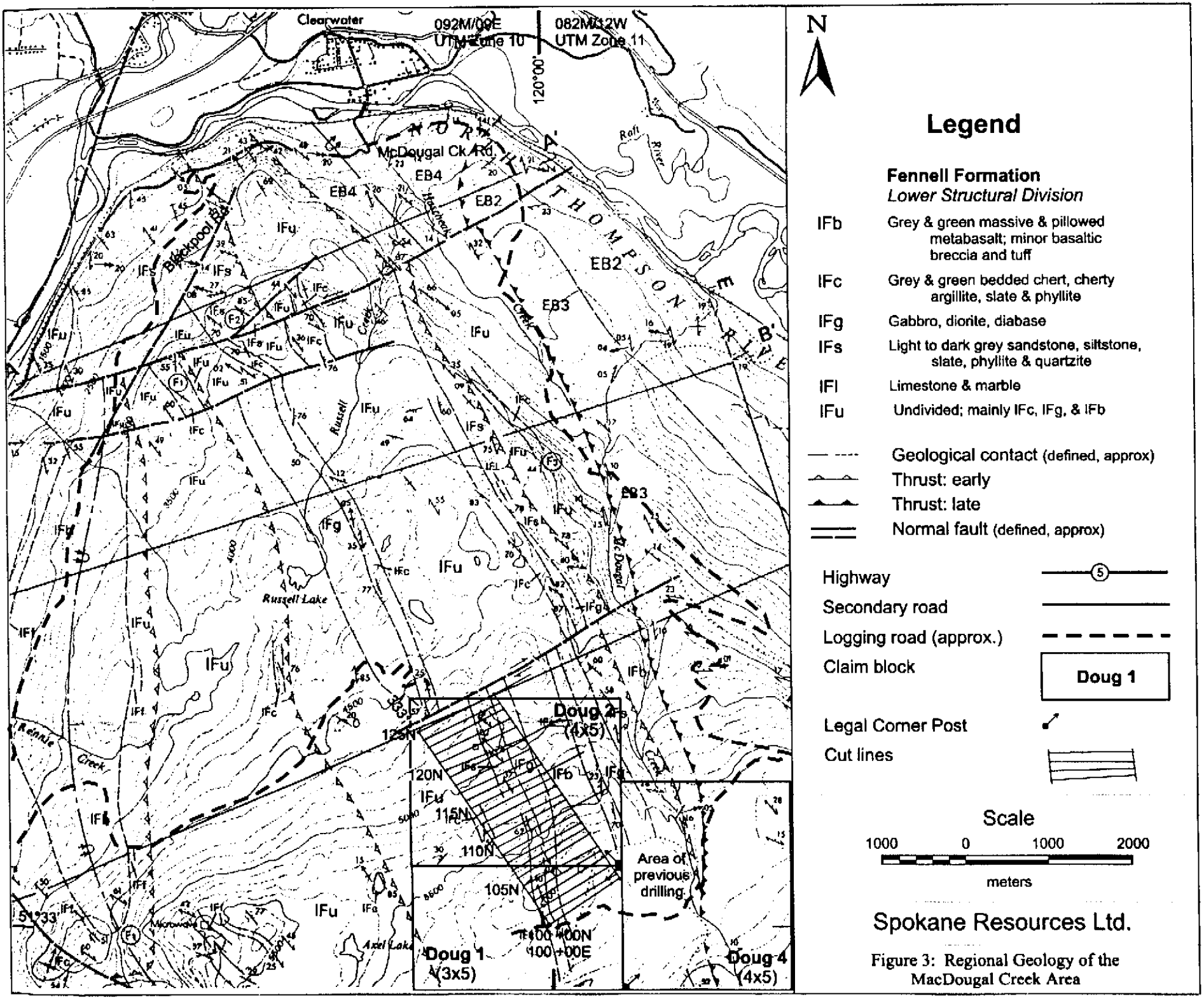
Claim Name	Tenure Number	Number of Units	Expiry Date	Owner
Doug 1	367232	15	Nov. 19, 2005	Spokane Resources Ltd.
Doug 2	367233	20	Nov. 24, 2005	Spokane Resources Ltd.
Doug 4	367234	20	Nov. 22, 2005	Spokane Resources Ltd.

Table 1: Claims Status

Regional Geology

The regional geology of the area is summarized briefly from the work of Schiarizza (1981) and Schiarizza and Preto (1987) of the BC Ministry of Energy and Mines. Rocks of the Devonian to Permian Fennell Formation within the Slide Mountain terrane underlie the property area (Figure 3). It is comprised of several thrust slices and the property is underlain by a fault slice of the lower Fennell Formation. The most prominent rock types are grey and green massive to pillow basalt and related fragmental rocks and tuffs. These rocks are very uniform throughout the succession and it is difficult to define stratigraphy on a local scale. Grey and green chert, cherty argillite and interbeds of slate and phyllite are the next most prominent rock unit. This unit is discontinuous and may grade into grey sandstone, slate, phyllite and quartzite along strike. Intruded into the succession are massive fine to coarse-grained gabbro sills and dykes as well as some extrusive equivalents.

The Fennell Formation is structurally imbricated by steep, east verging thrusts and has been emplaced against the age equivalent Eagle Bay Formation to the east. Three, in some places four, thrust panels have been identified within the Fennell Formation. However, due to the uniformity of the lithologies and poor age date control, there may be other unidentified panels. Bedding is sub-vertical and west facing. Metamorphism is of greenschist grade.



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Legend

Fennell Formation
Lower Structural Division

IFb	Grey & green massive & pillowed metabasalt; minor basaltic breccia and tuff
IFc	Grey & green bedded chert, cherty argillite, slate & phyllite
IFg	Gabbro, diorite, diabase
IFs	Light to dark grey sandstone, siltstone, slate, phyllite & quartzite
IFl	Limestone & marble
IFu	Undivided; mainly IFc, IFg, & IFb

Geological contact (defined, approx)
Thrust: early
Thrust: late
Normal fault (defined, approx)

Highway (5)
Secondary road
Logging road (approx.)
Claim block — Doug 1
Legal Corner Post
Cut lines

Scale
1000 0 1000 2000
meters

Spokane Resources Ltd.

Figure 3: Regional Geology of the MacDougal Creek Area

Local Geology

Rocks on the property comprise two main groups: clastic volcanic rocks and fine-grained sedimentary rocks plus a minor amount of intrusive rocks. The volcanic rocks have been divided into five tuff sub-categories and a minor component of basalt flows. These rocks are all of basaltic composition and are difficult to distinguish in the field. Greenschist grade regional metamorphism has partially altered and recrystallized the rocks and added to the difficulty. As a result, some of the sub-categories may be equivalent units and are explained below. This, combined with very poor outcrop exposure and distribution, does not allow more than a rudimentary separation on the property scale at this time. Previous work, as well as the current project, indicate that "greenstone" is a convenient label as some of the textural features used for discrimination may be the result of regional metamorphism. However, the author has attempted to use a variety of methods to find distinctions within the volcanic package. The property geology is shown in Figure 4.

Identification of the sedimentary rocks is easier and these rocks outline the geological and structural trend across the property. The rocks comprise a series of fine-grained, probably deep marine, sediments. This includes chert, siliceous sandstone, argillite, phyllite and conglomerates. Described in more detail in the Geochemistry section below, the sediments host the bulk of the mineralized samples.

Intrusive rocks form a minor part of the sequence and are gabbro and granodiorite/quartz monzonite. The gabbro is the most common probably the source for the basalt and some or all of the tuff units. There is a single, large outcrop of granodiorite/quartz monzonite. This may be related to the Mt. Baldy batholith to the south.

The rocks through the main part of the grid appear to be folded into a tight synform. The fold is cored by a sequence of fine–grained sediments and the outer parts are largely basic tuffs. Bedding and foliation measurements show a north northwest trend with sub-vertical dips. Bedding appears to be parallel to foliation. Outside of the grid area, there is insufficient information to define either bedding or structure. Regional mapping by Paul Schiarizza, BC Geological Survey, and private sector workers have defined the same north northwest trend. The regional mapping by the BCGS established an interpreted thrust fault cutting roughly north through the grid area. Mapping work by the Company can neither definitively confirm nor refute this. However, as shown on the property geology map (Figure 4), a thrust fault is not required to tie the rock units together.

Outside of the grid area, only reconnaissance mapping was done and the author has relied heavily on the work of others. Also, the area is mantled with till, typically several metres thick. Outcrop is scarce and generally poor. The best exposures are limited to road cuts and a few steep slopes/cliffs. Rocks east of McDougal Creek, assigned to the Eagle Bay Formation, were not investigated as part of this study.

Rock Descriptions

Volcanic Rocks

T1:	Tuff:	Light green, fine to medium-grained ash, massive: may contain up to 1% pyroxene phenocrysts, to 3 millimetres diameter. Variably chloritized. May contain up to 1% disseminated pyrite grains to 2 millimetres diameter; fresh to strongly oxidized.
T2:	Tuff:	Dark green, fine to medium-grained ash, massive: contains 1 to 5% pyroxene phenocrysts, to 3 millimetres diameter. Variably chloritized. May contain up to 3% disseminated pyrite grains to 2 millimetres diameter; fresh to strongly oxidized.
T3:	Tuff:	Medium to light green, fine to medium-grained ash, massive: contains 1 to 5% pyroxene phenocrysts, to 3 millimetres diameter. Variably chloritized. May contain up to 3% disseminated pyrite grains to 2 millimetres diameter; fresh to strongly oxidized.
T4:	Tuff:	Light green, fine to medium-grained ash, massive: contains 1 to 5% pyroxene and feldspar (plagioclase?) phenocrysts, to 3 millimetres diameter. Variably chloritized. May contain up to 3% disseminated pyrite grains to 2 millimetres diameter; fresh to strongly oxidized. There are few outcrops of this material and it may represent chloritized, fine-grained gabbro dykes.
T5:	Tuff:	Dark green, fine to medium-grained ash, massive: with no pyroxene phenocrysts. May contain up to 1% disseminated pyrite grains to 2 millimetres diameter; fresh to strongly oxidized. There are few outcrops of this material and it may be chloritized basalt flows.
B:	Basalt:	Dark green, fine-grained, massive and may contain 1 to 3% pyroxene phenocrysts, to 2 millimetres diameter. Variably chloritized. May contain up to 3% disseminated pyrite grains to 2 millimetres diameter; fresh to strongly oxidized. This unit may be equivalent to units T2 and T3. The available outcrops do not provide sufficient information to resolve this distinction. The lighter green colour seen in a few outcrops may be due to weathering and chloritization.

Sedimentary Rocks

C:	Chert:	Tan, light green to grey, pearly lustre, typically bedded 5 to 10 centimetres thick and often interbedded with argillite, described below. Bedding is planar with no internal features. Chert contains up to 15 pyrite as disseminated grains and some grain aggregates. Crystals are up to 5 millimetes in diameter and variably oxidized from weak to strong, with empty casts common.

Q: Quartzite: Tan, grey, light green to light brown,, very fine grained to aphanitic, massive. This has a "grainy" appearance but may be equivalent to Chert. Bedding, where seen, is the same as for chert.

S: Quartz Sandstone:
Tan, grey, light green to light brown, medium to coarse grained, massive. May contain a few percent disseminated pyrite grains up to 3 millimetres. Bedding, where seen, is the same as for chert.

A: Argillite: Light green, very fine grained and similar to chert but has definite "grainy" texture (?fine sand – silt). Quartz/silica rich and may have a very weak foliation. Bedding, where seen, is the same as for chert.

P: Phyllite: Black, aphanitic, massive with moderately developed foliation. Usually rusty stain on foliation and fracture surfaces. Variable pyrite content of 1 to 2%, disseminated, 1 to 2 millimetres sized grains that are weakly to totally oxidized. This unit often has quartz crackle veinlets/webs, typically several millimetres wide, centimetre spaced and form less than 5% of the rock volume.

W: Wacke: Light to medium brown, fine-grained sand with abundant (?>20%) silt and clay. Massive with flaggy parting but no bedding seen.

X: Quartz Pebble Conglomerate:
Brown-tan fine-grained wacke matrix with about 20% pebble-sized (5 to 15 mm dia.) clasts. Clasts are sub-rounded to sub-angular, equant and are comprised of chert, quartz sandstone and some tuffaceous volcanics. Unsorted, massive with some flaggy parting that may be bedding parallel or foliation. Only two outcrops of this material were seen.

F: Polymictic Conglomerate:
Light green, silty (argillaceous) matrix, weakly foliated, massive. Clasts are angular and comprised of chert, quartz sandstone and tuffaceous volcanics. Unsorted, massive with some flaggy parting bedding parallel or foliation. Contains interbeds, <50 centimetres thick, and lenses of wacke and argillite/chert. This material is seen only on the hill top that forms the highest point on the property (Station 00KH-C018, Figure)

Intrusive Rocks

G: Gabbro: Medium to dark green, medium to coarse grained, massive. Comprised of blocky pyroxene crystals and feldspar laths in a white feldspathic matrix 'mash'. Rock is generally fresh to weakly chloritized and may contain very small amounts, << ½%, of disseminated pyrite. Gabbro seems to form both dykes and sills though no contact or cross-cutting relationships were seen.

I: Granodiorite (Quartz Monzonite):

Grey-white, fine to medium-grained, massive, salt & pepper intrusion. Seen in only one outcrop, 20 metres in diameter. Appears similar to granodiorite of the Mt. Baldy batholith, several kilometers south.

Geochemistry and Mineralization

A total of 85 rock and till samples were taken as part of the exploration program. This includes 44 volcanic, 29 sediment and 12 till samples. All samples were analyzed for 30 trace and minor elements by ICP. From the volcanic samples, 38 clean, unveined samples were analyzed for 11 major oxides and 10 minor elements including loss on ignition, total carbon and total sulphur. The results are listed in Appendix I. The data was examined and processed to determine significant trends, classifications and alteration in the various rock units. The trace elements were analyzed to determine threshold and anomalous values for copper, lead, zinc, silver and barium. These elements were then contoured to establish anomaly locations and trends. The major and minor elements were use to classify the volcanic rocks. This included examining the results to distinguish geochemical discrimination of individual units. These elements were also used to establish if there is any alteration specifically related to VMS mineralizing processes. Finally, both the trace and major elements were examined and compared with the results from the known Joseph showing to establish any similarities or differences. Across the property quartz veining in common but not abundant in all rock types. The veining comprises webs or close spaced veinlets 2 to 5 millimetres wide of grey-white quarts. Sulphides are rarely associated with the veinlets. Sampling shows that trace metals values in veined rock samples are erratic and similar to unveined rock samples.

The till samples were examined to see if this method can be used on the property to "see through" the abundant till cover. The till samples were taken and examined using the method of Paulen *et al.* (2000) and are described in detail in the Till Sampling Program section. Finally, the regional geochemical survey by the BC Geological Survey shows a copper-zinc anomaly in the north fork of Joseph creek that drains the southern end of the property. There is no stream sediment geochemical anomaly in MacDougal Creek.

Base Metals and Pathfinder Element Profiles

The primary elements of copper, lead, zinc, silver and barium were studied to determine if there was exposed or near surface mineralization. Each element was profiled and checked to determine their respective anomalous levels (Figure 5). The anomalous levels for copper, lead, zinc and barium are as follows: Cu > 75 ppm; Pb > 16 ppm; Zn > 75 ppm and Ba > 165 ppm. There were no samples where silver was above the analytical detection limit. Of the analyses done, there were two methods used to determine the barium content. The results were examined (Figure 5) and shown to be equivalent in terms of geochemical response so the 30 element ICP values were used for purposes of contouring. From this information, the various elements were contoured to determine the geographic location of anomalous areas (Figure 6).

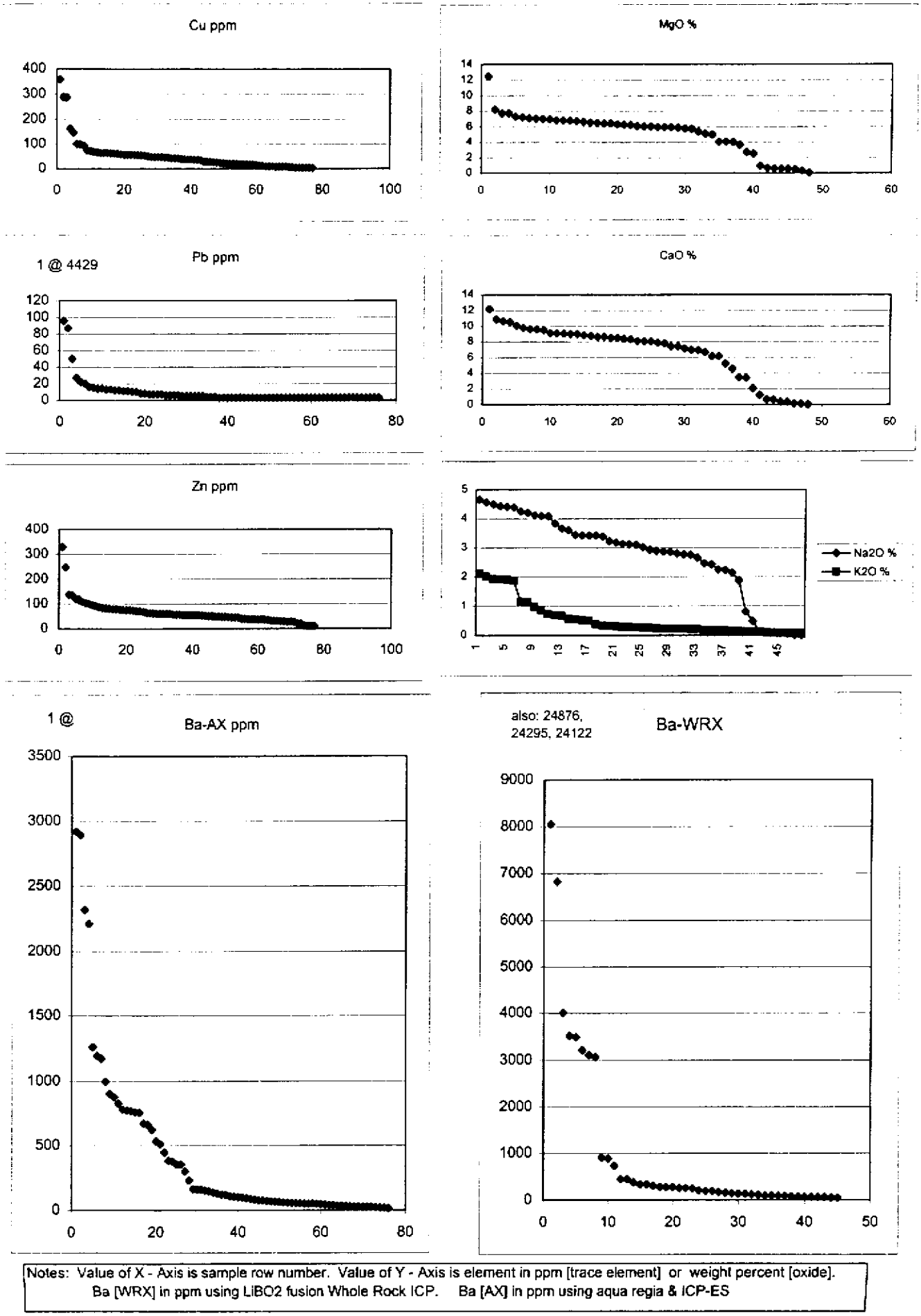


Figure 5: Threshold Levels for Trace Metals and Barium

The results of this work showed that the primary host of metals mineralization is the sediments package with the cherty units being the most favourable lithology. The contoured data showed that the southwest corner of the grid, and off it to the west, had the greatest overall anomalous response. Elsewhere on the grid there were point highs of one or two elements but the lack of outcrop prohibits any conclusions on total extent of mineralization. Currently the geochemical anomalies are open to the north and south along strike.

Geochemical Discrimination Study

A study of the geochemical signatures of the various lithologies, primarily the volcanic rocks was done in an effort to try and find a geochemical signature and provide some lithologic discrimination. A full suite of whole rock analyses, covering 11 major oxides and selected trace elements, were done on 38 of the 44 volcanic rocks samples that were sufficiently clean and unweathered. Also, nine chert samples were examined to see if there was some kind of correlation there as well. Standard discriminant plots were used to examine the volcanic samples. The four plots shown on Figure 7 show a tight grouping of all the samples. As well, CIPW norm calculations also showed that the volcanic rocks are of very similar composition (Appendix II). All of the volcanic rocks are basalt. They are tholeitic and sub-alkaline in composition. The various field designations of the lithologies overlap geochemically and there are no sub-group clusters. As a result, there is no geochemical discrimination between the various volcanic lithologies. The chert samples have similar geochemical signatures and no distinction can be made there either. Samples from the Joseph showing to the south were included in the study for comparison. The results show that these samples have the same compositions to those on the Doug claims and can be assumed to be in the same rock package. This coincides well with field observations.

Geochemical Alteration Study

Further to the geochemical discrimination analysis, the volcanic rocks were studied to determine if a blind VMS deposit may be present. This was done by using a variety of alteration and comparison plots specific to VMS deposits. The method used is described in full in the VMS Short Course notes from the Pathways Conference of January 1999, Franklin and Gibson, 1999. Various mobile and immobile elements, including Y, Zr, Al_2O_3, CaO, Na_2O, K_2O, TiO_2, MgO, Fe_2O_3, Ba, were compared to determine the degree of alteration in the volcanic rocks (Figure 8). The object was to determine if an alteration halo, horizon or pipe is present in the grid area. Also, several standard alteration indices were examined to achieve the same end. These include the Sericite, Chlorite, Spitz-Darling, Residual Silica, Alkali, Hashimoto and Hashgushi indices. These alteration plots and indicies are shown in Figures 9, 10 and Table 2. The comparative plots and most of the index plots show the data as one indistinct cloud with no discernable trend. The Y versus Zr plot shows the these two immobile elements have neither been enriched nor depleted and thus are good benchmark elements. The results of the work show no demonstrable alteration specifically related to VMS mineralizing processes. The Alkali and Hashimoto indices both show weak alteration trends (Figure 10). However, when the individual samples are checked geographically, there is no

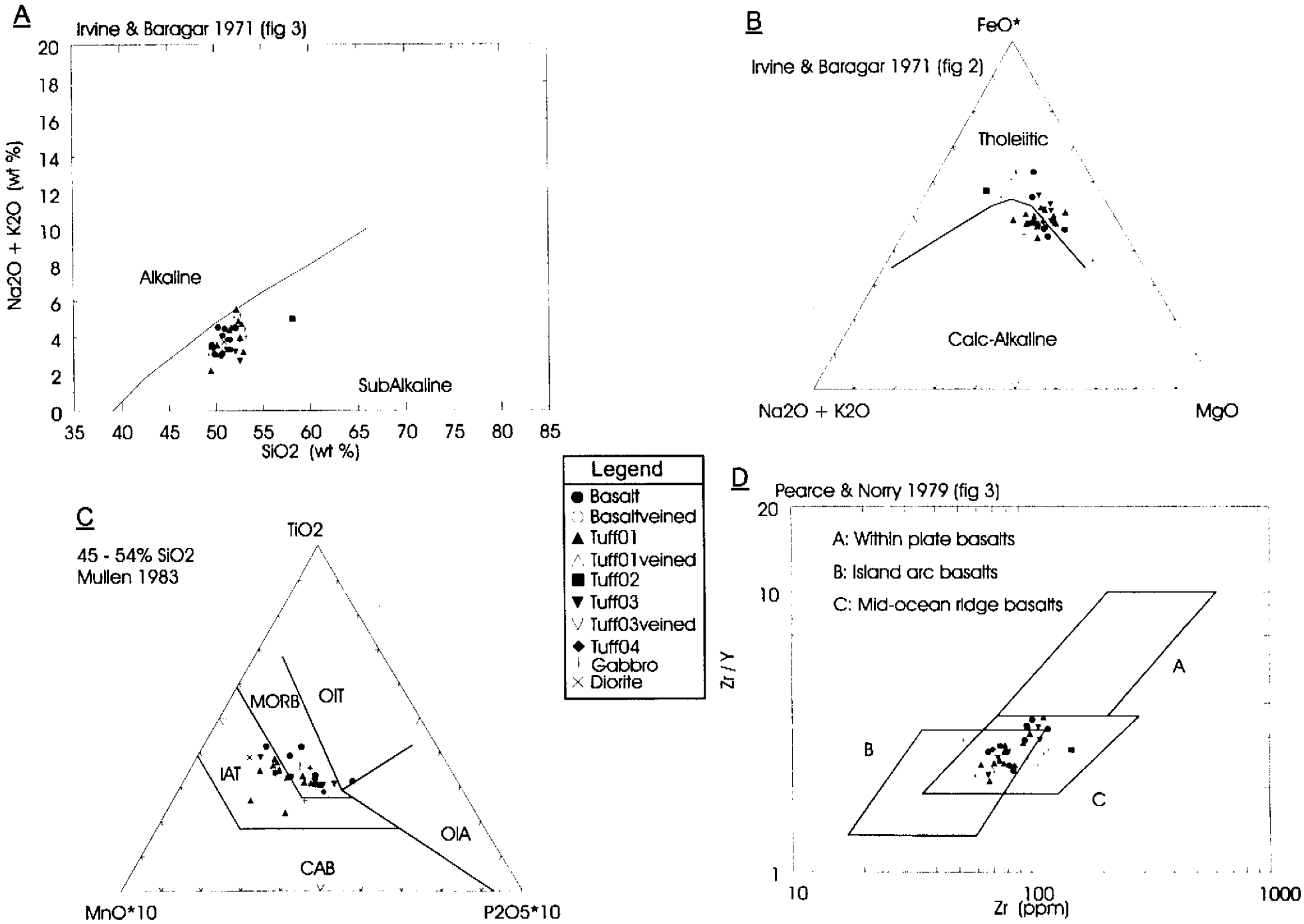
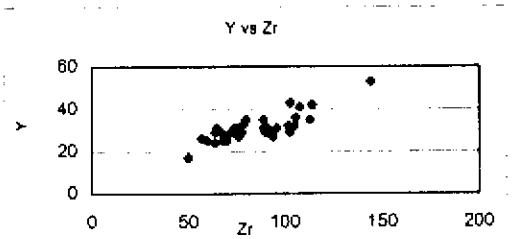
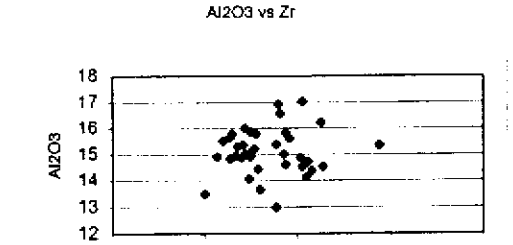
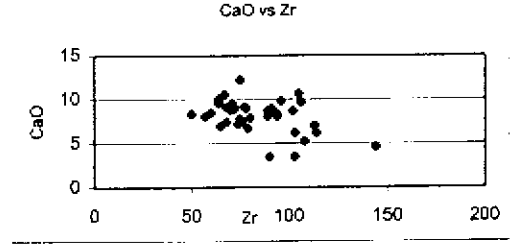
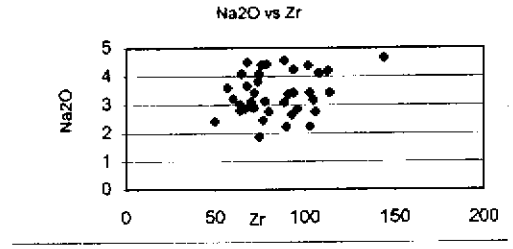


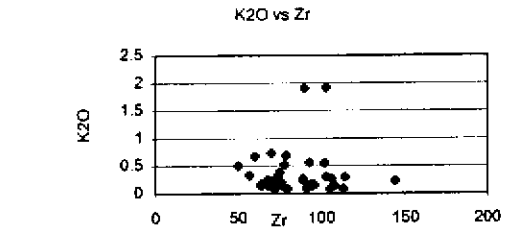
Figure 7: Whole Rock Discrimination Plots: Volcanic Rocks



