PRELIMINARY WHOLE ROCK GEOCHEMICAL REPORT

on the RICHMAN 1 CLAIM.

NTS Map Sheet 92 O/7

Latitude 51° 18′ N; Longitude 122° 38′ W

Clinton Mining Division

Tenure Holder: **Alexander J. Boronowski**

By: A.J. **Boronowski, P.Geo. and C. Sebert, P.Eng.**

September 5, 2004.

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SUMMARY

A preliminary whole rock and multi-element study was conducted on ten drill core and ten surface samples from the Richman 1 and 3 Claims, lying to the southwest of Blackdome Mountain in the Clinton Mining Division. The study was designed with the following objectives in mind:

1) to determine key rock types underlying the property.
2) to develop a database that can be used for a local and a regional exploration programme.

The whole rock geochemical analysis has identified dacite, rhyolite and basalt. The dacite volcanic rocks on the Richman 1 claim are generally chemically similar to the uppermost Eocene-aged volcanic rocks underlying the adjacent Blackdome property.

Eight thin-sections have been prepared from the analyzed samples and a petrographic study of these thin sections is recommended. It is recommended that whole rock and multi-element geochemical analysis to be utilized as an exploration tool in future exploration programmes.

INTRODUCTION AND OUTLINE OF PROGRAMME

A whole rock and multi-element geochemical study was conducted on 10 drill core samples and 10 surface rock samples to determine rock-types underlying the Richman 1 and 3 Claims (Figure 1) lying to the southwest of Blackdome Mountain in the Clinton Mining Division.

Location and Access

Access to the Richman claims is provided by an all-weather gravel road, which leaves Highway 97 about 17 km north of Clinton, B.C. The road leads westward and crosses the Fraser River via the Gang Ranch Bridge. The road then heads southward towards Empire Valley. Just south of Brown Lake the Blackdome Mine road turns off. This road is about 32 km long and is drivable by normal 2 wheel drive vehicles under dry conditions to Blackdome Mountain. From there access through the Blackdome Mine property is restricted via a gate across the mine road. For this programme the authors traversed the last 6 km to the claims on foot and on bicycles as motorized-vehicle access across the Blackdome property had not been previously approved by the owners.

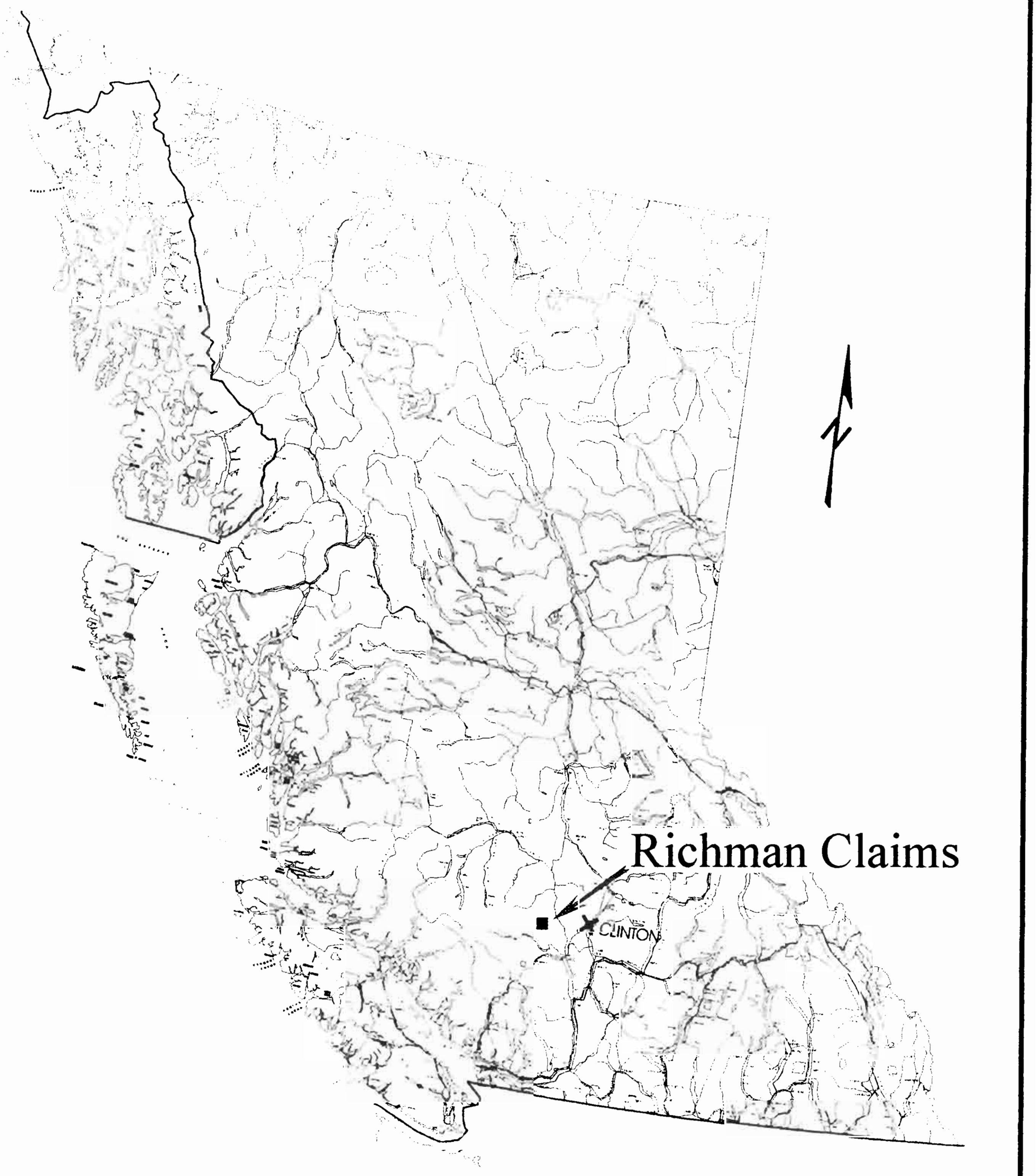
Claim Tenure Information

Table 1 outlines the claim tenure information for the Richman 1 and 3 Claims. Figure 2 shows their location relative to Blackdome Mountain and other mineral titles.

Table 1: **Tenure Information: Richman Claims, Clinton Mining Division, B.C.**

Claim	Units	Tenure No.	Owner	Client No.	Staking Date
Richman 1	20 units	378915	A. J. Boronowski	102794	2000/07/12
Richman 3	4 units	378917	A. J. Boronowski	102794	2000/07/12

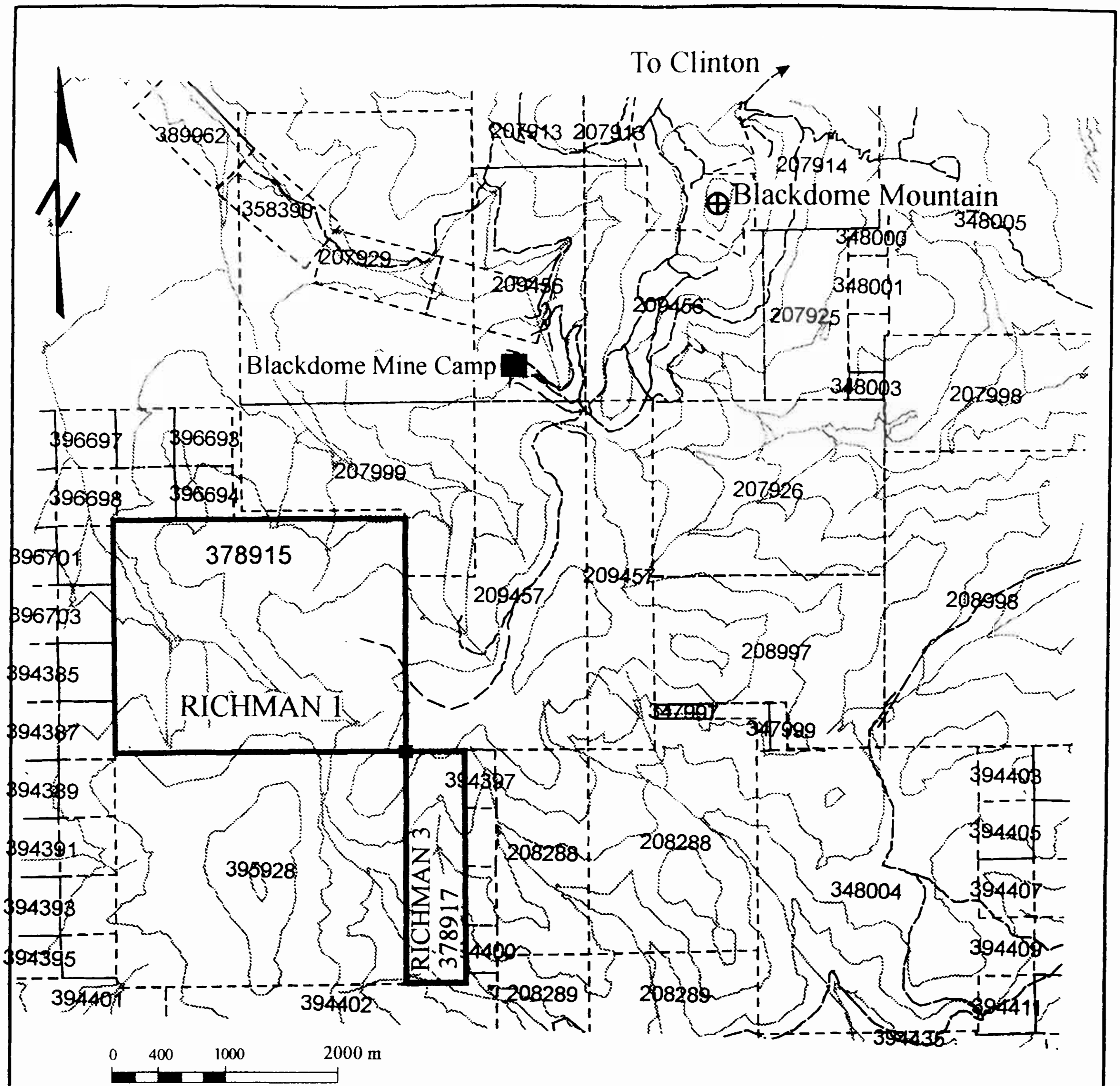
Based on this years filing of assessment work: the Richman 1 Claim is in good standing until July 12, 2008; the Richman 3 Claim until July 12, 2008.



Property Location Map

RICHMAN 1 and 3 CLAIMS

Figure 1



TENURE MAP

RICHMAN 1 & 3 CLAIMS

Figure 2	Sept. 5, 2003

Summary of Geology

Blackdome Mountain lies just 5 km to the northeast of the Richman Claims. It is an Eocene-aged calc-alkaline volcanic centre (Vivian, 1988) and is composed of shallow-dipping layer-cake stratigraphy made-up of alternating beds of andesitic, dacitic and rhyolitic flows, breccias, tuffs and volcanic-derived sediments. The Eocene volcanic rocks are part of a regional formation. They are underlain by older Lower Cretaceous-aged conglomerate of the Jackass Mountain Group in the southern part of the area explored. Dark Miocene-aged basalt flows and breccias of the Chilcotin Group cap the Eocene volcanics and are often prominently exposed on topographic high points. Glacial drift, which includes till and fluvial deposits, forms an extensive blanket that covers the country rocks at lower elevations.

Gold-silver mineralization occurs at the Blackdome Mine and is contained in epithermal-type veins lying in prominent north to northeast trending fault zones. The faults and veins generally dip steeply to the west and tend to be strongly argillically altered and stained by iron and manganese oxides. Propylitic alteration also occurs peripherally to the veins and may form an outer envelope to the argillic alteration. Green porphyritic andesite dykes intrude the vein-bearing faults locally.

The epithermal Au-Ag mineralization at the Blackdome Mine occurs in low-sulphidation-type quartz-rich veins, which display characteristic open-space filling textures. The veins are composed of several phases of, amorphous and fine-grained to coarse-grained sub-to euhedral crustiform and cockscomb quartz. The quartz is accompanied by significant adularia, calcite and clay minerals including Ca-K montmorillonite, illite, mixed illite/smectite and minor kaolinite (Vivian, 1988). Sulphides are sparse in the Blackdome veins and are generally fine-grained; these include pyrite, Ag-sulphosalts, acanthite-aguilarite (Ag_2S – Ag_2Se), chalcopyrite, galena, sphalerite and marcasite. Gold occurs in native form and more commonly as electrum (Vivian, 1988). Particle size of the gold and electrum vary from microscopic (1 micron) to several millimetres. The gold is found associated with fine-grained pyrite but primarily within acanthite-aguilarite grains. Electrum is found between quartz-adularia grains, in tiny veinlets cutting pyrite and chalcopyrite and commonly within acanthita-aguilarite grains. Vivian (1988) states that it is common to see electrum replacing silver sulphosalts. Therefore he suggests that electrum and gold deposition probably closely followed the start of deposition of Ag sulphides and sulphosalts, chalcopyrite, galena and sphalerite.

Sampling and analysis of ore mineralization at the Blackdome mine determined that there was a close correlation between Au, Ag, As, Sb, Cu, Pb and Mo (Rennie, 1988). However, exploration conducted by Blackdome Mining Corp. revealed that most of these elements were not useful pathfinders for the epithermal mineralization in soils (Rennie, 1988).

Previous workers in the area have also noted that economic Au mineralization at Blackdome is confined largely between the 1870 and 1960 m elevation and the veins at this level are generally better formed and the wall rocks are harder and less clay altered. At higher levels the veins become more discontinuous and occur as multiple stringers, and the wallrock tends to more clay altered. The Au content of the veins at upper levels is generally lower and with sporadic higher Au grades. These characteristics of the Blackdome veins may be related to a primary topographic control in the hydrothermal system. Also interesting is that all known economic mineralization at Blackdome Mountain appears to occur within several kilometres of the peak and this suggests that the Au mineralization in the area was deposited close to volcanic centers.

Summary of Previous Exploration Work

Several parties have previously explored the area covered by the Richman Claims.

In 1981 Mr. R. Dunn obtained anomalous Au values from heavy mineral samples from creeks draining the area, which had been staked as the Pony Claims at that time. Unfortunately, the location of these samples is unknown. Other samples from altered and silicified float reportedly contained up to 2010 ppb Au; these samples were found on line with the southwestern projection of the Blackdome vein system (Heine, 1988 a & b).

In 1982, 23 soil samples were collected along a contour-parallel traverse (Fipke and Capell, 1983); of these three were very anomalous in Au (ranging from 1180 to 2555 ppb). The traverse was conducted near the top of a prominent west-northwest trending ridge and the sample locations were about 200 m to the west-northwest of the old Lexington Camp (Figure 3).

In 1986 the Pony claims were re-staked as the Bobcat claims and then subsequently sold to Lexington Resources Ltd. More exploration was done by Ashworth Explorations Ltd. for Lexington Resources Ltd. in the late 1980's. A program of geological mapping, soil sampling and trenching was followed by diamond drilling (Heine, 1988 a & b). This program identified several argillically altered fault zones of similar attitude as those found at Blackdome Mountain. Some of these structures contained quartz stringers and quartz sealed breccias with open-space filling textures; some contained significant sulphides. However, assay values of samples taken in trenches and core did not return any significant Au values. A "high" Au value of 120 ppb was obtained from a blocky-brecciated clay-rich zone with quartz veinlets in one drill hole. The same interval contained mercury values up to 6100 ppb. Lower Au values (generally below 70 ppb) were returned from other similar clay-rich silicified zones. Instead, a few of these altered zones contain sporadic high Hg values exceeding 5000ppb. However, Lexington Resources Ltd. decided not to pursue further exploration of the ground and the claims were allowed to lapse.

Past exploration on the Richman Claims indicates that the bedrock geology is very similar to that found at Blackdome Mountain. The core from the dozen holes drilled by Lexington Resources Ltd. was re-organized and re-piled in 2000 by Alexander J. Boronowski and the Christopher Sebert. The rocks in the core consisted primarily of medium to green-grey (+/-) pyroxene-feldspar-porphyritic dacite to andesite flows. Occasional beds of autoclastic volcanic breccia, ash layers, heterogeneous volcanic blockstone, and fine to coarse-grained volcanic sandstone occurs in the stratigraphy. The volcanic blockstones contained a mixture of porphyritic dacite and andesite blocks up to 10's of centimetres across and pale rhyolite fragments were noted in places. Generally these blockstones are unbedded and probably were locally derived. Some sandstone layers are well bedded. Grain size of the sandstones varies from fine to coarse and flattened pumice fragments were noted sporadically. Minor laminated mudstone and fine-grained ash beds are contained in the sandstone layers. Like the volcanic blockstones the sandstones were largely derived from andesitic and dacitic volcanics but are more reworked, likely in an aqueous setting.

Pale, bleached to rusty rhyolite tuffs and flows sub crop on the eastern boundary and in the north-westward flowing creek draining the central portion of the Richman 1 Claim.

To date the Richman Claims have only been partially mapped. The exploration program conducted for Lexington Resources Ltd. was mainly focused on delineating and mapping alteration and structures on the upper elevations of the Richman 1 Claim. The detailed stratigraphic and structural relations between lithologies remain to be determined. Also, the soil geochemical programs conducted on these claims so far have been localized efforts.

However, the previous exploration efforts on the ground covered by the Richman 1 Claim suggest that there is good potential for epithermal Au-bearing veins. Of particular interest is that several of the drill holes intersected quartz-sealed breccia zones, which were contained in argillically altered faults. Present data suggests that they trend north to northeast, a similar orientation as those at the Blackdome Mine. Also they are mineralogically and texturally somewhat similar to those found at Blackdome.

Heine (1988b) postulated that the clay-rich nature of the faulted zones, the lack of well-formed vein structures and low Au content may be due to the samples being taken at too high an elevation in the hydrothermal system. He suggested that Au grades may increase at depth. To date the areas sampled by drilling and trenching lie at elevations from above 1950 down to about 1800 m. While this covers the productive elevation range for Au at the Blackdome Mine this exploration has occurred on only a restricted portion of the property. Also, the mineralization in the Richman area may conceivably be related to a different hydrothermal cell and therefore there is potential of finding higher Au grades at lower elevations than at the Blackdome Mine.

Another clay-sericite altered fault zone is exposed on the north end of the Richman 3 Claim. This zone was uncovered and examined originally by Ballatar Explorations Ltd. (Hardy and van Wermeskerken, 1989) in 1988 and named the Geo Zone. It is made-up of several limonite and clay rich sheared intervals containing quartz veinlets and pyrite. Sampling revealed only very low Au contents (up to 19 ppb) but elevated As (up to 250 ppm) and Hg (up to 11000 ppb).

Objectives and Methodology of the Whole Rock and Multi-element Geochemical Study

The study was designed with the following objectives in mind:

- to determine key rock types underlying the property.
- to develop a database that can be used for a local and a regional exploration programme searching for epithermal gold mineralization

The mapping and collecting of samples was conducted between June 16 and 22, 2004. Ten drill core samples and 10 surface samples were submitted for whole rock and multi-element analysis. The sample locations were recorded on 1:2,000 field maps (Figures 7-23). The 2000 meter by 2500 meter Richman 1 claim was divided into twenty-five 400 meter by 500 meter field map sheets. An index map for the field maps (Figure 3) indicates the UTM location of each 400 meter by 500 meter field map sheet. A preliminary examination and mapping of seventeen of the twenty-five field map sheets was conducted. Hand held GPS receivers were utilized for locating field stations.

Eighteen samples were chosen from fresh, relatively unaltered rocks believed to be closely associated with epithermal silver-gold mineralization. Two altered samples containing hydrothermal quartz were also analysed.

A summary of the sample treatment and analytical procedures is contained in Appendix 1. Acme Analytical Laboratories Ltd., an International Stantards Organization (ISO) 9002 accredited (certificate 378/96) company, conducted all of the analytical testing.

FIGURE 3
1:1,000
mapped

FIGURE 2

LCP RICHMAN 1 and 3

LIST OF SAMPLES ANALYSED - TABLE 2

Sample I.D.		Location UTM NAD 83 E	N	Whole Rock Analysis	Lithologic Description	Alteration Intensity	Thin section
BC 88-1 24.38-24.84 m	DDH	532980	5683067	X	pyx-feld-porphyritic dacite flow	minor Py	X
		collar					
BC 88-4 96.50-96.85 m	DDH	532883	5683163	X	hbld-pyx-feld-porphyritic dacite flow		
BC 88-4 164.50-164.85 m	DDH			X	pyx-feld-porphyritic dacite flow		X
		collar					
BC 88-7 7.48-7.80 m	DDH	532603	5683037	X	hbld-pyx-feld-porphyritic dacite flow		
BC 88-7 20.62-21.12 m	DDH			X	pyx-hbld-feld-porphyritic dacite flow		
BC 88-7 74.68-75.13 m	DDH			X	pyx-hbld-feld-porphyritic dacite flow	minor Chl veinlets	
		collar					
BC 88-10 16.28-16.63 m	DDH	532317	5683112	X	pyx-feld-porphyritic dacite flow	minor Carb veinlets	X
BC 88-10 60.88-69.34 m	DDH			X	biot-hbld-feld-porphyritic dacite flow		
BC 88-10 108.51-109.12 m	DDH			X	pyx-biot-hbld-feld-porphyritic dacite flow	minor Chl bands	
BC 88-10 244.45-244.91 m	DDH			X	pyx-hbld-feld-porphyritic dacite flow		X
		collar					
RMA 1	outcrop	531867	5682848	X	rhyolite lapillituff with feld, pyx, & qz xtals	med. Cly	X
		531823	5682867				
RMA 2	outcrop	531850	5683918	X	rhyolite lapillituff	med. Cly	
RMC 1	outcrop	532884	5682549	X	feld-pyx-oliv-porphyritic basalt		
RMC 2	outcrop	532793	5682922	X	pyx-hbld-feld-porphyritic dacite flow		
RMC 4	float	532725	5683045	X	quartz cemented breccia	str. Qz with Cly, Se, Py	

LIST OF SAMPLES ANALYSED - TABLE 2

Sample I.D.		Location UTM NAD 83		Whole Rock	Lithologic Description	Alteration	Thin
		E	N	Analysis		Intensity	section
RMC 5	subcrop	532688	5683051	X	quartz veined dacite or andesite	str. Qz with minor Cly, Py	
RMC 6	outcrop	533115	5682967	X	hbld-feld-porphyritic dacite flow	trace Py	
RMC 7	subcrop	533140	5682968	X	fine grained dacite crystal tuff	med. Cly, Se?, Lm, Py	X
RMC 10	outcrop	532126	5683214	X	biot-hbld-feld-porphyritic dacite flow		X
RMC 11	outcrop	532258	5683046	X	rhyolite lapillituff. With biot, feld, & qz xtals	med. Cly	X

From ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716 @ CS

To Sebert, Chris

Acme file # A403333 Received: JUL 7 2004 * 21 samples in this disk file.

Analysis: GROUP 4A - 0.200 GM

ELEMENT	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	Ni	Sc	LOI	TOT/C	TOT/S	SUM	*An ratio*
SAMPLES	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	%	%	%	%	
BC88-1 24.38m	66.37	14.16	3.23	1.15	4.01	2.85	2.38	0.46	0.1	0.05	0.001	10	7	5.1	0.86	0.33	99.87	1.053814
BC88-4 96.50m	66.41	14.2	3.84	1.92	3.8	2.29	4.2	0.51	0.14	0.06	0.004	39	8	2.5	0.07	0.07	99.88	1.025673
BC88-4 164.50m	67.53	13.96	2.96	1.81	2.04	2.11	5.33	0.5	0.11	0.05	0.004	20	8	3.5	0.35	0.09	99.9	1.036307
BC88-7 7.48m	66.04	14.13	3.8	1.93	3.69	2.62	3.48	0.5	0.11	0.07	0.008	39	8	3.5	0.42	<.01	99.89	1.036311
BC88-7 20.62m	66.44	14.3	3.87	2.12	2.75	2.68	3.86	0.5	0.1	0.06	0.006	38	7	3.2	0.23	0.03	99.89	1.033095
BC88-7 74.68m	61.56	16.37	4.63	0.59	4.67	3.24	2.45	0.57	0.12	0.05	0.002	29	9	5.7	0.79	0.03	99.96	1.060471
BC88-10 16.28m	64.72	14.93	3.69	1.96	3.43	3.01	2.05	0.45	0.11	0.06	0.007	35	8	5.4	0.74	0.05	99.82	1.057191
BC88-10 68.88m	64.37	13.95	3.64	2.04	3.76	2.06	3.93	0.5	0.11	0.06	0.005	37	8	5.4	0.78	0.03	99.82	1.057191
BC88-10 108.51m	59.8	16.06	4.39	2.41	5.64	3.02	2.32	0.58	0.13	0.06	0.005	51	10	5.5	0.82	<.01	99.92	1.05825
BC88-10 244.45m	67.24	15.23	3.92	1.54	3.17	3.29	0.87	0.62	0.13	0.06	0.002	25	8	3.8	0.16	<.01	99.87	1.039554
RMA-1	77.03	13.27	1.23	0.19	0.2	2.27	3.65	0.13	0.02	0.01	0.001	10	4	2.1	0.16	<.01	100.1	1.021429
RMA-2	75.77	13.23	1.78	0.35	0.96	2.51	2.78	0.17	0.02	0.03	0.006	10	5	2.4	0.19	<.01	100	1.024588
RE RMA-2	75.47	13.1	1.73	0.34	0.93	2.55	2.82	0.17	0.04	0.03	5E-04	10	4	2.7	0.18	<.01	99.88	1.027783
RMC-1	49.97	15.24	8.63	6.41	7.58	3.12	2.84	1.31	0.86	0.12	0.024	115	18	3.4	0.1	0.01	99.52	1.035372
RMC-2	65.49	14.42	3.79	2.27	3.29	2.74	3.44	0.51	0.12	0.06	0.006	36	8	3.8	0.32	0.01	99.94	1.039526
RMC-4	86.48	7.01	1.68	0.37	0.06	0.04	2.2	0.22	0.005	0.01	0.003	26	4	2	0.02	0.05	100.1	1.020392
RMC-5	91	5.1	1.04	0.23	0.06	0.02	1.54	0.17	0.03	0.005	0.003	10	2	0.9	0.02	<.01	100.1	1.009073
RMC-6	65.35	14.97	4.33	1.61	3.3	2.76	2.54	0.55	0.12	0.09	0.007	55	9	4.3	0.56	0.03	99.93	1.044965
RMC-7	73.28	13.5	3.41	0.62	0.17	0.3	3.55	0.5	0.11	0.01	0.009	10	9	4.5	0.04	0.84	99.96	1.04714
RMC-10	66.23	14.51	3.92	1.69	4.04	2.65	3.4	0.52	0.12	0.07	0.007	43	9	2.8	0.3	<.01	99.97	1.028815
RMC-11	68.64	13.86	3.26	1.81	1.74	2.11	3.15	0.49	0.12	0.05	0.006	45	8	4.4	0.19	0.01	99.64	1.046199
STANDARD SO-17	62.03	13.73	5.75	2.32	4.61	4.15	1.42	0.6	0.97	0.53	0.439	47	23	3.4	2.41	5.3	99.95	1.035215

Anhydrous													
ELEMENT	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	Ni	Sc
SAMPLES	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm
BC88-1 24.38m	69.94	14.92	3.40	1.21	4.23	3.00	2.51	0.48	0.11	0.05	0.00	11	7
BC88-4 96.50m	68.11	14.56	3.94	1.97	3.90	2.35	4.31	0.52	0.14	0.06	0.00	40	8
BC88-4 164.50m	69.98	14.47	3.07	1.88	2.11	2.19	5.52	0.52	0.11	0.05	0.00	21	8
BC88-7 7.48m	68.44	14.64	3.94	2.00	3.82	2.72	3.61	0.52	0.11	0.07	0.01	40	8
BC88-7 20.62m	68.64	14.77	4.00	2.19	2.84	2.77	3.99	0.52	0.10	0.06	0.01	39	7
BC88-7 74.68m	65.28	17.36	4.91	0.63	4.95	3.44	2.60	0.60	0.13	0.05	0.00	31	10
BC88-10 16.28m	68.42	15.78	3.90	2.07	3.63	3.18	2.17	0.48	0.12	0.06	0.01	37	8
BC88-10 68.88m	68.05	14.75	3.85	2.16	3.98	2.18	4.15	0.53	0.12	0.06	0.01	39	8
BC88-10 108.51m	63.28	17.00	4.65	2.55	5.97	3.20	2.46	0.61	0.14	0.06	0.01	54	11
BC88-10 244.45m	69.90	15.83	4.08	1.60	3.30	3.42	0.90	0.64	0.14	0.06	0.00	26	8
RMA-1	78.68	13.55	1.26	0.19	0.20	2.32	3.73	0.13	0.02	0.01	0.00	10	4
RMA-2	77.63	13.56	1.82	0.36	0.98	2.57	2.85	0.17	0.02	0.03	0.01	10	5
RE RMA-2	77.57	13.46	1.78	0.35	0.96	2.62	2.90	0.17	0.04	0.03	0.00	10	4
RMC-1	51.74	15.78	8.94	6.64	7.85	3.23	2.94	1.36	0.89	0.12	0.02	119	19
RMC-2	68.08	14.99	3.94	2.36	3.42	2.85	3.58	0.53	0.12	0.06	0.01	37	8
RMC-4	88.24	7.15	1.71	0.38	0.06	0.04	2.24	0.22	0.01	0.01	0.00	27	4
RMC-5	91.83	5.15	1.05	0.23	0.06	0.02	1.55	0.17	0.03	0.01	0.00	10	2
RMC-6	68.29	15.64	4.52	1.68	3.45	2.88	2.65	0.57	0.13	0.09	0.01	57	9
RMC-7	76.73	14.14	3.57	0.65	0.18	0.31	3.72	0.52	0.12	0.01	0.01	10	9
RMC-10	68.14	14.93	4.03	1.74	4.16	2.73	3.50	0.53	0.12	0.07	0.01	44	9
RMC-11	71.81	14.50	3.41	1.89	1.82	2.21	3.30	0.51	0.13	0.05	0.01	47	8
STANDARD SO-17	64.21	14.21	5.95	2.40	4.77	4.30	1.47	0.62	1.00	0.55	0.45	49	24

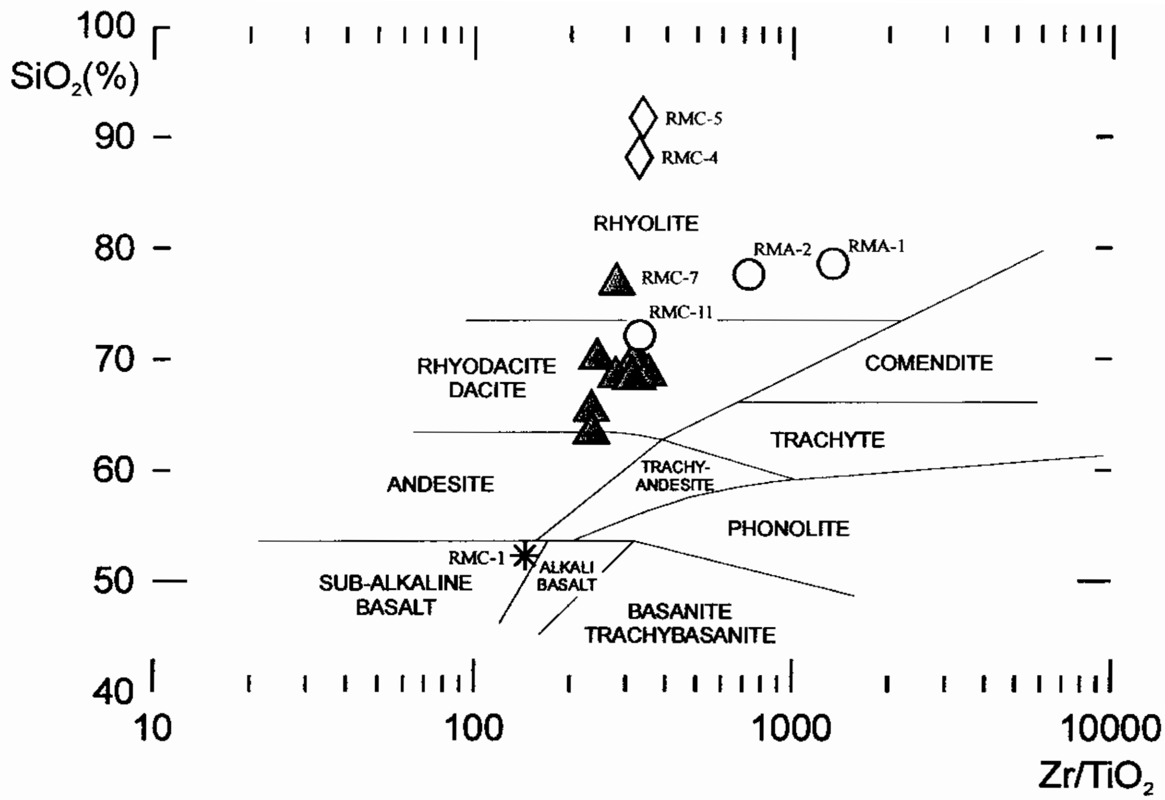


Figure 4: Winchester and Floyd discrimination plot based on silica content and the ratio between the relatively immobile elements Zr and Ti. The SiO_2 composition as plotted is recalculated on an anhydrous basis.

The samples from the Richman claim include 3 samples that were classed as rhyolite lapilli tuffs in the field (circles). Of these RMC-11 was actually of dacitic composition. Samples classed as dacites in the field descriptions (triangles) plot in the rhyodacite-dacite field with the exception of one RMC-7, which was of tuffaceous origin and is altered. The basaltic sample (asterisk; RMC-1) lies within the basalt field near the boundary of alkali basalt. The quartz-altered samples (RMC-4 & 5) plot well within the rhyolite field due to quartz addition to the rock.

All the samples can be classed as being of subalkalic affinity based on their Zr/TiO_2 ratio.

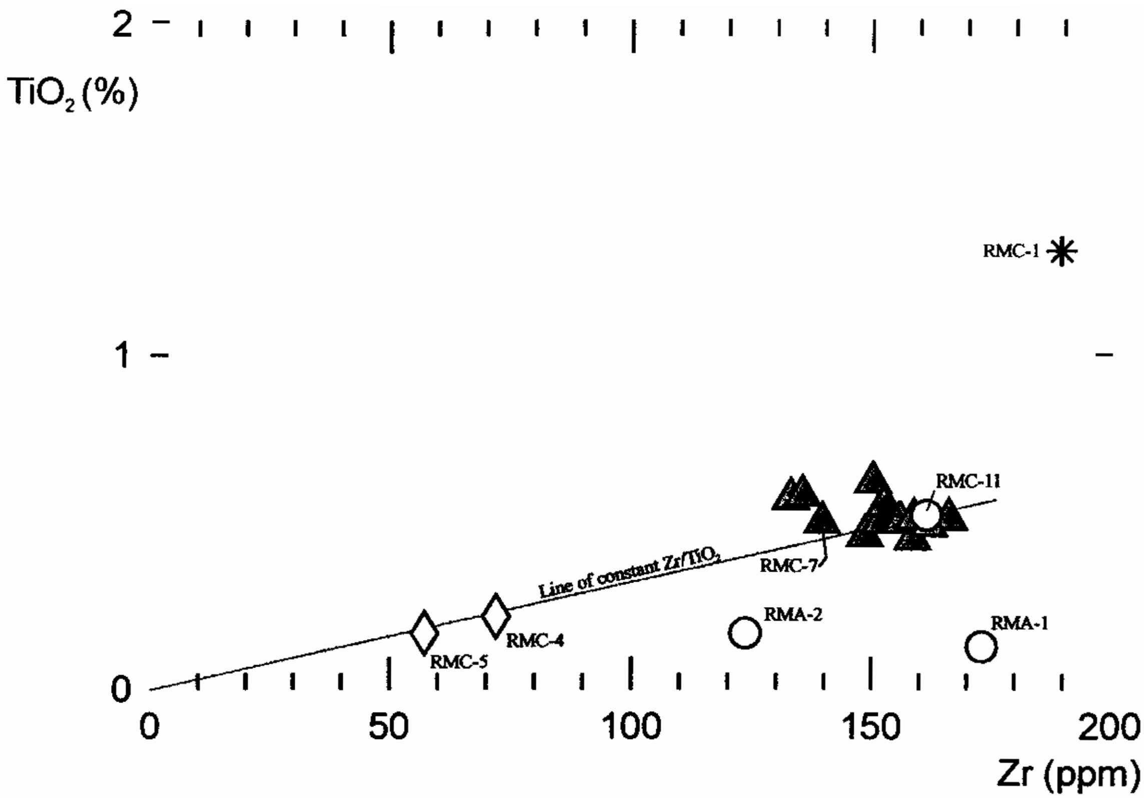


Figure 5: A TiO_2 versus Zr plot. Both Ti and Zr are relatively immobile in most geologic environments and the Zr/TiO_2 ratio can be used to discriminate between different magma series.

Samples classed as dacitic in the field (triangles) form a cluster with similar Zr/TiO_2 ratios. This includes the sample of dacitic tuff (RMC-7) and a sample originally classed as rhyolite lapilli tuff (circle) in the field (RMC-11). The clustering of these samples suggests that they are part of the same magma series.

The altered samples (RMC-4 & -5) plot separately closer to the origin. They lie on a tie line of constant $Zr:TiO_2$ ratio connecting the less altered dacitic rocks with the origin. This suggests that these samples are altered dacites and that quartz addition has diluted both Zr and TiO_2 by equal measure but that both elements have remained proportionally constant.

Two rhyolitic samples (RMA-1 & -2) lie separate from the dacites and contain relatively different amounts and proportions of TiO2 and Zr. Their separation from each other on the diagram may be partially due to their fragmental origin. They may be partially mixed with other detritus or selective grading of constituent mineral phases occurred. Also differing degrees of alteration would move them closer or away from the origin.

RESULTS

Information for the 10 drill core and 10 surface samples are shown in Table 2 – List of Samples Analyzed and the results are summarized in Table 3 – Summary of Analytical Results. The assay certificates are contained in Appendix 2 – Certificate of Analysis.

Reconnaissance style mapping was conducted during the sample selection process. The field maps, index and legend are contained in Figures 3, 7-23.

The analysed geochemical composition of the samples was used to classify rock type and assess magmatic affinity.

A Winchester and Floyd discrimination plot indicated that all of the samples have a subalkalic affinity (Figures 4) and TiO_2% vs. Zr. ppm plot was utilized to discriminate whether a sample was derived from the same magma series (Figure 5).

<u>BC 88-1 24.38-24.84 meters</u> (Figure 17 – Sheet 11)

The drill core sample is classified as a pyroxene-feldspar-porphyritic dacite flow with minor pyrite. A SiO_2% vs. Zr/TiO_2 ppm Winchester and Floyd plot places the sample within the Rhyodacite Dacite field and a TiO_2% vs. Zr. ppm plot suggests that the sample originated from the same magma series as the other Rhyodacite Dacite plotted samples.