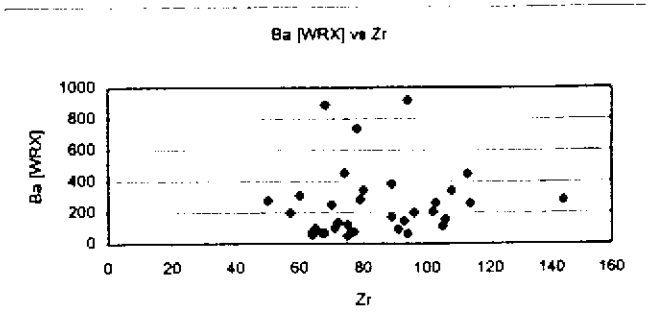


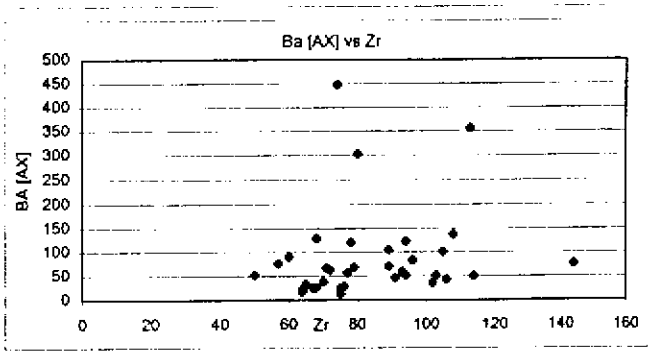


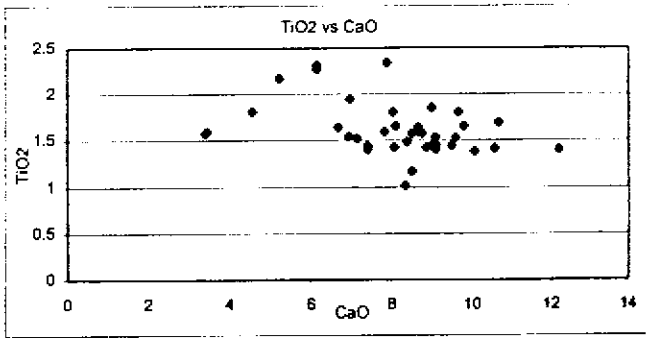


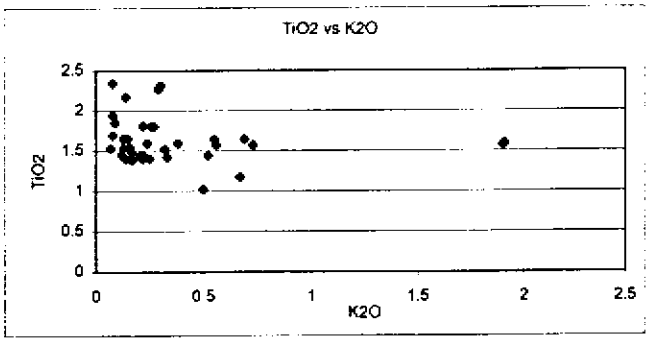


Notes:
Zr values in ppm
Major oxide values in weight percent
Ba [WRX] in ppm using LiBO2 fusion Whole Rock ICP
Ba [AX] in ppm using aqua regia &ICP-ES









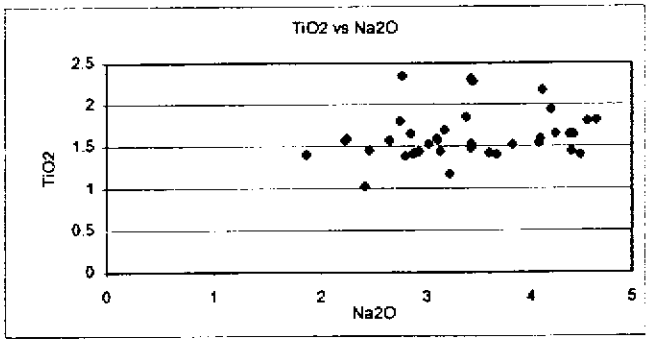
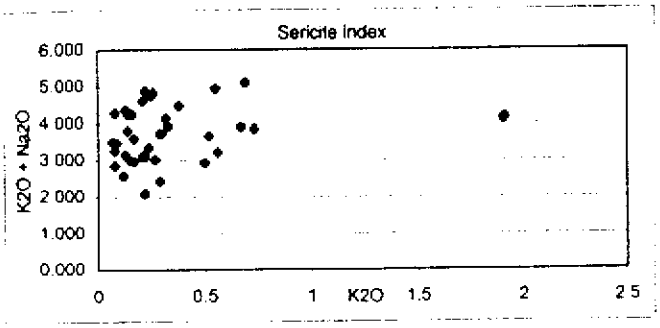
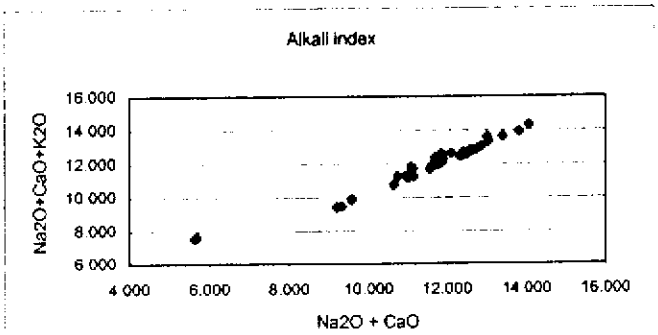
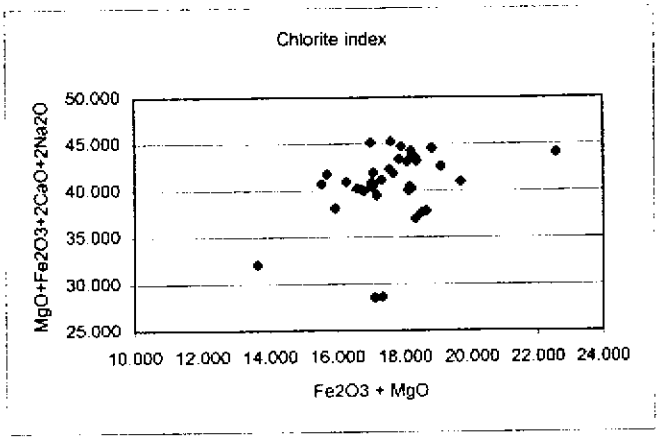
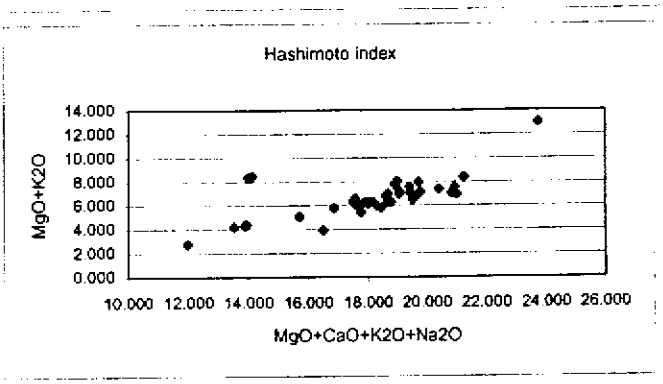


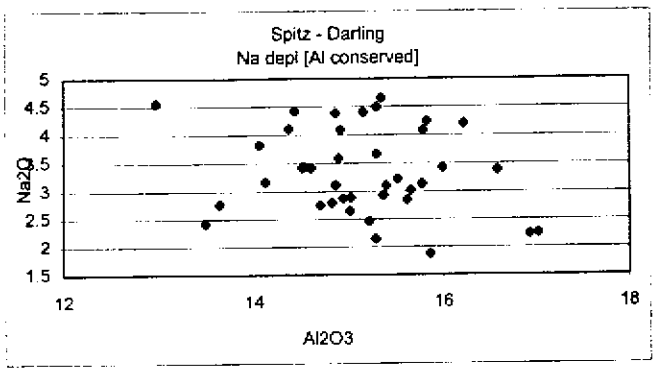
Figure 8: Mobile - Immobile Element Comparitive Plots: Volcanic Rocks

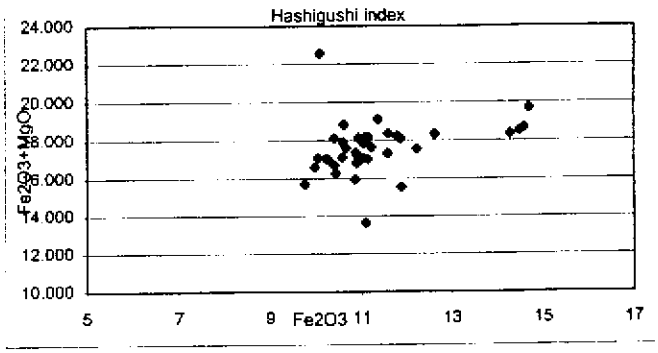


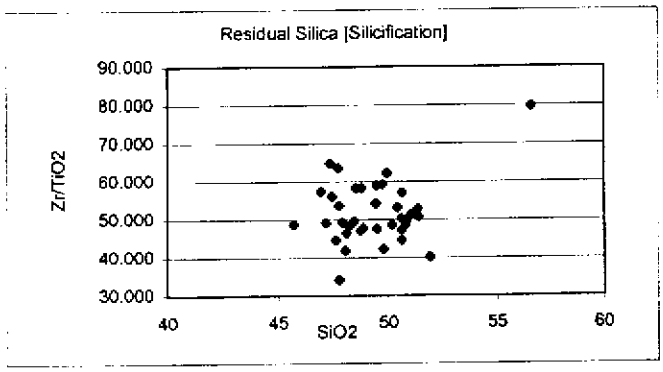












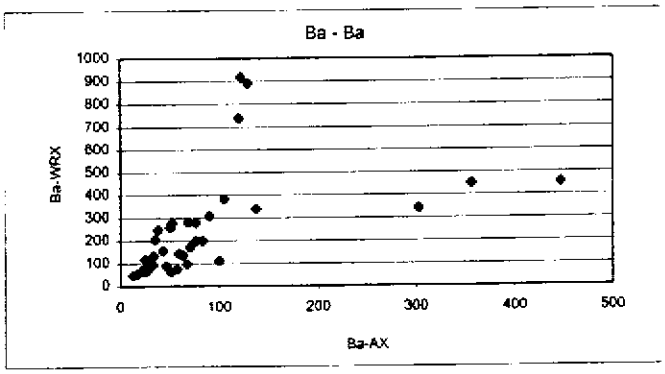
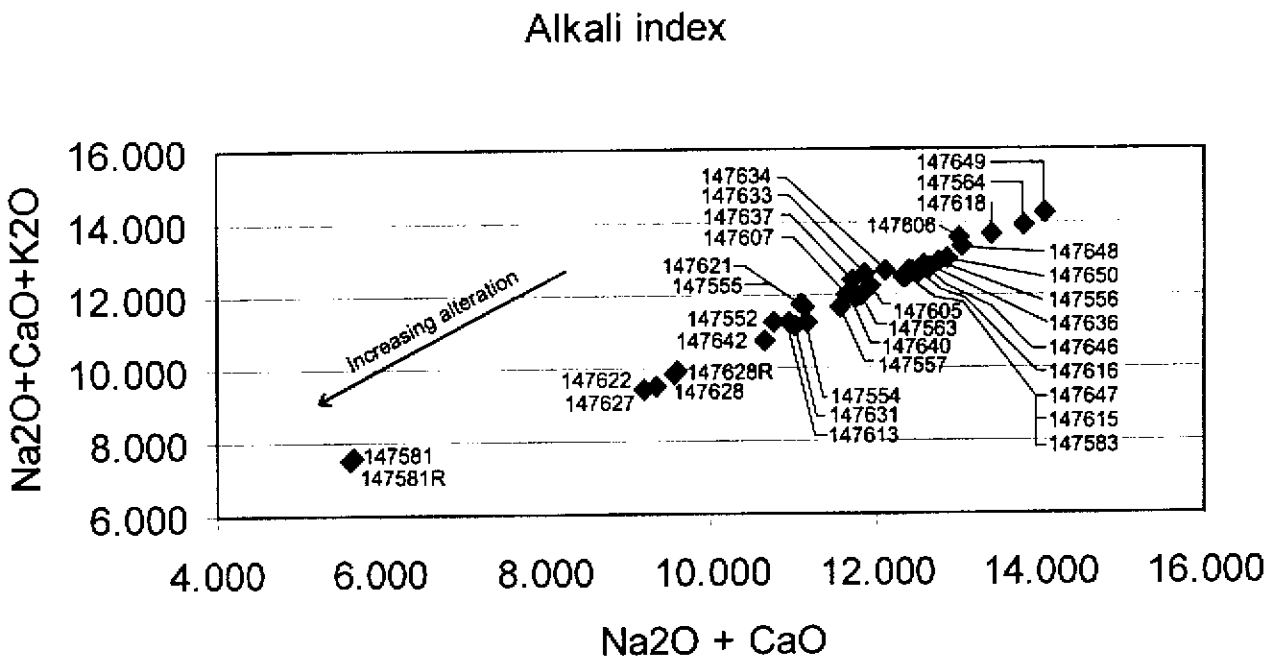


Figure 9: VMS Alteration Index Plots: Volcanic Rocks

A



B

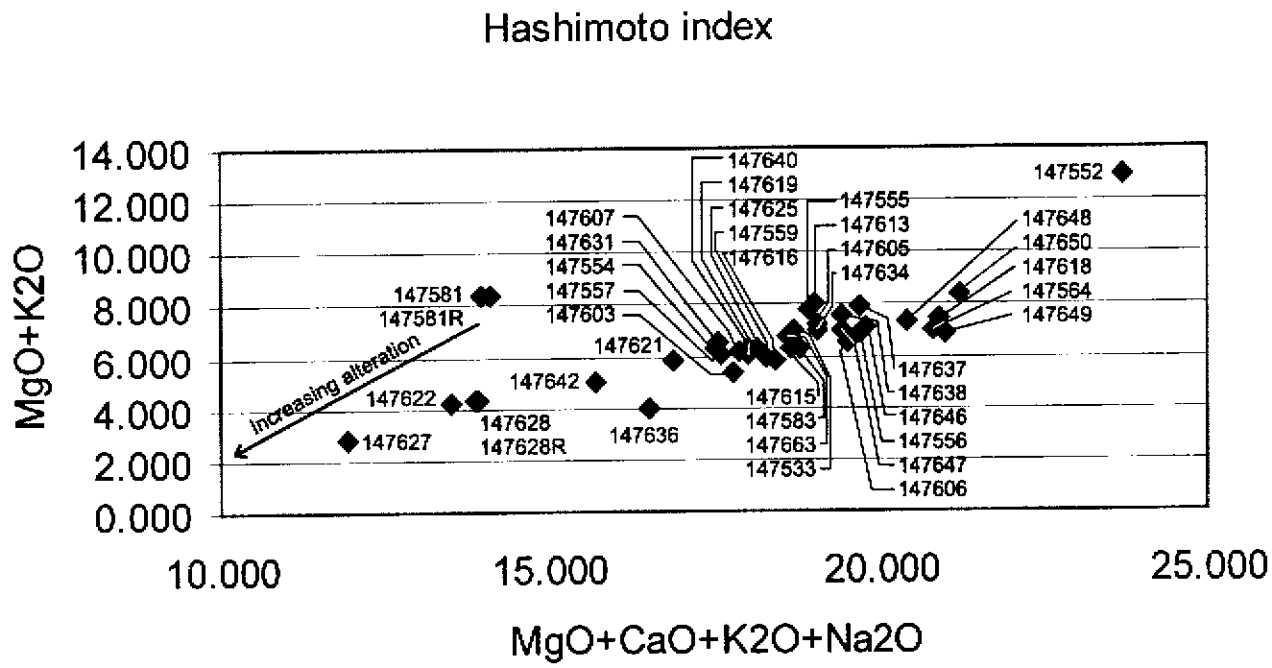


Figure 10: Alkali and Hashimoto Alteration Plots with Sample numbers: Volcanic Rocks

Index / Sample	Sericite	Chlorite	Spitz-Darling	Alkali	Hashimoto	Hashigushi
147601						
147603	0.0259	0.4150	4.9024	0.9928	0.3043	0.6969
147604						
147605	0.0456	0.4200	3.4432	0.9825	0.3806	0.5881
147606	0.1116	0.3760	3.3927	0.9595	0.3325	0.6217
147607	0.0842	0.4224	4.1476	0.9725	0.3484	0.6538
147608						
147613	0.0773	0.4525	3.6806	0.9716	0.4232	0.5740
147615	0.0698	0.4073	5.2423	0.9826	0.3348	0.6467
147616	0.0413	0.4208	5.1821	0.9898	0.3162	0.6889
147617						
147618	0.0712	0.4001	5.2056	0.9839	0.3593	0.5920
147619	0.0850	0.4210	3.6455	0.9691	0.3391	0.6692
147621	0.1350	0.4183	3.2647	0.9414	0.3426	0.6809
147622	0.0329	0.4955	3.4964	0.9852	0.3104	0.7785
147625	0.0527	0.4170	3.4053	0.9794	0.3456	0.6455
147627	0.0452	0.4255	3.2989	0.9767	0.2306	0.8138
147628	0.0806	0.4916	4.2427	0.9696	0.3115	0.7823
147628R	0.0777	0.4930	4.2238	0.9706	0.3125	0.7818
147631	0.0377	0.4526	3.8676	0.9857	0.3737	0.6480
147632						
147633	0.1722	0.4164	4.8168	0.9459	0.3735	0.6224
147634	0.1425	0.4215	5.0383	0.9588	0.3646	0.6357
147636	0.0539	0.3818	2.8465	0.9798	0.2374	0.7646
147637	0.0719	0.4482	4.9645	0.9800	0.4039	0.5956
147638	0.1901	0.4182	4.7781	0.9420	0.3890	0.6000
147640	0.0677	0.4204	5.1972	0.9824	0.3485	0.6436
147642	0.0281	0.4801	4.9242	0.9925	0.3221	0.7468
147645						
147646	0.0500	0.4179	5.4772	0.9883	0.3610	0.6149
147647	0.0894	0.4254	5.3455	0.9787	0.3618	0.6318
147648	0.1193	0.4108	7.1402	0.9782	0.3611	0.6106
147649	0.1053	0.3765	8.4813	0.9846	0.3303	0.6045
147650	0.0572	0.4225	5.2929	0.9870	0.3945	0.5638
147552	0.1712	0.5120	5.5744	0.9556	0.5470	0.4468
147554	0.0187	0.4348	3.8595	0.9929	0.3623	0.6354
147555	0.1745	0.4488	5.6642	0.9521	0.4109	0.6025
147556	0.0368	0.4116	4.1776	0.9891	0.3525	0.6188
147557	0.0465	0.4208	6.1829	0.9897	0.3430	0.6478
147559	0.0297	0.3977	3.7311	0.9896	0.3262	0.6413
147563	0.0474	0.4129	4.2690	0.9858	0.3653	0.6012
147564	0.0246	0.3889	4.4543	0.9942	0.3365	0.6060
147565						
147581	0.4591	0.6007	7.5600	0.7487	0.5976	0.6180
147581R	0.4600	0.6064	7.5874	0.7477	0.5981	0.6265
147583	0.0201	0.4197	4.6754	0.9944	0.3344	0.6565

Table 2: Table of Numeric VMS Alteration Indices

evidence of a single, distinct altered location. Also, the Joseph showing rocks are included in the indices and they fall in the middle of the range. There are no consistent patterns or trends in the existing data.

Till Sampling Program

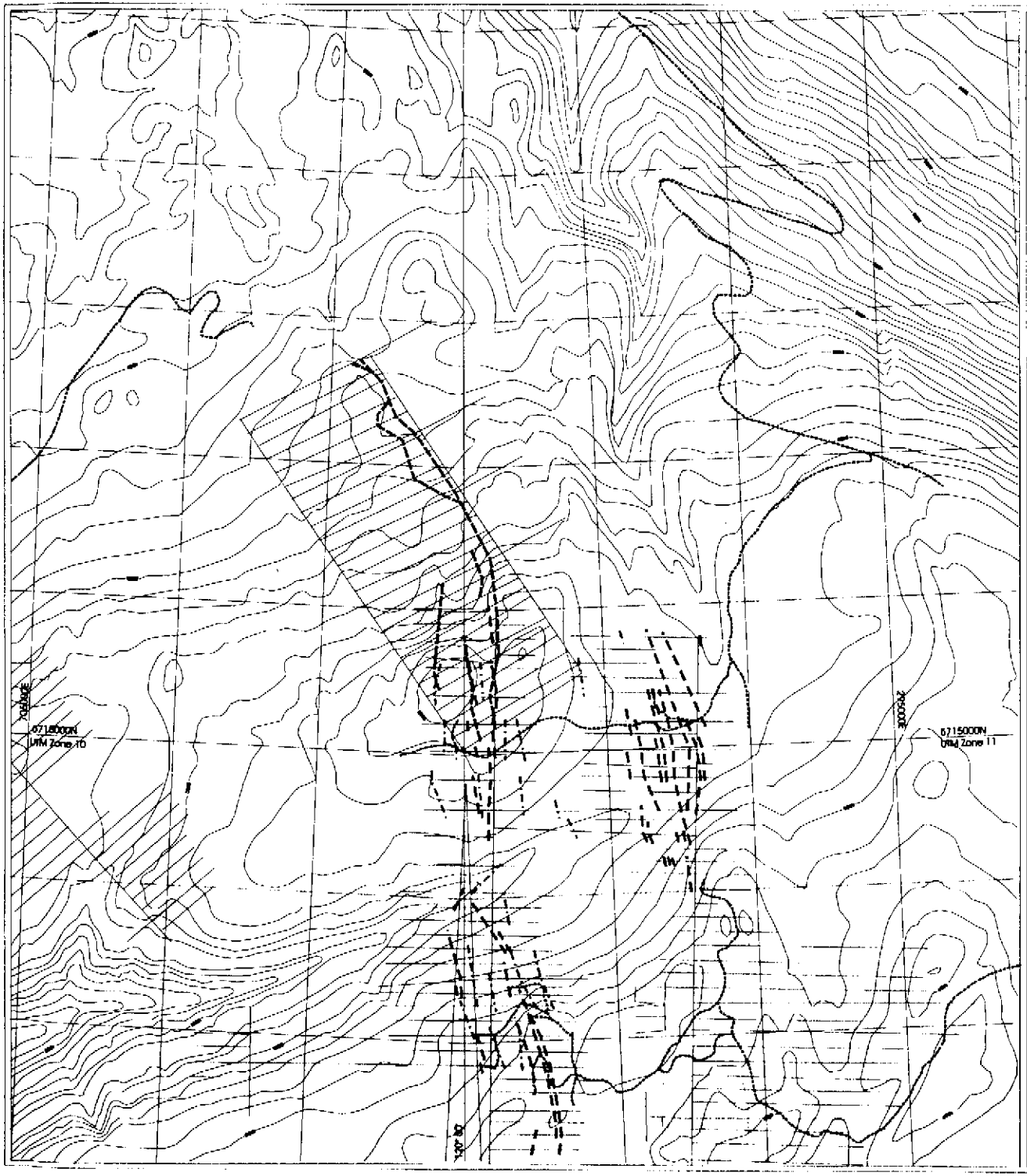
As part of the investigation of the property the Company did a 12 station till sampling program, based on recent work by the BCGS (Paulen *et al.*, 2000). The sampling showed that the property is mantled with less than 10 metres, usually two or three metres, of basal till, possibly with some ablation till on top in the thicker sections. The basal till is tan to grey in colour and polymictic. It is classed as a diamicton with the fine fraction comprised of silt to fine sand and the coarse fraction comprised of angular to sub-rounded fragments of pebble to cobble size with rare boulders. Virtually all of the clasts and most of the matrix are comprised of local rock types, suggesting short transport distances. The till is dense, compact and hard to dig. It is massive and unsorted with no internal structure. A clast orientation study was not performed. However, based on the work by Paulen *et al.* (2000), the ice direction is estimated to be south-east to south south-east.

The till samples were taken from road cuts and form a 'fence' across the south end of the grid (Figure 11). The stations were spaced roughly 200 to 300 metres apart, depending on available material, to try and best intercept any dispersion trails. Two sample fractions were taken to compare results and determine if the coarse fraction was more or less influenced by the local geology. The fine fraction was sieved to –230 mesh so that results could be compared with the work of Paulen *et al.* (2000). The coarse fraction was sieved to –1/2" : +10 mesh to determine the influence of abundant locally derived clasts. Both fractions were analyzed by a multi-element ICP-MS method.

The results of the analysis are listed in Appendix I. The results show that the coarse fraction is two to three times less sensitive to mineralization than the fine fraction. Also, the sampling shows that the dispersion trails present on the property are short. Three samples, less than 500 metres from mineralization found on site, showed anomalous values in copper, lead, zinc and barium. The other samples did not indicate mineralization up ice. Over all, this method seems to be effective for locating hidden mineralized rock under the till sheet.

Geophysics

Following the geological mapping, the geophysical results were re-examined and rock units correlated to the various responses (*see* Hancock, 1999 for full report). Also, historical work, primarily by Esso Resources Ltd. (Everett and Cooper, 1983), was also incorporated into the review. The results are summarized in Figure 12. This review has shown that the strongest HLEM in-phase responses are related to the black phyllite unit. Several of the layers are close together and the geophysics was unable to discriminate between them. Thus a few strong, broad responses were generated. These responses have created the long anomaly that sweeps across the grid from west to east then follows along the eastern edge to the north. While little mineralization appears to be associated



Physical Work
Esso Grid
Spokane Grid

Geophysics [ground]
Esso - HLEM
Esso - Mag
Spokane - HLEM

General
Road
Contours [100' interval]
UTM Grid

Note: Property spans
Zones 10 & 11

0 1000
metres

Spokane Resources Ltd.
Clearwater Project

Figure 12: Summarized Geophysical Interpretation:
HLEM and Magnetics

Drawn by: KDH Date: June, 2000 File: clr-fig12-hlem.cdr

with the phyllite, it helps greatly with the understanding of the geological trend on the property.

However there are both in-phase and quadrature responses not tied to the black phyllite. There is a combined weak HLEM in-phase, quadrature and magnetic response in the southwest corner of the grid. This coincides with the strongest geochemical anomalies on the property, discussed in detail above. There is little exposure in the area but there are a few outcrops of phyllite, associated with the mineralized chert and quartz sandstone. Combined with the geochemical results, interpretation of the geophysics results suggests a prospective zone of approximately 500 to 800 metres from the southwest corner of the grid toward the center.

Conclusions

The Doug claims are underlain by a sequence of marine sediments and largely tuffaceous volcanic rocks. The package is folded into a tight synform and trends north northwest. Outcrop exposures and distribution are poor and so tracing individual layers is very difficult. The geology is similar to that of the Joseph showing, about 2 kilometres south. Mineralization is strongest and most extensive within the sediments. Examination of the volcanic rocks did not show any significant alteration pipe or trend that might be associated with a VMS deposit. Lithogeochemical examination shows that the strongest metals and pathfinder anomaly is situated in the southwest corner of the grid and off it to the southwest. Mineralization does not appear to be structurally controlled or associated with late quartz veining. Till geochemistry works well and picks up the mineralized zone..

It is unlikely that significant VMS mineralization is exposed at surface on the property. It is also unlikely that significant VMS mineralization exists near surface on the property as well. However, on the strength of the lithogeochemistry, till sampling, BCGS stream geochemistry and the presence of the Joseph showing, there may be stronger mineralization in the intervening ground south of the grid. The till sampling appears to work well and has good sensitivity to mineralization. Also, the HLEM in-phase geophysics did a good job of picking up the phyllite units and so serves as a good pathfinder for the sediment package. More work needs to be done to the west and south of the grid to follow the sediments package. There is still potential for more, and possibly better mineralization in the ground to the south. A work program to test this is outlined on the following page.