The following results are based upon comparison of analytical results for the 20 samples:
Base metal ranking Cu+Pb+Zn = 81.9 ppm and ranks 13^{th}.
Arsenic = 32.4 ppm and ranks 5^{th}.
Barium = 1005.7 ppm and ranks 11^{th}.

<u>BC 88-4, 96.50 meters</u> (Figure 17 – Sheet 11)

Located approximately 150 meters northwest of the previous sample, the drill core sample is classified as a hornblende-pyroxene-feldspar-porphyritic dacite flow. A SiO_2% vs. Zr/TiO_2 ppm Winchester and Floyd plot places the sample within the Rhyodacite Dacite field and a

TiO_2% vs. Zr. ppm plot suggests that the sample originated from the same magma series as the other Rhyodacite Dacite plotted samples.

The following results are based upon comparison of analytical results for the 20 samples:
Base metal ranking Cu+Pb+Zn = 100.79 ppm and ranks 3rd.
Arsenic = 19.1 ppm and ranks 7th.
Barium = 988.9 ppm and ranks 12th.

<u>BC 88-4, 164.50-164.85 meters</u> (Figure 18 – Sheet 12)

The drill core sample is classified as a pyroxene-feldspar-porphyritic dacite flow. A SiO_2% vs. Zr/TiO_2 ppm Winchester and Floyd plot places the sample within the Rhyodacite Dacite field and a TiO_2% vs. Zr. ppm plot suggests that the sample originated from the same magma series as the other Rhyodacite Dacite plotted samples.

The following results are based upon comparison of analytical results for the 20 samples:
Base metal ranking Cu+Pb+Zn = 80.5 ppm and ranks 14th.
Arsenic = 5.6 ppm and ranks 12th.
Barium = 1195.6 ppm and ranks 4th.

<u>BC 88-7, 74.68 meters</u> (Figure 18 – Sheet 12)

This drill hole is located approximately 300 meters southwest of drill hole BC88-4. The drill core sample is classified as a hornblende-pyroxene-feldspar-porphyritic dacite flow. A SiO_2% vs. Zr/TiO_2 ppm Winchester and Floyd plot places the sample within the Rhyodacite Dacite field and a TiO_2% vs. Zr. ppm plot suggests that the sample originated from the same magma series as the other Rhyodacite Dacite plotted samples.

The following results are based upon comparison of analytical results for the 20 samples:
Base metal ranking Cu+Pb+Zn = 79.8 ppm and ranks 16th.
Arsenic = 1.3 ppm and ranks 15th.
Barium = 1115.2 ppm and ranks 7th.

<u>BC 88-7, 20.62-21.12 meters</u> (Figure 18 – Sheet 12)

The drill core sample is classified as a pyroxene-hornblende-feldspar-porphyritic dacite flow. A SiO_2% vs. Zr/TiO_2 ppm Winchester and Floyd plot places the sample within the Rhyodacite Dacite field and a TiO_2% vs. Zr. ppm plot suggests that the sample originated from the same magma series as the other Rhyodacite Dacite plotted samples.

The following results are based upon comparison of analytical results for the 20 samples:
Base metal ranking Cu+Pb+Zn = 86.3 ppm and ranks 11th.
Arsenic = 4.2 ppm and ranks 13th.
Barium = 1114.8 ppm and ranks 8th.

<u>BC 88-7, 74.68-75.13 meters</u> (Figure 18 – Sheet 12)

The drill core sample is classified as a pyroxene-hornblende-feldspar-porphyritic dacite flow with minor chloritic veinlets. A SiO_2% vs. Zr/TiO_2 ppm Winchester and Floyd plot places the sample within the Rhyodacite Dacite field and a TiO_2% vs. Zr. ppm plot suggests that the sample originated from the same magma series as the other Rhyodacite Dacite plotted samples.

The following results are based upon comparison of analytical results for the 20 samples:
Base metal ranking Cu+Pb+Zn = 88.9 ppm and ranks 10th.
Arsenic = 7.7 ppm and ranks 10th.
Barium = 736.1 ppm and ranks 15th.

<u>BC 88-10, 16.28 meters</u> (Figure 18 – Sheet 12)

This drill hole is located approximately 300 meters west-northwest of drill hole BC88-7. The drill core sample is classified as a pyroxene-feldspar-porphyritic dacite flow with minor carbonate veinlets. A SiO_2% vs. Zr/TiO_2 ppm Winchester and Floyd plot places the sample within the Rhyodacite Dacite field and a TiO_2% vs. Zr. ppm plot suggests that the sample originated from the same magma series as the other Rhyodacite Dacite plotted samples.

The following results are based upon comparison of analytical results for the 20 samples:
Base metal ranking Cu+Pb+Zn = 99 ppm and ranks 4th.
Arsenic = 12.9 ppm and ranks 8th.
Barium = 1010.5 ppm and ranks 10th.

BC 88-10, 60.88-69.34 meters (Figure 18 – Sheet 12)

The drill core sample is classified as a biotite-hornblende-feldspar-porphyritic dacite flow. A SiO_2% vs. Zr/TiO_2 ppm Winchester and Floyd plot places the sample within the Rhyodacite Dacite field and a TiO_2% vs. Zr. ppm plot suggests that the sample originated from the same magma series as the other Rhyodacite Dacite plotted samples.

The following results are based upon comparison of analytical results for the 20 samples:
Base metal ranking Cu+Pb+Zn = 96.7 ppm and ranks 5th.
Arsenic = 2.4 ppm and ranks 14th.
Barium = 1517 ppm and ranks 3rd.

BC 88-10, 108.51-109.12 meters (Figure 18 – Sheet 12)

The drill core sample is classified as a pyroxene-biotite-hornblende-feldspar-porphyritic dacite flow with minor chlorite bands. A SiO_2% vs. Zr/TiO_2 ppm Winchester and Floyd plot places the sample within the Rhyodacite Dacite field and a TiO_2% vs. Zr. ppm plot suggests that the sample originated from the same magma series as the other Rhyodacite Dacite plotted samples.

The following results are based upon comparison of analytical results for the 20 samples:
Base metal ranking Cu+Pb+Zn = 95.9 ppm and ranks 7th.
Arsenic = <0.5ppm and ranks 19th.
Barium = 675.3 ppm and ranks 16th.

BC 88-10, 244.45-244.91 meters (Figure 18 – Sheet 12)

The drill core sample is classified as a pyroxene- hornblende-feldspar-porphyritic dacite flow. A SiO_2% vs. Zr/TiO_2 ppm Winchester and Floyd plot places the sample within the Rhyodacite Dacite field and a TiO_2% vs. Zr. ppm plot suggests that the sample originated from the same magma series as the other Rhyodacite Dacite plotted samples.

The following results are based upon comparison of analytical results for the 20 samples:
Base metal ranking Cu+Pb+Zn = 91.7 ppm and ranks 8th.
Arsenic = 1 ppm and ranks 16th.
Barium = 868.6 ppm and ranks 13th.

RMA 1 (Figure 14 – Sheet 8)

This rock sample is located 620 meters southwest of drill hole BC88-7. The rock sample is classified as rhyolite lapilli with feldspar, pyroxene and quartz crystals with medium intensity of clay alteration. A SiO_2% vs. Zr/TiO_2 ppm Winchester and Floyd plot places the sample within the Rhyolite field and a TiO_2% vs. Zr. ppm plot indicates that RMA-1 and RMA-2 lie separate from the dacites and contain relatively different amounts and proportions of TiO2 and Zr. Their separation from each other on the diagram may be partially due to their fragmental origin. They may be partially mixed with other detritus or selective grading of constituent mineral phases occurred. Also differing degrees of alteration would move them closer or away from the origin.

The following results are based upon comparison of analytical results for the 20 samples:
Base metal ranking Cu+Pb+Zn = 51.5 ppm and ranks 7^{th}.
Arsenic = 10.2 ppm and ranks 9^{th}.
Barium = 259.7 ppm and ranks 18^{th}.

RMA 2 (Figure 23 – Sheet 23)

This rock sample is located approximately 1,100 meters northwest of drill hole BC88-7. The rock sample is classified as rhyolite lapilli tuff with medium intensity of clay alteration. A SiO_2% vs. Zr/TiO_2 ppm Winchester and Floyd plot places the sample within the Rhyolite field and a TiO_2% vs. Zr. ppm plot indicates that RMA-1 and RMA-2 lie separate from the dacites and contain relatively different amounts and proportions of TiO2 and Zr. Their separation from each other on the diagram may be partially due to their fragmental origin. They may be partially mixed with other detritus or selective grading of constituent mineral phases occurred. Also differing degrees of alteration would move them closer or away from the origin.

The following results are based upon comparison of analytical results for the 20 samples:
Base metal ranking Cu+Pb+Zn = 45.8 ppm and ranks 18^{th}.
Arsenic = 19.7 ppm and ranks 6^{th}.
Barium = 405.4 ppm and ranks 17^{th}.

<u>RMC-1</u> (Figure 16 – Sheet 10)

This rock sample is located approximately 530 meters south-southwest of drill hole BC88-1. The rock sample is classified as feldspar-pyroxene-olivine-porphyritic basalt. A SiO_2% vs. Zr/TiO_2 ppm Winchester and Floyd plot places the sample within the basalt field near the boundary of alkali basalt. A TiO_2% vs. Zr. ppm plot suggests that the sample originated from another magma series from the remaining samples.

The following results are based upon comparison of analytical results for the 20 samples:
Base metal ranking Cu+Pb+Zn = 126.1 ppm and ranks 1st.
Arsenic = <0.5 ppm and ranks 20th.
Barium = 2397.5 ppm and ranks 1st.
Nickel = 101.9 ppm and ranks 1st.

<u>RMC-2</u> (Figure 17 –Sheet 11)

This rock sample is located approximately 240 meters southwest of drill hole BC88-1. The rock sample is classified as pyroxene-hornblende-feldspar-porphyritic dacite flow. A SiO_2% vs. Zr/TiO_2 ppm Winchester and Floyd plot places the sample within the Rhyodacite Dacite field and a TiO_2% vs. Zr. ppm plot suggests that the sample originated from the same magma series as the other Rhyodacite Dacite plotted samples.

The following results are based upon comparison of analytical results for the 20 samples:
Base metal ranking Cu+Pb+Zn = 82.5 ppm and ranks 12th.
Arsenic = 0.8 ppm and ranks 17th.
Barium = 1142.6 ppm and ranks 6th.

<u>RMC-4</u> (Figure 17 – Sheet 11)

This float sample is located approximately 260 meters west of drill hole BC88-1. The rock sample is classified as quartz cemented breccia with quartz stringers associated with clay, sericite and pyrite alteration. A SiO_2% vs. Zr/TiO_2 ppm Winchester and Floyd plot places the sample within the Rhyolite field, based principally upon the samples high silica content, which is elevated due to the presence of quartz veining.

Zr and Ti are generally immobile in most geologic environments that have seen limited to moderate metamorphism and weak to moderate-intensity hydrothermal activity. The Zr/TiO_2 ratio of the sample is similar to that found in the other less altered dacitic samples (Figure 5). Therefore it is likely that RMC-4 is composed of altered and quartz-cemented dacite.

The following results are based upon comparison of analytical results for the 20 samples:
Base metal ranking Cu+Pb+Zn = 113.3 ppm and ranks 2nd.
Arsenic = 69.2 ppm and ranks 2nd.
Barium = 203.7 ppm and ranks 19th.

RMC-5 (Figure 17 – Sheet 11)

This sub outcrop sample is located approximately 290 meters west of drill hole BC88-1. The rock sample is classified as quartz veined dacite or andesite with quartz stringers and minor clay and pyrite alteration. A SiO_2% vs. Zr/TiO_2 ppm Winchester and Floyd plot places the sample within the Rhyolite field, based principally upon the samples high silica content due to quartz veining. The Zr/TiO_2 ratio of the sample is similar to that found in the other less altered dacitic samples (Figure 5). Therefore, in similar fashion as RMC-4, it is likely that RMC-5 is composed of altered and quartz-veined dacite.

The following results are based upon comparison of analytical results for the 20 samples:
Base metal ranking Cu+Pb+Zn = 41.7 ppm and ranks 20th.
Arsenic = 42 ppm and ranks 4th.
Barium = 105.1 ppm and ranks 20th.

RMC-6 (Figure 17 – Sheet 11)

This outcrop sample is located approximately 170 meters southeast of drill hole BC88-1. The rock sample is classified as a hornblende-feldspar-porphyritic dacite flow with trace pyrite. A SiO_2% vs. Zr/TiO_2 ppm Winchester and Floyd plot places the sample within the Rhyodacite Dacite field and a TiO_2% vs. Zr. ppm plot suggests that the sample originated from the same magma series as the other Rhyodacite Dacite plotted samples.

The following results are based upon comparison of analytical results for the 20 samples:
Base metal ranking Cu+Pb+Zn = 89.6 ppm and ranks 9th.

Arsenic = 53.9 ppm and ranks 3rd.
Barium = 1085.1 ppm and ranks 9th.

RMC-7 (Figure 17 – Sheet 11)

This sub outcrop sample is located approximately 190 meters southeast of drill hole BC88-1. The rock sample is classified as a fine-grained dacite crystal tuff with medium intensity clay alteration, possible sericite alteration and limonite, pyrite alteration. A SiO_2% vs. Zr/TiO_2 ppm Winchester and Floyd plot places the sample within the Rhyolite field.

It should be noted that the rock contains 73.28% SiO_2, 0.03% Na_2O and 3.55% K_2O. This samples' Zr/TiO2 ratio is similar to that of the other dacites sampled (Figure 5) and it is likely that it is related to these rocks.

The following results are based upon comparison of analytical results for the 20 samples:

Base metal ranking Cu+Pb+Zn = 43 ppm and ranks 19th.
Arsenic = 545.2 ppm and ranks 1st.
Barium = 830.8 ppm and ranks 14th.

RMC-10 (Figure 18 – Sheet 12)

This outcrop sample is located approximately 215 meters west-northwest of drill hole BC88-10. The rock sample is classified as a biotite-hornblende-feldspar-prophyritic dacite flow. A SiO_2% vs. Zr/TiO_2 ppm Winchester and Floyd plot places the sample within the Rhyodacite Dacite field and a TiO_2% vs. Zr. ppm plot suggests that the sample originated from the same magma series as the other Rhyodacite Dacite plotted samples.

The following results are based upon comparison of analytical results for the 20 samples:
Base metal ranking Cu+Pb+Zn = 79.9 ppm and ranks 15th.
Arsenic = 0.6 ppm and ranks 18th.
Barium = 1159 ppm and ranks 5th.

RMC-11 (Figure 18 – Sheet 12)

This outcrop sample is located approximately 90 meters southwest of drill hole BC88-10. The rock sample is classified as a rhyolite lapilli tuff with biotite, feldspar and quartz crystals and medium clay alteration. A SiO_2% vs. Zr/TiO_2 ppm Winchester and Floyd plot places the sample within the Rhyodacite Dacite field. The sample possesses a similar Zr/TiO_2 ratio as the other dacitic rock samples and therefore is probably part of the same magmatic suite (see TiO_2 versus Zr plot: Figure 5).

The following results are based upon comparison of analytical results for the 20 samples:
Base metal ranking Cu+Pb+Zn = 96 ppm and ranks 6th.
Arsenic = 5.6 ppm and ranks 11th.
Barium = 1526.9 ppm and ranks 2nd.

DISCUSSION OF RESULTS

The two altered samples (RMC-4 and RMC-5) contained 13 and 15 ppb Au respectively. The previous exploration programs, which are discussed in the section Summary of Previous Exploration Work, indicated that the property contains samples anomalous in mercury, arsenic and only slightly anomalous in gold (Hardy and van Wermeskerken, 1989). Heine (1988b) postulated that the clay-rich nature of the faulted zones, the lack of well-formed vein structures and low Au content may be due to the samples being taken at too high an elevation in the hydrothermal system. The author's of this report are in agreement with this hypothesis.

The veins at Blackdome cut three stratigraphically distinct units. The uppermost of these is referred to as the Upper Andesite unit. Below the Upper Andesite are rhyolitic rocks, which in turn are underlain by other felsic volcanic rocks labeled as the Lower Dacite unit. Vivian (1988) discusses that drill core samples belonging to the Upper Andesite unit from drill core were petrographically classified as andesite but the Irvine/Baragar classification places them within the Rhyodacite-Dacite field. These rocks contain (on average) 63.87% SiO_2, 0.94% TiO_2, 1.56% MgO, 20 ppm Ni, 11 ppm Nb, 19 ppm Y, and 157 ppm Zr. and geochemically the samples were classified as Dacite (Vivian, 1988). Comparing the 10 drill core samples from the Richman 1 claim, these average 65.05% SiO_2, 0.52% TiO_2, 1.82% MgO, 26 ppm Ni, 7 ppm Nb, 16 ppm Y, and 158 ppm Zr (on a non anhydrous basis). The samples from the Upper Andesite as analysed by Vivian (1988) contain significantly more TiO_2 but are otherwise geochemically very similar to those in the drill core samples from Richman 1. In making this comparison, it must be considered that Vivian employed different analytical techniques and a different laboratory. This may account for the slight differences in the results for concentrations of trace elements such as Ni, Nb or Y, and possibly also at least partially for the discrepancy in TiO_2 levels. Alternatively, the different TiO_2 concentrations between the samples from Richman 1 and the Upper Andesite samples at Blackdome may be due to the lavas being from a different eruptive batch or vent. They may have been tapped from a slightly different level in the underlying magma chamber. However, given their position in the stratigraphy overlying rhyolite, and their geochemistry it is probable that the dacitic volcanics cored on the Richman 1 claim are genetically related to the Upper Andesite unit at Blackdome.

In contrast, the ten core samples from Richman 1 are very dissimilar in their trace element concentrations from the Lower Dacite unit at Blackdome. For example, analytical results for these rocks presented by Vivian (1988) give an average composition of 20 ppm Nb, 32 ppm Y, and 411 ppm Zr. These results imply that the Lower Dacite unit has a different magmatic affinity.

The inconclusive geochemical results for base metals, arsenic and barium in this study may be indicating that if a sample contains relatively high or low base metal values, then the arsenic or barium value may also be relatively high or low. In the megascopic field of a large hydrothermal system, one would expect vertical and horizontal mineral zonation and element association with precious metal mineralization. Possibly, the results from this study are suggesting that similar zonation and element associations exist in the microscopic field, or that the concentrations of these elements are simply not interdependent in this hydrothermal system. Examples of the above hypothesis (1^{st}, 2^{nd}, 19^{th}, and 20^{th} ranks for base metal, arsenic and barium) are:

- <u>**RMC-1**</u> high base metal (ranks 1^{st}), high barium (ranks 1^{st}) and low arsenic (ranks 20^{th}). This Miocene age basalt overlies the Eocene age volcanics hosting the precious metal deposits.

- **RMC-4** high base metal (ranks 2nd), high arsenic (ranks 2nd) and low barium (ranks 19th). This cemented quartz breccia float is within 30 meters of RMC-5, a sub outcrop of quartz veined dacite with quartz stringers and pyrite and therefore it is believed that the quartz breccia float is not far from its source.
- **RMC-5** low base metal (ranks 20th), low barium (ranks 20th) and relatively high arsenic (ranks 4th).
- **RMC-7** low base metal (ranks 19th) and high arsenic (ranks 1st)
- **BC 88-10, 108.51-109.12 meters** low arsenic (ranks 19th), relatively low barium (ranks 16th) and relatively high base metal (ranks 7th).
- **RMC-11** high barium (ranks 2nd) and relatively high base metal (ranks 6th).

CONCLUSIONS AND RECOMMENDATIONS

The rock types identified are basically consistent with similar rock types identified in the Blackdome property and associated with the epithermal precious metal deposits.

The whole rock and trace element analyses appear provide an additional tool in identifying individual volcanic rock units in the field and have the potential of successfully classifying altered volcanic rocks as well. Therefore further mapping of the Richman claim should include additional lithogeochemical analyses to properly delineate the volcanic stratigraphy underlying the property.

The hypothesis that high base metal content (copper+lead+zinc) is associated with high barium and low arsenic content may prove to be a valuable exploration tool in establishing vertical and horizontal zonation patterns. However, this hypothesis is based upon a very limited number of samples and therefore this association should be re-examined as the database continues to grow through further sample testing.

Previous exploration programs have suggested that the mineralization and alteration observed in surface outcrops and within drill holes represents a high level within a hydrothermal system. Future drilling should focus on deeper drilling within the hydrothermal system and whole rock and multi-element geochemical testing of samples in order to determine the position of the samples within a hydrothermal system and to direct follow-up drilling towards economic precious metal deposits.

Table: 4 Statement of Expenditures

Alex Boronowski	
Wages – June 16-22, 2004	
7 days x 10 hrs x $75/hr.	$5,250.00
Truck – June 16-22, 2004	
1,076 km. x $0.50/km	$ 538.00
Camp Supplies and Equipment	
7 days x $50/day	$ 350.00
Communications	$ 20.00
Chris Sebert	
Wages – June 16-22, 2004	
7 days x 10 hrs x $75/hr.	$5,250.00
Truck – June 16-22, 2004	
1,076 km. x $0.50/km	$ 538.00
Camp Supplies and Equipment	
7 days x $50/day	$ 350.00
Analytical Work	
Rock and drill core - 20 samples x $50.39/sample	$1,007.80
Thin Sections – 8 x $17.12	$ 136.96
Food	
June 14, 2004	$ 13.68
June 15, 2004	$ 28.31
June 14, 2004	$ 1.95
June 15, 2004	$ 271.31
Report Writing and Drafting	
Alex Boronowski and Chris Sebert	$ 3,750.00
Total Cost	**$ 17,506.01**

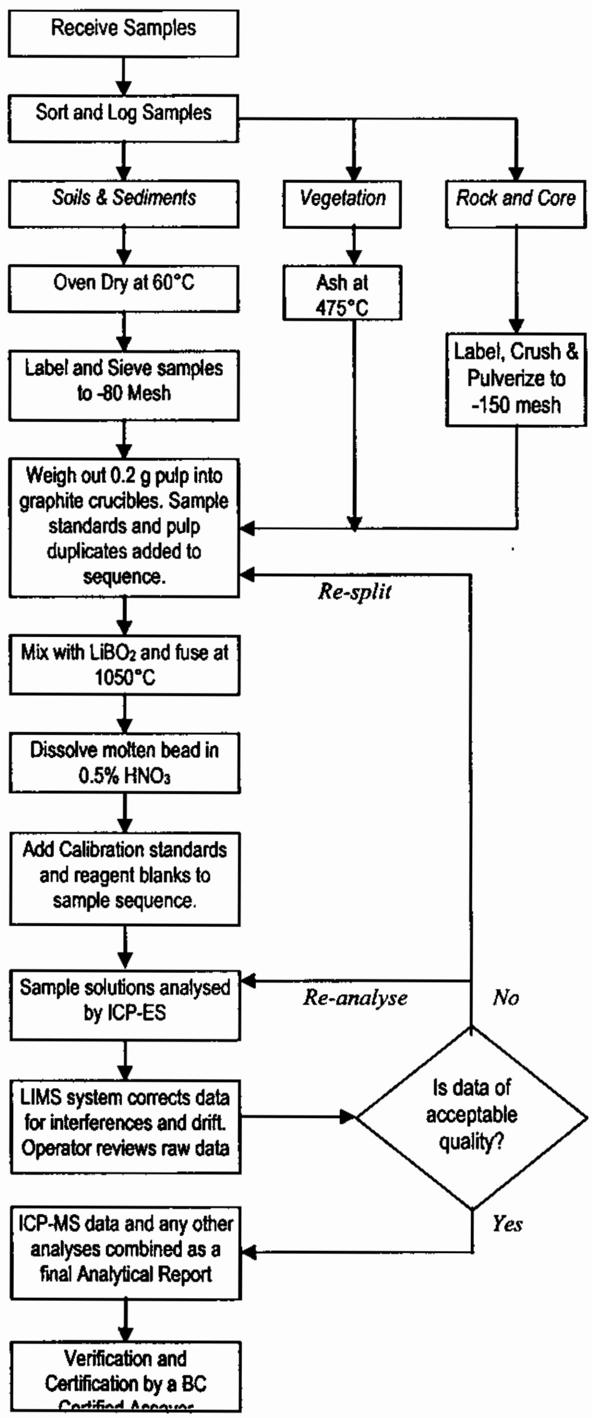
REFERENCES

- Boyle, R.W., 1974. Elemental Associations in Mineral Deposits and Indicator Elements of Interest in Geochemical Prospecting. Geological Survey of Canada Paper 74-45.
- Fipke, C. and Capell, R., 1983. Assessment Report, Pony I and Pony IV claims, Clinton Mining Division, N.T.S. 92 O/7. Assessment Report (10773).
- Hardy, J.L. and van Wermeskerken, M., 1989. Report on Geology, Geochemistry and Trenching, BLT Property, EH Claims. Assessment Report (18099) McClintock and Hardy Engineering Ltd. for Ballatar Explorations Ltd.
- Heine, T.H., 1988 (a). Assessment Report for Work Completed on the Bobcat Claims, Clinton Mining Division, British Columbia. Assessment Report (18033), Lexington Resources Ltd.
- Heine, T.H., 1988 (b). Assessment Report on Phase II – Diamond Drilling. Assessment Report (19222), Lexington Resources Ltd.
- Leriche, P.D., and Yacoub, F.F., 1988. Geological and Geochemical Report on the Foot 1-7 Claims. Assessment Report (18581) Ashworth Exploration Ltd. for Lexington Resources Ltd.
- Rennie, D.W., 1988. An update from the Blackdome Mine, Clinton, B.C. Unpublished company report.
- Vivian, G.J., 1988. The Geology of the Blackdome Epithermal Deposit. Unpublished Master's Thesis, University of Alberta.
- Winchester and Floyd, J.A., and Floyd, P.A., 1975. Geochemical Discrimination of Different Magma Series and Their Differentiation Products Using Immobile Elements. Chemical Geology, 20, p. 325-343.

Appendix 1: Summary of Sample Treatment and Analytical Procedures:

METHODS AND SPECIFICATIONS FOR ANALYTICAL PACKAGE
GROUP 4A - WHOLE ROCK ANALYSIS BY ICP-ES

Analytical Process



Comments

Sample Preparation

All samples are dried at 60°C. Soil and sediment are sieved to -80 mesh (-177 µm). Moss-mats are disaggregated then sieved to yield -80 mesh material. Vegetation is pulverized or ashed (475°C). Rock and drill core is jaw crushed to 70% passing 10 mesh (2 mm), a 250 g riffle split is then pulverized to 95% passing 150 mesh (100 µm) in a mild-steel ring-and-puck mill.

Sample Digestion

A 0.2 g sample aliquot is weighed into a graphite crucible and mixed with 1.5 g of $LiBO_2$ flux. The flux/sample charge is heated in a muffle furnace for 15 minutes at 1050°C. The molten mixture is removed and immediately poured into 100 mL of 5% HNO_3 (ACS grade nitric acid in de-mineralised water). The solution is shaken for 2 hours then an aliquot is poured into a polypropylene test tube. Calibration standards, verification standards and reagent blanks are added to the sample sequence.

Sample Analysis

Sample solutions are aspirated into an ICP emission spectrometer (Jarrel Ash Atomcomp Model 975) for the determination of the basic package consisting of the following 18 major oxides and elements: SiO_2, Al_2O_3, Fe_2O_3, CaO, MgO, Na_2O, K_2O, MnO, TiO_2, P_2O_5, Cr_2O_3, Ba, Ni, Sr, Sc, Y and Zr. The extended package will also include: Ce, Co, Cu, Ta and Zn. A 1 g sample split is ignited for 90 minutes at 950°C, cooled in a desiccator then weighed with the difference expressed as percent Loss on Ignition (% LOI). A 0.1 g sample split is analysed for total Carbon and Sulphur by the LECO method.

Quality Control and Data Verification

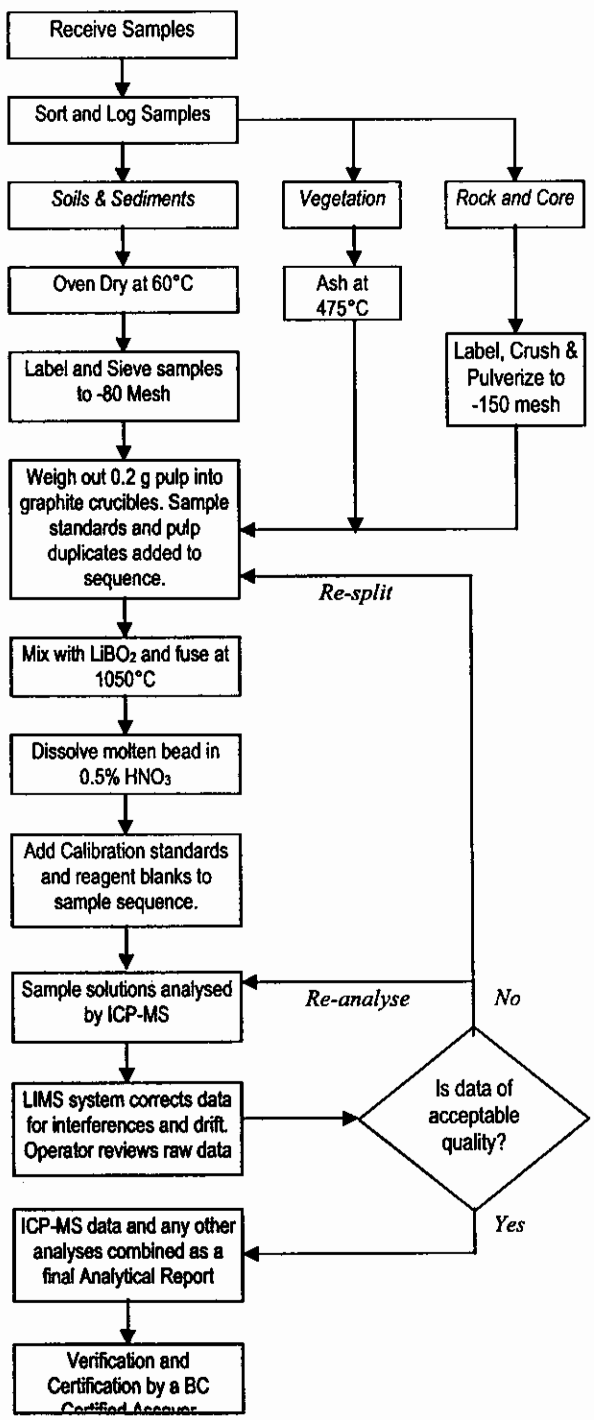
An Analytical Batch (1 page) comprises 31 samples. QA/QC protocol incorporates a sample-prep blank (SI or G-1) carried through all stages of preparation and analysis as the first sample, a pulp duplicate to monitor analytical precision, a -10 mesh rejects duplicate to monitor sub-sampling variation (drill core only), two reagent blanks to measure background and aliquots of in-house Standard Reference Materials like STD SO-17 to monitor accuracy. STD SO-17 was certified in-house against 38 Certified Reference Materials including CANMET SY-4 and USGS AGV-1, G-2, GSP-2 and W-2.

Raw and final data undergo a final verification by a British Columbia Certified Assayer who signs the Analytical Report before it is released to the client. Chief Assayer is Clarence Leong, other certified assayers are Dean Toye, Jacky Wang and Ken Kwock.

Document: Method and Specifications for Group 4A.doc	Date: Mar 22, 2004	Prepared By: J. Gravel

Methods and Specifications for Analytical Package
Group 4B - Whole Rock Trace Elements by ICP-MS

Analytical Process



Comments

Sample Preparation

All samples are dried at 60°C. Soil and sediment are sieved to -80 mesh (-177 µm). Moss-mats are disaggregated then sieved to yield -80 mesh sediment. Vegetation is pulverized or ashed (475°C). Rock and drill core is jaw crushed to 70% passing 10 mesh (2 mm), a 250 g riffle split is then pulverized to 95% passing 150 mesh (100 µm) in a mild-steel ring-and-puck mill.

Sample Digestion

A 0.2 g sample aliquot is weighed into a graphite crucible and mixed with 1.5 g of $LiBO_2$ flux. The flux/sample charge is heated in a muffle furnace for 15 minutes at 1050°C. The molten mixture is removed and immediately poured into 100 mL of 5% HNO_3 (ACS grade nitric acid in de-mineralised water). The solution is shaken for 2 hours then an aliquot is poured into a polypropylene test tube. Calibration standards, verification standards and reagent blanks are added to the sample sequence.

Sample Analysis

Sample solutions are aspirated into an ICP mass spectrometer (Perkin-Elmer Elan 6000) for the determination of the basic package consisting of the following 34 elements: Ba, Co, Cs, Ga, Hf, Nb, Rb, Sn, Sr, Ta, Th, Tl, U, V, W, Y, Zr, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb and Lu. A second sample split of 0.5 g is digested in Aqua Regia and analysed by ICP-MS (see Group 1DX) to determine: Au, Ag, As, Bi, Cd, Cu, Hg, Mo, Ni, Pb, Sb, Se, Tl and Zn.

Quality Control and Data Verification

An Analytical Batch (1 page) comprises 31 samples. QA/QC protocol incorporates a sample-prep blank (SI or G-1) carried through all stages of preparation and analysis as the first sample, a pulp duplicate to monitor analytical precision, a -10 mesh rejects duplicate to monitor sub-sampling variation (drill core only), two reagent blanks to measure background and aliquots of in-house Standard Reference Materials like STD SO-17 to monitor accuracy. STD SO-17 was certified in-house against 38 Certified Reference Materials including CANMET SY-4 and USGS AGV-1, G-2, GSP-2 and W-2.

Raw and final data undergo a final verification by a British Columbia Certified Assayer who signs the Analytical Report before it is released to the client. Chief Assayer is Clarence Leong, other certified assayers are Dean Toye, Jacky Wang and Ken Kwock.

Document: Method and Specifications for Group 4B.doc	Date: Oct 2, 2003	Prepared By: J. Gravel

ACME ANALYTICAL LABORATORIES LTD.
852 East Hastings Street • Vancouver, British Columbia • CANADA • V6A 1R6
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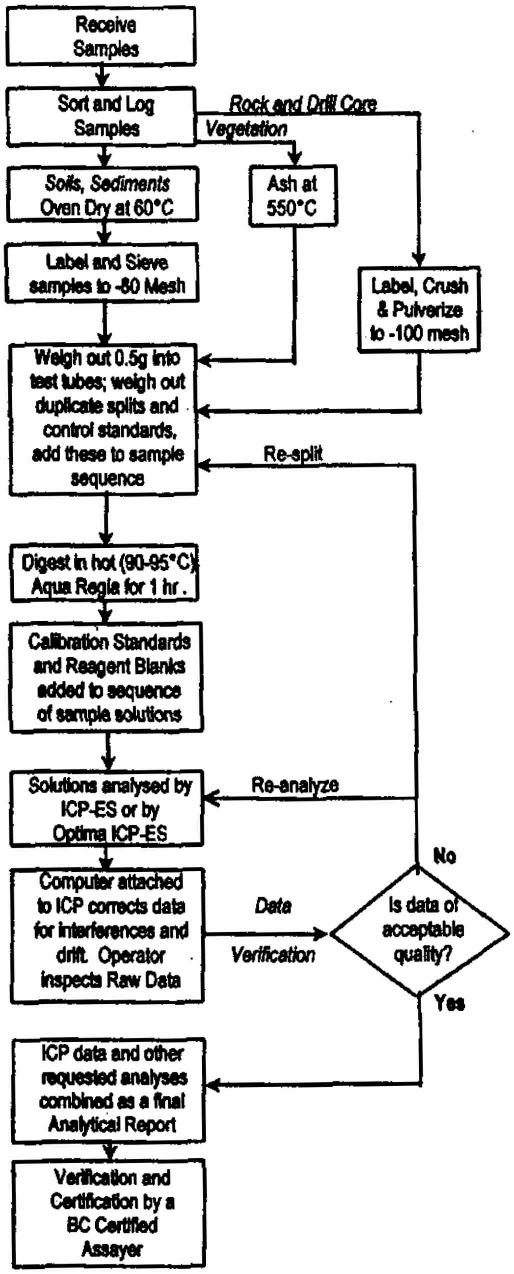
METHODS AND SPECIFICATIONS FOR ANALYTICAL PACKAGE GROUP 1D & 1DX - ICP ANALYSIS – AQUA REGIA

Analytical Process



Comments

Sample Preparation

Soils and sediments are dried (60°C) and sieved to -80 mesh (-177 μm), rocks and drill core are crushed and pulverized to -150 mesh (-100 μm). Vegetation is dried (60°C) and pulverized or dry ashed (550°C). Moss-mat samples are dried (60°C), pounded then sieved to recover -80 mesh sediment or ashed at 550°C then sieved to -80 mesh with potential loss by volatilization of Hg, As, Sb, Bi and Cr. Aliquots of 0.5 g are weighed into test tubes. Duplicate aliquots are taken from two samples in each batch of 34 samples to measure precision. An aliquot of sample standard STD C3 is added to each batch to monitor accuracy.

Sample Digestion

Aqua Regia is a 2:2:2 mixture of ACS grade conc. HCl, conc. HNO_3 and demineralized H_2O. Aqua Regia is added to each sample and to two empty reagent blank test tubes in each batch of samples. Sample solutions are digested for 1 hr in a hot water bath (90-95°C).

Sample Analysis

Group 1D: sample solutions are aspirated into a Jarrel Ash AtomComp 800 or 975 ICP emission spectrograph to determine 30 elements: Ag, Al, As, Au, B, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sr, Th, Ti, U, V, W, Zn.

Group 1DX: sample solutions are aspirated into a Perkin Elmer Elan 6000 ICP Mass spectrograph to determine 35 elements: Ag, Al, As, Au, B, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, *Ga*, *Hg*, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, *S*, Sb, *Sc*, *Tl*, Sr, Th, Ti, U, V, W, Zn.

Data Evaluation

Raw and final data from the ICP-ES undergoes a final verification by a British Columbia Certified Assayer who then signs the Analytical Report before it is released to the client. Chief Assayer is Clarence Leong, other certified assayers are Dean Toye and Jacky Wang.