Work Proposal

Examination of the Doug property has determined that mineralization is restricted to the sediment package. This is also true for the Joseph showings to the south. Based on the drilling there, the historical work by Craigmont Mines Ltd. in the region and the current property work, further exploration needs to be done. First, the ground south of the property needs to be staked sufficiently, one 20 unit claim, south from the grid to cover the northern half of the Joseph drilling area. Secondly the grid needs to be extended 250 metres to the west from L100+00N to L120+00N. Then it needs to be further extended 1500 metres south and 200 metre spaced cross lines staggered diagonally west to center on the prospective sediment package. This then needs to be examined by a comprehensive program of geological mapping with till, rock and silt sampling. A rough budget estimate is included below. Following the proposed exploration, trenching or diamond drilling may be warranted.

Item	Units	Unit Cost	Total
Claims staking (all incl'.)	20	$83.00	$1660.00
Line Cutting (all incl'.)	17 km	$450.00	$7650.00
Rock Samples	100	$27.00	$2700.00
Till Samples	30	$30.00	$900.00
Silt Samples	25	$10.00	$250.00
Geological Mapping & Project managment	26 days	$300.00	$7800.00
Geological Assistant	14 days	$150.00	$2100.00
Room	40 days	$45.00	$1800.00
Food	40 days	$35.00	$1400.00
Vehicles & Fuel	4 weeks	$450.00	$1800.00
Field supplies	1	$500.00	$500.00
Report preparation	1	$300.00	$300.00
Recording fees – staking	20	$10	$200.00
Filing fees - assessment	20 * 8 yrs		$1600.00
TOTAL			$30,660.00

Table 3: Estimated Cost for Follow-up Exploration Program

Statement of Qualifications

I, Kirk Douglas Hancock, certify the following:

1. I am a professional geologist residing in Victoria, British Columbia
2. I am a registered member in good standing with the Association of Professional Engineers and Geoscientists of British Columbia.
3. I am a graduate of the University of British Columbia with a Bachelor of Science (B.Sc.) degree in geology.
4. I have been practicing geology continuously since my graduation from university in 1987.
5. This report is based on my fieldwork on the property from July 18th to 31st, 2000 as well as information gathered from published technical papers and assessment reports.
6. Spokane Resources Ltd. employs me as their Exploration Manager.

Sept. 18, 2000

Kirk D. Hancock, B.Sc., P.Geo.

Statement of Costs

Item	Amount
Project Geologist * (K.D. Hancock) (30 Days @ $300.00/day)	$9,000.00
Field Assistant: Sarah White July 17 – July 31 (15 days @ 150.00/day)	$2250.00
Meals	$817.88
Accommodation	$966.00
Truck Rental	$1,104.94
Fuel	$227.03
Rock & Till sample analysis and transport	$2,046.78
Digital maps	$1,140.00
Miscellaneous field equipment (bags, flagging, bug dope, etc.)	$202.32
Assessment filing fees (55 units for 1 years)	$550.00
* includes preparation, field work, data compilation with analysis and report writing (June 1 – Sept' 15)	
TOTAL (not including filing fees)	**$17,754.95**

References

Dawson, J.M. (1988): Geochemical Report on the MC Property; *BC Ministry of Energy and Mines*, Assessment Report 17782, 35 pages and 5 maps.

Everett, C.C. and Cooper, W.G. (1983): Geochemical and Geophysical Report on the Foggy B, Foggy C, Foggy D, Foggy E Groups; *BC Ministry of Energy and Mines*, Assessment Report 11381, ## pages plus maps.

Frankiln, J and Gibson, H. (Editors) (1999): Exploration Tools for Volcanogenic Massive Sulphide Deposits; *Mineral Deposits Division, Geological Association of Canada* and *Mineral Deposit Research Unit, University of British Columbia*, Short Course notes, Pathways 1999 Conference, Vancouver, Canada.

Hancock, K.D. (1999): Geophysical Report on the MacDougal Creek Property; *BC Ministry of Energy and Mines*, Assessment Report 26079, 27 pages plus maps.

Paulen, R.C., Bobrowsky, P.T., Lett, R.E., Jackaman, W., Bichler, A.J. and Wingerter, C. (2000): Till Geochemistry of the Chu Chua – Clearwater Area, B.C. (Parts of NTS 92P/8 and 92P/9); *BC Ministry of Energy, Mines and Petroleum Resources*, Open File 2000-17, 24 pages, plus appendicies, one map and a data disk.

Schiarizza, P. (1981): Geology of the Barriere River – Clearwater Area, *BC Ministry of Energy, Mines and Petroleum Resources*, Preliminary Map 53, 1:50 000.

Schiarizza, P. and Preto, V.A. (1987): Geology of the Adams Plateau – Clearwater – Vavenby Area; *BC Ministry of Energy, Mines and Petroleum Resources*, Paper 1987-2, 88 pages, 1 map and 2 sections.

Vollo, N. (1990): Drilling Report on the 82M/12 MC Claim Group of Initial Developers Ltd.; *BC Ministry of Energy and Mines*, Assessment Report 20209, 37 pages.

Walcott, P.E. (1988): A Geophysical Report on a Ground Electromagnetic Survey; *BC Ministry of Energy and Mines*, Assessment Report 18814, 17 pages and 10 maps.

Appendix I

Appendix I

Sample	Station	Special	Brief Description	WRX	AX	Mo	Cu	Pb	Zn
Element						ppm	ppm	ppm	ppm
147601	00KH-C01		Gabbro/basalt + QZ & CT veinlets		X	1	15	3	83
147602	00KH-C03		Chert + 10% Py ±HE	X	X	< 1	25	< 3	38
147603	00KH-C04		GBBR/BSLT ± PY	X	X	< 1	101	< 3	75
147604	00KH-C04		as 7603 + QZ veinlets		X	1	162	< 3	34
147605	00KH-C06		Ash Tuff, lt gn, ± PY	X	X	< 1	41	< 3	62
147606	L100N 108+50E		GBBR/BSLT, med gn, 1% PY	X	X	< 1	7	< 3	28
147607	00KH-C08		Xtl Ash Tuff, FS + PX [BSLT?]	X	X	< 1	56	4	70
147608	L102N 106+30E		Xtl Ash Tuff, lt gn, 5% PX, 0.5% PY + QZ stringers		X	< 1	36	6	50
147609	00KH-C10		Chert, rusty, rubbly, 1-10% PY/HE		X	< 1	63	6	51
147610	00KH-C12		QZ vein in Chert, ± 5% PY/HE		X	5	20	13	10
147611	00KH-C12		QZTZ, Chert, tan	X	X	< 1	146	4	48
147612	00KH-C14		QZTZ, up to 10% PY/HE	X	X	1	4	< 3	13
147613	00KH-C16		BSLT [?TUFF], dk gn, ±QZ veinlets, ± PY	X	X	1	68	< 3	95
147614	00KH-C19		Blk Phyllite, ± QZ ± PY, rusty		X	6	11	5	47
147615	00KH-C20		Xtl Ash Tuff, lt gn, 3% PX, 1% PY	X	X	< 1	37	< 3	54
147616	00KH-C21		Ash Tuff, med to lt gn, 5% PX, 3% PY	X	X	< 1	57	5	73
147617	00KH-C22		as 7616 + bull QZ, 5-10 % PY		X	3	8	< 3	31
147618	00KH-C24		Ash Xtl Tuff, ± PX, 1-5% PY + QZ veinlets	X	X	< 1	58	< 3	45
147619	00KH-C25		Greenstone, met gn, PX + FS, 2% PY	X	X	< 1	47	< 3	57
147620	00KH-C26		Blk Phylite, rusty		X	2	3	16	10
147621	00KH-C27		Ash Xtl Tuff, med/lt gn, ± PX, ± PY	X	X	< 1	45	3	78
147622	00KH-C28		GBBR/BSLT, dk gn, trace PY/HE	X	X	< 1	9	3	108
147623	00KH-C30		Blk Phyllite + QZ crackle veinltes		X	4	14	50	60
147624	00KH-C32		Chert/QZTZ, 5-10% PY	X	X	1	73	< 3	31
147625	00KH-C35		Ash Xtl Tuff, lt gn, ± PX, ± PY	X	X	< 1	45	3	57
147626	00KH-C36		Blk Phyllite, 10% QZ web, 5% PY/HE		X	1	18	3	55
147627	00KH-C37		MetaBSLT, dk gn, PX >> FS	X	X	1	4	< 3	91
147628	00KH-C39		GBBR, dk gn, PX + HB + FS	X	X	< 1	4	< 3	77
147628R				X	X	< 1	4	< 3	75
147629	00KH-C41		QZTZ, rusty		X	2	17	5	30
147630	00KH-C43		Chert, ± PY, rusty		X	1	9	8	20
147630R					X	< 1	11	7	20
147631	00KH-C44		Ash Xtl tuff, lt gn, ± PX, ± PY	X	X	< 1	60	< 3	75
147632	00KH-C44		as 7631 + QZ veins, no PY		X	1	57	< 3	37
147633	00KH-C46		Ash Tuff, lt gn, ± PY, trace PX	X	X	< 1	67	< 3	45
147634	00KH-C47		DIOR, med gn, PX + FS	X	X	< 1	22	< 3	46
147635	00KH-C50		QZTZ/Chert, 1% PY		X	< 1	24	6	54
147636	00KH-C51		MetaBSLT, dk gn, PX >> FS > mtx	X	X	< 1	26	14	80
147637	00KH-C52		Xtl Ash Tuff, + PX, + PY	X	X	< 1	47	< 3	64
147638	00KH-C54		MetaBSLT, dk gn, ± PY	X	X	< 1	9	< 3	55
147639	00KH-C55		ARGL-siliceous [chert], lt gn, rusty, 1-2% PY	X	X	< 1	29	5	85

Appendix I

Sample	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al
Element	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%
147601	< .3	60	32	1121	5.69	4	< 8	< 2	2	34	< .2	< 3	< 3	142	1.22	0.056	< 1	110	3.39	60	0.38	< 3	3.46
147602	< .3	19	8	321	1.34	< 2	< 8	< 2	3	9	< .2	< 3	< 3	3	0.44	0.021	9	10	0.11	671	< .01	< 3	0.22
147603	< .3	23	30	863	5.12	< 2	8	< 2	2	35	0.2	< 3	< 3	120	1.26	0.063	< 1	7	2.11	46	0.42	< 3	2.61
147604	< .3	14	14	535	2.83	5	< 8	< 2	< 2	28	0.2	< 3	< 3	74	0.99	0.027	< 1	16	1.18	19	0.26	3	1.4
147605	0.3	56	26	739	3.74	5	< 8	< 2	< 2	11	0.2	< 3	3	91	0.88	0.054	< 1	147	2.07	28	0.43	< 3	2.19
147606	< .3	29	20	667	3.33	2	< 8	< 2	< 2	35	0.4	< 3	< 3	98	2.09	0.061	< 1	46	1.77	35	0.33	3	1.88
147607	< .3	38	26	644	3.74	< 2	< 8	< 2	< 2	20	0.2	< 3	< 3	109	0.91	0.034	< 1	101	1.84	76	0.45	< 3	1.99
147608	< .3	73	27	697	3.76	5	< 8	< 2	< 2	23	< .2	< 3	< 3	92	1.41	0.052	< 1	194	2.02	40	0.42	< 3	2.17
147609	< .3	21	14	949	2.6	2	< 8	< 2	4	27	< .2	< 3	< 3	14	0.38	0.031	9	13	0.21	512	< .01	< 3	0.39
147610	< .3	9	3	399	0.93	2	< 8	< 2	< 2	62	< .2	< 3	< 3	2	0.23	0.008	< 1	27	0.09	233	< .01	< 3	0.04
147611	< .3	25	12	1723	2.13	< 2	< 8	< 2	3	30	< .2	< 3	< 3	8	0.45	0.043	8	10	0.13	148	< .01	< 3	0.36
147612	< .3	5	1	27	0.8	< 2	< 8	< 2	2	4	< .2	< 3	< 3	7	0.01	0.013	8	16	0.11	356	< .01	< 3	0.21
147613	< .3	120	41	1407	6.66	6	< 8	< 2	3	90	0.2	< 3	4	226	4.65	0.057	< 1	305	4.23	447	0.38	< 3	3.81
147614	0.3	15	3	37	0.91	4	< 8	< 2	2	12	< .2	< 3	< 3	12	0.01	0.01	8	19	0.03	1173	< .01	< 3	0.23
147615	< .3	31	17	617	3.66	14	< 8	< 2	< 2	11	0.5	< 3	< 3	85	0.83	0.035	< 1	71	1.57	67	0.44	< 3	2.05
147616	< .3	46	29	904	4.94	4	< 8	< 2	< 2	23	0.2	< 3	3	130	1.44	0.036	< 1	119	2.05	22	0.47	< 3	2.41
147617	< .3	38	19	613	3.25	2	< 8	< 2	< 2	28	< .2	< 3	< 3	90	2.19	0.02	< 1	126	1.73	155	0.16	< 3	1.62
147618	< .3	66	22	540	3.02	2	< 8	< 2	< 2	11	0.4	< 3	3	56	0.84	0.043	< 1	135	1.48	25	0.31	3	1.85
147619	< .3	18	27	704	3.95	< 2	< 8	< 2	< 2	14	0.3	< 3	3	115	1.24	0.052	< 1	10	1.73	25	0.42	< 3	1.96
147620	0.3	3	1	19	0.38	4	< 8	< 2	< 2	6	< .2	3	< 3	15	0.01	0.007	10	10	0.02	760	< .01	< 3	0.17
147621	< .3	36	32	1422	6.22	5	< 8	< 2	3	74	0.4	3	3	199	4.36	0.054	< 1	61	2.74	68	0.4	< 3	2.74
147622	< .3	8	32	1461	8.34	5	10	< 2	2	35	< .2	< 3	3	261	2	0.08	< 1	7	2.33	137	0.36	< 3	2.95
147623	< .3	20	3	54	1.9	18	< 8	< 2	3	15	< .2	< 3	< 3	21	0.01	0.024	14	22	0.03	904	< .01	5	0.34
147624	< .3	11	7	492	1.33	< 2	< 8	< 2	< 2	27	< .2	< 3	< 3	5	0.86	0.027	6	6	0.28	1262	< .01	< 3	0.25
147625	< .3	34	24	686	4.06	7	< 8	< 2	< 2	12	0.5	< 3	4	112	1.12	0.042	< 1	81	1.68	26	0.4	< 3	2.1
147626	< .3	14	2	50	1.27	8	< 8	< 2	2	2	< .2	< 3	< 3	23	< .01	0.014	13	13	0.02	772	< .01	< 3	0.21
147627	< .3	2	15	1144	6.13	3	< 8	< 2	< 2	31	< .2	< 3	3	41	1.08	0.147	< 1	5	1.45	76	0.23	< 3	2.35
147628	< .3	4	31	993	7.31	< 2	< 8	< 2	< 2	35	< .2	< 3	< 3	228	1.61	0.084	< 1	4	2.22	51	0.27	< 3	2.65
147628R	< .3	4	31	978	7.23	4	< 8	< 2	< 2	35	< .2	< 3	3	227	1.6	0.081	< 1	6	2.18	50	0.27	< 3	2.6
147629	< .3	19	4	89	0.98	6	< 8	< 2	3	11	< .2	< 3	< 3	10	0.02	0.016	7	21	0.24	828	< .01	< 3	0.38
147630	< .3	10	2	37	1.22	4	< 8	< 2	< 2	35	< .2	< 3	< 3	23	0.29	0.15	10	21	0.36	769	< .01	6	0.56
147630R	< .3	10	2	38	1.22	11	< 8	< 2	2	35	< .2	< 3	< 3	22	0.29	0.15	10	19	0.36	782	< .01	9	0.56
147631	< .3	41	29	805	5.08	17	< 8	< 2	< 2	9	0.3	< 3	3	132	0.94	0.045	< 1	72	2.18	33	0.4	< 3	2.6
147632	< .3	23	18	473	2.52	12	< 8	< 2	< 2	22	< .2	< 3	< 3	56	2.49	0.031	< 1	57	0.99	55	0.31	4	1.56
147633	< .3	44	28	589	3.4	25	8	< 2	< 2	23	0.2	< 3	6	75	0.88	0.042	< 1	89	1.51	90	0.27	< 3	1.98
147634	< .3	36	22	618	3.71	16	< 8	< 2	< 2	14	0.3	< 3	3	83	0.71	0.056	< 1	38	1.63	120	0.28	3	2.13
147635	< .3	22	6	68	0.86	11	< 8	< 2	3	18	< .2	< 3	< 3	10	0.09	0.028	8	24	0.33	1194	< .01	< 3	0.45
147636	< .3	9	30	1573	7.29	< 2	< 8	< 2	< 2	199	0.3	< 3	< 3	254	5.36	0.069	1	4	2.08	105	0.03	< 3	2.44
147637	< .3	71	29	824	4.61	4	10	< 2	< 2	20	0.3	< 3	5	120	1.49	0.062	< 1	165	2.64	70	0.39	< 3	2.74
147638	< .3	49	25	793	4.32	< 2	< 8	< 2	< 2	58	0.3	< 3	< 3	146	3.04	0.038	< 1	118	2.59	38	0.31	< 3	2.62
147639	< .3	34	11	235	2.29	< 2	< 8	< 2	4	45	< .2	< 3	< 3	24	0.91	0.037	10	43	1.09	755	0.08	8	1.25

Appendix I

Sample	Na	K	W	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	Ba	Ni	Sr	Zr	Y	Nb	Sc	LOI
Element	%	%	ppm	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
147601	0.03	0.06	< 2																			
147602	0.01	0.16	< 2	84.27	6.89	2.79	0.57	0.65	0.1	2.12	0.39	0.02	0.05	0.007	3517	< 20	21	93	12	< 10	9	1.9
147603	0.04	< .01	< 2	47.91	16.57	12.23	5.32	8.99	3.38	0.09	1.85	0.11	0.18	0.003	90	32	344	91	31	< 10	27	3.2
147604	0.03	0.01	4																			
147605	0.04	0.01	< 2	51.35	15.15	10.05	7.04	7.4	4.4	0.21	1.44	0.15	0.17	0.029	68	82	107	76	27	< 10	33	2.7
147606	0.04	0.04	< 2	49.96	14.86	9.76	5.94	8.65	4.38	0.55	1.64	0.14	0.16	0.009	204	39	223	102	32	< 10	34	4
147607	0.03	0.02	< 2	51.91	14.89	11.14	5.9	8.06	3.59	0.33	1.42	0.09	0.17	0.018	198	79	219	57	26	< 10	33	2.7
147608	0.03	0.07	< 2																			
147609	0.01	0.16	2																			
147610	0.02	0.01	9																			
147611	0.01	0.19	< 2	79.42	8.38	4.17	0.59	0.63	0.8	1.87	0.44	0.08	0.23	0.008	3488	< 20	177	98	18	< 10	16	2.9
147612	< .01	0.08	2	91.27	3.9	1.52	0.49	0.04	0.01	1.13	0.23	< .01	< .01	0.012	3069	< 20	11	37	< 10	< 10	5	1.3
147613	0.02	0.1	< 2	45.7	14.06	10.4	7.72	7.14	3.82	0.32	1.52	0.12	0.19	0.038	452	107	120	74	31	< 10	33	8.9
147614	< .01	0.1	3																			
147615	0.03	0.02	< 2	50.82	15.36	11.04	6.03	9.49	2.93	0.22	1.44	0.06	0.17	0.015	97	34	127	71	28	< 10	35	2.4
147616	0.03	< .01	< 2	48.05	15.65	12.62	5.7	9.59	3.02	0.13	1.53	0.1	0.2	0.02	70	55	210	64	29	< 10	37	3.4
147617	0.02	0.02	2																			
147618	0.03	0.02	< 2	49.48	14.94	10.59	7.3	10.54	2.87	0.22	1.41	0.09	0.18	0.036	64	82	141	67	29	< 10	34	2.4
147619	0.04	0.03	< 2	50.61	14.91	11.59	5.73	7.82	4.09	0.38	1.59	0.09	0.18	0.003	118	< 20	138	75	31	< 10	37	3.1
147620	< .01	0.1	2											6								
147621	0.03	0.05	< 2	48.23	14.43	10.86	5.09	6.67	4.42	0.69	1.64	0.16	0.2	0.009	281	22	100	79	33	< 10	33	7.7
147622	0.04	< .01	< 2	50.75	14.37	14.27	4.06	5.22	4.11	0.14	2.17	0.17	0.23	0.002	338	< 20	175	108	41	< 10	28	4.4
147623	< .01	0.16	2																			
147624	0.01	0.17	< 2	82.31	6.48	3.09	0.91	1.22	0.12	2.02	0.46	0.03	0.07	0.008	3113	42	42	140	17	11	8	3.1
147625	0.05	0.03	2	50.8	15.29	10.98	6.03	7.4	4.49	0.25	1.4	0.09	0.17	0.015	67	33	128	68	28	< 10	34	3.1
147626	< .01	0.1	< 2																			
147627	0.05	0.02	< 2	56.59	15.34	11.1	2.54	4.56	4.65	0.22	1.81	0.32	0.19	0.003	278	36	224	144	53	< 10	20	2.7
147628	0.04	0.03	< 2	50.62	14.51	14.48	4.03	6.15	3.42	0.3	2.31	0.17	0.23	0.002	260	< 20	214	103	43	< 10	30	3.8
147628R	0.03	0.04	< 2	50.59	14.53	14.58	4.07	6.15	3.44	0.29	2.27	0.19	0.22	0.004	258	< 20	214	114	42	< 10	30	3.8
147629	< .01	0.12	2																			
147630	0.01	0.11	2																			
147630R	< .01	0.12	3																			
147631	0.04	< .01	< 2	49.78	15.78	11.8	6.41	6.93	4.08	0.16	1.54	0.08	0.17	0.016	94	37	115	65	31	< 10	36	3.2
147632	0.01	0.04	< 2																			
147633	0.03	0.08	< 2	51.05	15.51	10.4	6.31	8.49	3.22	0.67	1.17	0.06	0.16	0.017	308	42	265	60	25	< 10	33	3
147634	0.04	0.05	< 2	49.43	15.77	11.22	6.43	8.98	3.13	0.52	1.44	0.05	0.18	0.014	737	48	205	78	29	< 10	34	2.6
147635	< .01	0.11	2																			
147636	0.03	0.03	< 2	48.44	12.98	11.89	3.66	8.03	4.56	0.26	1.8	0.17	0.21	0.002	381	< 20	265	89	35	< 10	24	7.9
147637	0.03	0.01	< 2	47.45	15.39	11.37	7.72	8.65	3.1	0.24	1.59	0.14	0.18	0.03	171	67	150	89	31	< 10	35	4
147638	0.03	0.07	< 2	47.62	14.86	10.23	6.82	8.75	3.11	0.73	1.57	0.06	0.16	0.019	247	53	269	70	25	< 10	35	6.1
147639	0.01	0.17	< 2	73.41	9.74	4.79	2.73	2.07	0.48	1.93	0.66	0.1	0.04	0.014	6823	29	80	144	24	< 10	14	3.5

Sample	TOT/C	TOT/S	SUM
Element	%	%	%
147601			
147602	0.21	0.24	100.17
147603	0.1	0.04	99.91
147604			
147605	0.06	0.04	100.14
147606	0.44	0.1	100.13
147607	0.05	0.15	100.29
147608			
147609			
147610			
147611	0.2	0.52	99.95
147612	0.05	0.03	100.26
147613	1.44	0.02	100.02
147614			
147615	0.07	0.03	100.02
147616	0.2	0.23	100.07
147617			
147618	0.06	0.11	100.11
147619	0.15	0.25	100.14
147620			
147621	1.34	0.09	100.17
147622	0.44	0.03	99.98
147623			
147624	0.47	0.13	100.2
147625	0.16	0.14	100.06
147626			
147627	0.11	0.05	100.11
147628	0.31	0.05	100.1
147628R	0.31	0.08	100.21
147629			
147630			
147630R			
147631	0.08	0.14	99.99
147632			
147633	0.09	0.09	100.14
147634	0.03	0.03	99.9
147635			
147636	1.83	1.29	100
147637	0.26	0.11	99.93
147638	0.81	0.03	100.11
147639	0.35	0.26	100.26

Appendix I

Sample	Station	Special	Brief Description	WRX	AX	Mo	Cu	Pb	Zn
Element						ppm	ppm	ppm	ppm
147640	00KH-C57		Ash Xtl Tuff, med gn, + PX, + PY	X	X	< 1	37	3	59
147641	00KH-C58		Blk Phyllite, rusty, representative grab over ± 8 metres		X	2	16	27	36
147642	00KH-C59		MetaBSLT, dk gn, PX > FS, 0 - 2% PY	X	X	1	28	< 3	78
147643	00KH-C60		ARGL/Chert	X	X	< 1	65	7	27
147644	00KH-C63		Chert, bedded, ± PY, 1.25 metre chip	X	X	1	100	< 3	31
147645	00KH-C66	weathered sample	Xtl Ash Tuff, med gn, PX + FS, ± PY [weath., dirty sample]		X	< 1	94	< 3	36
147646	00KH-C70		Ash Xtl tuff, lt gn, + PX	X	X	< 1	64	4	59
147647	00KH-C74		Ash Xtl Tuff, lt gn, + PX, ± PY	X	X	1	41	6	55
147648	00KH-C76	Float	FLOAT - Ash Xtl Tuff, lt gn, + PX, ± PY	X	X	1	57	11	68
147649	00KH-C77		Ash Xtl Tuff, lt gn, + PX	X	X	< 1	27	5	40
147650	00KH-C78		MetaBSLT, dk gn, ± PY	X	X	1	75	< 3	48
147551	00KH-C84	Foghorn	Blk Phyllite, ± QZ veinlets		X	3	8	13	45
147552	00KH-C88	Foghorn	MetaGBBR, dk gn, ± PY	X	X	1	64	< 3	40
147553	00KH-C89	Foghorn	Chert-QZ, 3-10% PY [oxid]		X	< 1	21	10	47
147554	00KH-C90	Foghorn	MetaBSLT, med gn, med gr	X	X	< 1	16	< 3	60
147555	00KH-C93	Joseph	MetaBSLT, dk gn, <1% PY	X	X	< 1	49	7	63
147556	00KH-C94	Joseph	MetaTuff, PX + FS + mtx, med gn, grungy (DDH 84-3)	X	X	< 1	36	7	50
147557	00KH-C95	Joseph	Xtl Ash Tuff, lt gn, 1-2% PX, 0.5% PY	X	X	< 1	53	11	118
147558	00KH-C97	Joseph	MetaChert, 10-15% PY casts & PY[oxid], 1-6mm cubes (DDH 88-7)	X	X	1	21	< 3	120
147559	00KH-C98	Joseph	MetaTuff/MetaBSLT [?], med gn, <0.5% PY	X	X	< 1	62	< 3	57
147560	00KH-C99	Joseph	Blk Phyllite, 10% PY [fresh & oxid]		X	1	48	8	52
147561	00KH-C101	Joseph	Blk Phyllite + fg sand beds, QZ crackle (near DDH 84-2)		X	21	20	14	329
147562	00KH-C102	Joseph	MetaChert, (±QZTZ), K-Na-spar flood, QZ-brxx (near DDH 84-2)	X	X	40	359	4429	247
147563	00KH-C104[91]	Joseph	MetaBSLT, dk gn, fg	X	X	< 1	47	20	70
147564	00KH-C108		MetaXtl Ash Tuff, lt gn, 1-3% PX, 0.5% PY	X	X	1	55	22	37
147565	00KH-C109	Boulders/float	MetaTuff, mg, + QZ vein + serpentine selvage.envelope [look see]		X	< 1	39	< 3	28
147566	00KH-C111		QZ SNDS/WCKE, 1-2% PY [oxid]		X	2	4	15	30
147567	00KH-C113		QZ SNDS + ARGL, 1-2% PY [oxid]		X	1	8	12	53
147580	00KH-C131		QZ SNDS, rusty fracs, 2-10% PY [oxid]		X	1	35	87	100
147580R					X	2	37	96	103
147581	00KH-C132		MetaAsh Xtl Tuff, lt gn, ± PX, ± PY [WRX marginal]	X	X	1	287	< 3	134
147581R				X	X	2	288	10	137
147582	00KH-C133	Float	Cherty ARGL/ PBBL CGLM [look see sample]		X	< 1	8	12	82
147583	00KH-C135		MetaAsh Xtl Tuff, lt gn, ± PX, ± PY	X	X	1	54	5	59
147584	00KH-C136		Blk Phyllite, rusty frac's, rare PY		X	2	5	< 3	10
147585	00KH-C138		Interbedded Chert & ARGL [sample = Chert]		X	< 1	41	3	36

Appendix I

Sample	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al
Element	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%
147640	< .3	32	22	650	3.77	14	< 8	< 2	< 2	13	0.3	< 3	3	92	1.02	0.036	< 1	66	1.72	63	0.4	< 3	2.13
147641	< .3	16	6	128	1.53	22	< 8	< 2	4	8	< .2	< 3	< 3	8	0.05	0.035	13	18	0.03	660	< .01	< 3	0.32
147642	< .3	31	40	1118	7.73	8	< 8	< 2	2	29	< .2	< 3	6	338	2.66	0.056	< 1	13	2.38	303	0.35	< 3	3.21
147643	< .3	11	5	30	0.64	< 2	< 8	< 2	2	53	< .2	< 3	< 3	10	0.06	0.021	8	14	0.19	2317	0.01	< 3	0.34
147644	< .3	12	3	121	1.63	10	< 8	< 2	< 2	4	< .2	< 3	3	9	0.06	0.013	5	11	0.05	533	0.01	< 3	0.2
147645	< .3	51	19	370	2.17	4	< 8	< 2	< 2	9	< .2	< 3	< 3	38	0.7	0.036	< 1	49	1.47	29	0.19	< 3	1.53
147646	< .3	70	27	734	3.87	7	< 8	< 2	< 2	15	0.3	< 3	< 3	80	1.07	0.054	1	150	2.06	83	0.47	< 3	2.3
147647	< .3	53	25	716	3.75	< 2	< 8	< 2	< 2	11	< .2	< 3	< 3	79	0.83	0.058	< 1	160	1.8	43	0.48	< 3	2.09
147648	< .3	53	24	617	3.35	6	< 8	< 2	< 2	12	0.3	< 3	< 3	63	0.9	0.045	1	123	1.78	27	0.38	< 3	2.09
147649	< .3	50	26	626	3.22	11	< 8	< 2	< 2	13	0.3	< 3	< 3	61	1.6	0.045	1	96	1.87	13	0.28	< 3	2.12
147650	< .3	74	30	642	3.45	4	< 8	< 2	< 2	12	0.2	< 3	< 3	74	1.21	0.045	1	205	2.3	17	0.27	< 3	2.22
147551	< .3	14	3	26	1.3	18	< 8	< 2	5	7	< .2	< 3	< 3	5	0.01	0.008	26	6	0.03	162	< .01	6	0.35
147552	< .3	169	31	591	3.58	< 2	< 8	< 2	< 2	31	0.3	< 3	< 3	63	1.29	0.034	1	257	3.12	52	0.18	< 3	2.59
147553	< .3	16	6	1172	1.49	< 2	< 8	< 2	2	98	0.2	< 3	< 3	1	2.71	0.03	9	8	1.29	2213	< .01	< 3	0.35
147554	< .3	41	28	890	5.21	5	< 8	< 2	< 2	37	0.2	< 3	< 3	144	1.52	0.076	3	91	2.78	356	0.36	< 3	2.67
147555	< .3	60	27	806	4.19	4	< 8	< 2	< 2	24	0.4	3	< 3	110	1.32	0.06	2	163	2.37	59	0.38	< 3	2.43
147556	< .3	45	25	540	3.36	14	< 8	< 2	< 2	15	0.3	< 3	< 3	65	0.63	0.047	1	64	1.61	129	0.24	< 3	1.92
147557	< .3	43	31	880	4.6	5	< 8	< 2	< 2	38	0.5	< 3	< 3	130	1.74	0.041	1	76	2.54	57	0.49	< 3	2.59
147558	< .3	12	2	119	0.48	8	< 8	< 2	< 2	13	2.1	< 3	< 3	3	0.22	0.007	3	8	0.12	383	0.01	4	0.14
147559	< .3	32	23	679	3.9	17	< 8	< 2	< 2	36	0.3	< 3	< 3	87	1.24	0.059	2	26	1.78	122	0.28	< 3	2.11
147560	0.4	27	4	44	2.25	3	< 8	< 2	5	7	< .2	< 3	< 3	23	0.09	0.041	15	38	0.94	877	< .01	5	1.26
147561	2.2	69	10	41	0.99	50	< 8	< 2	< 2	656	2.2	10	< 3	555	1.94	0.962	11	45	0.16	25801	0.05	14	1.6
147562	3.2	22	1	40	1.79	14	< 8	< 2	< 2	89	0.7	7	< 3	11	0.25	0.218	8	18	0.01	621	< .01	< 3	0.39
147563	< .3	71	32	1072	5.53	6	< 8	< 2	< 2	59	0.5	< 3	< 3	178	4.57	0.054	1	205	3.28	51	0.34	< 3	3.24
147564	< .3	50	21	467	2.8	9	< 8	< 2	< 2	14	0.2	< 3	< 3	61	1.11	0.065	2	115	1.26	100	0.43	< 3	1.5
147565	< .3	19	11	533	2.3	3	< 8	< 2	< 2	21	< .2	< 3	< 3	44	1.22	0.039	1	29	1.16	93	0.29	< 3	1.49
147566	< .3	11	4	244	1.65	2	< 8	< 2	8	5	< .2	< 3	< 3	5	0.04	0.013	16	23	0.26	110	< .01	< 3	0.62
147567	< .3	12	5	337	1.7	2	< 8	< 2	7	7	< .2	< 3	< 3	3	0.08	0.016	16	16	0.2	53	< .01	< 3	0.5
147580	< .3	33	11	178	4.09	< 2	< 8	< 2	11	5	< .2	< 3	< 3	8	0.12	0.062	29	27	0.66	163	< .01	3	1.59
147580R	< .3	34	12	184	4.22	< 2	< 8	< 2	11	5	< .2	< 3	< 3	10	0.13	0.064	28	28	0.68	165	< .01	4	1.64
147581	< .3	49	37	2504	6.99	19	< 8	< 2	< 2	90	0.7	< 3	< 3	190	2.28	0.056	3	52	3.58	2893	0.14	3	4.18
147581R	< .3	49	37	2541	7.08	19	< 8	< 2	< 2	91	0.7	< 3	< 3	194	2.3	0.057	3	53	3.64	2920	0.14	< 3	4.24
147582	< .3	36	10	226	3.59	< 2	< 8	< 2	11	7	< .2	< 3	< 3	13	0.1	0.055	34	22	0.71	102	< .01	< 3	1.45
147583	< .3	45	32	802	4.45	9	< 8	< 2	< 2	16	0.2	< 3	< 3	106	0.83	0.037	1	121	1.99	34	0.49	< 3	2.32
147584	0.3	3	1	16	0.43	2	< 8	< 2	< 2	2	< .2	< 3	< 3	6	0.01	0.009	4	14	0.02	378	< .01	6	0.13
147585	< .3	14	3	44	1.01	< 2	< 8	< 2	< 2	23	< .2	< 3	< 3	4	0.02	0.024	9	17	0.15	998	< .01	< 3	0.25

Appendix I

Sample	Na	K	W	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	Ba	Ni	Sr	Zr	Y	Nb	Sc	LOI
Element	%	%	ppm	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
147640	0.03	0.02	< 2	51.38	15.02	10.96	6.07	8.85	2.89	0.21	1.42	0.08	0.17	0.013	136	35	130	72	29	< 10	34	2.9
147641	< .01	0.2	2																			
147642	0.02	0.01	< 2	47.77	13.64	14.69	4.98	7.88	2.77	0.08	2.34	0.14	0.19	0.004	341	< 20	160	80	35	< 10	38	5.3
147643	< .01	0.12	< 2	89.59	4.12	1.63	0.66	0.13	0.05	1.15	0.28	0.04	< .01	0.01	8050	< 20	105	54	11	< 10	6	1.4
147644	0.01	0.09	< 2	90.44	3.73	2.65	0.3	0.1	0.09	0.97	0.2	< .01	0.02	0.01	4007	23	11	58	10	< 10	5	1.2
147645	0.03	0.01	< 2																			
147646	0.04	0.02	< 2	48.53	15.61	11.16	6.99	9.79	2.85	0.15	1.65	0.18	0.19	0.031	198	99	157	96	31	10	35	2.9
147647	0.03	0.03	< 2	49.46	14.7	11.6	6.76	9.65	2.75	0.27	1.8	0.21	0.2	0.023	156	53	159	106	36	12	35	2.6
147648	0.02	0.05	< 2	48.85	15.28	11.1	7.08	10.9	2.14	0.29	1.53	0.11	0.18	0.026	85	59	188	73	29	< 10	36	2.7
147649	0.02	0.03	< 2	47.76	15.86	10.27	6.72	12.2	1.87	0.22	1.4	0.11	0.18	0.024	47	67	151	75	28	< 10	34	3.4
147650	0.03	0.02	< 2	48.11	14.82	10.61	8.21	10.06	2.8	0.17	1.38	0.11	0.17	0.036	53	95	153	64	24	< 10	36	3.4
147551	0.01	0.18	< 2																			
147552	0.03	0.04	< 2	47.18	13.49	10.08	12.48	8.33	2.42	0.5	1.02	0.13	0.16	0.057	276	248	188	50	17	12	30	4.3
147553	0.01	0.17	2																			
147554	0.03	0.01	< 2	48.8	16.21	10.91	6.26	6.96	4.2	0.08	1.94	0.26	0.16	0.015	448	42	202	113	35	11	34	4.1
147555	0.03	0.06	< 2	49.74	15.01	10.93	7.21	8.49	2.65	0.56	1.57	0.18	0.18	0.03	143	80	186	93	28	< 10	35	3.6
147556	0.03	0.01	< 2	50.18	15.29	11.04	6.8	9.09	3.66	0.14	1.4	0.18	0.17	0.02	890	41	195	68	25	< 10	35	2
147557	0.03	0.01	3	50.41	15.21	10.89	5.92	9.11	2.46	0.12	1.45	0.16	0.17	0.012	75	45	269	77	29	< 10	35	4.1
147558	< .01	0.06	3	93.14	3.22	0.69	0.54	0.35	0.07	0.86	0.17	0.02	0.01	0.003	3214	< 20	14	42	< 10	< 10	5	0.9
147559	0.04	0.01	< 2	50.63	15.82	10.44	5.84	8.09	4.24	0.13	1.65	0.16	0.17	0.006	916	34	423	94	29	11	31	2.7
147560	< .01	0.18	< 2																			
147561	< .01	0.11	3																			
147562	< .01	0.01	3	85.89	4.58	2.4	0.04	0.37	< .01	0.08	0.2	0.49	< .01	0.009	24295	22	401	42	19	< 10	5	3.1
147563	0.03	0.02	< 2	47.73	14.6	9.98	6.62	8.38	3.42	0.17	1.48	0.15	0.16	0.029	62	95	147	94	27	10	33	7.2
147564	0.03	0.01	< 2	49.92	14.12	10.66	6.93	10.65	3.17	0.08	1.69	0.21	0.17	0.027	110	71	151	105	32	< 10	34	2.3
147565	0.02	0.01	2																			
147566	0.02	0.09	4																			
147567	0.02	0.11	3																			
147580	0.01	0.25	2																			
147580R	0.01	0.26	2																			
147581	0.02	0.11	2	47.37	17.01	10.58	6.54	3.44	2.25	1.91	1.59	0.12	0.33	0.008	24876	45	187	103	29	< 10	32	5.8
147581R	0.02	0.11	2	46.96	16.92	10.87	6.48	3.4	2.23	1.9	1.57	0.21	0.33	0.006	24122	36	184	90	29	10	32	5.8
147582	0.01	0.2	2																			
147583	0.04	0.01	< 2	48.74	15.99	11.87	6.21	9.08	3.42	0.07	1.53	0.1	0.19	0.017	134	53	185	72	29	< 10	37	2.7
147584	< .01	0.07	2																			
147585	< .01	0.07	2																			

Sample	TOT/C	TOT/S	SUM
Element	%	%	%
147640	0.08	0.07	100.02
147641			
147642	0.68	0.16	99.86
147643	0.02	0.12	99.99
147644	0.06	0.23	100.17
147645			
147646	0.06	0.01	100.11
147647	0.06	0.07	100.09
147648	0.09	0.07	100.24
147649	0.26	< .01	100.06
147650	0.19	0.06	99.93
147551			
147552	0.26	< .01	100.25
147553			
147554	0.29	< .01	100
147555	0.17	0.05	100.22
147556	0.06	0.07	100.12
147557	0.28	0.07	100.08
147558	0.16	0.1	100.34
147559	0.2	0.1	100.05
147560			
147561			
147562	0.08	0.73	99.94
147563	1.16	0.01	99.98
147564	0.1	0.03	99.99
147565			
147566			
147567			
147580			
147580R			
147581	0.61	0.13	99.78
147581R	0.63	0.15	99.42
147582			
147583	0.04	0.13	99.98
147584			
147585			

Appendix I

Sample	Station	Special	Brief Description	WRX	AX	Mo	Cu	Pb	Zn
Element						ppm	ppm	ppm	ppm
Sample	Station	Special	Brief Description	WRX	AX	Mo	Cu	Pb	Zn
Element						ppm	ppm	ppm	ppm
147568F	00KH-C115	-230 MESH	Till:		X	0.46	129.39	13.87	56.7
147568C		+10 -1/2"			X	0.71	48.12	7.88	74.2
147569F	00KH-C116	-230 MESH	Till:		X	0.76	61.16	16.83	62.3
147569C		+10 -1/2"			X	1.7	43.52	14.1	63.5
147570F	00KH-C117	-230 MESH	Till:		X	0.51	56.12	21.35	49.6
147570C		+10 -1/2"			X	1.78	57.61	35.56	55.4
147571F	00KH-C118	-230 MESH	Till:		X	10.76	57.92	61.3	208.2
147571C		+10 -1/2"			X	8.71	23.9	31.34	112.2
147572F	00KH-C119	-230 MESH	Till:		X	7.09	198.41	209.18	70.7
147572C		+10 -1/2"			X	8.34	82	72.93	42.1
147573F	00KH-C120	-230 MESH	Till:		X	0.95	50.17	14.68	55.5
147573C		+10 -1/2"			X	1.94	35.25	12.8	58
147574F	00KH-C121	-230 MESH	Till:		X	0.76	61.8	36.55	64.9
147574C		+10 -1/2"			X	1.85	52	34	61.3
147575F	00KH-C122	-230 MESH	Till:		X	0.86	65.15	46.73	66.6
147575C		+10 -1/2"			X	2	45.59	33.32	58.3
147576F	00KH-C123	-230 MESH	Till:		X	0.5	118.66	12.44	49.3
147576C		+10 -1/2"			X	1.15	60	9.81	47.8
147577F	00KH-C125	-230 MESH	Till:		X	1	62.09	29.08	87
147577C		+10 -1/2"			X	3.31	51.88	30.72	86.9
147578F	00KH-C126	-230 MESH	Till:		X	0.84	24.75	13.75	49.7
147578C		+10 -1/2"			X	1.49	13.81	10.41	54.5
147579FR	00KH-C127	-230 MESH	Till:		X	1.77	87.46	770.06	632.9
147579FR		-230 MESH			X	1.76	90.96	775.88	641.8
147579C		+10 -1/2"			X	3.93	60.77	378.81	383.8
147579CR		+10 -1/2"			X	3.72	57.36	364.77	373.9

Appendix I

Sample	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al
Element	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%
Sample	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al
Element	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%
147568F	74	51.9	30.8	716	4.16	5.3	0.6	88.2	4.9	16.3	0.11	0.35	0.12	83	0.19	0.042	15.2	95.8	1.81	205.9	0.103	< 1	3.21
147568C	25	84.2	34.8	1075	5.31	2.2	0.1	12.9	1.8	10.6	0.06	0.15	0.03	116	0.4	0.045	4	160.7	3.06	74.4	0.275	< 1	3.07
147569F	91	27.9	14.5	374	3.4	13.4	0.9	160.7	4.3	22.1	0.15	4.16	0.38	29	0.08	0.053	29.5	22.2	0.44	981.1	0.034	< 1	1.3
147569C	34	30	14	643	2.82	11.6	0.5	27.2	5.3	17.5	0.1	3.49	0.26	17	0.07	0.041	17.8	18.9	0.2	850.9	0.015	< 1	0.77
147570F	24	21.1	11.6	249	2.44	5.2	1.3	3.3	12.9	28.8	0.07	0.29	0.21	41	0.14	0.056	46.6	32.4	1.08	211.9	0.068	< 1	1.52
147570C	22	25.2	20.2	767	2.95	8.1	1.3	2.7	13	29.5	0.08	0.36	0.23	50	0.2	0.081	37.3	38	1.07	233.7	0.066	1	1.51
147571F	171	79.3	26.4	455	5.34	77.4	3.8	18.9	13	15.6	0.36	2.09	0.55	17	0.03	0.095	38.7	15.7	0.22	146.3	0.004	1	1.47
147571C	74	48.1	16.5	355	2.85	31.9	2.8	6.6	13.1	9.3	0.24	0.69	0.28	10	0.04	0.052	23	14.4	0.09	250.1	0.003	1	0.63
147572F	349	44.1	17.9	677	3.15	22.2	0.9	34.3	6.6	29.4	0.25	1.07	0.44	28	0.32	0.074	27.3	35.6	0.63	439.2	0.024	< 1	1.4
147572C	75	21.5	7.7	448	1.67	9.3	0.4	4.3	2.5	20.7	0.15	0.46	0.13	18	0.08	0.023	10.5	27.7	0.21	1734.9	0.008	2	0.59
147573F	162	33.1	16.5	328	3.19	4.9	0.6	4.4	2.7	13.5	0.18	0.25	0.16	63	0.09	0.032	16.8	60.9	1.03	510	0.046	1	2.23
147573C	40	39.7	19.6	628	3.3	3.6	0.3	1.6	3	22.7	0.11	0.2	0.14	81	0.2	0.033	11.4	79	1.4	621.2	0.115	1	1.76
147574F	27	33	17.4	516	2.93	15	1.1	5.2	14.2	39.1	0.14	0.62	0.33	39	0.21	0.08	45.5	58.5	1.12	127.3	0.058	< 1	1.46
147574C	28	35.6	20	607	2.96	13.6	1.1	2.7	13.4	43	0.15	0.48	0.25	49	0.29	0.086	41.4	74	1.19	164.8	0.084	1	1.57
147575F	216	37.6	19.1	562	2.83	23	1.4	4.7	12.5	43.7	0.26	0.95	0.37	30	0.15	0.058	44.6	37.5	0.9	89.7	0.039	< 1	1.42
147575C	106	41.3	16.9	631	2.78	13.1	1.2	2.1	11.3	39.1	0.21	0.56	0.23	28	0.18	0.062	38.8	67	0.89	145.1	0.029	1	1.4
147576F	86	183.7	40.4	645	4.35	18.4	0.4	2.9	4	15.7	0.14	0.33	0.09	84	0.18	0.051	15	430.9	2.83	89.9	0.058	1	2.83
147576C	20	165	36.3	781	4.35	10.5	0.3	1	3.1	13.9	0.1	0.15	0.12	108	0.26	0.046	10.3	429	3.15	83.1	0.103	1	2.5
147577F	48	54.4	15.9	410	3.32	43.3	1.5	5.5	14.1	25.7	0.16	0.9	0.37	24	0.06	0.069	48.9	29.8	0.62	151.8	0.015	< 1	1.48
147577C	41	51.6	18.6	633	3.56	38	1.2	3.1	13.9	27.4	0.17	0.8	0.31	24	0.08	0.068	38.3	33.9	0.46	241.9	0.016	1	1.19
147578F	144	28.1	12.7	329	3.61	9.9	0.7	1.8	4.7	16.8	0.09	0.23	0.2	90	0.13	0.069	20.7	73.9	1.11	99.5	0.121	< 1	2.05
147578C	45	54.1	23.6	812	4.05	5.3	0.5	1.1	4.3	19.1	0.06	0.19	0.1	132	0.37	0.066	15.3	148.6	2.04	98.7	0.284	1	2.22
147579FR	10702	36.6	16	559	3.58	73.4	2.7	279.5	19.4	43.7	1.59	23.44	0.45	25	0.19	0.106	53.6	25.4	0.78	91.6	0.03	< 1	1.24
147579FR	10908	37.7	16.1	565	3.63	72.1	2.7	290.1	19.9	44.2	1.6	24.12	0.46	25	0.2	0.104	55.1	26.6	0.79	94.1	0.031	1	1.27
147579C	3604	31.6	14.6	620	2.93	34.2	1.8	259.6	14.5	42.8	1.19	7.18	0.24	21	0.2	0.094	42.1	29.2	0.57	162.7	0.016	1	1.1
147579CR	3410	30.5	13.9	602	2.85	34.3	1.9	41.4	14.7	40.9	1.19	7.31	0.25	21	0.19	0.093	40.9	28.8	0.55	156.4	0.017	1	1.07

Appendix I

Sample	Na	K	W	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	Ba	Ni	Sr	Zr	Y	Nb	Sc	LOI
Element	%	%	ppm	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
Sample	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Sample											
Element	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	gm											
147568F	0.004	0.06	0.3	4.7	0.07	0.01	27	0.4	0.02	7.2	15											
147568C	0.007	0.09	1.1	5.9	0.04	0.03	< 5	0.3	< .02	8.9	15											
147569F	0.002	0.05	< .2	2.1	0.14	0.03	63	0.5	0.06	3.4	15											
147569C	0.004	0.14	2.4	2.5	0.1	0.15	110	0.3	0.06	1.9	15											
147570F	0.004	0.11	< .2	2.8	0.09	< .01	10	0.3	0.02	4.4	15											
147570C	0.011	0.22	2.5	3.6	0.1	0.02	8	0.3	0.03	4.7	15											
147571F	0.002	0.08	< .2	2.2	0.37	0.02	53	1.7	0.05	1.8	15											
147571C	0.008	0.23	3.6	1.6	0.19	0.04	10	0.8	0.03	1.2	15											
147572F	0.003	0.06	< .2	5.9	0.07	0.01	77	0.6	0.13	2.4	15											
147572C	0.007	0.1	6.2	2.7	0.05	0.06	16	0.2	0.05	1.6	15											
147573F	0.003	0.03	< .2	3.1	0.05	0.02	40	0.3	0.03	5.8	15											
147573C	0.01	0.09	1.7	4.5	0.03	0.04	6	0.3	0.04	5.6	15											
147574F	0.004	0.12	< .2	3.4	0.08	< .01	12	0.3	0.04	4.3	15											
147574C	0.015	0.21	2.2	3.7	0.09	0.01	11	0.3	0.04	4.7	15											
147575F	0.003	0.08	< .2	2.3	0.08	0.01	15	0.4	0.03	3.9	15											
147575C	0.012	0.2	3.1	2	0.08	0.01	9	0.3	0.03	3.9	15											
147576F	0.004	0.03	< .2	4.5	0.04	0.01	19	0.4	0.02	5.8	15											
147576C	0.015	0.07	1.4	5.3	0.03	< .01	< 5	0.3	< .02	6.9	15											
147577F	0.003	0.12	< .2	2	0.09	< .01	34	0.8	0.09	3.1	15											
147577C	0.01	0.24	4.3	2.2	0.09	0.01	18	0.9	0.11	2.8	15											
147578F	0.005	0.06	< .2	2.9	0.05	0.01	33	0.4	0.02	9.9	15											
147578C	0.023	0.14	1.6	4.1	0.04	0.01	10	0.2	< .02	10	15											
147579FR	0.003	0.1	< .2	2.7	0.09	< .01	110	0.9	0.09	3.4	15											
147579FR	0.003	0.1	< .2	2.9	0.09	< .01	120	0.9	0.08	3.4	15											
147579C	0.009	0.21	3.9	2.2	0.09	0.02	40	0.7	0.06	2.9	15											
147579CR	0.009	0.2	3.8	2.2	0.09	0.03	38	0.6	0.04	2.7	15											

Appendix I

Sample	TOT/C	TOT/S	SUM
Element	%	%	%
Sample			
Element			
147568F			
147568C			
147569F			
147569C			
147570F			
147570C			
147571F			
147571C			
147572F			
147572C			
147573F			
147573C			
147574F			
147574C			
147575F			
147575C			
147576F			
147576C			
147577F			
147577C			
147578F			
147578C			
147579FR			
147579FR			
147579C			
147579CR			

ACME ANALYTICAL LABORATORIES LTD. (ISO 9002 Accredited Co.) 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Spokane Resources Ltd. PROJECT Clearwater File # A002577 Page 1

450 - 650 W. Georgia St., Vancouver BC V6B 4N9 Submitted by: Kirk Hancock

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
E 147601	1	15	3	83	<.3	60	32	1121	5.69	4	<8	<2	2	34	<.2	<3	<3	142	1.22	.056	<1	110	3.39	60	.38	<3	3.46	.03	.06	<2
E 147604	1	162	<3	34	<.3	14	14	535	2.83	5	<8	<2	<2	28	.2	<3	<3	74	.99	.027	<1	16	1.18	19	.26	3	1.40	.03	.01	4
E 147608	<1	36	6	50	<.3	73	27	697	3.76	5	<8	<2	<2	23	<.2	<3	<3	92	1.41	.052	<1	194	2.02	40	.42	<3	2.17	.03	.07	<2
E 147609	<1	63	6	51	<.3	21	14	949	2.60	2	<8	<2	4	27	<.2	<3	<3	14	.38	.031	9	13	.21	512	<.01	<3	.39	.01	.16	2
E 147610	5	20	13	10	<.3	9	3	399	.93	2	<8	<2	<2	62	<.2	<3	<3	2	.23	.008	<1	27	.09	233	<.01	<3	.04	.02	.01	9
E 147614	6	11	5	47	.3	15	3	37	.91	4	<8	<2	2	12	<.2	<3	<3	12	.01	.010	8	19	.03	1173	<.01	<3	.23	<.01	.10	3
E 147617	3	8	<3	31	<.3	38	19	613	3.25	2	<8	<2	<2	28	<.2	<3	<3	90	2.19	.020	<1	126	1.73	155	.16	<3	1.62	.02	.02	2
E 147620	2	3	16	10	.3	3	1	19	.38	4	<8	<2	<2	6	<.2	3	<3	15	.01	.007	10	10	.02	760	<.01	<3	.17	<.01	.10	2
E 147623	4	14	50	60	<.3	20	3	54	1.90	18	<8	<2	3	15	<.2	<3	<3	21	.01	.024	14	22	.03	904	<.01	5	.34	<.01	.16	2
E 147626	1	18	3	55	<.3	14	2	50	1.27	8	<8	<2	2	2	<.2	<3	<3	23	<.01	.014	13	13	.02	772	<.01	<3	.21	<.01	.10	<2
E 147629	2	17	5	30	<.3	19	4	89	.98	6	<8	<2	3	11	<.2	<3	<3	10	.02	.016	7	21	.24	828	<.01	<3	.38	<.01	.12	2
E 147630	1	9	8	20	<.3	10	2	37	1.22	4	<8	<2	<2	35	<.2	<3	<3	23	.29	.150	10	21	.36	769	<.01	6	.56	.01	.11	2
RE E 147630	<1	11	7	20	<.3	10	2	38	1.22	11	<8	<2	2	35	<.2	<3	<3	22	.29	.150	10	19	.36	782	<.01	9	.56	<.01	.12	3
E 147632	1	57	<3	37	<.3	23	18	473	2.52	12	<8	<2	<2	22	<.2	<3	<3	56	2.49	.031	<1	57	.99	55	.31	4	1.56	.01	.04	<2
E 147635	<1	24	6	54	<.3	22	6	68	.86	11	<8	<2	3	18	<.2	<3	<3	10	.09	.028	8	24	.33	1194	<.01	<3	.45	<.01	.11	2
E 147641	2	16	27	36	<.3	16	6	128	1.53	22	<8	<2	4	8	<.2	<3	<3	8	.05	.035	13	18	.03	660	<.01	<3	.32	<.01	.20	2
E 147645	<1	94	<3	36	<.3	51	19	370	2.17	4	<8	<2	<2	9	<.2	<3	<3	38	.70	.036	<1	49	1.47	29	.19	<3	1.53	.03	.01	<2
STANDARD C3	27	67	37	166	6.0	38	13	825	3.63	64	17	4	21	31	25.2	16	24	85	.63	.097	18	175	.65	162	.09	28	1.95	.04	.17	17
STANDARD G-2	1	3	<3	41	<.3	8	4	537	2.08	3	<8	<2	3	72	<.2	<3	<3	41	.68	.100	7	78	.62	229	.13	8	.95	.07	.48	2