Appendix 2: Certificates of Analysis

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

Sebert, Chris File # A403333
19616 - 80th Ave, Langley BC V2Y 1T8 Submitted by: Chris Sebert

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ni ppm	Sc ppm	LOI %	TOT/C %	TOT/S %	SUM %
BC88-1 24.38m	66.37	14.16	3.23	1.15	4.01	2.85	2.38	.46	.10	.05	.001	<20	7	5.1	.86	.33	99.87
BC88-4 96.50m	66.41	14.20	3.84	1.92	3.80	2.29	4.20	.51	.14	.06	.004	39	8	2.5	.07	.07	99.88
BC88-4 164.50m	67.53	13.96	2.96	1.81	2.04	2.11	5.33	.50	.11	.05	.004	20	8	3.5	.35	.09	99.90
BC88-7 7.48m	66.04	14.13	3.80	1.93	3.69	2.62	3.48	.50	.11	.07	.008	39	8	3.5	.42	<.01	99.89
BC88-7 20.62m	66.44	14.30	3.87	2.12	2.75	2.68	3.86	.50	.10	.06	.006	38	7	3.2	.23	.03	99.89
BC88-7 74.68m	61.56	16.37	4.63	.59	4.67	3.24	2.45	.57	.12	.05	.002	29	9	5.7	.79	.03	99.96
BC88-10 16.28m	64.72	14.93	3.69	1.96	3.43	3.01	2.05	.45	.11	.06	.007	35	8	5.4	.74	.05	99.82
BC88-10 68.88m	64.37	13.95	3.64	2.04	3.76	2.06	3.93	.50	.11	.06	.005	37	8	5.4	.78	.03	99.82
BC88-10 108.51m	59.80	16.06	4.39	2.41	5.64	3.02	2.32	.58	.13	.06	.005	51	10	5.5	.82	<.01	99.92
BC88-10 244.45m	67.24	15.23	3.92	1.54	3.17	3.29	.87	.62	.13	.06	.002	25	8	3.8	.16	<.01	99.87
RMA-1	77.03	13.27	1.23	.19	.20	2.27	3.65	.13	.02	.01	.001	<20	4	2.1	.16	<.01	100.10
RMA-2	75.77	13.23	1.78	.35	.96	2.51	2.78	.17	.02	.03	.006	<20	5	2.4	.19	<.01	100.01
RE RMA-2	75.47	13.10	1.73	.34	.93	2.55	2.82	.17	.04	.03	<.001	<20	4	2.7	.18	<.01	99.88
RMC-1	49.97	15.24	8.63	6.41	7.58	3.12	2.84	1.31	.86	.12	.024	115	18	3.4	.10	.01	99.52
RMC-2	65.49	14.42	3.79	2.27	3.29	2.74	3.44	.51	.12	.06	.006	36	8	3.8	.32	.01	99.94
RMC-4	86.48	7.01	1.68	.37	.06	.04	2.20	.22	<.01	.01	.003	26	4	2.0	.02	.05	100.08
RMC-5	91.00	5.10	1.04	.23	.06	.02	1.54	.17	.03	<.01	.003	<20	2	.9	.02	<.01	100.10
RMC-6	65.35	14.97	4.33	1.61	3.30	2.76	2.54	.55	.12	.09	.007	55	9	4.3	.56	.03	99.93
RMC-7	73.28	13.50	3.41	.62	.17	.30	3.55	.50	.11	.01	.009	<20	9	4.5	.04	.84	99.96
RMC-10	66.23	14.51	3.92	1.69	4.04	2.65	3.40	.52	.12	.07	.007	43	9	2.8	.30	<.01	99.97
RMC-11	68.64	13.86	3.26	1.81	1.74	2.11	3.15	.49	.12	.05	.006	45	8	4.4	.19	.01	99.64
STANDARD SO-17/CSB	62.03	13.73	5.75	2.32	4.61	4.15	1.42	.60	.97	.53	.439	47	23	3.4	2.41	5.30	99.95

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.

Data ✓ FA ____ DATE RECEIVED: JUL 7 2004 DATE REPORT MAILED: July 22/04

BRITISH COLUMBIA CERTIFIED ASSAYER
Clarence Leong

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Sebert, Chris File # A403333 (a)
19616 - 80th Ave, Langley BC V2Y 1T8 Submitted by: Chris Sebert

SAMPLE#	Be ppm	Co ppm	Cs ppm	Ga ppm	Hf ppm	Nb ppm	Rb ppm	Sn ppm	Sr ppm	Ta ppm	Th ppm	U ppm	V ppm	W ppm	Zr ppm	Y ppm	La ppm	Ce ppm	Pr ppm	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm	Ba ppm
BC88-1 24.38m	1	8.5	8.2	19.2	4.4	7.1	75.7	1	387.3	.5	5.7	3.3	61	1.3	148.6	18.0	19.6	39.5	4.94	20.5	4.1	.87	3.75	.58	3.03	.56	1.72	.25	1.94	.28	1005.7
BC88-4 96.50m	1	12.7	2.8	20.6	4.5	7.1	123.4	1	352.7	.6	8.2	3.3	68	1.8	166.2	16.3	23.6	46.8	5.67	22.9	4.3	.97	3.34	.53	2.78	.54	1.45	.24	1.66	.23	988.9
BC88-4 164.50m	<1	10.9	8.0	18.3	4.9	6.6	170.1	1	270.9	.5	7.1	3.3	63	1.3	160.5	14.5	21.7	44.0	5.09	21.7	4.0	.87	3.24	.51	2.66	.50	1.39	.21	1.27	.23	1195.6
BC88-7 7.48m	1	11.7	4.5	19.6	4.3	6.6	102.9	<1	359.2	.5	7.9	3.3	65	1.0	155.7	15.0	22.5	45.8	5.45	21.4	4.1	.79	3.58	.51	2.57	.52	1.39	.22	1.48	.21	1115.2
BC88-7 20.62m	2	9.9	3.0	18.4	4.6	6.2	107.0	1	338.3	.5	7.5	3.3	61	.7	151.8	14.6	21.8	43.0	5.11	20.2	4.0	.89	3.13	.44	2.52	.50	1.37	.17	1.37	.22	1114.1
BC88-7 74.68m	<1	10.5	6.0	19.5	4.3	6.0	78.4	1	344.8	.5	4.8	1.7	59	.6	133.0	15.0	17.9	32.9	4.21	17.7	3.5	.89	3.13	.48	2.45	.46	1.48	.18	1.39	.19	736.1
BC88-10 16.28m	1	10.6	3.7	17.8	4.8	6.9	55.8	<1	363.1	.6	8.3	3.8	58	1.2	158.6	15.0	22.7	45.3	5.56	20.8	3.9	.82	3.31	.45	2.63	.45	1.39	.20	1.43	.18	1010.5
BC88-10 68.88m	1	9.9	6.7	19.1	4.8	6.6	95.5	1	415.8	.6	7.8	3.3	64	1.3	156.0	15.1	22.0	43.3	5.30	20.4	3.8	.90	3.41	.47	2.68	.50	1.47	.19	1.53	.22	1517.0
BC88-10 108.51m	<1	13.8	5.3	18.5	3.7	6.2	62.0	2	452.9	.5	4.2	2.0	76	.6	135.4	15.9	17.3	34.9	4.52	17.3	3.4	.85	3.10	.49	2.62	.50	1.36	.21	1.50	.20	675.3
BC88-10 244.45m	2	9.1	7.1	18.2	4.6	6.5	29.3	<1	544.9	.6	9.1	4.0	65	.8	150.3	19.0	21.2	42.2	5.41	23.0	4.1	.97	3.90	.60	2.97	.62	1.68	.25	1.74	.23	868.6
RMA-1	1	1.0	2.5	21.6	6.7	21.3	111.7	5	79.9	1.5	11.4	4.8	6	.5	173.1	35.5	20.3	43.7	5.71	23.1	4.4	.26	4.70	.99	5.50	1.21	3.66	.55	3.66	.57	259.7
RMA-2	2	2.3	2.1	19.2	4.9	14.1	85.9	2	459.1	1.1	9.9	3.3	17	.4	123.6	30.0	11.5	27.9	3.78	16.7	4.2	.30	3.85	.85	4.59	1.04	2.97	.43	3.36	.41	405.4
RE RMA-2	1	3.0	2.3	19.0	5.1	14.8	91.4	4	475.1	1.0	8.9	3.0	19	.7	126.3	31.7	11.7	28.9	4.05	16.9	4.5	.29	4.25	.86	4.78	1.02	3.01	.44	3.25	.43	418.9
RMC-1	2	33.5	2.4	17.8	4.9	21.7	62.3	1	2299.2	.9	10.9	2.4	203	.2	189.4	22.9	91.4	170.6	20.08	82.8	11.0	2.89	7.67	.93	4.37	.79	1.97	.23	1.69	.24	2397.5
RMC-2	1	11.7	3.7	17.1	4.5	7.0	89.4	<1	348.8	.5	7.0	3.4	63	1.7	158.9	16.0	22.4	43.0	5.24	19.3	4.2	.94	3.36	.54	2.54	.57	1.44	.23	1.45	.20	1142.6
RMC-4	1	2.1	2.9	7.8	2.1	2.9	98.5	<1	16.1	.3	3.0	1.4	26	2.2	72.1	5.8	9.8	17.4	2.04	7.2	1.4	.29	1.12	.18	1.02	.18	.52	.10	.46	.10	203.7
RMC-5	<1	<.5	4.1	8.3	1.7	2.4	69.2	<1	17.9	.2	3.4	1.2	22	3.0	57.3	4.7	7.5	13.2	1.70	6.2	1.1	.27	1.16	.14	.83	.18	.48	.06	.36	.08	105.1
RMC-6	1	13.3	5.9	19.6	4.6	6.6	65.4	<1	561.6	.5	7.9	3.6	74	2.9	152.7	17.6	24.7	43.6	5.48	22.0	4.4	1.06	3.90	.51	3.12	.58	1.49	.22	1.52	.23	1085.1
RMC-7	1	2.5	11.0	18.2	4.6	5.9	118.9	<1	63.6	.6	6.8	3.2	60	13.1	139.6	11.2	15.0	27.9	3.37	13.3	2.5	.62	2.18	.37	1.88	.36	.98	.15	.96	.16	830.8
RMC-10	2	10.7	1.7	17.9	4.8	6.5	72.4	1	361.4	.5	7.4	3.5	66	1.0	161.5	16.1	23.1	44.5	5.40	22.7	4.3	.90	3.54	.53	2.81	.51	1.40	.20	1.38	.20	1159.0
RMC-11	1	10.6	2.9	18.3	4.6	6.3	100.0	1	291.5	.6	9.1	3.6	63	1.0	162.0	18.6	25.1	46.1	6.19	25.0	4.5	.98	3.83	.64	2.79	.60	1.61	.25	1.38	.21	1526.9
STANDARD SO-17	<1	18.0	3.7	19.5	11.8	26.3	22.7	11	301.6	4.4	13.4	11.8	131	10.8	350.1	27.2	10.6	24.0	3.00	13.7	3.2	1.07	3.80	.67	4.30	.97	2.79	.43	2.82	.44	413.6

GROUP 4B - REE - 0.200 GM BY LiBO2 FUSION, ICP/MS FINISHED.
- SAMPLE TYPE: ROCK R150 60C
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data ✓ FA ____ DATE RECEIVED: JUL 7 2004 DATE REPORT MAILED: July 22/04

BRITISH COLUMBIA CERTIFIED ASSAYER
Clarence Leong

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

GEOCHEMICAL ANALYSIS CERTIFICATE

Sebert, Chris File # A403333 (b)

19616 - 80th Ave, Langley BC V2Y 1T8 Submitted by: Chris Sebert

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	As ppm	Cd ppm	Sb ppm	Bi ppm	Ag ppm	Au ppb	Hg ppm	Tl ppm	Se ppm	Sample kg
BC88-1 24.38m	.9	24.8	9.1	48	4.7	32.4	.1	.3	.1	.1	1.3	.01	<.1	<.5	1.61
BC88-4 96.50m	1.4	33.3	7.4	60	34.1	19.1	<.1	.4	.2	.2	1.6	.01	<.1	<.5	1.37
BC88-4 164.50m	54.9	25.5	5.0	50	28.7	5.6	<.1	.6	.2	.4	2.0	.11	.1	<.5	1.48
BC88-7 7.48m	.4	21.2	8.6	50	29.9	1.3	<.1	.3	.1	.1	<.5	<.01	<.1	<.5	1.37
BC88-7 20.62m	.6	27.2	6.1	53	29.9	4.2	.1	.4	.1	<.1	1.2	.01	<.1	<.5	1.10
BC88-7 74.68m	.3	52.6	3.3	33	23.9	7.7	<.1	.1	<.1	.1	<.5	.01	.1	<.5	1.61
BC88-10 16.28m	2.3	34.4	12.6	52	25.4	12.9	.1	.3	.2	<.1	<.5	.10	.1	<.5	1.36
BC88-10 68.88m	1.3	41.6	7.1	48	28.4	2.4	<.1	.1	.1	<.1	<.5	.06	<.1	<.5	1.66
BC88-10 108.51m	.1	42.5	4.4	49	33.4	<.5	.1	.3	<.1	.1	1.2	.01	<.1	<.5	2.00
BC88-10 244.45m	.8	17.3	6.4	68	14.6	1.0	<.1	.1	.1	<.1	<.5	.01	<.1	<.5	1.57
RMA-1	.8	3.5	22.0	26	1.5	10.2	<.1	.2	.2	<.1	<.5	.06	.1	<.5	1.57
RMA-2	1.1	9.7	7.1	29	2.7	19.7	<.1	.2	.2	<.1	<.5	.01	.1	<.5	.85
RE RMA-2	1.1	9.4	8.1	28	2.5	19.8	<.1	.2	.2	<.1	<.5	<.01	.1	<.5	-
RMC-1	.6	36.5	2.6	87	101.9	<.5	.1	<.1	<.1	.1	.6	<.01	<.1	<.5	2.36
RMC-2	.3	26.4	4.1	52	28.9	.8	.1	.2	.1	<.1	<.5	<.01	<.1	<.5	2.39
RMC-4	40.0	6.0	102.3	5	1.4	69.2	<.1	1.8	.1	.8	13.1	.27	.1	<.5	2.21
RMC-5	46.6	10.8	24.9	6	1.6	42.0	<.1	2.0	.1	.6	15.4	.10	.1	<.5	1.99
RMC-6	.8	17.1	9.5	63	46.6	53.9	<.1	1.6	.1	<.1	.9	.02	<.1	<.5	2.14
RMC-7	4.4	16.1	9.9	17	6.6	545.2	<.1	8.3	.1	.1	5.2	.58	.1	<.5	1.99
RMC-10	.4	31.2	2.7	46	28.7	.6	.1	.1	.1	<.1	<.5	.02	<.1	<.5	2.01
RMC-11	.2	35.5	9.5	51	30.8	5.6	.1	.1	.1	<.1	<.5	.10	.1	<.5	1.74
STANDARD DS5	12.5	138.6	24.9	137	23.9	17.9	5.6	3.4	6.0	.3	40.8	.17	1.0	4.9	-

GROUP 1DX - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-MS.
(>) CONCENTRATION EXCEEDS UPPER LIMITS. SOME MINERALS MAY BE PARTIALLY ATTACKED. REFRACTORY AND GRAPHITIC SAMPLES CAN LIMIT AU SOLUBILITY.
- SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data L **FA** ____ **DATE RECEIVED:** JUL 7 2004 **DATE REPORT MAILED:** July 22/04...

BRITISH COLUMBIA CERTIFIED ASSAYER
C. Leong
Clarence Leong

Appendix 3: Statement of Qualification

Statements of Qualification of the Authors

I, Alexander J. Boronowski, residing at 3741 St. Andrews Avenue, North Vancouver, in the province of British Columbia, do certify that:

1) I am a graduate of the Faculty of Science, University of British Columbia 1970, with a B.Sc. degree in Geology.

2) I am registered with the Association of Engineers and Geoscientists of British Columbia and I am a Fellow of the Geological Association of Canada.

3) I have worked in the mining industry as an exploration and mine geologist for 34 years.

Alexander Boronowski

I, Christopher Sebert, residing at 19616-80th Ave, Langley, British Columbia declare:

1) I am a registered Geological Engineer in the province of British Columbia.

2) I hold a Bachelors and Masters degree in Geological Engineerng obtained at the University of British Columbia in 1987 and 1998 respectively.

3) I have worked in the mining industry as an exploration and mine geologist for 17 years.

Christopher Sebert

LEGEND

Figure 6

	TRENCH or DISTURBED GROUND
	ROAD or CAT TRACK
	OUTCROP
	SUBCROP
x x x	FLOAT - FELSENMEER
f.g.	FINE GRAINED
fsp	FELDSPAR
pyx	PYROXENE
hbl	HORNBLENDE
po	PORPHYRITIC
fl.	FLOW ROCK
	CONTACT - approx.

Cly	CLAY
Lm	LIMONITE / IRON STAIN
Py	PYRITE
w	Weak
m	Moderate
s	Strong
	ALTERATION BOUNDARY
	JOINTS
	BANDING or VOLCANIC LAYERING