GROUP 1D - 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-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 25 2000 **DATE REPORT MAILED:** Aug 3/00 **SIGNED BY** ..... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data 1 FA ___

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
E 147602	<1	25	<3	38	<.3	19	8	321	1.34	<2	<8	<2	3	9	<.2	<3	<3	3	.44	.021	9	10	.11	671	<.01	<3	.22	.01	.16	<2
E 147603	<1	101	<3	75	<.3	23	30	863	5.12	<2	8	<2	2	35	.2	<3	<3	120	1.26	.063	<1	7	2.11	46	.42	<3	2.61	.04	<.01	<2
E 147605	<1	41	<3	62	.3	56	26	739	3.74	5	<8	<2	<2	11	.2	<3	3	91	.88	.054	<1	147	2.07	28	.43	<3	2.19	.04	.01	<2
E 147606	<1	7	<3	28	<.3	29	20	667	3.33	2	<8	<2	<2	35	.4	<3	<3	98	2.09	.061	<1	46	1.77	35	.33	3	1.88	.04	.04	<2
E 147607	<1	56	4	70	<.3	38	26	644	3.74	<2	<8	<2	<2	20	.2	<3	<3	109	.91	.034	<1	101	1.84	76	.45	<3	1.99	.03	.02	<2
E 147611	<1	146	4	48	<.3	25	12	1723	2.13	<2	<8	<2	3	30	<.2	<3	<3	8	.45	.043	8	10	.13	148	<.01	<3	.36	.01	.19	<2
E 147612	1	4	<3	13	<.3	5	1	27	.80	<2	<8	<2	2	4	<.2	<3	<3	7	.01	.013	8	16	.11	356	<.01	<3	.21	<.01	.08	2
E 147613	1	68	<3	95	<.3	120	41	1407	6.66	6	<8	<2	3	90	.2	<3	4	226	4.65	.057	<1	305	4.23	447	.38	<3	3.81	.02	.10	<2
E 147615	<1	37	<3	54	<.3	31	17	617	3.66	14	<8	<2	<2	11	.5	<3	<3	85	.83	.035	<1	71	1.57	67	.44	<3	2.05	.03	.02	<2
E 147616	<1	57	5	73	<.3	46	29	904	4.94	4	<8	<2	<2	23	.2	<3	3	130	1.44	.036	<1	119	2.05	22	.47	<3	2.41	.03	<.01	<2
E 147618	<1	58	<3	45	<.3	66	22	540	3.02	2	<8	<2	<2	11	.4	<3	3	56	.84	.043	<1	135	1.48	25	.31	3	1.85	.03	.02	<2
E 147619	<1	47	<3	57	<.3	18	27	704	3.95	<2	<8	<2	<2	14	.3	<3	3	115	1.24	.052	<1	10	1.73	25	.42	<3	1.96	.04	.03	<2
E 147621	<1	45	3	78	<.3	36	32	1422	6.22	5	<8	<2	3	74	.4	3	3	199	4.36	.054	<1	61	2.74	68	.40	<3	2.74	.03	.05	<2
E 147622	<1	9	3	108	<.3	8	32	1461	8.34	5	10	<2	2	35	<.2	<3	3	261	2.00	.080	<1	7	2.33	137	.36	<3	2.95	.04	<.01	<2
E 147624	1	73	<3	31	<.3	11	7	492	1.33	<2	<8	<2	<2	27	<.2	<3	<3	5	.86	.027	6	6	.28	1262	<.01	<3	.25	.01	.17	<2
E 147625	<1	45	3	57	<.3	34	24	686	4.06	7	<8	<2	<2	12	.5	<3	4	112	1.12	.042	<1	81	1.68	26	.40	<3	2.10	.05	.03	2
E 147627	1	4	<3	91	<.3	2	15	1144	6.13	3	<8	<2	<2	31	<.2	<3	3	41	1.08	.147	<1	5	1.45	76	.23	<3	2.35	.05	.02	<2
E 147628	<1	4	<3	77	<.3	4	31	993	7.31	<2	<8	<2	<2	35	<.2	<3	<3	228	1.61	.084	<1	4	2.22	51	.27	<3	2.65	.04	.03	<2
RE E 147628	<1	4	<3	75	<.3	4	31	978	7.23	4	<8	<2	<2	35	<.2	<3	3	227	1.60	.081	<1	6	2.18	50	.27	<3	2.60	.03	.04	<2
E 147631	<1	60	<3	75	<.3	41	29	805	5.08	17	<8	<2	<2	9	.3	<3	3	132	.94	.045	<1	72	2.18	33	.40	<3	2.60	.04	<.01	<2
E 147633	<1	67	<3	45	<.3	44	28	589	3.40	25	8	<2	<2	23	.2	<3	6	75	.88	.042	<1	89	1.51	90	.27	<3	1.98	.03	.08	<2
E 147634	<1	22	<3	46	<.3	36	22	618	3.71	16	<8	<2	<2	14	.3	<3	3	83	.71	.056	<1	38	1.63	120	.28	3	2.13	.04	.05	<2
E 147636	<1	26	14	80	<.3	9	30	1573	7.29	<2	<8	<2	<2	199	.3	<3	<3	254	5.36	.069	1	4	2.08	105	.03	<3	2.44	.03	.03	<2
E 147637	<1	47	<3	64	<.3	71	29	824	4.61	4	10	<2	<2	20	.3	<3	5	120	1.49	.062	<1	165	2.64	70	.39	<3	2.74	.03	.01	<2
E 147638	<1	9	<3	55	<.3	49	25	793	4.32	<2	<8	<2	<2	58	.3	<3	<3	146	3.04	.038	<1	118	2.59	38	.31	<3	2.62	.03	.07	<2
E 147639	<1	29	5	85	<.3	34	11	235	2.29	<2	<8	<2	4	45	<.2	<3	<3	24	.91	.037	10	43	1.09	755	.08	8	1.25	.01	.17	<2
E 147640	<1	37	3	59	<.3	32	22	650	3.77	14	<8	<2	<2	13	.3	<3	3	92	1.02	.036	<1	66	1.72	63	.40	<3	2.13	.03	.02	<2
E 147642	1	28	<3	78	<.3	31	40	1118	7.73	8	<8	<2	2	29	<.2	<3	6	338	2.66	.056	<1	13	2.38	303	.35	<3	3.21	.02	.01	<2
E 147643	<1	65	7	27	<.3	11	5	30	.64	<2	<8	<2	2	53	<.2	<3	<3	10	.06	.021	8	14	.19	2317	.01	<3	.34	<.01	.12	<2
E 147644	1	100	<3	31	<.3	12	3	121	1.63	10	<8	<2	<2	4	<.2	<3	3	9	.06	.013	5	11	.05	533	.01	<3	.20	.01	.09	<2
STANDARD C3	26	66	40	174	5.7	36	12	781	3.45	57	23	4	22	29	25.0	16	25	82	.60	.093	17	172	.62	154	.09	25	1.88	.04	.17	17
STANDARD G-2	1	3	<3	43	<.3	7	4	524	1.99	<2	<8	<2	4	72	<.2	<3	<3	40	.67	.097	6	74	.60	224	.13	3	.94	.07	.49	3

Sample type: ROCK. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

WHOLE ROCK ICP ANALYSIS

Spokane Resources Ltd. PROJECT Clearwater File # A002577 Page 2

450 - 650 W. Georgia St., Vancouver BC V6B 4N9 Submitted by: Kirk Hancock

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Ni ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	Sc ppm	LOI %	TOT/C %	TOT/S %	SUM %
E 147602	84.27	6.89	2.79	.57	.65	.10	2.12	.39	.02	.05	.007	3517	<20	21	93	12	<10	9	1.9	.21	.24	100.17
E 147603	47.91	16.57	12.23	5.32	8.99	3.38	.09	1.85	.11	.18	.003	90	32	344	91	31	<10	27	3.2	.10	.04	99.91
E 147605	51.35	15.15	10.05	7.04	7.40	4.40	.21	1.44	.15	.17	.029	68	82	107	76	27	<10	33	2.7	.06	.04	100.14
E 147606	49.96	14.86	9.76	5.94	8.65	4.38	.55	1.64	.14	.16	.009	204	39	223	102	32	<10	34	4.0	.44	.10	100.13
E 147607	51.91	14.89	11.14	5.90	8.06	3.59	.33	1.42	.09	.17	.018	198	79	219	57	26	<10	33	2.7	.05	.15	100.29
E 147611	79.42	8.38	4.17	.59	.63	.80	1.87	.44	.08	.23	.008	3488	<20	177	98	18	<10	16	2.9	.20	.52	99.95
E 147612	91.27	3.90	1.52	.49	.04	.01	1.13	.23	<.01	<.01	.012	3069	<20	11	37	<10	<10	5	1.3	.05	.03	100.26
E 147613	45.70	14.06	10.40	7.72	7.14	3.82	.32	1.52	.12	.19	.038	452	107	120	74	31	<10	33	8.9	1.44	.02	100.02
E 147615	50.82	15.36	11.04	6.03	9.49	2.93	.22	1.44	.06	.17	.015	97	34	127	71	28	<10	35	2.4	.07	.03	100.02
E 147616	48.05	15.65	12.62	5.70	9.59	3.02	.13	1.53	.10	.20	.020	70	55	210	64	29	<10	37	3.4	.20	.23	100.07
E 147618	49.48	14.94	10.59	7.30	10.54	2.87	.22	1.41	.09	.18	.036	64	82	141	67	29	<10	34	2.4	.06	.11	100.11
E 147619	50.61	14.91	11.59	5.73	7.82	4.09	.38	1.59	.09	.18	.003	118	<20	138	75	31	<10	37	3.1	.15	.25	100.14
E 147621	48.23	14.43	10.86	5.09	6.67	4.42	.69	1.64	.16	.20	.009	281	22	100	79	33	<10	33	7.7	1.34	.09	100.17
E 147622	50.75	14.37	14.27	4.06	5.22	4.11	.14	2.17	.17	.23	.002	338	<20	175	108	41	<10	28	4.4	.44	.03	99.98
E 147624	82.31	6.48	3.09	.91	1.22	.12	2.02	.46	.03	.07	.008	3113	42	42	140	17	11	8	3.1	.47	.13	100.20
E 147625	50.80	15.29	10.98	6.03	7.40	4.49	.25	1.40	.09	.17	.015	67	33	128	68	28	<10	34	3.1	.16	.14	100.06
E 147627	56.59	15.34	11.10	2.54	4.56	4.65	.22	1.81	.32	.19	.003	278	36	224	144	53	<10	20	2.7	.11	.05	100.11
E 147628	50.62	14.51	14.48	4.03	6.15	3.42	.30	2.31	.17	.23	.002	260	<20	214	103	43	<10	30	3.8	.31	.05	100.10
RE E 147628	50.59	14.53	14.58	4.07	6.15	3.44	.29	2.27	.19	.22	.004	258	<20	214	114	42	<10	30	3.8	.31	.08	100.21
E 147631	49.78	15.78	11.80	6.41	6.93	4.08	.16	1.54	.08	.17	.016	94	37	115	65	31	<10	36	3.2	.08	.14	99.99
E 147633	51.05	15.51	10.40	6.31	8.49	3.22	.67	1.17	.06	.16	.017	308	42	265	60	25	<10	33	3.0	.09	.09	100.14
E 147634	49.43	15.77	11.22	6.43	8.98	3.13	.52	1.44	.05	.18	.014	737	48	205	78	29	<10	34	2.6	.03	.03	99.90
E 147636	48.44	12.98	11.89	3.66	8.03	4.56	.26	1.80	.17	.21	.002	381	<20	265	89	35	<10	24	7.9	1.83	1.29	100.00
E 147637	47.45	15.39	11.37	7.72	8.65	3.10	.24	1.59	.14	.18	.030	171	67	150	89	31	<10	35	4.0	.26	.11	99.93
E 147638	47.62	14.86	10.23	6.82	8.75	3.11	.73	1.57	.06	.16	.019	247	53	269	70	25	<10	35	6.1	.81	.03	100.11
E 147639	73.41	9.74	4.79	2.73	2.07	.48	1.93	.66	.10	.04	.014	6823	29	80	144	24	<10	14	3.5	.35	.26	100.26
E 147640	51.38	15.02	10.96	6.07	8.85	2.89	.21	1.42	.08	.17	.013	136	35	130	72	29	<10	34	2.9	.08	.07	100.02
E 147642	47.77	13.64	14.69	4.98	7.88	2.77	.08	2.34	.14	.19	.004	341	<20	160	80	35	<10	38	5.3	.68	.16	99.86
E 147643	89.59	4.12	1.63	.66	.13	.05	1.15	.28	.04	<.01	.010	8050	<20	105	54	11	<10	6	1.4	.02	.12	99.99
E 147644	90.44	3.73	2.65	.30	.10	.09	.97	.20	<.01	.02	.010	4007	23	11	58	10	<10	5	1.2	.06	.23	100.17
STANDARD SO-15/CSB	49.11	12.82	7.31	7.27	5.88	2.41	1.84	1.66	2.70	1.39	1.061	1939	86	396	912	21	32	11	5.9	2.40	5.39	99.76

GROUP 4A - 0.200 GM SAMPLE BY LIBO2 FUSION, ANALYSIS BY ICP-ES. LOI BY LOSS ON IGNITION.
TOTAL C & S BY LECO. (NOT INCLUDED IN THE SUM)
- SAMPLE TYPE: ROCK Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 25 2000 DATE REPORT MAILED: Aug 3/00 SIGNED BY: D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

 Data FA

ACME ANALYTICAL LABORATORIES LTD. (ISO 9002 Accredited Co.) 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Spokane Resources Ltd. PROJECT CLEARWATER File # A002733

450 - 650 W. Georgia St., Vancouver BC V6B 4N9 Submitted by: Kirk Hancock

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
E 147551	3	8	13	45	<.3	14	3	26	1.30	18	<8	<2	5	7	<.2	<3	<3	5	.01	.008	26	6	.03	162	<.01	6	.35	.01	.18	<2
E 147553	<1	21	10	47	<.3	16	6	1172	1.49	<2	<8	<2	2	98	.2	<3	<3	1	2.71	.030	9	8	1.29	2213	<.01	<3	.35	.01	.17	2
E 147560	1	48	8	52	.4	27	4	44	2.25	3	<8	<2	5	7	<.2	<3	<3	23	.09	.041	15	38	.94	877	<.01	5	1.26	<.01	.18	<2
E 147561	21	20	14	329	2.2	69	10	41	.99	50	<8	<2	<2	656	2.2	10	<3	555	1.94	.962	11	45	.16	25801	.05	14	1.60	<.01	.11	3
E 147565	<1	39	<3	28	<.3	19	11	533	2.30	3	<8	<2	<2	21	<.2	<3	<3	44	1.22	.039	1	29	1.16	93	.29	<3	1.49	.02	.01	2
E 147566	2	4	15	30	<.3	11	4	244	1.65	2	<8	<2	8	5	<.2	<3	<3	5	.04	.013	16	23	.26	110	<.01	<3	.62	.02	.09	4
E 147567	1	8	12	53	<.3	12	5	337	1.70	2	<8	<2	7	7	<.2	<3	<3	3	.08	.016	16	16	.20	53	<.01	<3	.50	.02	.11	3
E 147580	1	35	87	100	<.3	33	11	178	4.09	<2	<8	<2	11	5	<.2	<3	<3	8	.12	.062	29	27	.66	163	<.01	3	1.59	.01	.25	2
RE E 147580	2	37	96	103	<.3	34	12	184	4.22	<2	<8	<2	11	5	<.2	<3	<3	10	.13	.064	28	28	.68	165	<.01	4	1.64	.01	.26	2
E 147582	<1	8	12	82	<.3	36	10	226	3.59	<2	<8	<2	11	7	<.2	<3	<3	13	.10	.055	34	22	.71	102	<.01	<3	1.45	.01	.20	2
E 147584	2	5	<3	10	.3	3	1	16	.43	2	<8	<2	<2	2	<.2	<3	<3	6	.01	.009	4	14	.02	378	<.01	6	.13	<.01	.07	2
E 147585	<1	41	3	36	<.3	14	3	44	1.01	<2	<8	<2	<2	23	<.2	<3	<3	4	.02	.024	9	17	.15	998	<.01	<3	.25	<.01	.07	2
STANDARD C3	24	63	39	172	5.7	35	12	764	3.31	56	19	3	19	28	23.0	16	23	76	.56	.085	17	161	.61	145	.09	22	1.76	.04	.16	18
STANDARD G-2	1	3	4	46	<.3	8	4	555	2.09	<2	<8	<2	3	73	<.2	<3	<3	39	.67	.097	7	74	.64	233	.13	<3	.99	.07	.47	2

GROUP 1D - 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-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 1 2000 **DATE REPORT MAILED:** Aug 11/00 **SIGNED BY.** .....D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

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ACME ANALYTICAL LABORATORIES LTD. (ISO 9002 Accredited Co.)
852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Spokane Resources Ltd. PROJECT CLEARWATER File # A002733

450 - 650 W. Georgia St., Vancouver BC V6B 4N9 Submitted by: Kirk Hancock

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
E 147551	3	8	13	45	<.3	14	3	26	1.30	18	<8	<2	5	7	<.2	<3	<3	5	.01	.008	26	6	.03	162	<.01	6	.35	.01	.18	<2
E 147553	<1	21	10	47	<.3	16	6	1172	1.49	<2	<8	<2	2	98	.2	<3	<3	1	2.71	.030	9	8	1.29	2213	<.01	<3	.35	.01	.17	2
E 147560	1	48	8	52	.4	27	4	44	2.25	3	<8	<2	5	7	<.2	<3	<3	23	.09	.041	15	38	.94	877	<.01	5	1.26	<.01	.18	<2
E 147561	21	20	14	329	2.2	69	10	41	.99	50	<8	<2	<2	656	2.2	10	<3	555	1.94	.962	11	45	.16	25801	.05	14	1.60	<.01	.11	3
E 147565	<1	39	<3	28	<.3	19	11	533	2.30	3	<8	<2	<2	21	<.2	<3	<3	44	1.22	.039	1	29	1.16	93	.29	<3	1.49	.02	.01	2
E 147566	2	4	15	30	<.3	11	4	244	1.65	2	<8	<2	8	5	<.2	<3	<3	5	.04	.013	16	23	.26	110	<.01	<3	.62	.02	.09	4
E 147567	1	8	12	53	<.3	12	5	337	1.70	2	<8	<2	7	7	<.2	<3	<3	3	.08	.016	16	16	.20	53	<.01	<3	.50	.02	.11	3
E 147580	1	35	87	100	<.3	33	11	178	4.09	<2	<8	<2	11	5	<.2	<3	<3	8	.12	.062	29	27	.66	163	<.01	3	1.59	.01	.25	2
RE E 147580	2	37	96	103	<.3	34	12	184	4.22	<2	<8	<2	11	5	<.2	<3	<3	10	.13	.064	28	28	.68	165	<.01	4	1.64	.01	.26	2
E 147582	<1	8	12	82	<.3	36	10	226	3.59	<2	<8	<2	11	7	<.2	<3	<3	13	.10	.055	34	22	.71	102	<.01	<3	1.45	.01	.20	2
E 147584	2	5	<3	10	.3	3	1	16	.43	2	<8	<2	<2	2	<.2	<3	<3	6	.01	.009	4	14	.02	378	<.01	6	.13	<.01	.07	2
E 147585	<1	41	3	36	<.3	14	3	44	1.01	<2	<8	<2	<2	23	<.2	<3	<3	4	.02	.024	9	17	.15	998	<.01	<3	.25	<.01	.07	2
STANDARD C3	24	63	39	172	5.7	35	12	764	3.31	56	19	3	19	28	23.0	16	23	76	.56	.085	17	161	.61	145	.09	22	1.76	.04	.16	18
STANDARD G-2	1	3	4	46	<.3	8	4	555	2.09	<2	<8	<2	3	73	<.2	<3	<3	39	.67	.097	7	74	.64	233	.13	<3	.99	.07	.47	2

GROUP 1D - 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-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 1 2000 DATE REPORT MAILED: Aug 11/00 SIGNED BY. C. Leong .D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

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ACME ANALYTICAL LABORATORIES LTD. (ISO 9002 Accredited Co.) 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Spokane Resources Ltd. PROJECT CLEARWATER File # A002734

450 - 650 W. Georgia St., Vancouver BC V6B 4N9 Submitted by: Kirk Hancock

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
E 147552	1	64	<3	40	<.3	169	31	591	3.58	<2	<8	<2	<2	31	.3	<3	<3	63	1.29	.034	1	257	3.12	52	.18	<3	2.59	.03	.04	<2
E 147554	<1	16	<3	60	<.3	41	28	890	5.21	5	<8	<2	<2	37	.2	<3	<3	144	1.52	.076	3	91	2.78	356	.36	<3	2.67	.03	.01	<2
E 147555	<1	49	7	63	<.3	60	27	806	4.19	4	<8	<2	<2	24	.4	3	<3	110	1.32	.060	2	163	2.37	59	.38	<3	2.43	.03	.06	<2
E 147556	<1	36	7	50	<.3	45	25	540	3.36	14	<8	<2	<2	15	.3	<3	<3	65	.63	.047	1	64	1.61	129	.24	<3	1.92	.03	.01	<2
E 147557	<1	53	11	118	<.3	43	31	880	4.60	5	<8	<2	<2	38	.5	<3	<3	130	1.74	.041	1	76	2.54	57	.49	<3	2.59	.03	.01	3
E 147558	1	21	<3	120	<.3	12	2	119	.48	8	<8	<2	<2	13	2.1	<3	<3	3	.22	.007	3	8	.12	383	.01	4	.14	<.01	.06	3
E 147559	<1	62	<3	57	<.3	32	23	679	3.90	17	<8	<2	<2	36	.3	<3	<3	87	1.24	.059	2	26	1.78	122	.28	<3	2.11	.04	.01	<2
E 147562	40	359	4429	247	3.2	22	1	40	1.79	14	<8	<2	<2	89	.7	7	<3	11	.25	.218	8	18	.01	621	<.01	<3	.39	<.01	.01	3
E 147563	<1	47	20	70	<.3	71	32	1072	5.53	6	<8	<2	<2	59	.5	<3	<3	178	4.57	.054	1	205	3.28	51	.34	<3	3.24	.03	.02	<2
E 147564	1	55	22	37	<.3	50	21	467	2.80	9	<8	<2	<2	14	.2	<3	<3	61	1.11	.065	2	115	1.26	100	.43	<3	1.50	.03	.01	<2
E 147581	1	287	<3	134	<.3	49	37	2504	6.99	19	<8	<2	<2	90	.7	<3	<3	190	2.28	.056	3	52	3.58	2893	.14	3	4.18	.02	.11	2
RE E 147581	2	288	10	137	<.3	49	37	2541	7.08	19	<8	<2	<2	91	.7	<3	<3	194	2.30	.057	3	53	3.64	2920	.14	<3	4.24	.02	.11	2
E 147583	1	54	5	59	<.3	45	32	802	4.45	9	<8	<2	<2	16	.2	<3	<3	106	.83	.037	1	121	1.99	34	.49	<3	2.32	.04	.01	<2
E 147646	<1	64	4	59	<.3	70	27	734	3.87	7	<8	<2	<2	15	.3	<3	<3	80	1.07	.054	1	150	2.06	83	.47	<3	2.30	.04	.02	<2
E 147647	1	41	6	55	<.3	53	25	716	3.75	<2	<8	<2	<2	11	<.2	<3	<3	79	.83	.058	<1	160	1.80	43	.48	<3	2.09	.03	.03	<2
E 147648	1	57	11	68	<.3	53	24	617	3.35	6	<8	<2	<2	12	.3	<3	<3	63	.90	.045	1	123	1.78	27	.38	<3	2.09	.02	.05	<2
E 147649	<1	27	5	40	<.3	50	26	626	3.22	11	<8	<2	<2	13	.3	<3	<3	61	1.60	.045	1	96	1.87	13	.28	<3	2.12	.02	.03	<2
E 147650	1	75	<3	48	<.3	74	30	642	3.45	4	<8	<2	<2	12	.2	<3	<3	74	1.21	.045	1	205	2.30	17	.27	<3	2.22	.03	.02	<2
STANDARD C3	26	64	33	166	5.5	36	11	773	3.38	58	18	2	20	28	23.9	17	22	75	.56	.088	17	160	.58	149	.09	24	1.74	.04	.16	17
STANDARD G-2	1	2	4	43	<.3	8	4	540	2.05	<2	<8	<2	5	71	<.2	<3	<3	38	.65	.095	7	72	.58	232	.13	<3	.93	.07	.46	3

GROUP 1D - 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-ES.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 1 2000 **DATE REPORT MAILED:** Aug 15/00 **SIGNED BY** ..... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

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ACME ANALYTICAL LABORATORIES LTD. (ISO 9002 Accredited Co.) 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

WHOLE ROCK ICP ANALYSIS

Spokane Resources Ltd. PROJECT CLEARWATER File # A002734

450 - 650 W. Georgia St., Vancouver BC V6B 4N9 Submitted by: Kirk Hancock

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Ni ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	Sc ppm	LOI %	TOT/C %	TOT/S %	SUM %
E 147552	47.18	13.49	10.08	12.48	8.33	2.42	.50	1.02	.13	.16	.057	276	248	188	50	17	12	30	4.3	.26	<.01	100.25
E 147554	48.80	16.21	10.91	6.26	6.96	4.20	.08	1.94	.26	.16	.015	448	42	202	113	35	11	34	4.1	.29	<.01	100.00
E 147555	49.74	15.01	10.93	7.21	8.49	2.65	.56	1.57	.18	.18	.030	143	80	186	93	28	<10	35	3.6	.17	.05	100.22
E 147556	50.18	15.29	11.04	6.80	9.09	3.66	.14	1.40	.18	.17	.020	890	41	195	68	25	<10	35	2.0	.06	.07	100.12
E 147557	50.41	15.21	10.89	5.92	9.11	2.46	.12	1.45	.16	.17	.012	75	45	269	77	29	<10	35	4.1	.28	.07	100.08
E 147558	93.14	3.22	.69	.54	.35	.07	.86	.17	.02	.01	.003	3214	<20	14	42	<10	<10	5	.9	.16	.10	100.34
E 147559	50.63	15.82	10.44	5.84	8.09	4.24	.13	1.65	.16	.17	.006	916	34	423	94	29	11	31	2.7	.20	.10	100.05
E 147562	85.89	4.58	2.40	.04	.37	<.01	.08	.20	.49	<.01	.009	24295	22	401	42	19	<10	5	3.1	.08	.73	99.94
E 147563	47.73	14.60	9.98	6.62	8.38	3.42	.17	1.48	.15	.16	.029	62	95	147	94	27	10	33	7.2	1.16	.01	99.98
E 147564	49.92	14.12	10.66	6.93	10.65	3.17	.08	1.69	.21	.17	.027	110	71	151	105	32	<10	34	2.3	.10	.03	99.99
E 147581	47.37	17.01	10.58	6.54	3.44	2.25	1.91	1.59	.12	.33	.008	24876	45	187	103	29	<10	32	5.8	.61	.13	99.78
RE E 147581	46.96	16.92	10.87	6.48	3.40	2.23	1.90	1.57	.21	.33	.006	24122	36	184	90	29	10	32	5.8	.63	.15	99.42
E 147583	48.74	15.99	11.87	6.21	9.08	3.42	.07	1.53	.10	.19	.017	134	53	185	72	29	<10	37	2.7	.04	.13	99.98
E 147646	48.53	15.61	11.16	6.99	9.79	2.85	.15	1.65	.18	.19	.031	198	99	157	96	31	10	35	2.9	.06	.01	100.11
E 147647	49.46	14.70	11.60	6.76	9.65	2.75	.27	1.80	.21	.20	.023	156	53	159	106	36	12	35	2.6	.06	.07	100.09
E 147648	48.85	15.28	11.10	7.08	10.90	2.14	.29	1.53	.11	.18	.026	85	59	188	73	29	<10	36	2.7	.09	.07	100.24
E 147649	47.76	15.86	10.27	6.72	12.20	1.87	.22	1.40	.11	.18	.024	47	67	151	75	28	<10	34	3.4	.26	<.01	100.06
E 147650	48.11	14.82	10.61	8.21	10.06	2.80	.17	1.38	.11	.17	.036	53	95	153	64	24	<10	36	3.4	.19	.06	99.93
STANDARD SO-15/CSB	49.09	12.82	7.31	7.27	5.88	2.41	1.85	1.66	2.70	1.39	1.061	1925	75	396	912	20	32	11	5.9	2.39	5.36	99.74

GROUP 4A - 0.200 GM SAMPLE BY LIBO2 FUSION, ANALYSIS BY ICP-ES. LOI BY LOSS ON IGNITION.
TOTAL C & S BY LECO. (NOT INCLUDED IN THE SUM)
- SAMPLE TYPE: ROCK R150 60C
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 1 2000 **DATE REPORT MAILED:** Aug 15/00 **SIGNED BY:** .....D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data ✓ FA ___

ACME ANALYTICAL LABORATORIES LTD. (ISO 9002 Accredited Co.) 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Spokane Resources Ltd. PROJECT CLEARWATER File # A002735 Page 1

450 - 650 W. Georgia St., Vancouver BC V6B 4N9 Submitted by: Kirk Hancock

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Sc ppm	Tl ppm	S %	Hg ppb	Se ppm	Te ppm	Ga ppm	Sample gm
E 147568 -1/2"+10mesh	.71	48.12	7.88	74.2	25	84.2	34.8	1075	5.31	2.2	.1	12.9	1.8	10.6	.06	.15	.03	116	.40	.045	4.0	160.7	3.06	74.4	.275	<1	3.07	.007	09	1.1	5.9	.04	.03	<5	.3	<.02	8.9	15
E 147569 -1/2"+10mesh	1.70	43.52	14.10	63.5	34	30.0	14.0	643	2.82	11.6	5	27.2	5.3	17.5	.10	3.49	26	17	.07	.041	17.8	18.9	.20	850.9	.015	<1	.77	.004	14	2.4	2.5	.10	.15	110	.3	.06	1.9	15
E 147570 -1/2"+10mesh	1.78	57.61	35.56	55.4	22	25.2	20.2	767	2.95	8.1	1.3	2.7	13.0	29.5	.08	36	.23	50	.20	.081	37.3	38.0	1.07	233.7	.066	1	1.51	.011	22	2.5	3.6	.10	.02	8	.3	.03	4.7	15
E 147571 -1/2"+10mesh	8.71	23.90	31.34	112.2	74	48.1	16.5	355	2.85	31.9	2.8	6.6	13.1	9.3	.24	.69	.28	10	.04	.052	23.0	14.4	.09	250.1	.003	1	.63	.008	.23	3.6	1.6	.19	.04	10	.8	.03	1.2	15
E 147572 -1/2"+10mesh	8.34	82.00	72.93	42.1	75	21.5	7.7	448	1.67	9.3	.3	4.3	2.5	20.7	.15	.46	.13	18	.08	.023	10.5	27.7	.21	1734.9	.008	2	.59	.007	.10	6.2	2.7	.05	.06	16	2	.05	1.6	15
E 147573 -1/2"+10mesh	1.94	35.25	12.80	58.0	40	39.7	19.6	628	3.30	3.6	.3	1.6	3.0	22.7	.11	.20	.14	81	.20	.033	11.4	79.0	1.40	621.2	.115	1	1.76	.010	.09	1.7	4.5	.03	.04	6	.3	.04	5.6	15
E 147574 -1/2"+10mesh	1.85	52.00	34.00	61.3	28	35.6	20.0	607	2.96	13.6	1.1	2.7	13.4	43.0	.15	.48	.25	49	.29	.086	41.4	74.0	1.19	164.8	.084	1	1.57	.015	.21	2.2	3.7	.09	.01	11	.3	.04	4.7	15
E 147575 -1/2"+10mesh	2.00	45.59	33.32	58.3	106	41.3	16.9	631	2.78	13.1	1.2	2.1	11.3	39.1	.21	.56	.23	28	.18	.062	38.8	67.0	.89	145.1	.029	1	1.40	.012	.20	3.0	2.0	.08	.01	9	.3	.03	3.9	15
E 147576 -1/2"+10mesh	1.15	60.00	9.81	47.8	20	165.0	36.3	781	4.35	10.5	.3	1.0	3.1	13.9	.10	.15	.12	108	.26	.046	10.3	429.0	3.15	83.1	.103	1	2.50	.015	.07	1.4	5.3	.03	<.01	<5	.3	<.02	6.9	15
E 147577 -1/2"+10mesh	3.31	51.88	30.72	86.9	41	51.6	18.6	633	3.56	38.0	1.2	3.1	13.9	27.4	.17	80	.31	24	.08	.068	38.3	33.9	.46	241.9	.016	1	1.19	.010	.24	4.3	2.2	.09	.01	18	.8	.11	2.8	15
E 147578 -1/2"+10mesh	1.49	13.81	10.41	54.5	45	54.1	23.6	812	4.05	5.3	.5	1.1	4.3	19.1	.06	.19	.10	132	37	.066	15.3	148.6	2.04	98.7	.284	1	2.22	.023	.14	1.6	4.1	.04	.01	10	.2	<.02	10.0	15
E 147579 -1/2"+10mesh	3.93	60.77	378.81	383.8	3604	31.6	14.6	620	2.93	34.2	1.8	259.6	14.5	42.8	1.19	7.18	.24	21	.20	.094	42.1	29.2	.57	162.7	.016	1	1.10	.009	.21	3.9	2.2	.09	.02	40	.7	.06	2.9	15
RE E 147579 -1/2"+10mesh	3.72	57.36	364.77	373.9	3410	30.5	13.9	602	2.85	34.3	1.8	41.4	14.7	40.9	1.19	7.31	.25	21	19	.093	40.9	28.8	.55	156.4	.017	1	1.07	.009	.20	3.8	2.2	.09	.03	38	6	.04	2.7	15
STANDARD DS2	13.77	122.69	32.33	152.4	256	33.6	10.8	785	3.06	57.6	18.5	217.9	3.4	26.6	9.65	9.95	10.85	73	.48	.085	14.7	147.3	.56	142.6	.087	1	1.57	.026	.14	7.9	2.6	1.76	.03	231	2.3	1.82	5.9	15

GROUP 1F15 - 15.00 GM SAMPLE, 90 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 300 ML, ANALYSIS BY ICP/ES & MS.
UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: TILL Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 1 2000 **DATE REPORT MAILED:** Aug 16/00 **SIGNED BY** C. Leong .D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data ___ FA ___

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Sc ppm	Tl ppm	S %	Hg ppb	Se ppm	Te ppm	Ga ppm	Sample gm
E 147568 -230	.46	129 39	13.87	56.7	74	51.9	30.8	716	4.16	5.3	.6	88.2	4.9	16.3	11	35	.12	83	19	.042	15.2	95.8	1.81	205.9	.103	<1	3.21	.004	.06	.3	4.7	.07	01	27	.4	.02	7.2	15
E 147569 -230	.76	61.16	16.83	62.3	91	27.9	14.5	374	3.40	13 4	9	160.7	4.3	22.1	.15	4.16	.38	29	.08	.053	29.5	22.2	.44	981.1	.034	<1	1.30	.002	05	<.2	2 1	.14	.03	63	.5	.06	3.4	15
E 147570 -230	.51	56.12	21.35	49.6	24	21 1	11.6	249	2.44	5.2	1.3	3.3	12.9	28.8	.07	.29	.21	41	.14	.056	46.6	32 4	1 08	211.9	.068	<1	1.52	.004	.11	<.2	2.8	.09	<.01	10	.3	.02	4 4	15
E 147571 -230	10 76	57 92	61.30	208.2	171	79.3	26.4	455	5.34	77.4	3.8	18.9	13.0	15 6	.36	2 09	55	17	03	095	38.7	15.7	.22	146.3	.004	1	1.47	.002	.08	<.2	2.2	.37	.02	53	1 7	05	1 8	15
E 147572 -230	7.09	198.41	209.18	70.7	349	44.1	17 9	677	3.15	22 2	.9	34.3	6.6	29.4	.25	1.07	44	28	.32	.074	27.3	35.6	63	439 2	.024	<1	1 40	.003	06	< 2	5.9	.07	.01	77	.6	.13	2.4	15
E 147573 -230	.95	50.17	14.68	55.5	162	33.1	16.5	328	3 19	4.9	.6	4.4	2.7	13.5	.18	.25	.16	63	.09	.032	16.8	60.9	1.03	510.0	.046	1	2.23	.003	.03	<.2	3.1	05	.02	40	.3	.03	5.8	15
E 147574 -230	.76	61.80	36.55	64.9	27	33.0	17.4	516	2.93	15.0	1.1	5.2	14.2	39.1	.14	62	33	39	21	080	45.5	58.5	1.12	127.3	.058	<1	1.46	.004	.12	<.2	3.4	.08	<.01	12	.3	04	4 3	15
E 147575 -230	.86	65.15	46.73	66.6	216	37 6	19 1	562	2.83	23.0	1.4	4.7	12.5	43.7	.26	.95	.37	30	.15	.058	44.6	37.5	.90	89.7	039	<1	1 42	.003	.08	< 2	2.3	.08	.01	15	.4	.03	3 9	15
E 147576 -230	.50	118.66	12.44	49.3	86	183 7	40.4	645	4.35	18.4	4	2.9	4.0	15.7	.14	.33	.09	84	.18	.051	15.0	430.9	2.83	89.9	.058	1	2.83	.004	.03	<.2	4.5	.04	01	19	.4	.02	5.8	15
E 147577 -230	1.00	62 09	29.08	87.0	48	54.4	15.9	410	3.32	43.3	1.5	5.5	14.1	25.7	.16	.90	.37	24	.06	069	48 9	29.8	.62	151.8	015	<1	1.48	.003	.12	<.2	2.0	.09	<.01	34	.8	.09	3.1	15
E 147578 -230	.84	24.75	13.75	49.7	144	28.1	12.7	329	3 61	9 9	.7	1.8	4.7	16.8	.09	.23	.20	90	.13	.069	20.7	73.9	1.11	99.5	.121	<1	2.05	.005	.06	<.2	2.9	.05	.01	33	4	02	9.9	15
E 147579 -230	1.77	87.46	770.06	632.9	10702	36.6	16.0	559	3.58	73.4	2.7	279 5	19.4	43.7	1.59	23.44	.45	25	.19	.106	53.6	25.4	.78	91.6	.030	<1	1.24	.003	.10	<.2	2.7	.09	<.01	110	.9	09	3 4	15
RE E 147579 -230	1.76	90.96	775.88	641.8	10908	37.7	16.1	565	3.63	72.1	2.7	290.1	19.9	44.2	1.60	24.12	.46	25	.20	.104	55.1	26.6	.79	94.1	.031	1	1.27	.003	.10	<.2	2.9	.09	<.01	120	.9	.08	3.4	15
STANDARD DS2	13.77	122.69	32.33	152.4	256	33.6	10.8	785	3.06	57.5	18 5	217 9	3.4	26.6	9.65	9.95	10.85	73	.48	.085	14.7	147.3	.56	142.6	.087	1	1.57	.026	.14	7.9	2.6	1.76	.03	231	2.3	1 82	5.9	15

Sample type: TILL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

Appendix II

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147603

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	49.58	56.49	Q	Quartz	4.18	SiO2	14.39
TiO2	1.91	1.64	C	Corundum	0.00	Al2O3	0.00
Al2O3	17.15	11.52	Z	Zircon	0.02	ZrSiO4	0.02
Fe2O3	12.66	5.43	Or	Orthoclase	0.55	(K,Na)AlSi3O8	0.41
FeO	0.00	0.00	Ab	Albite	29.60	(K,Na)AlSi3O8	23.36
MnO	0.19	0.18	An	Anorthite	30.83	(Na,K)AlSi2O8	22.93
MgO	5.51	9.35	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	9.30	11.36	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	3.50	3.86	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.09	0.07	Hl	Halite	0.00	NaCl	0.00
P2O5	0.11	0.05	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.00	0.00	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	6.86	Ca(Mg,Fe)(SiO2)3	6.55
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	10.53	(Mg,Fe)SiO3	10.86
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.00	Cr2O4	0.00
			Hm	Hematite	12.66	Fe2O3	16.41
			Il	Ilmenite	0.41	FeTiO3	0.56
			Tn	Sphene	4.17	CaTiSiO5	4.40
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.27	Ca5(PO4)3F	0.11
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.08		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	8.44	Qtz	59.18	Di	27.04	Pl	56.12	Qtz	62.55	Qtz	33.31	Cpx	-6.81
Qtz	55.59	Ol	25.45	Ol	59.48	Ol	30.17	Ol	8.72	Ol	4.65	Ol	19.66
Jd+	35.97	Di	15.37	Sil	13.49	Di	13.71	Cpx	28.72	Pl	62.04	Sil	87.15

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147605

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	52.74	58.22	Q	Quartz	2.26	SiO2	8.20
TiO2	1.48	1.23	C	Corundum	0.00	Al2O3	0.00
Al2O3	15.56	10.12	Z	Zircon	0.02	ZrSiO4	0.02
Fe2O3	10.32	4.29	Or	Orthoclase	1.27	(K,Na)AlSi3O8	1.00
FeO	0.00	0.00	Ab	Albite	38.24	(K,Na)AlSi3O8	31.80
MnO	0.17	0.16	An	Anorthite	21.55	(Na,K)AlSi2O8	16.89
MgO	7.23	11.90	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	7.60	8.99	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	4.52	4.84	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.22	0.15	Hl	Halite	0.00	NaCl	0.00
P2O5	0.15	0.07	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.02	0.01	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	8.37	Ca(Mg,Fe)(SiO2)3	8.42
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	14.13	(Mg,Fe)SiO3	15.34
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.03	Cr2O4	0.03
			Hm	Hematite	10.32	Fe2O3	14.10
			Il	Ilmenite	0.38	FeTiO3	0.55
			Tn	Sphene	3.14	CaTiSiO5	3.49
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.37	Ca5(PO4)3F	0.16
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.07		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	11.26	Qtz	49.76	Di	27.21	Pl	55.24	Qtz	51.00	Qtz	28.21	Cpx	-1.45
Qtz	53.01	Ol	32.43	Ol	59.23	Ol	30.67	Ol	20.57	Ol	11.38	Ol	18.88
Jd+	35.73	Di	17.81	Sil	13.56	Di	14.09	Cpx	28.43	Pl	60.41	Sil	82.57

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147606

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	52.02	57.71	Q	Quartz	0.28	SiO2	1.08
TiO2	1.71	1.42	C	Corundum	0.00	Al2O3	0.00
Al2O3	15.47	10.12	Z	Zircon	0.02	ZrSiO4	0.03
Fe2O3	10.16	4.24	Or	Orthoclase	3.38	(K,Na)AlSi3O8	2.82
FeO	0.00	0.00	Ab	Albite	38.59	(K,Na)AlSi3O8	34.07
MnO	0.17	0.16	An	Anorthite	20.07	(Na,K)AlSi2O8	16.70
MgO	6.18	10.23	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	9.01	10.71	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	4.56	4.90	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.57	0.41	Hl	Halite	0.00	NaCl	0.00
P2O5	0.15	0.07	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.01	0.00	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	14.39	Ca(Mg,Fe)(SiO2)3	15.38
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	8.74	(Mg,Fe)SiO3	10.07
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.01	Cr2O4	0.01
			Hm	Hematite	10.16	Fe2O3	14.74
			Il	Ilmenite	0.36	FeTiO3	0.56
			Tn	Sphene	3.72	CaTiSiO5	4.39
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.35	Ca5(PO4)3F	0.16
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.07		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	8.21	Qtz	30.47	Di	57.08	Pl	55.47	Qtz	31.05	Qtz	16.30	Cpx	6.06
Qtz	50.44	Ol	27.52	Ol	62.73	Ol	23.31	Ol	7.66	Ol	4.02	Ol	13.36
Jd+	41.35	Di	42.01	Sil	-19.81	Di	21.21	Cpx	61.29	Pl	79.69	Sil	80.58

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147607

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	53.24	59.47	Q	Quartz	7.54	SiO2	23.90
TiO2	1.46	1.22	C	Corundum	0.00	Al2O3	0.00
Al2O3	15.27	10.05	Z	Zircon	0.01	ZrSiO4	0.01
Fe2O3	11.43	4.80	Or	Orthoclase	2.00	(K,Na)AlSi3O8	1.37
FeO	0.00	0.00	Ab	Albite	31.15	(K,Na)AlSi3O8	22.62
MnO	0.17	0.17	An	Anorthite	24.16	(Na,K)AlSi2O8	16.52
MgO	6.05	10.07	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	8.27	9.89	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	3.68	3.99	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.34	0.24	Hl	Halite	0.00	NaCl	0.00
P2O5	0.09	0.04	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.02	0.01	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	9.33	Ca(Mg,Fe)(SiO2)3	8.20
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	10.75	(Mg,Fe)SiO3	10.19
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.02	Cr2O4	0.02
			Hm	Hematite	11.43	Fe2O3	13.62
			Il	Ilmenite	0.38	FeTiO3	0.48
			Tn	Sphene	3.08	CaTiSiO5	2.99
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.22	Ca5(PO4)3F	0.08
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.08		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	8.31	Qtz	64.96	Di	22.14	Pl	54.43	Qtz	67.11	Qtz	43.37	Cpx	-2.41
Qtz	59.75	Ol	19.41	Ol	42.91	Ol	30.06	Ol	9.99	Ol	6.46	Ol	15.99
Jd+	31.94	Di	15.63	Sil	34.95	Di	15.51	Cpx	22.89	Pl	50.18	Sil	86.42

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147613

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	50.23	55.47	Q	Quartz	0.00	SiO2	0.00
TiO2	1.67	1.39	C	Corundum	0.00	Al2O3	0.00
Al2O3	15.45	10.06	Z	Zircon	0.02	ZrSiO4	0.02
Fe2O3	11.43	4.75	Or	Orthoclase	2.08	(K,Na)AlSi3O8	1.69
FeO	0.00	0.00	Ab	Albite	35.52	(K,Na)AlSi3O8	30.69
MnO	0.21	0.20	An	Anorthite	22.31	(Na,K)AlSi2O8	18.15
MgO	8.48	13.97	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	7.85	9.29	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	4.20	4.49	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.35	0.25	Hl	Halite	0.00	NaCl	0.00
P2O5	0.13	0.06	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.05	0.02	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	8.51	Ca(Mg,Fe)(SiO2)3	8.89
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	12.99	(Mg,Fe)SiO3	14.66
			Ol	Olivine	2.94	(Mg,Fe)2SiO4	4.74
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.07	Cr2O4	0.07
			Hm	Hematite	11.43	Fe2O3	16.22
			Il	Ilmenite	0.44	FeTiO3	0.66
			Tn	Sphene	3.54	CaTiSiO5	4.08
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.31	Ca5(PO4)3F	0.14
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.16		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	14.72	Qtz	34.13	Di	31.99	Pl	51.72	Qtz	35.46	Qtz	18.85	Cpx	-2.93
Qtz	48.20	Ol	45.17	Ol	79.32	Ol	34.40	Ol	30.69	Ol	16.31	Ol	25.45
Jd+	37.07	Di	20.70	Sil	-11.31	Di	13.88	Cpx	33.85	Pl	64.84	Sil	77.48

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147615

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	52.09	58.12	Q	Quartz	7.97	SiO2	24.99
TiO2	1.48	1.24	C	Corundum	0.00	Al2O3	0.00
Al2O3	15.74	10.35	Z	Zircon	0.01	ZrSiO4	0.02
Fe2O3	11.32	4.75	Or	Orthoclase	1.33	(K,Na)AlSi3O8	0.90
FeO	0.00	0.00	Ab	Albite	25.41	(K,Na)AlSi3O8	18.26
MnO	0.17	0.16	An	Anorthite	28.83	(Na,K)AlSi2O8	19.52
MgO	6.18	10.28	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	9.73	11.63	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	3.00	3.25	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.23	0.16	Hl	Halite	0.00	NaCl	0.00
P2O5	0.06	0.03	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.01	0.00	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	11.40	Ca(Mg,Fe)(SiO2)3	9.92
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	10.11	(Mg,Fe)SiO3	9.49
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.02	Cr2O4	0.01
			Hm	Hematite	11.32	Fe2O3	13.35
			Il	Ilmenite	0.37	FeTiO3	0.47
			Tn	Sphene	3.14	CaTiSiO5	3.01
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.15	Ca5(PO4)3F	0.05
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.05		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	7.94	Qtz	63.99	Di	24.54	Pl	52.77	Qtz	66.22	Qtz	44.93	Cpx	-0.23
Qtz	60.46	Ol	17.60	Ol	39.96	Ol	29.26	Ol	8.42	Ol	5.71	Ol	16.57
Jd+	31.61	Di	18.41	Sil	35.50	Di	17.97	Cpx	25.36	Pl	49.36	Sil	83.67

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147616

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	49.75	56.39	Q	Quartz	5.30	SiO2	17.65
TiO2	1.58	1.35	C	Corundum	0.00	Al2O3	0.00
Al2O3	16.20	10.83	Z	Zircon	0.01	ZrSiO4	0.01
Fe2O3	13.07	5.57	Or	Orthoclase	0.80	(K,Na)AlSi3O8	0.57
FeO	0.00	0.00	Ab	Albite	26.45	(K,Na)AlSi3O8	20.17
MnO	0.21	0.20	An	Anorthite	29.79	(Na,K)AlSi2O8	21.41
MgO	5.90	9.97	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	9.93	12.06	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	3.13	3.44	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.13	0.10	Hl	Halite	0.00	NaCl	0.00
P2O5	0.10	0.05	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.02	0.01	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	11.04	Ca(Mg,Fe)(SiO2)3	10.19
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	9.58	(Mg,Fe)SiO3	9.54
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.03	Cr2O4	0.02
			Hm	Hematite	13.07	Fe2O3	16.36
			Il	Ilmenite	0.45	FeTiO3	0.59
			Tn	Sphene	3.31	CaTiSiO5	3.38
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.25	Ca5(PO4)3F	0.10
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.07		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	7.96	Qtz	57.95	Di	30.10	Pl	52.40	Qtz	60.35	Qtz	37.27	Cpx	-3.30
Qtz	57.36	Ol	20.33	Ol	52.23	Ol	30.20	Ol	8.22	Ol	5.07	Ol	19.72
Jd+	34.68	Di	21.72	Sil	17.67	Di	17.40	Cpx	31.43	Pl	57.66	Sil	83.58

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147618

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	50.69	55.81	Q	Quartz	4.10	SiO2	14.06
TiO2	1.44	1.20	C	Corundum	0.00	Al2O3	0.00
Al2O3	15.30	9.93	Z	Zircon	0.01	ZrSiO4	0.02
Fe2O3	10.85	4.50	Or	Orthoclase	1.33	(K,Na)AlSi3O8	0.99
FeO	0.00	0.00	Ab	Albite	24.87	(K,Na)AlSi3O8	19.56
MnO	0.18	0.17	An	Anorthite	27.91	(Na,K)AlSi2O8	20.68
MgO	7.48	12.27	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	10.80	12.74	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	2.94	3.14	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.23	0.16	Hl	Halite	0.00	NaCl	0.00
P2O5	0.09	0.04	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.02	0.01	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	16.21	Ca(Mg,Fe)(SiO2)3	15.43
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	11.11	(Mg,Fe)SiO3	11.41
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.03	Cr2O4	0.03
			Hm	Hematite	10.85	Fe2O3	14.01
			Il	Ilmenite	0.40	FeTiO3	0.55
			Tn	Sphene	3.03	CaTiSiO5	3.18
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.22	Ca5(PO4)3F	0.09
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.07		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	9.72	Qtz	48.69	Di	36.64	Pl	49.00	Qtz	50.27	Qtz	35.31	Cpx	6.35
Qtz	55.99	Ol	21.81	Ol	46.02	Ol	28.39	Ol	11.73	Ol	8.24	Ol	19.01
Jd+	34.29	Di	29.50	Sil	17.34	Di	22.61	Cpx	38.00	Pl	56.45	Sil	74.64

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147619

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	52.18	58.65	Q	Quartz	4.10	SiO2	14.13
TiO2	1.64	1.39	C	Corundum	0.00	Al2O3	0.00
Al2O3	15.37	10.18	Z	Zircon	0.02	ZrSiO4	0.02
Fe2O3	11.95	5.05	Or	Orthoclase	2.32	(K,Na)AlSi3O8	1.72
FeO	0.00	0.00	Ab	Albite	35.68	(K,Na)AlSi3O8	28.17
MnO	0.19	0.18	An	Anorthite	21.87	(Na,K)AlSi2O8	16.27
MgO	5.91	9.90	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	8.06	9.71	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	4.22	4.59	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.39	0.28	Hl	Halite	0.00	NaCl	0.00
P2O5	0.09	0.04	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.00	0.00	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	9.83	Ca(Mg,Fe)(SiO2)3	9.39
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	10.16	(Mg,Fe)SiO3	10.47
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.00	Cr2O4	0.00
			Hm	Hematite	11.95	Fe2O3	15.49
			Il	Ilmenite	0.41	FeTiO3	0.56
			Tn	Sphene	3.50	CaTiSiO5	3.69
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.22	Ca5(PO4)3F	0.09
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.04		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	8.45	Qtz	55.33	Di	30.62	Pl	55.06	Qtz	57.88	Qtz	33.31	Cpx	-2.26
Qtz	55.70	Ol	23.55	Ol	54.88	Ol	28.85	Ol	9.95	Ol	5.72	Ol	16.20
Jd+	35.85	Di	21.12	Sil	14.50	Di	16.10	Cpx	32.17	Pl	60.97	Sil	86.06

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147621

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	52.20	58.98	Q	Quartz	1.71	SiO2	6.31
TiO2	1.78	1.51	C	Corundum	0.00	Al2O3	0.00
Al2O3	15.62	10.40	Z	Zircon	0.02	ZrSiO4	0.02
Fe2O3	11.75	5.00	Or	Orthoclase	4.41	(K,Na)AlSi3O8	3.52
FeO	0.00	0.00	Ab	Albite	40.48	(K,Na)AlSi3O8	34.25
MnO	0.22	0.21	An	Anorthite	18.95	(Na,K)AlSi2O8	15.11
MgO	5.51	9.28	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	7.22	8.74	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	4.78	5.24	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.75	0.54	Hl	Halite	0.00	NaCl	0.00
P2O5	0.17	0.08	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.01	0.00	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	8.15	Ca(Mg,Fe)(SiO2)3	8.35
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	9.94	(Mg,Fe)SiO3	10.99
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.01	Cr2O4	0.01
			Hm	Hematite	11.75	Fe2O3	16.33
			Il	Ilmenite	0.47	FeTiO3	0.69
			Tn	Sphene	3.75	CaTiSiO5	4.24
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.41	Ca5(PO4)3F	0.18
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.06		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	8.65	Qtz	47.21	Di	37.61	Pl	57.83	Qtz	49.13	Qtz	23.65	Cpx	-3.03
Qtz	52.48	Ol	29.99	Ol	70.15	Ol	27.45	Ol	10.48	Ol	5.05	Ol	15.24
Jd+	38.87	Di	22.80	Sil	-7.76	Di	14.72	Cpx	40.38	Pl	71.30	Sil	87.79