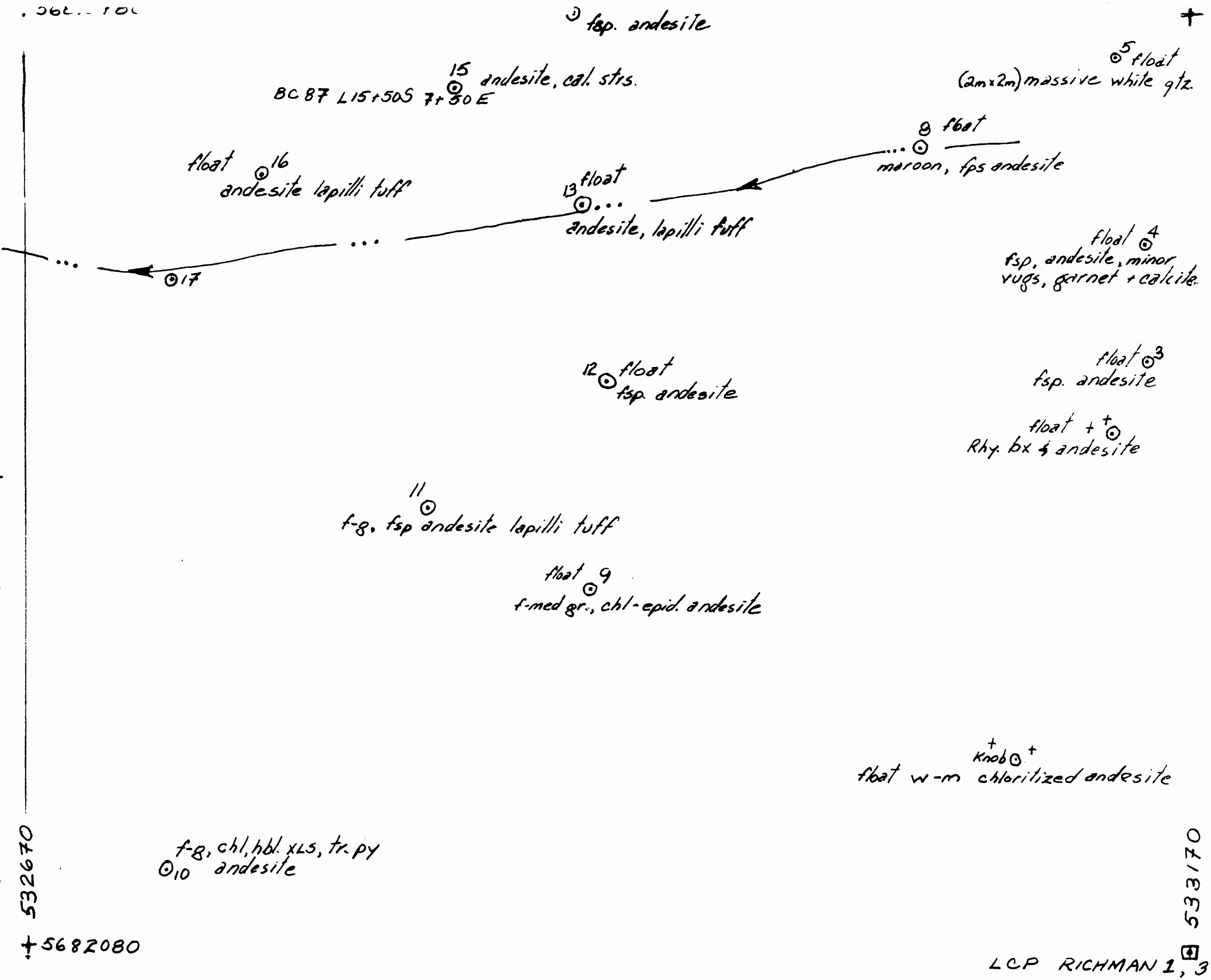


FIGURE 7 SHEET 1. 1:2000

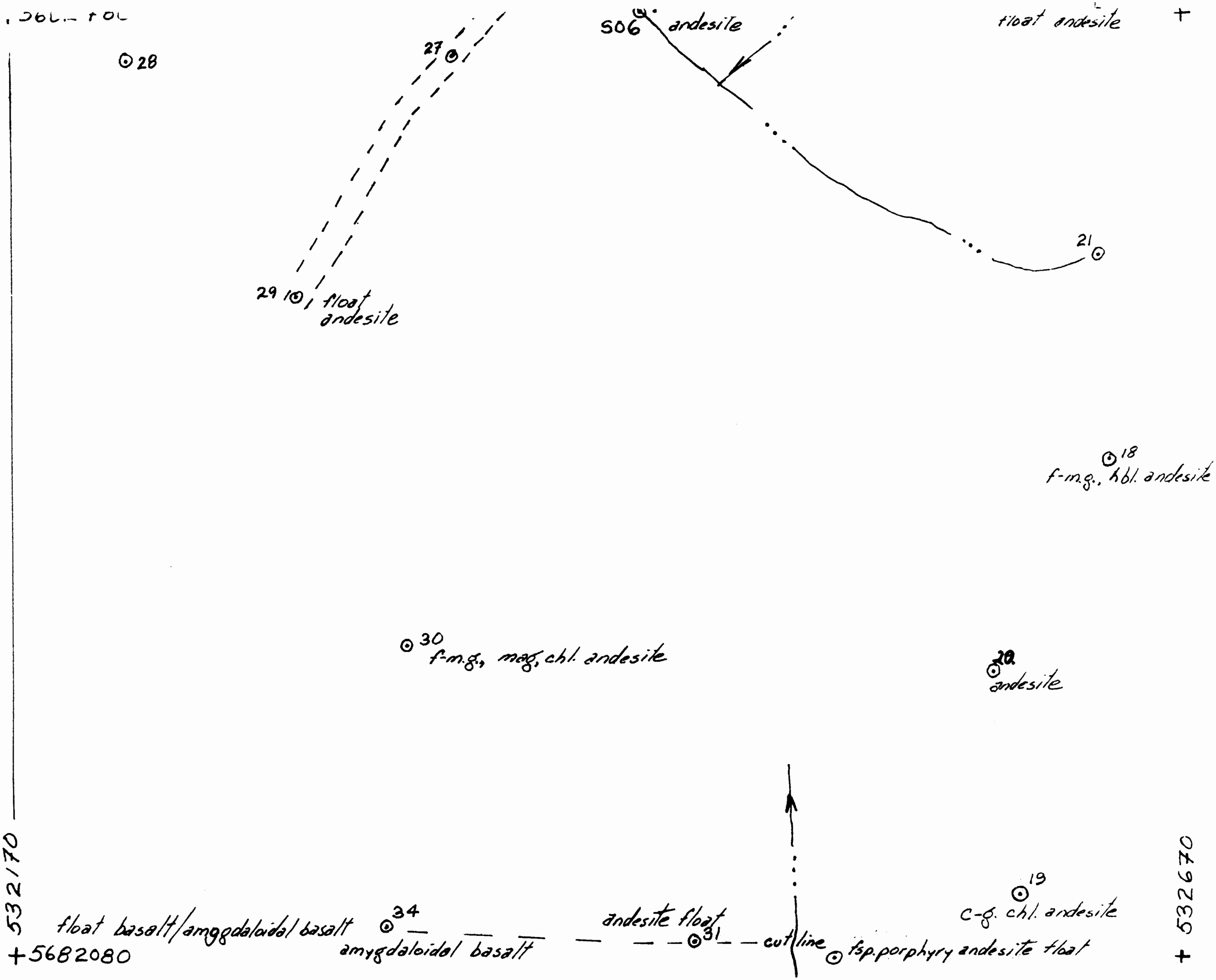


FIGURE 8 SHEET 2 1:2000

FIGURE 9 SHEET 3. 1:2,000

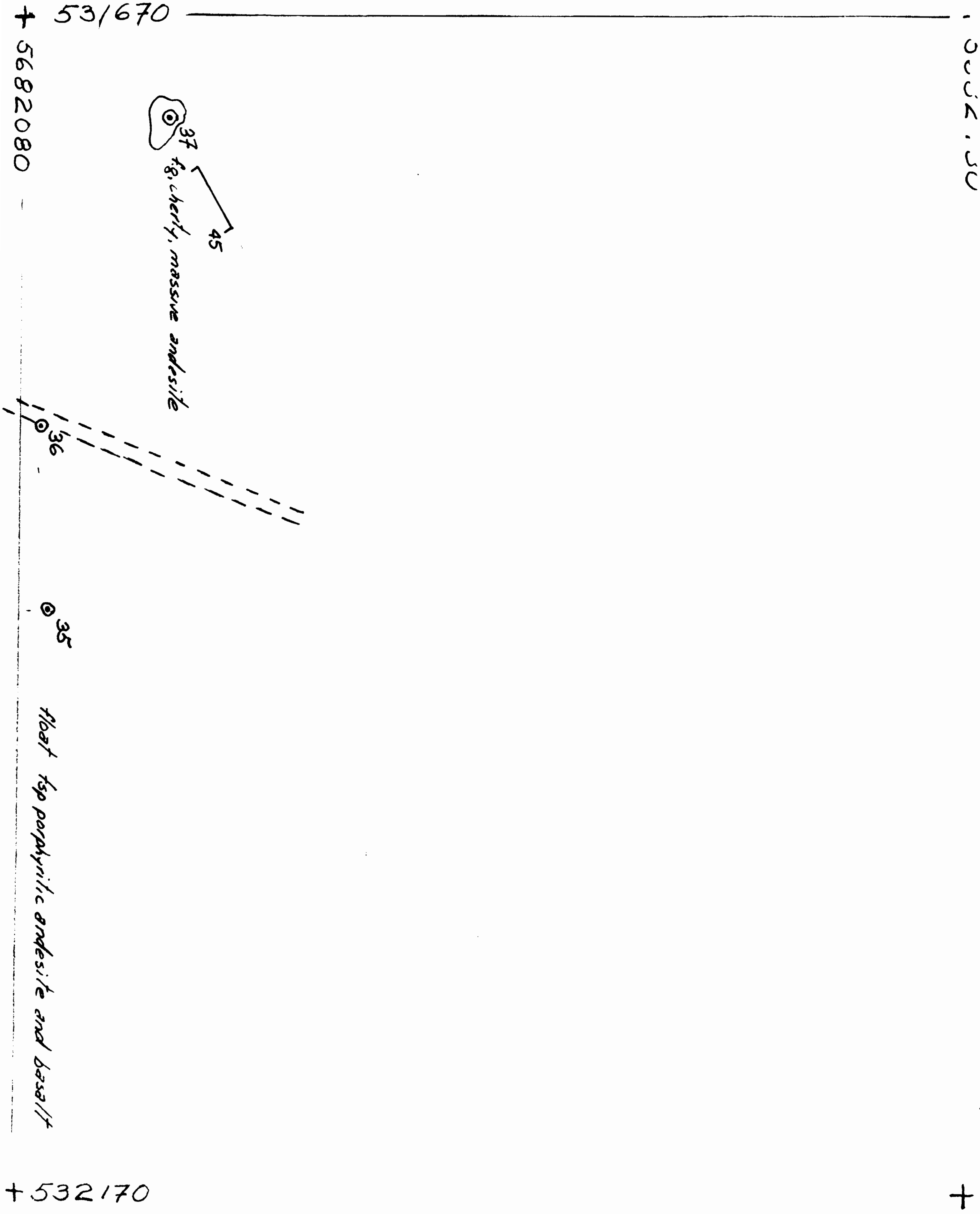
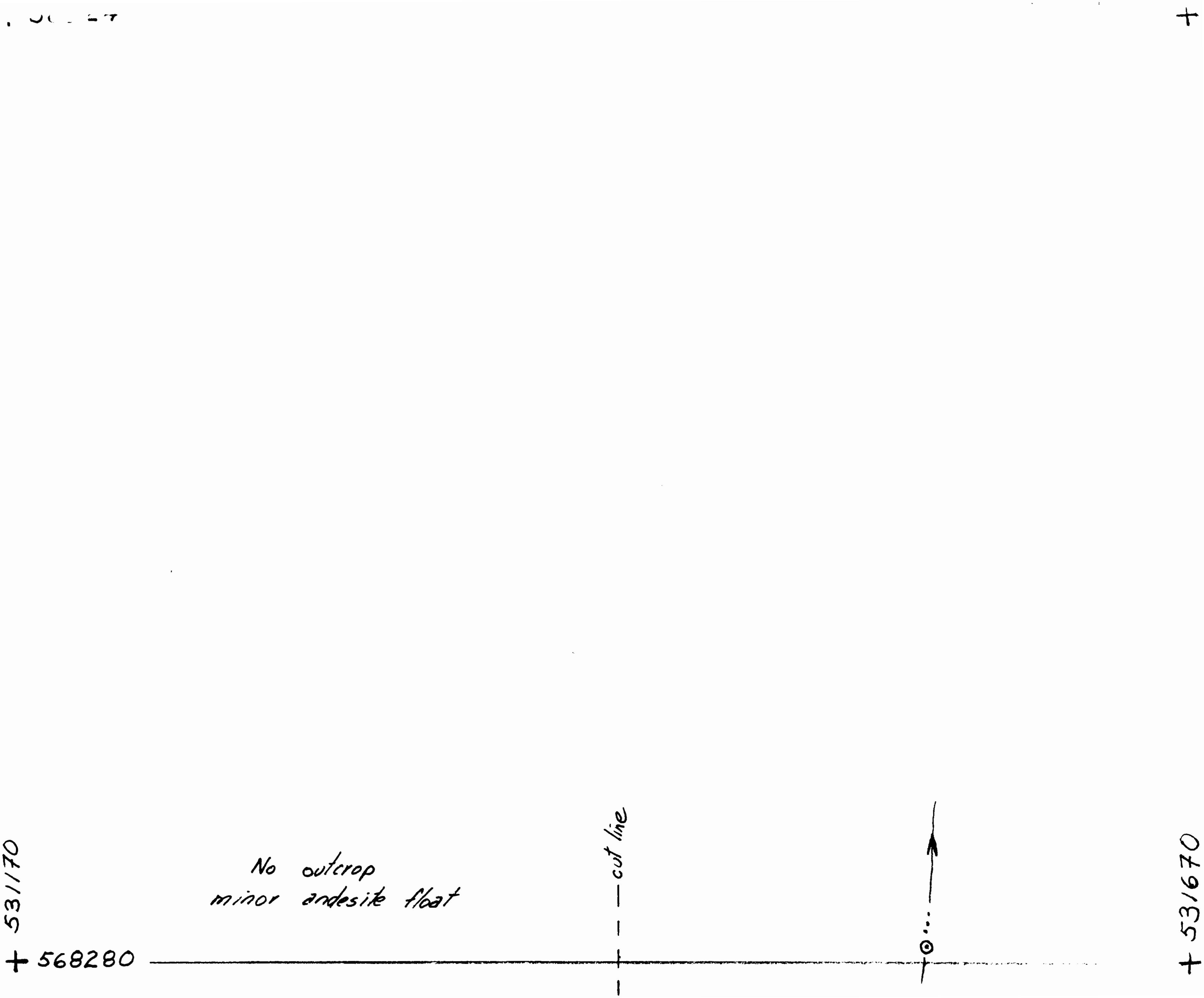