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147622

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	53.15	61.71	Q	Quartz	10.98	SiO2	31.66
TiO2	2.27	1.98	C	Corundum	0.00	Al2O3	0.00
Al2O3	15.05	10.30	Z	Zircon	0.02	ZrSiO4	0.02
Fe2O3	14.94	6.53	Or	Orthoclase	0.87	(K,Na)AlSi3O8	0.54
FeO	0.00	0.00	Ab	Albite	36.42	(K,Na)AlSi3O8	24.07
MnO	0.24	0.24	An	Anorthite	21.33	(Na,K)AlSi2O8	13.28
MgO	4.25	7.36	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	5.47	6.80	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	4.30	4.84	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.15	0.11	Hl	Halite	0.00	NaCl	0.00
P2O5	0.18	0.09	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.00	0.00	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	0.00	Ca(Mg,Fe)(SiO2)3	0.00
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	10.59	(Mg,Fe)SiO3	9.14
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.00	Cr2O4	0.00
			Hm	Hematite	14.94	Fe2O3	16.22
			Il	Ilmenite	0.53	FeTiO3	0.60
			Tn	Sphene	3.34	CaTiSiO5	2.95
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.64	TiO2	1.38
			Ap	Apatite	0.42	Ca5(PO4)3F	0.14
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.07		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	7.33	Qtz	81.70	Di	7.34	Pl	57.98	Qtz	87.15	Qtz	50.66	Cpx	-15.31
Qtz	62.70	Ol	18.30	Ol	48.37	Ol	36.49	Ol	5.12	Ol	2.98	Ol	16.13
Jd+	29.96	Di	0.00	Sil	44.29	Di	5.54	Cpx	7.72	Pl	46.36	Sil	99.19

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147625

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	52.43	58.64	Q	Quartz	2.50	SiO2	9.02
TiO2	1.44	1.22	C	Corundum	0.00	Al2O3	0.00
Al2O3	15.78	10.40	Z	Zircon	0.01	ZrSiO4	0.02
Fe2O3	11.33	4.77	Or	Orthoclase	1.52	(K,Na)AlSi3O8	1.19
FeO	0.00	0.00	Ab	Albite	39.20	(K,Na)AlSi3O8	32.40
MnO	0.18	0.17	An	Anorthite	21.51	(Na,K)AlSi2O8	16.75
MgO	6.22	10.37	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	7.64	9.15	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	4.63	5.02	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.26	0.18	Hl	Halite	0.00	NaCl	0.00
P2O5	0.09	0.04	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.01	0.01	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	8.95	Ca(Mg,Fe)(SiO2)3	8.95
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	11.35	(Mg,Fe)SiO3	12.25
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.02	Cr2O4	0.02
			Hm	Hematite	11.33	Fe2O3	15.38
			Il	Ilmenite	0.38	FeTiO3	0.54
			Tn	Sphene	3.06	CaTiSiO5	3.38
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.22	Ca5(PO4)3F	0.09
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.05		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	9.29	Qtz	50.08	Di	30.36	Pl	56.50	Qtz	52.17	Qtz	27.35	Cpx	-2.78
Qtz	53.42	Ol	28.84	Ol	61.80	Ol	29.17	Ol	16.00	Ol	8.39	Ol	17.41
Jd+	37.29	Di	21.08	Sil	7.84	Di	14.33	Cpx	31.83	Pl	64.26	Sil	85.37

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147627

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	58.15	66.72	Q	Quartz	16.50	SiO2	43.08
TiO2	1.86	1.60	C	Corundum	0.00	Al2O3	0.00
Al2O3	15.76	10.66	Z	Zircon	0.03	ZrSiO4	0.03
Fe2O3	11.41	4.92	Or	Orthoclase	1.34	(K,Na)AlSi3O8	0.75
FeO	0.00	0.00	Ab	Albite	40.43	(K,Na)AlSi3O8	24.18
MnO	0.20	0.19	An	Anorthite	20.92	(Na,K)AlSi2O8	11.78
MgO	2.61	4.46	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	4.69	5.76	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	4.78	5.31	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.23	0.17	Hl	Halite	0.00	NaCl	0.00
P2O5	0.33	0.16	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.00	0.00	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	0.00	Ca(Mg,Fe)(SiO2)3	0.00
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	6.50	(Mg,Fe)SiO3	5.08
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.00	Cr2O4	0.00
			Hm	Hematite	11.41	Fe2O3	11.20
			Il	Ilmenite	0.43	FeTiO3	0.45
			Tn	Sphene	0.20	CaTiSiO5	0.16
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	1.55	TiO2	3.05
			Ap	Apatite	0.78	Ca5(PO4)3F	0.24
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.08		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	4.06	Qtz	90.46	Di	2.54	Pl	68.15	Qtz	95.85	Qtz	56.75	Cpx	-10.89
Qtz	67.21	Ol	9.54	Ol	30.40	Ol	29.39	Ol	1.52	Ol	0.90	Ol	9.26
Jd+	28.73	Di	0.00	Sil	67.07	Di	2.45	Cpx	2.63	Pl	42.36	Sil	101.62

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147628

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	52.61	61.17	Q	Quartz	12.63	SiO2	35.27
TiO2	2.40	2.10	C	Corundum	0.00	Al2O3	0.00
Al2O3	15.08	10.33	Z	Zircon	0.02	ZrSiO4	0.02
Fe2O3	15.05	6.58	Or	Orthoclase	1.84	(K,Na)AlSi3O8	1.11
FeO	0.00	0.00	Ab	Albite	30.07	(K,Na)AlSi3O8	19.24
MnO	0.24	0.24	An	Anorthite	24.29	(Na,K)AlSi2O8	14.64
MgO	4.19	7.26	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	6.39	7.96	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	3.55	4.01	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.31	0.23	Hl	Halite	0.00	NaCl	0.00
P2O5	0.18	0.09	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.00	0.00	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	0.00	Ca(Mg,Fe)(SiO2)3	0.00
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	10.43	(Mg,Fe)SiO3	8.72
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.00	Cr2O4	0.00
			Hm	Hematite	15.05	Fe2O3	15.81
			Il	Ilmenite	0.52	FeTiO3	0.58
			Tn	Sphene	4.49	CaTiSiO5	3.84
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.30	TiO2	0.63
			Ap	Apatite	0.42	Ca5(PO4)3F	0.14
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.06		100.00

Projection Data

Green				*Walker*				*Groves*				*Elthon*	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	7.23	Qtz	83.46	Di	8.61	Pl	56.40	Qtz	88.06	Qtz	55.27	Cpx	-14.72
Qtz	64.64	Ol	16.54	Ol	43.34	Ol	36.37	Ol	2.89	Ol	1.81	Ol	15.78
Jd+	28.13	Di	0.00	Sil	48.05	Di	7.23	Cpx	9.05	Pl	42.92	Sil	98.94

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL~TMP1.ROC
sample: 147628R

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	52.52	61.08	Q	Quartz	12.47	SiO2	34.94
TiO2	2.36	2.06	C	Corundum	0.00	Al2O3	0.00
Al2O3	15.08	10.34	Z	Zircon	0.02	ZrSiO4	0.02
Fe2O3	15.14	6.62	Or	Orthoclase	1.78	(K,Na)AlSi3O8	1.08
FeO	0.00	0.00	Ab	Albite	30.21	(K,Na)AlSi3O8	19.39
MnO	0.23	0.23	An	Anorthite	24.26	(Na,K)AlSi2O8	14.67
MgO	4.23	7.32	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	6.38	7.96	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	3.57	4.03	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.30	0.22	Hl	Halite	0.00	NaCl	0.00
P2O5	0.20	0.10	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.00	0.00	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	0.00	Ca(Mg,Fe)(SiO2)3	0.00
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	10.52	(Mg,Fe)SiO3	8.82
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.00	Cr2O4	0.00
			Hm	Hematite	15.14	Fe2O3	15.95
			Il	Ilmenite	0.50	FeTiO3	0.56
			Tn	Sphene	4.39	CaTiSiO5	3.77
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.31	TiO2	0.64
			Ap	Apatite	0.47	Ca5(PO4)3F	0.16
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.07		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	7.31	Qtz	83.23	Di	8.67	Pl	56.28	Qtz	87.64	Qtz	54.82	Cpx	-14.91
Qtz	64.47	Ol	16.77	Ol	43.95	Ol	36.52	Ol	3.25	Ol	2.04	Ol	16.05
Jd+	28.22	Di	0.00	Sil	47.38	Di	7.20	Cpx	9.10	Pl	43.14	Sil	98.86

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147631

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	51.46	57.94	Q	Quartz	3.43	SiO2	12.00
TiO2	1.59	1.35	C	Corundum	0.00	Al2O3	0.00
Al2O3	16.31	10.82	Z	Zircon	0.01	ZrSiO4	0.02
Fe2O3	12.20	5.17	Or	Orthoclase	0.98	(K,Na)AlSi3O8	0.74
FeO	0.00	0.00	Ab	Albite	35.69	(K,Na)AlSi3O8	28.65
MnO	0.18	0.17	An	Anorthite	25.10	(Na,K)AlSi2O8	18.99
MgO	6.63	11.12	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	7.16	8.64	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	4.22	4.60	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.17	0.12	Hl	Halite	0.00	NaCl	0.00
P2O5	0.08	0.04	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.01	0.00	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	3.98	Ca(Mg,Fe)(SiO2)3	3.87
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	14.66	(Mg,Fe)SiO3	15.37
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.02	Cr2O4	0.02
			Hm	Hematite	12.20	Fe2O3	16.08
			Il	Ilmenite	0.38	FeTiO3	0.53
			Tn	Sphene	3.41	CaTiSiO5	3.66
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.20	Ca5(PO4)3F	0.08
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.05		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	11.14	Qtz	58.73	Di	17.09	Pl	56.27	Qtz	61.38	Qtz	32.31	Cpx	-9.19
Qtz	54.35	Ol	32.98	Ol	64.21	Ol	34.53	Ol	20.71	Ol	10.90	Ol	21.99
Jd+	34.52	Di	8.30	Sil	18.70	Di	9.19	Cpx	17.90	Pl	56.79	Sil	87.21

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147633

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	52.61	58.52	Q	Quartz	5.89	SiO2	19.53
TiO2	1.21	1.01	C	Corundum	0.00	Al2O3	0.00
Al2O3	15.98	10.48	Z	Zircon	0.01	ZrSiO4	0.01
Fe2O3	10.72	4.49	Or	Orthoclase	4.08	(K,Na)AlSi3O8	2.92
FeO	0.00	0.00	Ab	Albite	28.08	(K,Na)AlSi3O8	21.32
MnO	0.16	0.16	An	Anorthite	26.70	(Na,K)AlSi2O8	19.10
MgO	6.50	10.78	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	8.75	10.43	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	3.32	3.58	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.69	0.49	Hl	Halite	0.00	NaCl	0.00
P2O5	0.06	0.03	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.01	0.01	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	10.03	Ca(Mg,Fe)(SiO2)3	9.22
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	11.54	(Mg,Fe)SiO3	11.45
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.02	Cr2O4	0.02
			Hm	Hematite	10.72	Fe2O3	13.36
			Il	Ilmenite	0.36	FeTiO3	0.47
			Tn	Sphene	2.50	CaTiSiO5	2.54
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.15	Ca5(PO4)3F	0.06
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.08		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	9.29	Qtz	59.98	Di	23.26	Pl	54.87	Qtz	61.91	Qtz	39.45	Cpx	-1.61
Qtz	57.92	Ol	22.16	Ol	46.00	Ol	29.97	Ol	14.13	Ol	9.00	Ol	17.89
Jd+	32.79	Di	17.85	Sil	30.73	Di	15.16	Cpx	23.96	Pl	51.55	Sil	83.72

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147634

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	50.88	56.94	Q	Quartz	4.27	SiO2	14.66
TiO2	1.48	1.25	C	Corundum	0.00	Al2O3	0.00
Al2O3	16.23	10.71	Z	Zircon	0.02	ZrSiO4	0.02
Fe2O3	11.55	4.86	Or	Orthoclase	3.16	(K,Na)AlSi3O8	2.35
FeO	0.00	0.00	Ab	Albite	27.26	(K,Na)AlSi3O8	21.46
MnO	0.19	0.18	An	Anorthite	28.27	(Na,K)AlSi2O8	20.96
MgO	6.62	11.04	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	9.24	11.09	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	3.22	3.50	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.54	0.38	Hl	Halite	0.00	NaCl	0.00
P2O5	0.05	0.02	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.01	0.00	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	10.09	Ca(Mg,Fe)(SiO2)3	9.61
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	11.81	(Mg,Fe)SiO3	12.14
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.01	Cr2O4	0.01
			Hm	Hematite	11.55	Fe2O3	14.93
			Il	Ilmenite	0.41	FeTiO3	0.56
			Tn	Sphene	3.11	CaTiSiO5	3.27
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.12	Ca5(PO4)3F	0.05
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.07		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	9.81	Qtz	55.20	Di	27.00	Pl	53.65	Qtz	57.74	Qtz	35.38	Cpx	-2.30
Qtz	55.92	Ol	25.01	Ol	52.94	Ol	30.69	Ol	14.16	Ol	8.68	Ol	20.02
Jd+	34.27	Di	19.79	Sil	20.07	Di	15.65	Cpx	28.11	Pl	55.94	Sil	82.28

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147636

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	52.65	59.91	Q	Quartz	4.36	SiO2	14.89
TiO2	1.96	1.67	C	Corundum	0.00	Al2O3	0.00
Al2O3	14.11	9.46	Z	Zircon	0.02	ZrSiO4	0.02
Fe2O3	12.92	5.53	Or	Orthoclase	1.67	(K,Na)AlSi3O8	1.23
FeO	0.00	0.00	Ab	Albite	41.94	(K,Na)AlSi3O8	32.83
MnO	0.23	0.22	An	Anorthite	15.43	(Na,K)AlSi2O8	11.38
MgO	3.98	6.75	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	8.73	10.64	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	4.96	5.47	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.28	0.21	Hl	Halite	0.00	NaCl	0.00
P2O5	0.18	0.09	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.00	0.00	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	16.28	Ca(Mg,Fe)(SiO2)3	15.42
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	2.37	(Mg,Fe)SiO3	2.42
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.00	Cr2O4	0.00
			Hm	Hematite	12.92	Fe2O3	16.61
			Il	Ilmenite	0.50	FeTiO3	0.68
			Tn	Sphene	4.16	CaTiSiO5	4.35
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.44	Ca5(PO4)3F	0.18
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.08		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	2.24	Qtz	49.25	Di	59.88	Pl	54.88	Qtz	51.68	Qtz	29.67	Cpx	4.61
Qtz	56.88	Ol	6.88	Ol	48.85	Ol	20.27	Ol	-16.29	Ol	-9.35	Ol	6.95
Jd+	40.88	Di	43.87	Sil	-8.72	Di	24.85	Cpx	64.60	Pl	79.68	Sil	88.44

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147637

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	49.51	55.06	Q	Quartz	2.08	SiO2	7.49
TiO2	1.66	1.39	C	Corundum	0.00	Al2O3	0.00
Al2O3	16.06	10.53	Z	Zircon	0.02	ZrSiO4	0.02
Fe2O3	11.86	4.96	Or	Orthoclase	1.48	(K,Na)AlSi3O8	1.15
FeO	0.00	0.00	Ab	Albite	27.37	(K,Na)AlSi3O8	22.62
MnO	0.19	0.18	An	Anorthite	28.57	(Na,K)AlSi2O8	22.26
MgO	8.06	13.35	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	9.03	10.76	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	3.23	3.49	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.25	0.18	Hl	Halite	0.00	NaCl	0.00
P2O5	0.15	0.07	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.03	0.01	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	8.01	Ca(Mg,Fe)(SiO2)3	8.01
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	16.35	(Mg,Fe)SiO3	17.65
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.04	Cr2O4	0.04
			Hm	Hematite	11.86	Fe2O3	16.10
			Il	Ilmenite	0.40	FeTiO3	0.58
			Tn	Sphene	3.55	CaTiSiO5	3.93
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.35	Ca5(PO4)3F	0.15
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.08		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	13.31	Qtz	49.49	Di	25.20	Pl	50.92	Qtz	51.04	Qtz	30.50	Cpx	-4.25
Qtz	52.83	Ol	34.74	Ol	63.29	Ol	35.10	Ol	22.59	Ol	13.50	Ol	26.26
Jd+	33.86	Di	15.78	Sil	11.51	Di	13.98	Cpx	26.38	Pl	56.00	Sil	77.99

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147638

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	50.71	56.27	Q	Quartz	2.11	SiO2	7.65
TiO2	1.67	1.40	C	Corundum	0.00	Al2O3	0.00
Al2O3	15.82	10.35	Z	Zircon	0.01	ZrSiO4	0.02
Fe2O3	10.89	4.55	Or	Orthoclase	4.59	(K,Na)AlSi3O8	3.60
FeO	0.00	0.00	Ab	Albite	28.02	(K,Na)AlSi3O8	23.32
MnO	0.17	0.16	An	Anorthite	26.03	(Na,K)AlSi2O8	20.42
MgO	7.26	12.01	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	9.32	11.08	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	3.31	3.56	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.78	0.55	Hl	Halite	0.00	NaCl	0.00
P2O5	0.06	0.03	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.02	0.01	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	11.48	Ca(Mg,Fe)(SiO2)3	11.56
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	12.77	(Mg,Fe)SiO3	13.88
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.03	Cr2O4	0.03
			Hm	Hematite	10.89	Fe2O3	14.89
			Il	Ilmenite	0.37	FeTiO3	0.53
			Tn	Sphene	3.63	CaTiSiO5	4.04
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.15	Ca5(PO4)3F	0.07
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.08		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	11.29	Qtz	45.83	Di	33.92	Pl	52.55	Qtz	48.26	Qtz	29.66	Cpx	1.12
Qtz	53.11	Ol	29.54	Ol	57.52	Ol	29.85	Ol	16.08	Ol	9.88	Ol	20.02
Jd+	35.59	Di	24.62	Sil	8.56	Di	17.60	Cpx	35.65	Pl	60.45	Sil	78.86

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147640

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	52.94	58.99	Q	Quartz	9.70	SiO2	29.22
TiO2	1.46	1.23	C	Corundum	0.00	Al2O3	0.00
Al2O3	15.48	10.16	Z	Zircon	0.01	ZrSiO4	0.01
Fe2O3	11.29	4.74	Or	Orthoclase	1.28	(K,Na)AlSi3O8	0.83
FeO	0.00	0.00	Ab	Albite	25.20	(K,Na)AlSi3O8	17.39
MnO	0.18	0.17	An	Anorthite	28.24	(Na,K)AlSi2O8	18.36
MgO	6.25	10.39	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	9.12	10.89	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	2.98	3.22	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.22	0.15	Hl	Halite	0.00	NaCl	0.00
P2O5	0.08	0.04	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.01	0.00	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	9.45	Ca(Mg,Fe)(SiO2)3	7.89
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	11.20	(Mg,Fe)SiO3	10.09
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.01	Cr2O4	0.01
			Hm	Hematite	11.29	Fe2O3	12.80
			Il	Ilmenite	0.38	FeTiO3	0.45
			Tn	Sphene	3.10	CaTiSiO5	2.86
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.20	Ca5(PO4)3F	0.07
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.05		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	8.35	Qtz	68.61	Di	19.42	Pl	52.88	Qtz	70.64	Qtz	48.85	Cpx	-2.15
Qtz	62.08	Ol	17.61	Ol	37.77	Ol	31.12	Ol	9.37	Ol	6.48	Ol	16.70
Jd+	29.57	Di	13.77	Sil	42.81	Di	16.00	Cpx	20.00	Pl	44.67	Sil	85.44

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147642

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	50.56	58.29	Q	Quartz	10.96	SiO2	31.50
TiO2	2.48	2.15	C	Corundum	0.00	Al2O3	0.00
Al2O3	14.44	9.81	Z	Zircon	0.02	ZrSiO4	0.02
Fe2O3	15.55	6.74	Or	Orthoclase	0.50	(K,Na)AlSi3O8	0.31
FeO	0.00	0.00	Ab	Albite	24.81	(K,Na)AlSi3O8	16.34
MnO	0.20	0.20	An	Anorthite	26.01	(Na,K)AlSi2O8	16.14
MgO	5.27	9.06	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	8.34	10.30	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	2.93	3.28	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.08	0.06	Hl	Halite	0.00	NaCl	0.00
P2O5	0.15	0.07	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.00	0.00	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	5.25	Ca(Mg,Fe)(SiO2)3	4.18
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	10.70	(Mg,Fe)SiO3	9.20
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.00	Cr2O4	0.00
			Hm	Hematite	15.55	Fe2O3	16.82
			Il	Ilmenite	0.44	FeTiO3	0.51
			Tn	Sphene	5.51	CaTiSiO5	4.85
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.35	Ca5(PO4)3F	0.12
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.08		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	8.01	Qtz	75.25	Di	17.84	Pl	49.74	Qtz	78.95	Qtz	54.43	Cpx	-10.37
Qtz	63.71	Ol	17.02	Ol	44.02	Ol	35.77	Ol	2.27	Ol	1.57	Ol	17.83
Jd+	28.28	Di	7.73	Sil	38.14	Di	14.50	Cpx	18.78	Pl	44.00	Sil	92.54

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147646

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	49.98	55.64	Q	Quartz	4.49	SiO2	15.28
TiO2	1.70	1.42	C	Corundum	0.00	Al2O3	0.00
Al2O3	16.08	10.55	Z	Zircon	0.02	ZrSiO4	0.02
Fe2O3	11.49	4.81	Or	Orthoclase	0.91	(K,Na)AlSi3O8	0.67
FeO	0.00	0.00	Ab	Albite	24.83	(K,Na)AlSi3O8	19.35
MnO	0.20	0.18	An	Anorthite	30.25	(Na,K)AlSi2O8	22.21
MgO	7.20	11.95	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	10.08	12.03	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	2.94	3.17	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.15	0.11	Hl	Halite	0.00	NaCl	0.00
P2O5	0.19	0.09	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.02	0.01	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	10.52	Ca(Mg,Fe)(SiO2)3	9.92
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	13.05	(Mg,Fe)SiO3	13.28
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.03	Cr2O4	0.03
			Hm	Hematite	11.49	Fe2O3	14.71
			Il	Ilmenite	0.43	FeTiO3	0.58
			Tn	Sphene	3.62	CaTiSiO5	3.77
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.44	Ca5(PO4)3F	0.18
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.09		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	10.63	Qtz	55.17	Di	28.52	Pl	51.05	Qtz	56.65	Qtz	36.46	Cpx	-0.23
Qtz	56.11	Ol	25.66	Ol	50.97	Ol	31.39	Ol	13.56	Ol	8.73	Ol	21.55
Jd+	33.26	Di	19.17	Sil	20.51	Di	17.56	Cpx	29.78	Pl	54.82	Sil	78.68

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147647

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	50.78	56.60	Q	Quartz	6.64	SiO2	21.32
TiO2	1.85	1.55	C	Corundum	0.00	Al2O3	0.00
Al2O3	15.09	9.91	Z	Zircon	0.02	ZrSiO4	0.02
Fe2O3	11.91	4.99	Or	Orthoclase	1.64	(K,Na)AlSi3O8	1.14
FeO	0.00	0.00	Ab	Albite	23.89	(K,Na)AlSi3O8	17.58
MnO	0.21	0.19	An	Anorthite	27.70	(Na,K)AlSi2O8	19.21
MgO	6.94	11.53	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	9.91	11.83	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	2.82	3.05	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.28	0.20	Hl	Halite	0.00	NaCl	0.00
P2O5	0.22	0.10	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.02	0.01	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	11.27	Ca(Mg,Fe)(SiO2)3	10.04
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	12.06	(Mg,Fe)SiO3	11.59
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.04	Cr2O4	0.03
			Hm	Hematite	11.91	Fe2O3	14.40
			Il	Ilmenite	0.43	FeTiO3	0.55
			Tn	Sphene	3.97	CaTiSiO5	3.91
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.51	Ca5(PO4)3F	0.20
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.08		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	9.82	Qtz	60.34	Di	27.76	Pl	49.48	Qtz	61.93	Qtz	43.43	Cpx	0.64
Qtz	59.03	Ol	21.25	Ol	44.45	Ol	31.10	Ol	9.12	Ol	6.39	Ol	18.80
Jd+	31.16	Di	18.41	Sil	27.79	Di	19.42	Cpx	28.95	Pl	50.18	Sil	80.56

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147649

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	49.45	54.71	Q	Quartz	5.90	SiO2	19.45
TiO2	1.45	1.21	C	Corundum	0.00	Al2O3	0.00
Al2O3	16.42	10.71	Z	Zircon	0.02	ZrSiO4	0.02
Fe2O3	10.63	4.43	Or	Orthoclase	1.35	(K,Na)AlSi3O8	0.96
FeO	0.00	0.00	Ab	Albite	16.38	(K,Na)AlSi3O8	12.38
MnO	0.19	0.17	An	Anorthite	35.45	(Na,K)AlSi2O8	25.25
MgO	6.96	11.47	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	12.63	14.98	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	1.94	2.08	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.23	0.16	Hl	Halite	0.00	NaCl	0.00
P2O5	0.11	0.05	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.01	0.01	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	17.31	Ca(Mg,Fe)(SiO2)3	15.84
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	9.30	(Mg,Fe)SiO3	9.18
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.02	Cr2O4	0.02
			Hm	Hematite	10.63	Fe2O3	13.20
			Il	Ilmenite	0.41	FeTiO3	0.53
			Tn	Sphene	3.03	CaTiSiO5	3.06
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.27	Ca5(PO4)3F	0.11
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.06		100.00

Projection Data

Green				Walker				Groves				Elthon			
param	%	param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	8.12	Qtz	53.37	Di	36.46	Pl	48.95	Qtz	54.87	Qtz	40.50	Cpx	9.29		
Qtz	58.60	Ol	17.11	Ol	39.23	Ol	26.46	Ol	7.39	Ol	5.46	Ol	18.70		
Jd+	33.28	Di	29.52	Sil	24.31	Di	24.59	Cpx	37.73	Pl	54.04	Sil	72.01		

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147650

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	49.89	54.70	Q	Quartz	2.47	SiO2	8.81
TiO2	1.43	1.18	C	Corundum	0.00	Al2O3	0.00
Al2O3	15.37	9.93	Z	Zircon	0.01	ZrSiO4	0.02
Fe2O3	11.00	4.54	Or	Orthoclase	1.04	(K,Na)AlSi3O8	0.80
FeO	0.00	0.00	Ab	Albite	24.56	(K,Na)AlSi3O8	20.07
MnO	0.18	0.16	An	Anorthite	28.39	(Na,K)AlSi2O8	21.85
MgO	8.51	13.91	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	10.43	12.26	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	2.90	3.09	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.18	0.12	Hl	Halite	0.00	NaCl	0.00
P2O5	0.11	0.05	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.03	0.01	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	14.32	Ca(Mg,Fe)(SiO2)3	14.16
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	14.56	(Mg,Fe)SiO3	15.53
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.05	Cr2O4	0.04
			Hm	Hematite	11.00	Fe2O3	14.76
			Il	Ilmenite	0.38	FeTiO3	0.54
			Tn	Sphene	3.02	CaTiSiO5	3.30
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.27	Ca5(PO4)3F	0.11
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.08		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	12.56	Qtz	45.05	Di	33.62	Pl	47.81	Qtz	46.25	Qtz	31.60	Cpx	4.02
Qtz	53.56	Ol	28.74	Ol	53.51	Ol	32.05	Ol	18.90	Ol	12.92	Ol	24.03
Jd+	33.88	Di	26.20	Sil	12.88	Di	20.14	Cpx	34.85	Pl	55.48	Sil	71.95

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147552

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	49.25	52.34	Q	Quartz	0.00	SiO2	0.00
TiO2	1.06	0.85	C	Corundum	0.00	Al2O3	0.00
Al2O3	14.08	8.82	Z	Zircon	0.01	ZrSiO4	0.01
Fe2O3	10.52	4.21	Or	Orthoclase	3.09	(K,Na)AlSi3O8	2.46
FeO	0.00	0.00	Ab	Albite	21.38	(K,Na)AlSi3O8	18.07
MnO	0.17	0.15	An	Anorthite	25.56	(Na,K)AlSi2O8	20.36
MgO	13.03	20.64	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	8.70	9.90	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	2.53	2.60	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.52	0.35	Hl	Halite	0.00	NaCl	0.00
P2O5	0.14	0.06	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.04	0.02	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	10.74	Ca(Mg,Fe)(SiO2)3	10.99
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	22.38	(Mg,Fe)SiO3	24.72
			Ol	Olivine	3.56	(Mg,Fe)2SiO4	5.62
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.06	Cr2O4	0.06
			Hm	Hematite	10.52	Fe2O3	14.61
			Il	Ilmenite	0.39	FeTiO3	0.58
			Tn	Sphene	2.11	CaTiSiO5	2.38
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.32	Ca5(PO4)3F	0.14
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.12		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	22.99	Qtz	37.42	Di	21.44	Pl	41.47	Qtz	37.68	Qtz	27.27	Cpx	-0.64
Qtz	47.87	Ol	45.93	Ol	66.80	Ol	44.31	Ol	40.39	Ol	29.23	Ol	38.00
Jd+	29.14	Di	16.65	Sil	11.76	Di	14.22	Cpx	21.93	Pl	43.50	Sil	62.64

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147554

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	50.95	57.33	Q	Quartz	2.27	SiO2	8.26
TiO2	2.03	1.71	C	Corundum	0.00	Al2O3	0.00
Al2O3	16.92	11.22	Z	Zircon	0.02	ZrSiO4	0.03
Fe2O3	11.39	4.82	Or	Orthoclase	0.49	(K,Na)AlSi3O8	0.39
FeO	0.00	0.00	Ab	Albite	37.10	(K,Na)AlSi3O8	30.90
MnO	0.17	0.16	An	Anorthite	26.28	(Na,K)AlSi2O8	20.61
MgO	6.54	10.96	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	7.27	8.76	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	4.39	4.78	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.08	0.06	Hl	Halite	0.00	NaCl	0.00
P2O5	0.27	0.13	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.01	0.01	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	1.38	Ca(Mg,Fe)(SiO2)3	1.39
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	15.64	(Mg,Fe)SiO3	17.01
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.02	Cr2O4	0.02
			Hm	Hematite	11.39	Fe2O3	15.58
			Il	Ilmenite	0.36	FeTiO3	0.52
			Tn	Sphene	4.51	CaTiSiO5	5.02
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.64	Ca5(PO4)3F	0.28
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.12		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	11.70	Qtz	57.86	Di	18.13	Pl	58.13	Qtz	59.64	Qtz	28.33	Cpx	-8.82
Qtz	52.84	Ol	38.95	Ol	70.02	Ol	33.26	Ol	20.96	Ol	9.96	Ol	21.40
Jd+	35.45	Di	3.19	Sil	11.85	Di	8.61	Cpx	19.40	Pl	61.71	Sil	87.42

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147555

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	51.53	57.22	Q	Quartz	6.89	SiO2	22.09
TiO2	1.63	1.36	C	Corundum	0.00	Al2O3	0.00
Al2O3	15.55	10.18	Z	Zircon	0.02	ZrSiO4	0.02
Fe2O3	11.32	4.73	Or	Orthoclase	3.43	(K,Na)AlSi3O8	2.37
FeO	0.00	0.00	Ab	Albite	23.23	(K,Na)AlSi3O8	17.06
MnO	0.19	0.18	An	Anorthite	28.41	(Na,K)AlSi2O8	19.66
MgO	7.47	12.36	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	8.80	10.47	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	2.75	2.96	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.58	0.41	Hl	Halite	0.00	NaCl	0.00
P2O5	0.19	0.09	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.02	0.01	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	7.14	Ca(Mg,Fe)(SiO2)3	6.35
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	15.29	(Mg,Fe)SiO3	14.67
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.04	Cr2O4	0.03
			Hm	Hematite	11.32	Fe2O3	13.66
			Il	Ilmenite	0.40	FeTiO3	0.51
			Tn	Sphene	3.47	CaTiSiO5	3.41
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.44	Ca5(PO4)3F	0.17
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.09		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	11.75	Qtz	63.62	Di	18.51	Pl	51.36	Qtz	65.16	Qtz	44.17	Cpx	-3.78
Qtz	58.84	Ol	25.39	Ol	46.45	Ol	34.78	Ol	15.68	Ol	10.63	Ol	21.52
Jd+	29.41	Di	10.99	Sil	35.04	Di	13.86	Cpx	19.16	Pl	45.21	Sil	82.26

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147556

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	51.23	56.92	Q	Quartz	3.41	SiO2	11.95
TiO2	1.43	1.19	C	Corundum	0.00	Al2O3	0.00
Al2O3	15.61	10.22	Z	Zircon	0.01	ZrSiO4	0.02
Fe2O3	11.27	4.71	Or	Orthoclase	0.84	(K,Na)AlSi3O8	0.64
FeO	0.00	0.00	Ab	Albite	31.61	(K,Na)AlSi3O8	25.40
MnO	0.17	0.16	An	Anorthite	25.42	(Na,K)AlSi2O8	19.24
MgO	6.94	11.50	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	9.28	11.05	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	3.74	4.02	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.14	0.10	Hl	Halite	0.00	NaCl	0.00
P2O5	0.18	0.09	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.01	0.00	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	11.87	Ca(Mg,Fe)(SiO2)3	11.55
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	11.79	(Mg,Fe)SiO3	12.37
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.01	Cr2O4	0.01
			Hm	Hematite	11.27	Fe2O3	14.87
			Il	Ilmenite	0.38	FeTiO3	0.53
			Tn	Sphene	3.02	CaTiSiO5	3.24
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.44	Ca5(PO4)3F	0.18
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.08		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	9.82	Qtz	50.41	Di	32.97	Pl	52.43	Qtz	51.28	Qtz	31.32	Cpx	0.90
Qtz	54.74	Ol	25.65	Ol	53.70	Ol	29.47	Ol	14.39	Ol	8.79	Ol	19.07
Jd+	35.44	Di	23.94	Sil	13.32	Di	18.10	Cpx	34.33	Pl	59.89	Sil	80.03

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147557

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	52.57	58.71	Q	Quartz	11.21	SiO2	32.70
TiO2	1.51	1.27	C	Corundum	0.00	Al2O3	0.00
Al2O3	15.86	10.44	Z	Zircon	0.02	ZrSiO4	0.02
Fe2O3	11.36	4.77	Or	Orthoclase	0.74	(K,Na)AlSi3O8	0.47
FeO	0.00	0.00	Ab	Albite	21.70	(K,Na)AlSi3O8	14.50
MnO	0.18	0.17	An	Anorthite	31.41	(Na,K)AlSi2O8	19.77
MgO	6.17	10.28	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	9.50	11.37	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	2.57	2.78	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.13	0.09	Hl	Halite	0.00	NaCl	0.00
P2O5	0.17	0.08	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.01	0.01	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	7.94	Ca(Mg,Fe)(SiO2)3	6.42
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	11.70	(Mg,Fe)SiO3	10.21
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.02	Cr2O4	0.01
			Hm	Hematite	11.36	Fe2O3	12.46
			Il	Ilmenite	0.39	FeTiO3	0.45
			Tn	Sphene	3.21	CaTiSiO5	2.87
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.40	Ca5(PO4)3F	0.14
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.08		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	8.39	Qtz	72.07	Di	16.82	Pl	52.81	Qtz	73.73	Qtz	51.72	Cpx	-3.34
Qtz	63.44	Ol	17.14	Ol	35.88	Ol	32.13	Ol	8.97	Ol	6.29	Ol	17.35
Jd+	28.17	Di	10.78	Sil	47.30	Di	15.06	Cpx	17.30	Pl	41.99	Sil	85.99

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147559

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	52.10	58.23	Q	Quartz	3.24	SiO2	11.52
TiO2	1.70	1.43	C	Corundum	0.00	Al2O3	0.00
Al2O3	16.28	10.72	Z	Zircon	0.02	ZrSiO4	0.02
Fe2O3	10.74	4.52	Or	Orthoclase	0.79	(K,Na)AlSi3O8	0.61
FeO	0.00	0.00	Ab	Albite	36.92	(K,Na)AlSi3O8	30.03
MnO	0.17	0.17	An	Anorthite	24.47	(Na,K)AlSi2O8	18.75
MgO	6.01	10.01	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	8.33	9.97	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	4.36	4.73	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.13	0.10	Hl	Halite	0.00	NaCl	0.00
P2O5	0.16	0.08	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.00	0.00	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	8.37	Ca(Mg,Fe)(SiO2)3	8.23
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	11.09	(Mg,Fe)SiO3	11.78
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.01	Cr2O4	0.01
			Hm	Hematite	10.74	Fe2O3	14.35
			Il	Ilmenite	0.38	FeTiO3	0.54
			Tn	Sphene	3.67	CaTiSiO5	3.99
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.39	Ca5(PO4)3F	0.16
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.10		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	8.88	Qtz	53.79	Di	30.31	Pl	57.18	Qtz	55.85	Qtz	29.58	Cpx	-1.59
Qtz	54.34	Ol	27.20	Ol	56.41	Ol	27.85	Ol	12.14	Ol	6.43	Ol	16.31
Jd+	36.78	Di	19.01	Sil	13.28	Di	14.97	Cpx	32.01	Pl	63.99	Sil	85.28

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147563

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	51.49	57.01	Q	Quartz	3.62	SiO2	12.63
TiO2	1.60	1.33	C	Corundum	0.00	Al2O3	0.00
Al2O3	15.75	10.28	Z	Zircon	0.02	ZrSiO4	0.02
Fe2O3	10.77	4.49	Or	Orthoclase	1.08	(K,Na)AlSi3O8	0.82
FeO	0.00	0.00	Ab	Albite	31.22	(K,Na)AlSi3O8	24.97
MnO	0.17	0.16	An	Anorthite	25.89	(Na,K)AlSi2O8	19.51
MgO	7.14	11.79	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	9.04	10.73	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	3.69	3.96	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.18	0.13	Hl	Halite	0.00	NaCl	0.00
P2O5	0.16	0.08	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.03	0.01	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	10.20	Ca(Mg,Fe)(SiO2)3	9.88
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	13.06	(Mg,Fe)SiO3	13.64
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.05	Cr2O4	0.04
			Hm	Hematite	10.77	Fe2O3	14.14
			Il	Ilmenite	0.37	FeTiO3	0.51
			Tn	Sphene	3.44	CaTiSiO5	3.68
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.38	Ca5(PO4)3F	0.16
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.10		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	10.58	Qtz	52.76	Di	29.16	Pl	53.03	Qtz	54.20	Qtz	33.00	Cpx	0.19
Qtz	54.90	Ol	27.40	Ol	52.64	Ol	30.23	Ol	15.35	Ol	9.35	Ol	19.26
Jd+	34.52	Di	19.84	Sil	18.20	Di	16.74	Cpx	30.45	Pl	57.65	Sil	80.55

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147564

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	51.15	56.30	Q	Quartz	4.62	SiO2	15.62
TiO2	1.73	1.43	C	Corundum	0.00	Al2O3	0.00
Al2O3	14.47	9.39	Z	Zircon	0.02	ZrSiO4	0.02
Fe2O3	10.92	4.52	Or	Orthoclase	0.48	(K,Na)AlSi3O8	0.35
FeO	0.00	0.00	Ab	Albite	27.48	(K,Na)AlSi3O8	21.28
MnO	0.17	0.16	An	Anorthite	24.67	(Na,K)AlSi2O8	18.00
MgO	7.10	11.65	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	10.91	12.87	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	3.25	3.47	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.08	0.06	Hl	Halite	0.00	NaCl	0.00
P2O5	0.22	0.10	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.02	0.01	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	17.76	Ca(Mg,Fe)(SiO2)3	16.65
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	9.45	(Mg,Fe)SiO3	9.56
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.03	Cr2O4	0.02
			Hm	Hematite	10.92	Fe2O3	13.89
			Il	Ilmenite	0.38	FeTiO3	0.51
			Tn	Sphene	3.76	CaTiSiO5	3.89
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.51	Ca5(PO4)3F	0.21
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.08		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	8.44	Qtz	49.00	Di	42.66	Pl	48.09	Qtz	49.78	Qtz	36.39	Cpx	9.56
Qtz	56.89	Ol	18.60	Ol	42.16	Ol	25.80	Ol	5.62	Ol	4.11	Ol	15.18
Jd+	34.67	Di	32.40	Sil	15.18	Di	26.11	Cpx	44.60	Pl	59.51	Sil	75.26

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147581

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	51.97	59.29	Q	Quartz	10.87	SiO2	29.63
TiO2	1.74	1.50	C	Corundum	5.53	Al2O3	8.88
Al2O3	18.66	12.55	Z	Zircon	0.02	ZrSiO4	0.02
Fe2O3	11.61	4.98	Or	Orthoclase	12.39	(K,Na)AlSi3O8	7.29
FeO	0.00	0.00	Ab	Albite	20.89	(K,Na)AlSi3O8	13.05
MnO	0.36	0.35	An	Anorthite	18.80	(Na,K)AlSi2O8	10.94
MgO	7.18	12.20	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	3.77	4.61	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	2.47	2.73	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	2.10	1.53	Hl	Halite	0.00	NaCl	0.00
P2O5	0.13	0.06	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.01	0.00	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	0.00	Ca(Mg,Fe)(SiO2)3	0.00
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	17.87	(Mg,Fe)SiO3	14.58
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.01	Cr2O4	0.01
			Hm	Hematite	11.61	Fe2O3	11.91
			Il	Ilmenite	0.79	FeTiO3	0.85
			Tn	Sphene	0.00	CaTiSiO5	0.00
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	1.33	TiO2	2.73
			Ap	Apatite	0.32	Ca5(PO4)3F	0.10
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.42		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	13.66	Qtz	75.20	Di	-17.65	Pl	64.08	Qtz	86.26	Qtz	46.20	Cpx	-26.34
Qtz	63.88	Ol	24.80	Ol	62.81	Ol	49.95	Ol	32.04	Ol	17.16	Ol	29.97
Jd+	22.47	Di	0.00	Sil	54.83	Di	-14.03	Cpx	-18.30	Pl	36.64	Sil	96.37

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147581R

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	51.68	59.14	Q	Quartz	11.09	SiO2	30.00
TiO2	1.73	1.49	C	Corundum	5.81	Al2O3	9.26
Al2O3	18.62	12.56	Z	Zircon	0.02	ZrSiO4	0.02
Fe2O3	11.96	5.15	Or	Orthoclase	12.36	(K,Na)AlSi3O8	7.22
FeO	0.00	0.00	Ab	Albite	20.76	(K,Na)AlSi3O8	12.87
MnO	0.36	0.35	An	Anorthite	17.99	(Na,K)AlSi2O8	10.38
MgO	7.13	12.16	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	3.74	4.59	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	2.45	2.72	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	2.09	1.53	Hl	Halite	0.00	NaCl	0.00
P2O5	0.23	0.11	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.01	0.00	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	0.00	Ca(Mg,Fe)(SiO2)3	0.00
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	17.76	(Mg,Fe)SiO3	14.38
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.01	Cr2O4	0.01
			Hm	Hematite	11.96	Fe2O3	12.18
			Il	Ilmenite	0.78	FeTiO3	0.85
			Tn	Sphene	0.00	CaTiSiO5	0.00
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	1.31	TiO2	2.67
			Ap	Apatite	0.57	Ca5(PO4)3F	0.18
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.43		100.00

Projection Data

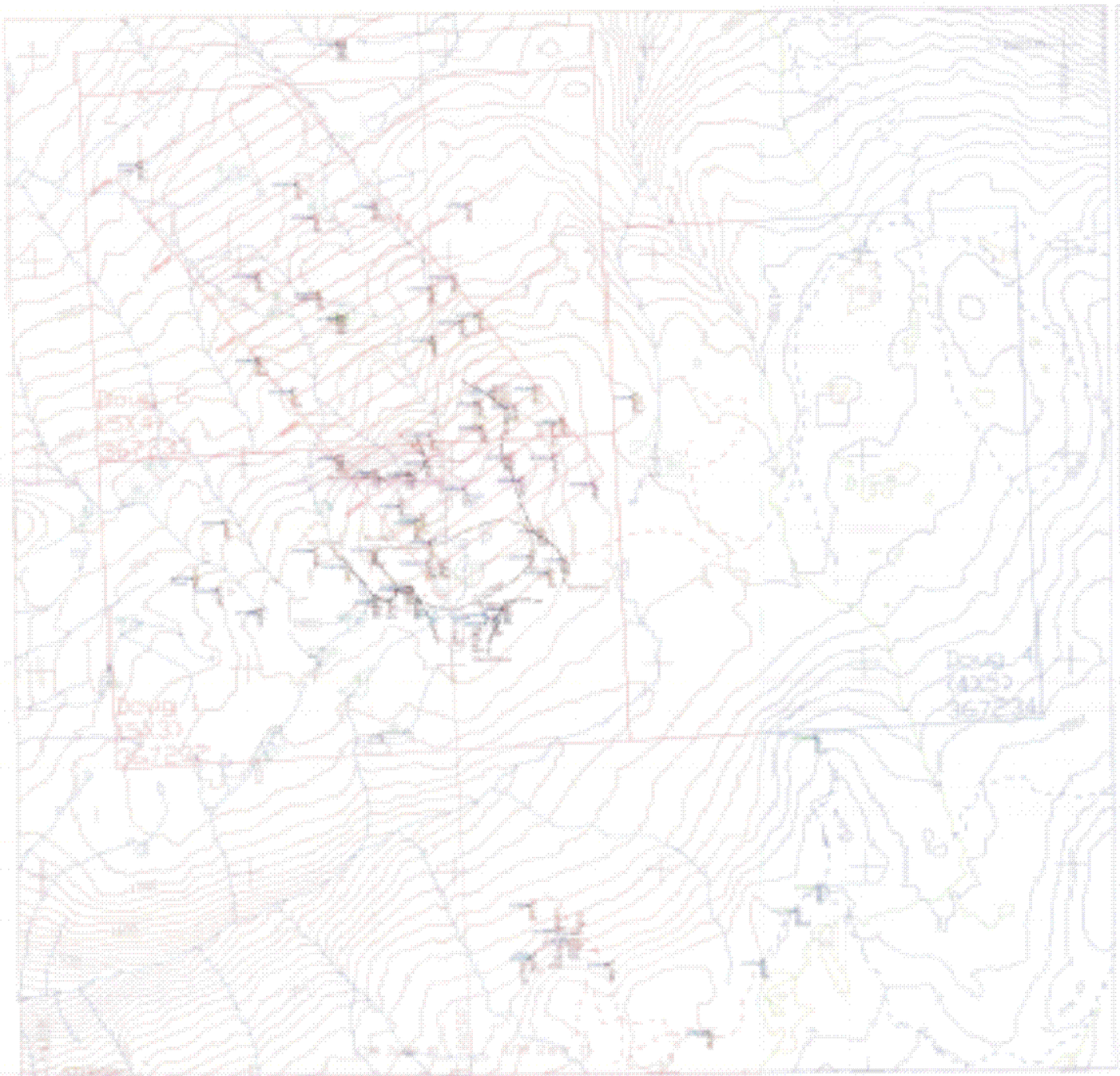
Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	13.66	Qtz	75.53	Di	-17.94	Pl	63.77	Qtz	86.35	Qtz	46.09	Cpx	-27.22
Qtz	64.25	Ol	24.47	Ol	63.96	Ol	50.35	Ol	32.26	Ol	17.22	Ol	30.53
Jd+	22.09	Di	0.00	Sil	53.98	Di	-14.12	Cpx	-18.60	Pl	36.70	Sil	96.69

CIPW Norm from file: C:\SPOKANE\CLEARW~1\VOL-TMP1.ROC
sample: 147583

Oxide	WT %	Mole%		Mineral	WT %	Formula	Mole%
SiO2	50.14	56.43	Q	Quartz	3.76	SiO2	13.05
TiO2	1.57	1.33	C	Corundum	0.00	Al2O3	0.00
Al2O3	16.45	10.91	Z	Zircon	0.01	ZrSiO4	0.02
Fe2O3	12.21	5.17	Or	Orthoclase	0.43	(K,Na)AlSi3O8	0.32
FeO	0.00	0.00	Ab	Albite	29.77	(K,Na)AlSi3O8	23.68
MnO	0.20	0.19	An	Anorthite	28.89	(Na,K)AlSi2O8	21.66
MgO	6.39	10.72	Lc	Leucite	0.00	KAl(SiO3)2	0.00
CaO	9.34	11.27	Ne	Nepheline	0.00	(Na,K)(Al,Si)2O4	0.00
Na2O	3.52	3.84	Kp	Kaliophilite	0.00	AlSiO4	0.00
K2O	0.07	0.05	Hl	Halite	0.00	NaCl	0.00
P2O5	0.10	0.05	Th	Thenardite	0.00	Na2SO4	0.00
Cr2O3	0.02	0.01	Nc	Na Carbonate	0.00	Na2CO3	0.00
			Ac	Acmite	0.00	NaFe(SiO2)3	0.00
			Ns	NaMetasilica	0.00	Na2SiO3	0.00
			Ks	K Metasilica	0.00	K2SiO3	0.00
			Di	Diopside	9.46	Ca(Mg,Fe)(SiO2)3	9.11
			Wo	Wollastonite	0.00	CaSiO3	0.00
			Hy	Hypersthene	11.53	(Mg,Fe)SiO3	11.97
			Ol	Olivine	0.00	(Mg,Fe)2SiO4	0.00
			Cs	DiCaSilicate	0.00	Ca2SiO4	0.00
			Mt	Magnetite	0.00	FeIIFeIII2O4	0.00
			Cm	Chromite	0.03	Cr2O4	0.02
			Hm	Hematite	12.21	Fe2O3	15.95
			Il	Ilmenite	0.42	FeTiO3	0.58
			Tn	Sphene	3.32	CaTiSiO5	3.53
			Pf	Perovskovite	0.00	CaTiO3	0.00
			Ru	Rutile	0.00	TiO2	0.00
			Ap	Apatite	0.24	Ca5(PO4)3F	0.10
			Hy	Hydraphane	0.00	SiO2(H2O)x	0.00
			Fl	Fluorite	0.00	CaF2	0.00
			Pr	Pyrite	0.00	FeS2	0.00
			Cc	Calcite	0.00	CaCO3	0.00
			Ma	Magnesite	0.00	MgCO3	0.00
			Si	Siderite	0.00	FeCO3	0.00
			Sp	Spodumene	0.00	LiAl(SiO3)2	0.00
			H2	H2O+	0.00	H2O+	0.00
			H2	H2O-	0.00	H2O-	0.00
			Ot	Others	0.00		0.00
			Si	Si Def	0.00		0.00
			To	Total	100.07		100.00

Projection Data

Green				Walker				Groves				Elthon	
param	%	param	%	param	%	param	%	param	%	param	%	param	%
Ol	9.38	Qtz	54.27	Di	28.67	Pl	53.73	Qtz	56.56	Qtz	32.52	Cpx	-3.68
Qtz	55.11	Ol	25.97	Ol	57.42	Ol	30.86	Ol	13.43	Ol	7.72	Ol	20.84
Jd+	35.51	Di	19.76	Sil	13.91	Di	15.41	Cpx	30.01	Pl	59.76	Sil	82.85



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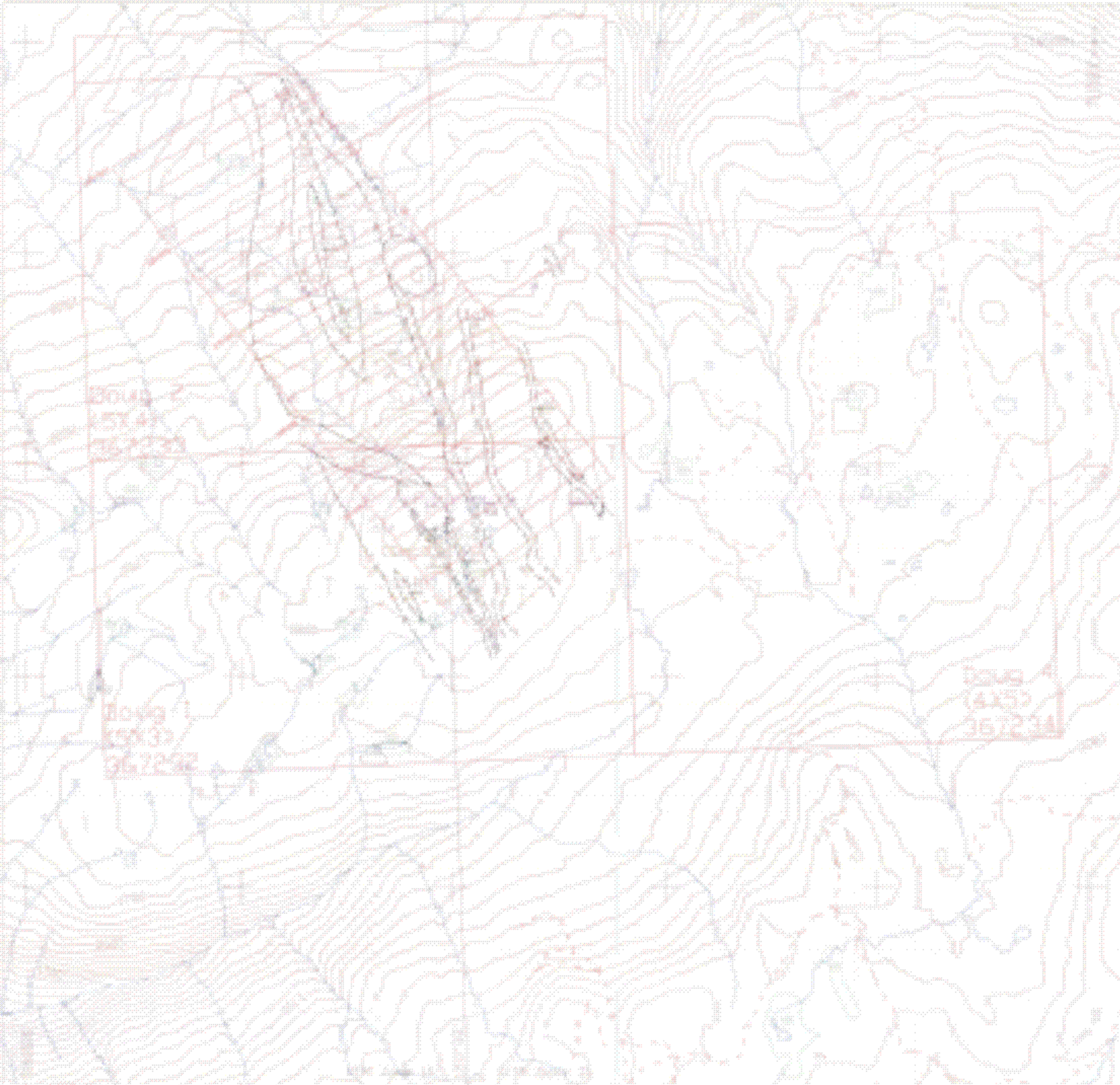

LEGEND

Geology

Fennell Formation (Devonian to Permian)

Granitic Intrusions (Cretaceous?)

Geochemistry

General

Geology and Geochemistry

Doug Claims

LEGEND