FIGURE 10 SHEET 4 1:2000



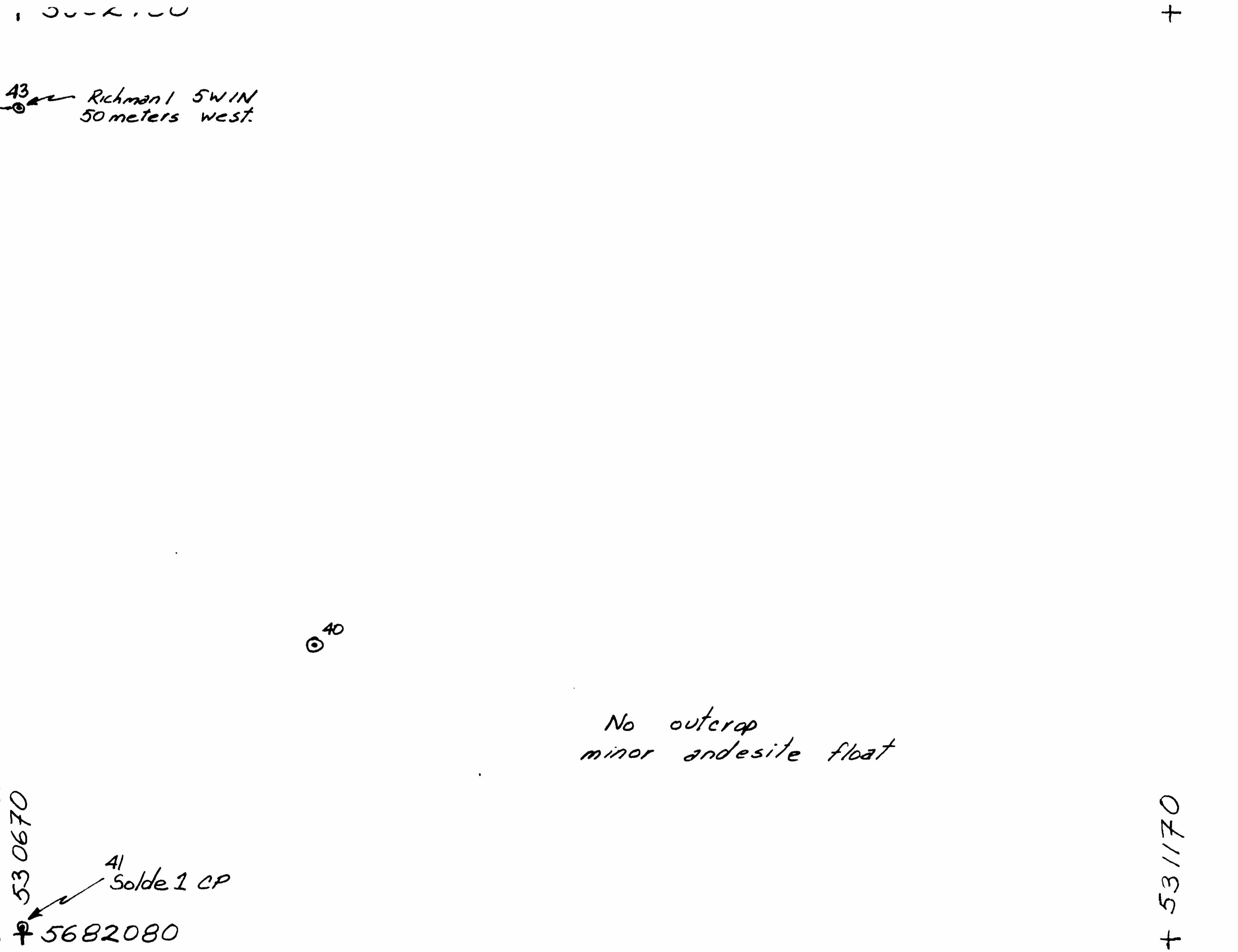


FIGURE 11. SHEET 5 1:2000

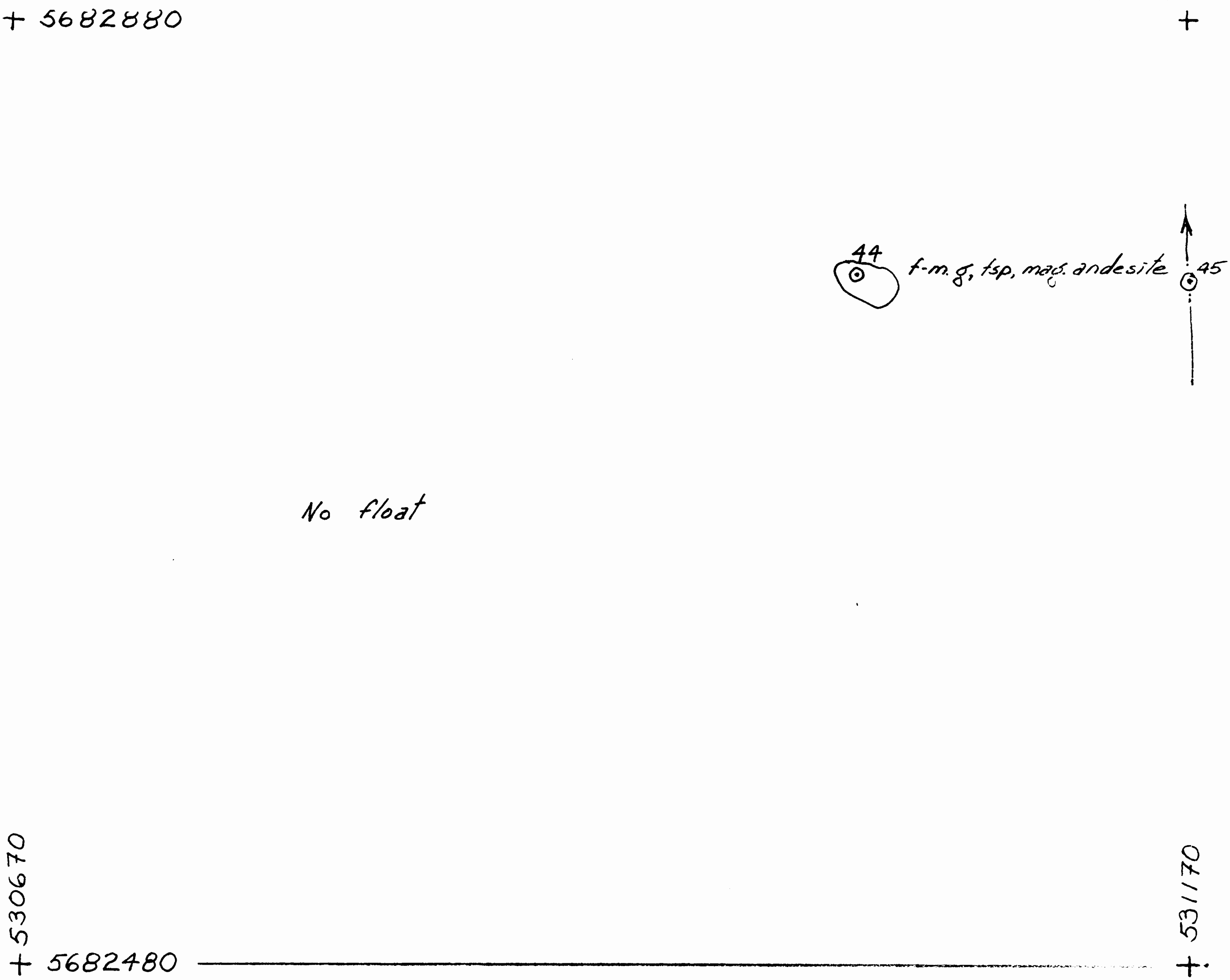


FIGURE 12 SHEET G 1:2,000

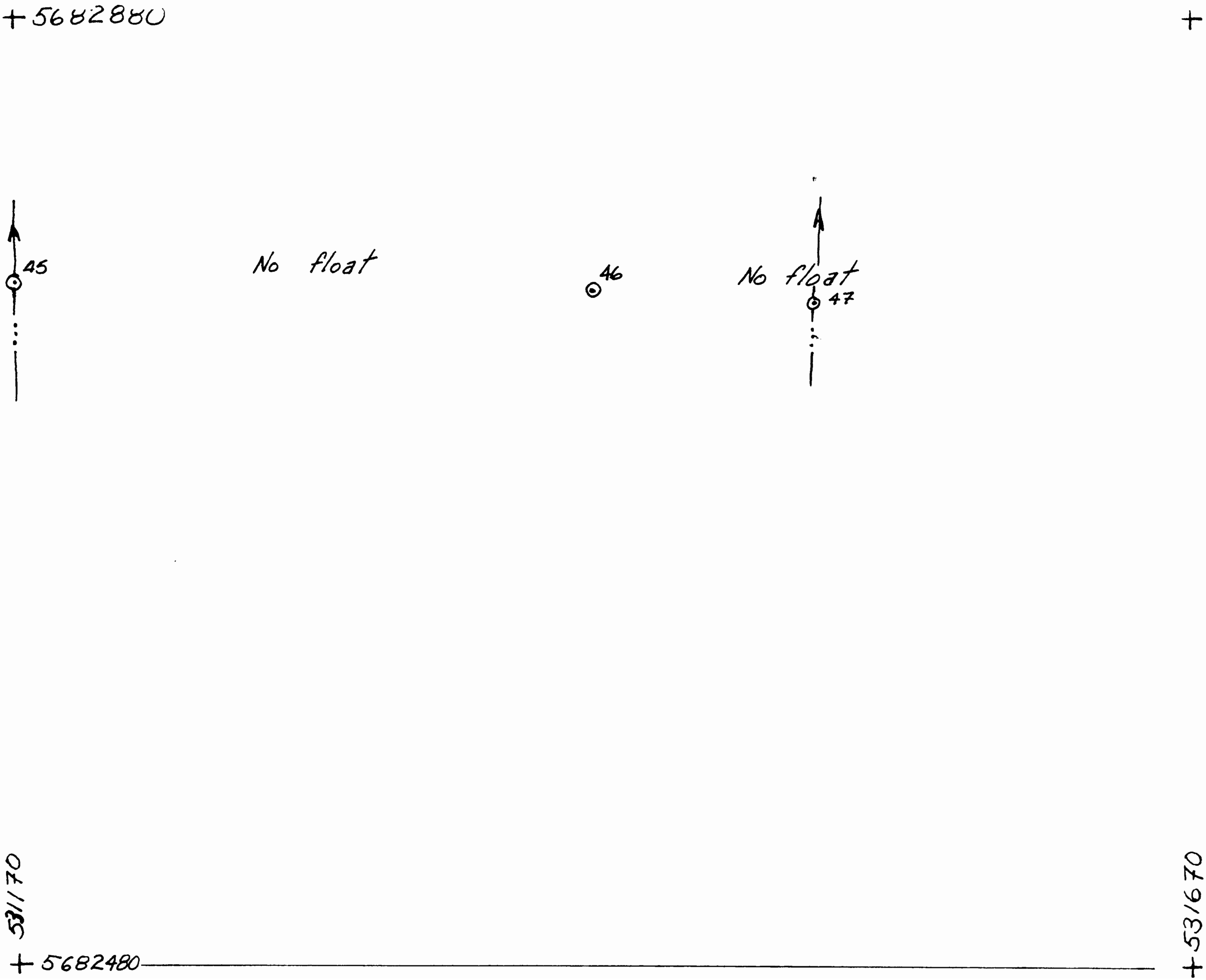


FIGURE 13 SHEET 7 1:2,000

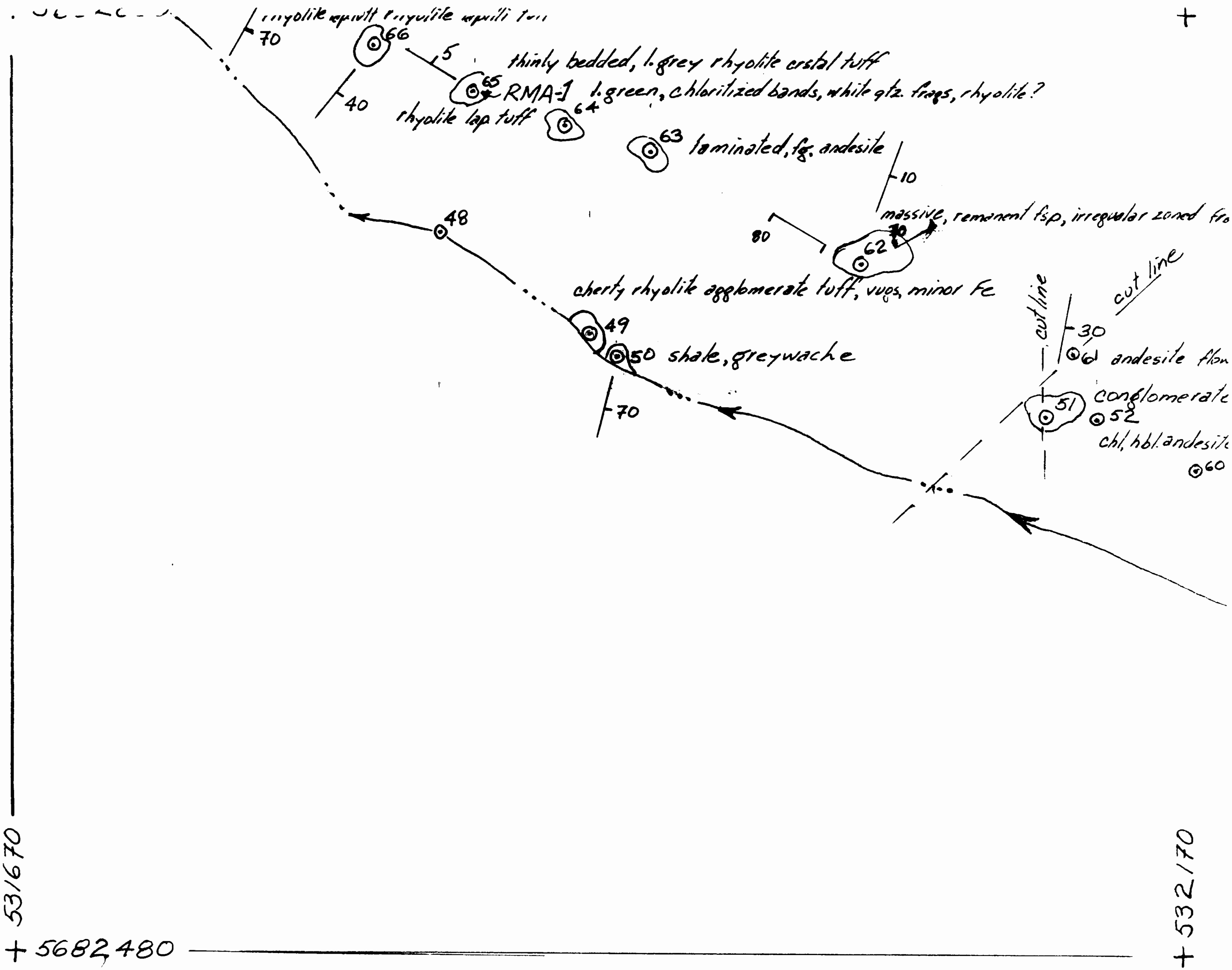


FIGURE 14 SHEET 8 1:2,000

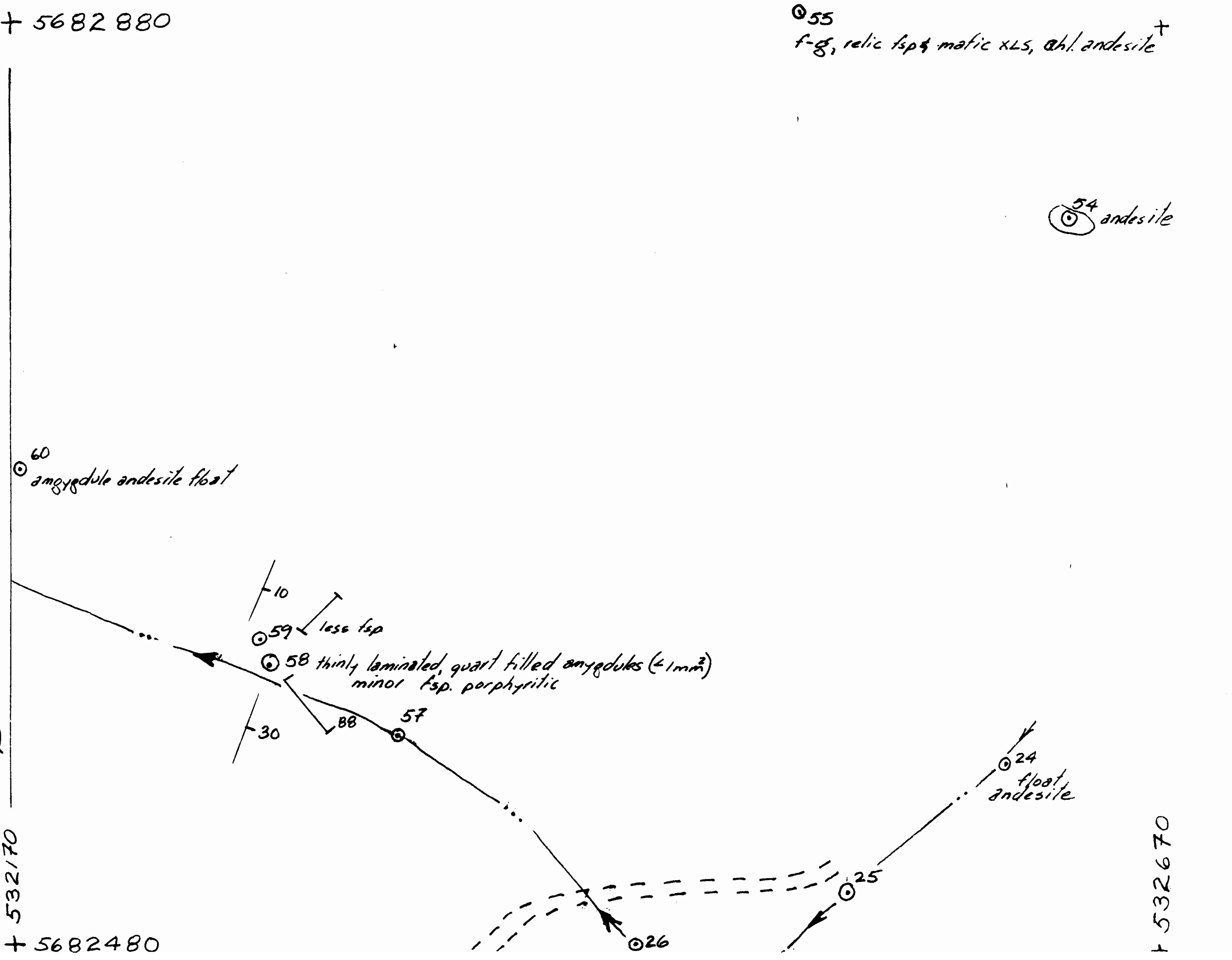
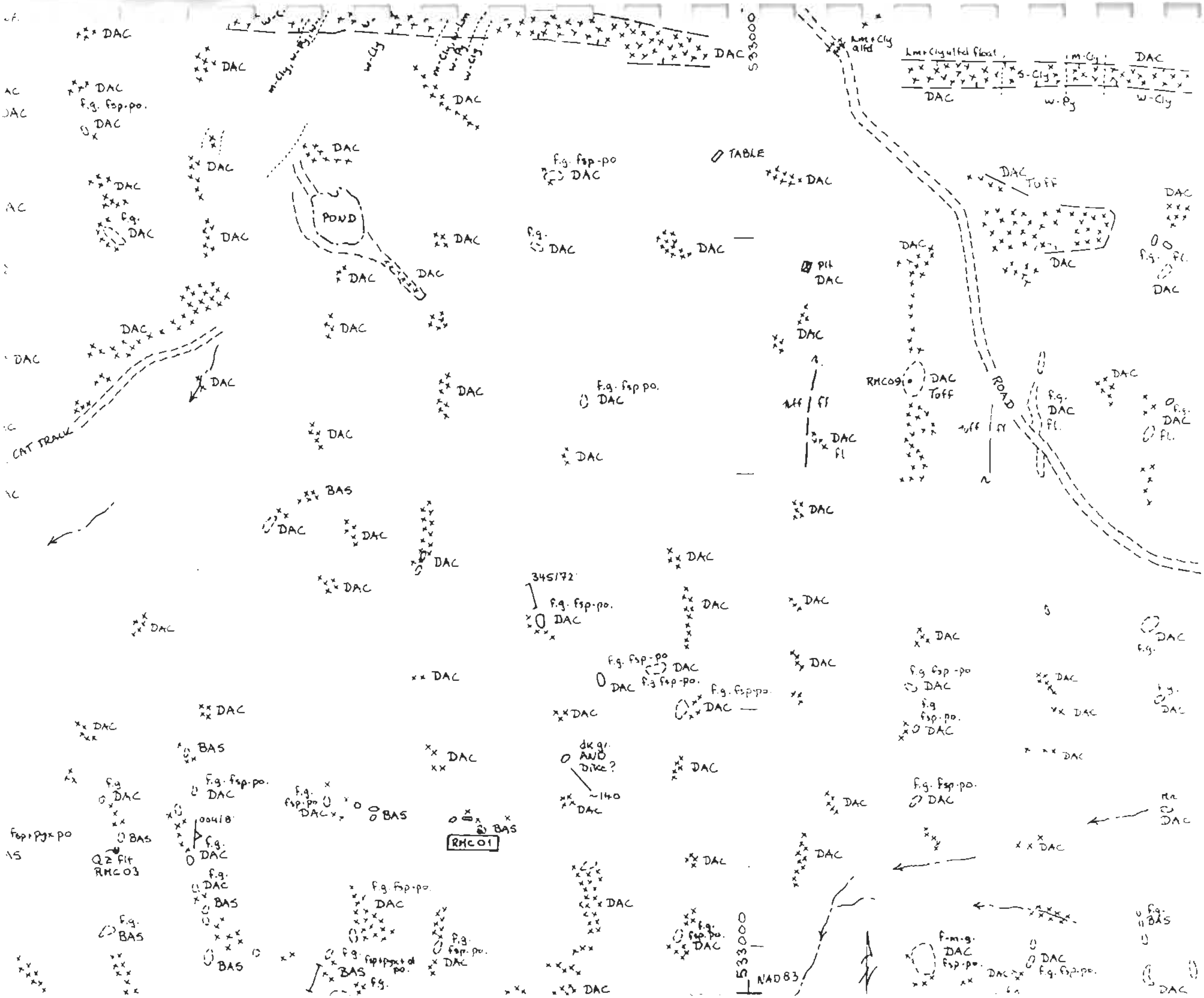
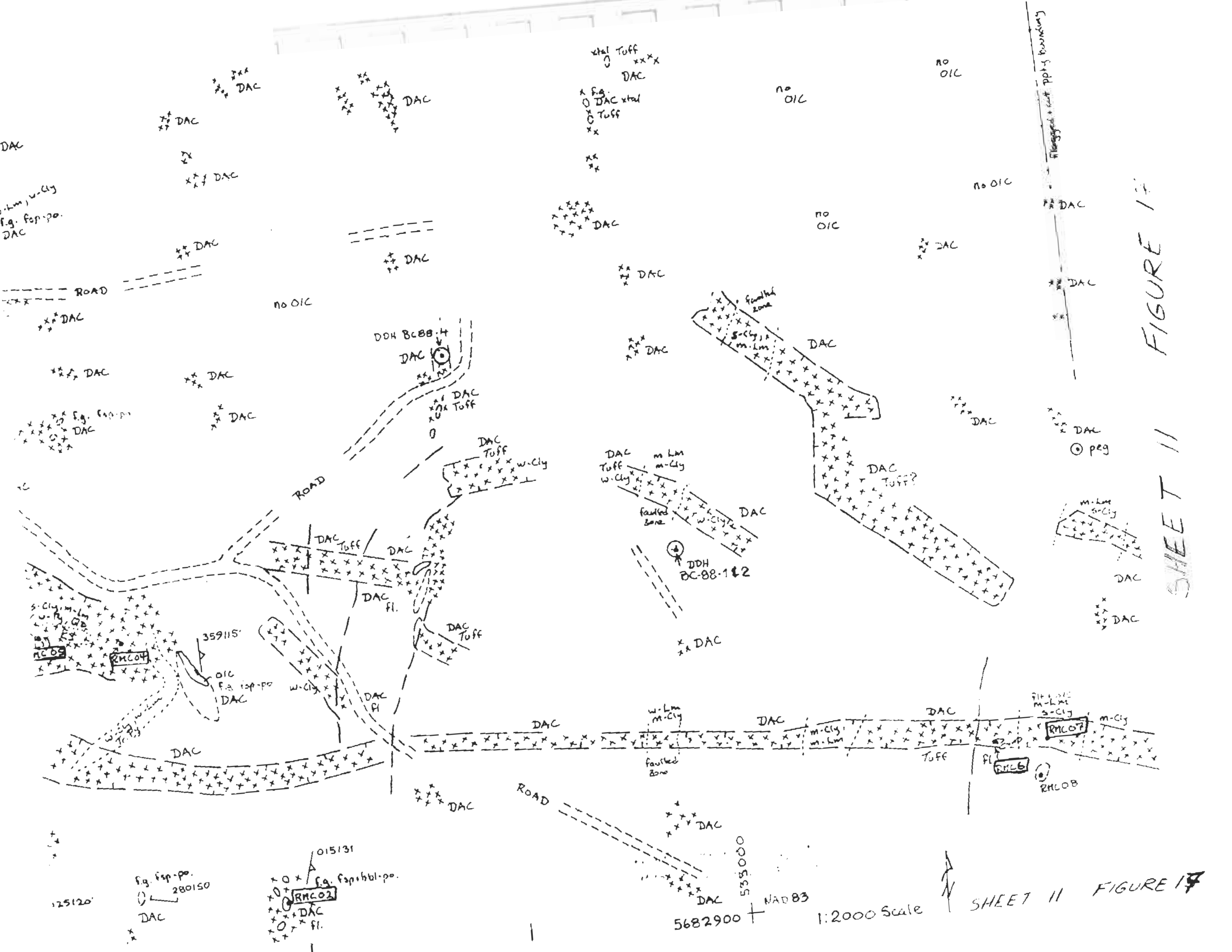


FIGURE 5 SHEET 9 1:2000



SHEET 10 FIGURE 16

1:2,000 scale



SHEET 11 FIGURE 17

50150
flowbanded
f.g. pyx·hbl·po
DAC fl
RMC10
f.g. hbl·po DAC fl.
ridge
f.g fsp·po. DAC
s·Cly, m·Lm, w·Py, Py ults
w·Cly
f.g. fsp·po. DAC. fl.
DAC fl.
m·Cly
DDH Pad
DDH BC88-10
DAC
Tuff?
w·m·Lm
w·Cly
DAC
m·Cly
s·Cly Tr.Py
f.g. fsp·po DAC
s·Cly m·Lm
w·Cly
approx.
DAC
unaltered f.g DAC
RMC11
DAC f.g. fsp·po
w·Cly
m·Cly
FELSIC (RHY?) Lapilli Tuff
w·Cly
f.g. DAC fsp·po
approx.
OIC is sparse but more mapping is required.
120188
DAC
340190
320180
f.g. fsp·hbl·po DAC
OIC
DAC
SIC
f.g fsp·hbl·po. DAC
DDH BC88-7
mixed float includes breccia + tuff
DAC fl.
DAC fl.
f.g. fsp·po. DAC fl.
160180 DAC
SIC + OIC
030115
240180
fl.
RMC12
OIC
fsp·po f.g. DAC
240121
f.g. fsp·po DAC fl.
240168
banded (<1mm) tuff, hbld XLS, DAC/Andesite
532500
NAD 83
5682900
1:2000 Scale
Sheet 12
FIGURE

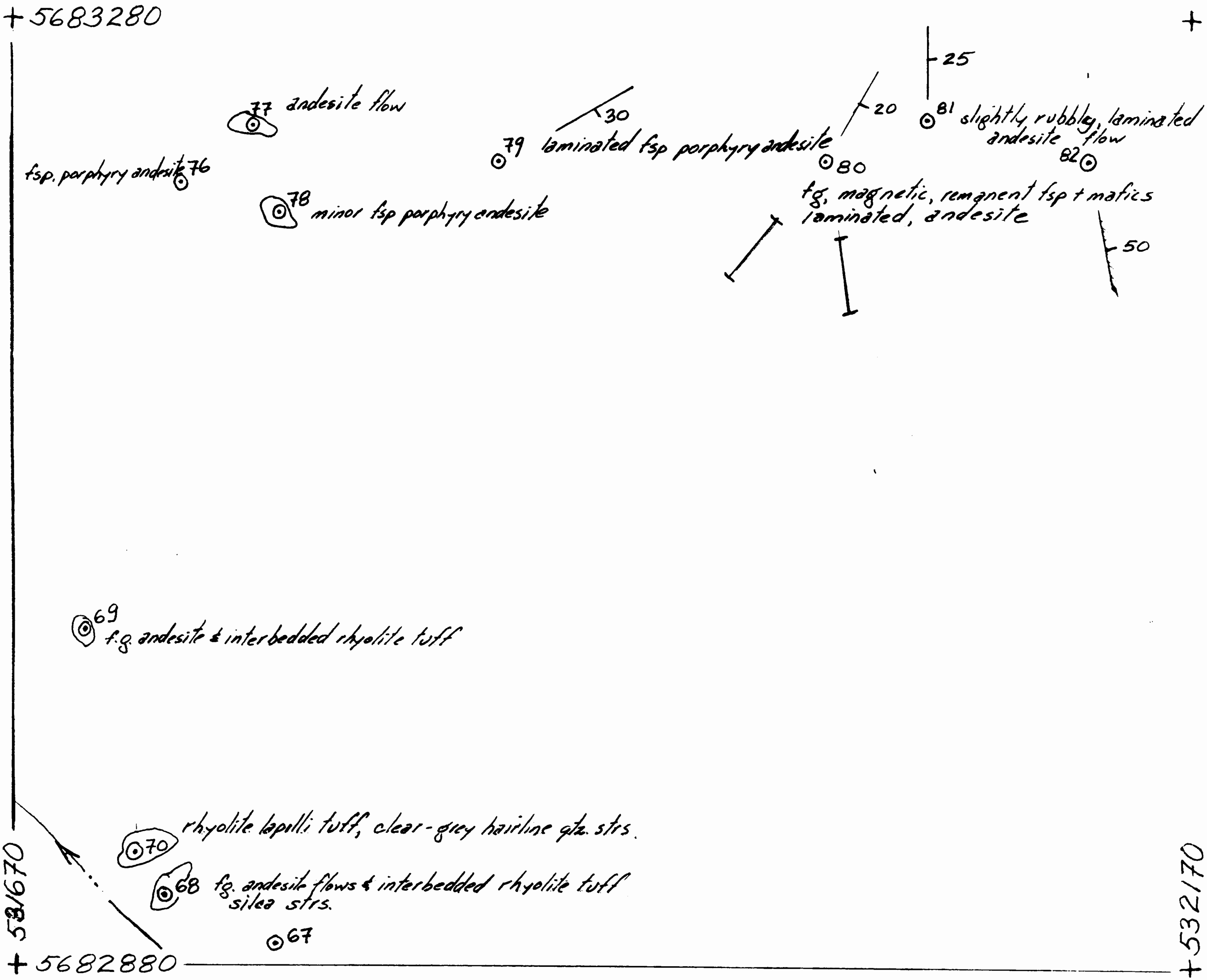


FIGURE 19 SHEET 13 1:2000

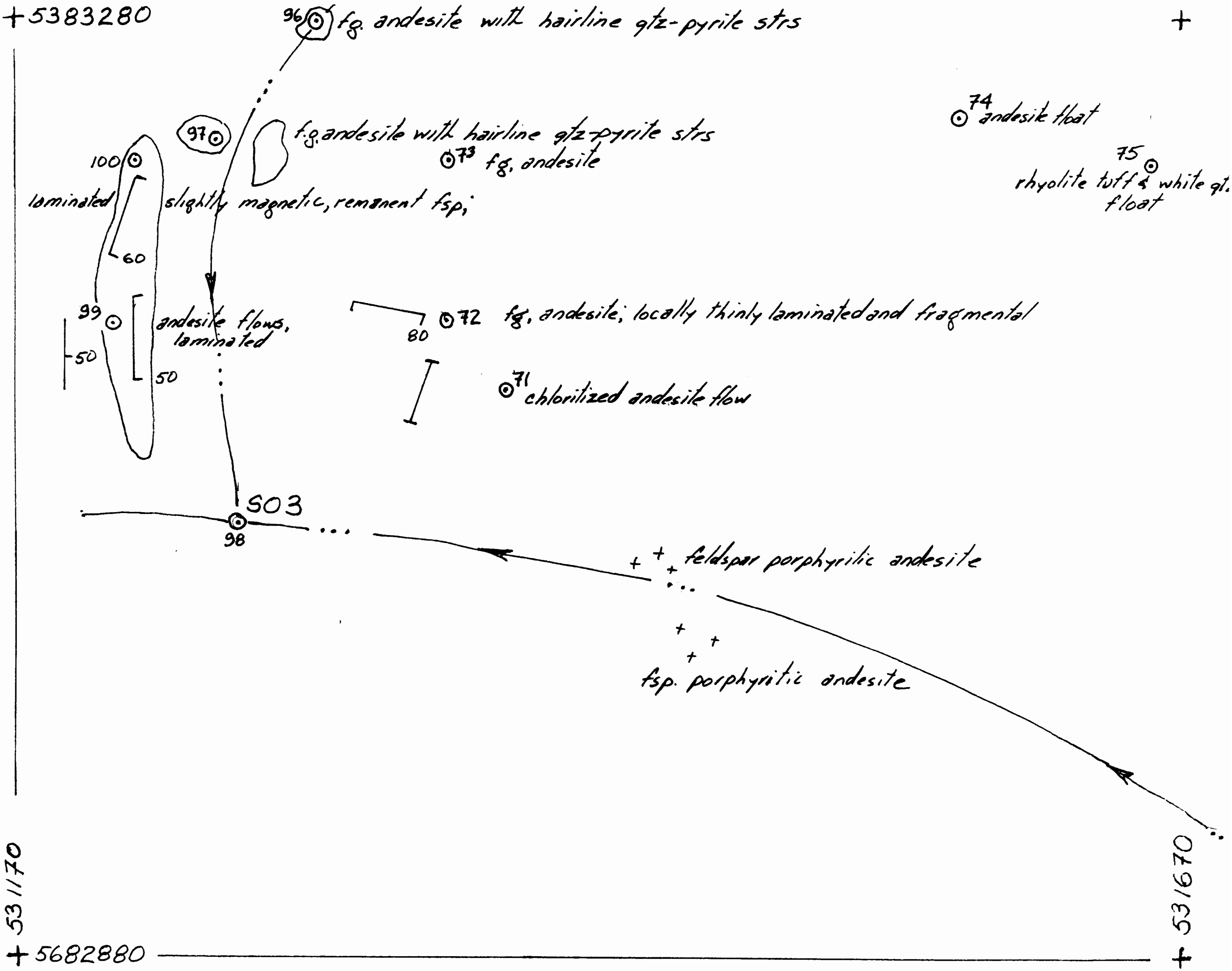
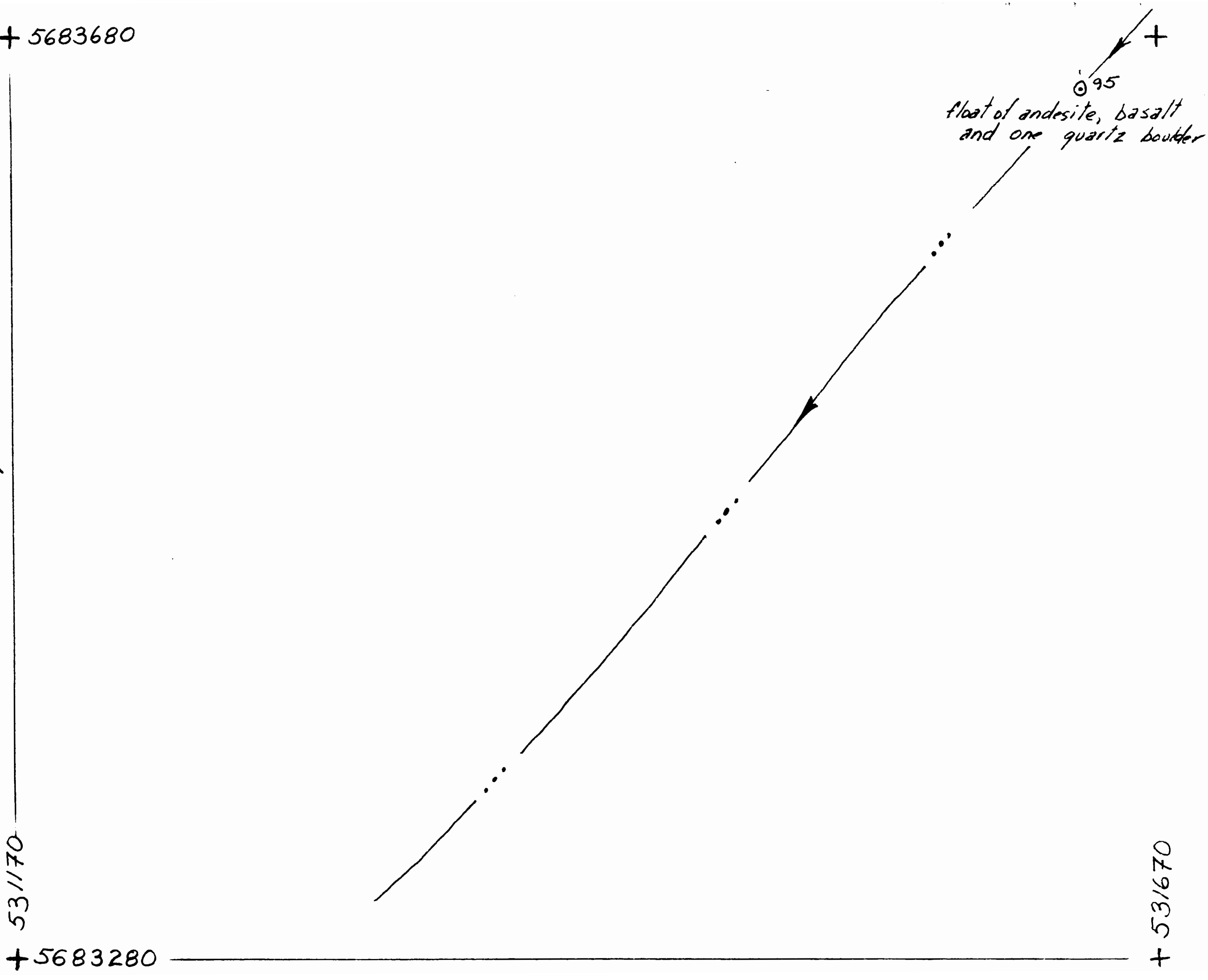


FIGURE 20 SHEET 14 1:2000

FIGURE 2[illegible] - SHEET 17 1:2000



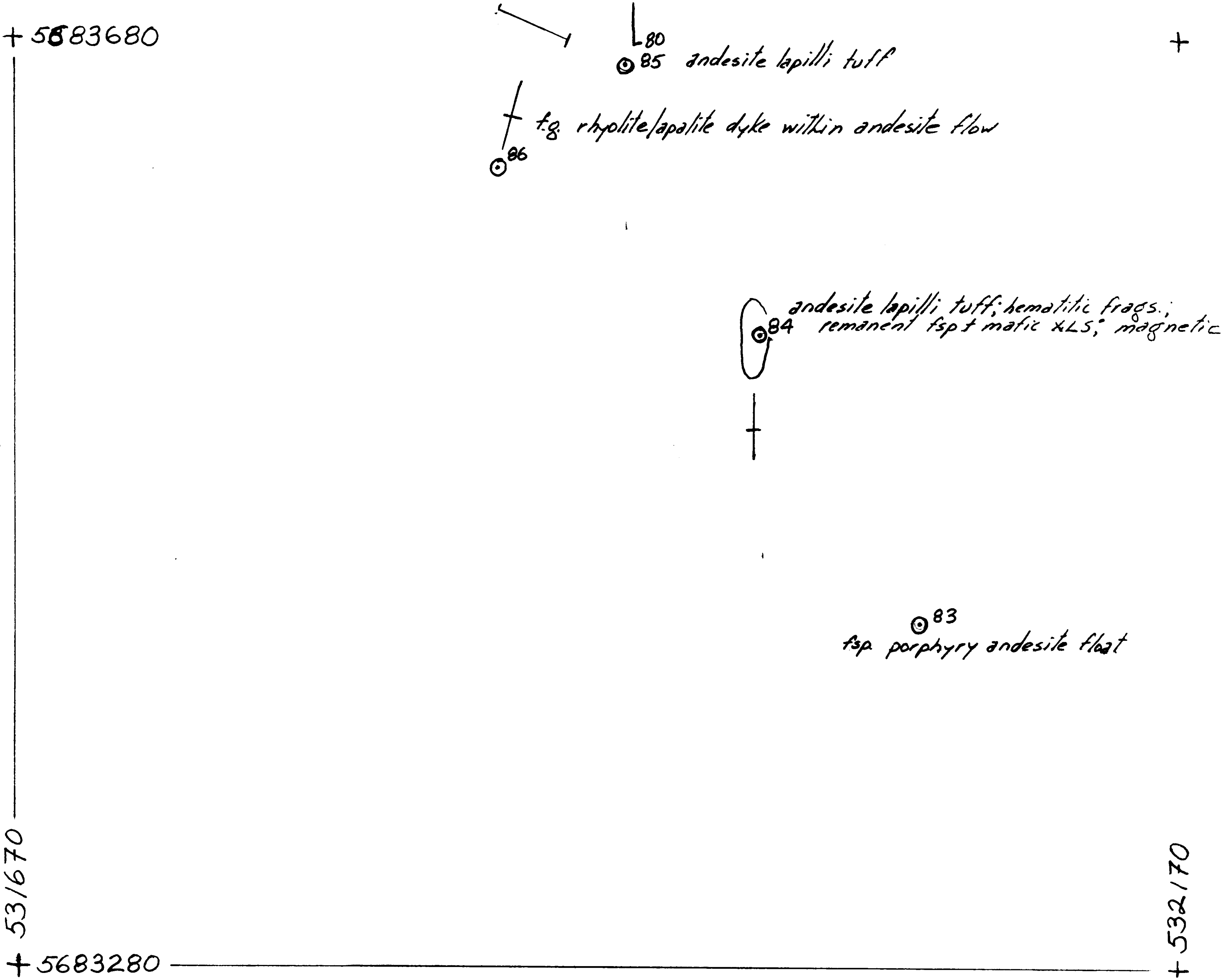


FIGURE 2 SHEET 18 1:2000

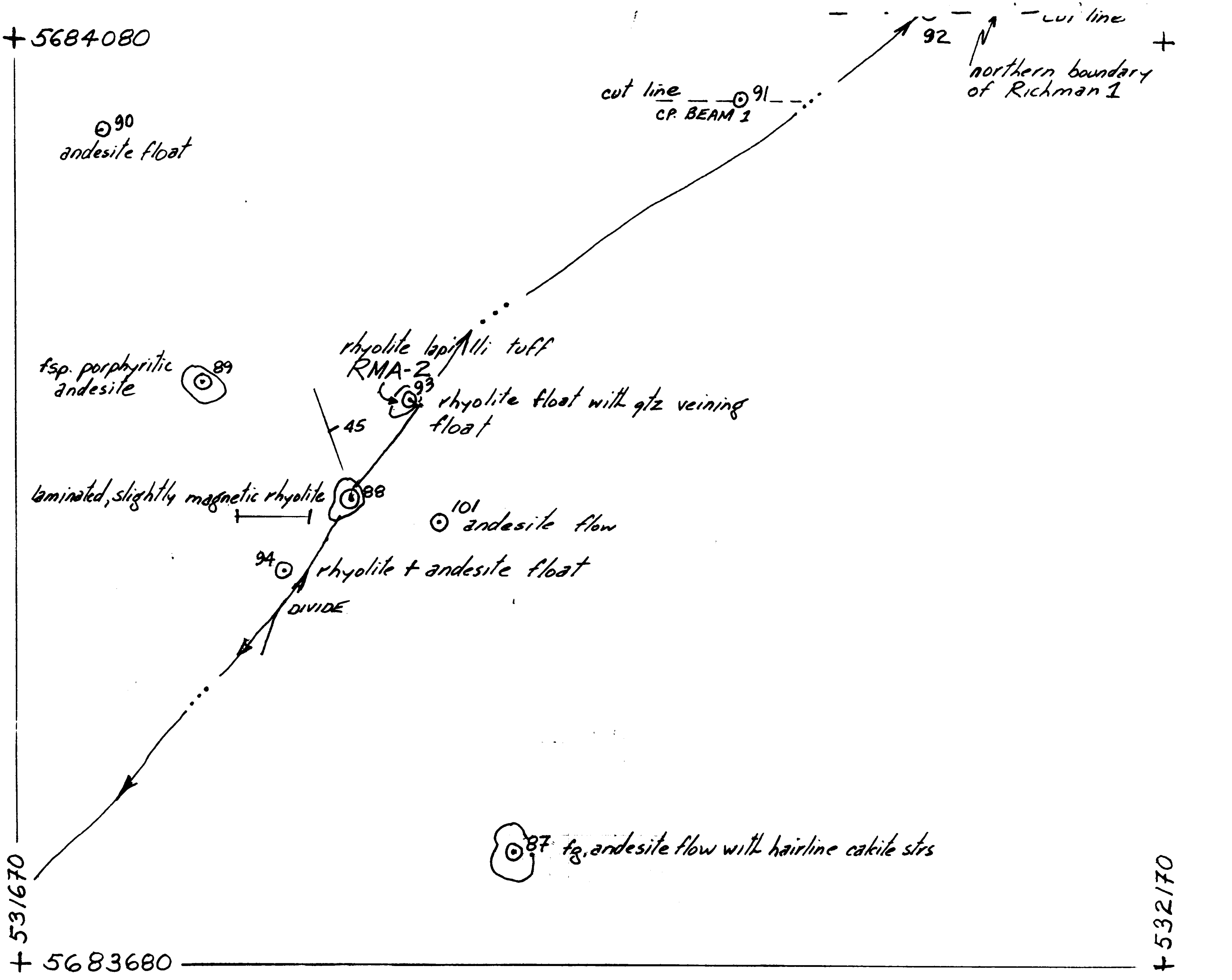


FIGURE 23 SHEET 23 1:2,000