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ARIS Summary Report

Regional Geologist, Kamloops

Date Approved: 2005.07.12

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ASSESSMENT REPORT: 27672

Mining Division(s): Kamloops

Property Name: Sam

Location: **NAD 27** **Latitude:** 50 22 00 **Longitude:** 121 30 00 **UTM:** 10 5580256 606682
 NAD 83 **Latitude:** 50 22 00 **Longitude:** 121 30 05 **UTM:** 10 5580473 606580
NTS: 092I03W
BCGS: 092I033

Camp:

Claim(s): Sam 1-10

Operator(s): Almaden Minerals Limited
Author(s): Balon, Edward A.

Report Year: 2005

No. of Pages: 67 Pages

Commodities
Searched For: Gold, Silver

General GEOL, PHYS, GEOC
Work Categories:

Work Done: Geochemical
 ROCK Rock (39 sample(s);) No. of maps : 2 ; Scale(s) : 1:15 000
 Elements Analyzed For : Multielement
 SILT Silt (8 sample(s);)
 Elements Analyzed For : Multielement
 SOIL Soil (342 sample(s);) No. of maps : 5 ; Scale(s) : 1:15 000
 Elements Analyzed For : Multielement
 Geological
 GEOL Geological (10.0 ha;)
 Physical
 ROAD Road, local access (4.0 km;)
 TREN Trench (2 trench(es);) (24.2 m)

Keywords: Cretaceous, Spences Bridge Group, Andesites, Basalts, Pyrite, Specular hematite

Statement Nos.: 3219733

MINFILE Nos.: 092ISW104, 092ISW105

Related Reports:

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Gold Commissioner's Office
VANCOUVER, B.C.

2004 GEOCHEMICAL, PROSPECTING AND PHYSICAL WORK REPORT
SAM PROPERTY (SAM 1 - 10 Claim Group)

Kamloops Mining Division
Lytton-Spences Bridge Area, British Columbia
NTS: 92I/5, 6; BCGS: 092I033
Latitud 50°22'N' Longitude 121°30'W
UTM Zone 10: 607000E, 5580000N (NAD 27)

February, 2005

(BC 2004 ASSESSMENT)

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

27,672

By
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Report Preparation: Original + 4 copies

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1.0 SUMMARY AND CONCLUSIONS

The SAM Property covers a significant new epithermal gold vein discovery located in the Kamloops Mining Division of southern British Columbia, NTS 92I/5 & 6. This prospect is readily accessible by road, 25 kilometers northeast from the village of Lytton on the Trans-Canada Highway. It is situated just 35 kilometers west-southwest of the world-class porphyry copper producing Highland Valley district. The initial SAM 1-10 claims comprising 43 units (1,075 hectares) were acquired by staking in November 2003. Work on this claim group and its periphery is the subject of this assessment report. Following the assessment work period, the SAM 11-16 claims comprising 97 units (2,425 hectares) were added by staking during November 2004. All of the claims are 100% owned by Almaden Minerals Ltd.

Physiography in the property area is dominantly forested moderate to locally rugged upland terrain of the Scarp Range between the Fraser Plateau and northern Cascade Mountains. The claims are located on upper Skoonka Creek, a tributary to the Thompson River. The area is underlain by a northwest-southeast trending shallowly dipping sequence of intermediate and mafic volcanic rocks of the Cretaceous Spences Bridge Group. Sill-like bodies of feldspar porphyry are also present, and felsic dyke (?) rubble has been noted in a few localities. The ages and relationships of these rocks to the main volcanic assemblage are presently unknown.

Pre-acquisition work during 2003 consisted of prospecting and recon geochemical sampling based on follow-up of a government (BC-RGS) regional gold stream sediment anomaly. This program generated 22 rock, 41 silt, and 14 soil samples. The 2004 assessment work program included minor access road improvements, further prospecting and recon sampling (25 rocks, 8 silts), approximately 21 line-km of roadcut soil sampling (417 soils), and limited hand trenching at three sites (16 rock chip samples). All of the samples collected to date have been tested for 36 elements.

The rock sample results identify variable grade gold and lesser silver mineralization in a number of widely scattered quartz float occurrences, and in two major insitu vein showings named Discovery and JJ. All of these occurrences exhibit compositions and textures typical of low sulphidation epithermal veins and breccias. The averaged gold grade from 38 float samples is 624 ppb (0.62 g/t Au), with values ranging from <5 to 8678 ppb (~8.7 g/t Au).

The (2003) Discovery Showing represents a large but low grade vein breccia zone having an approximate 4m true width over which the 2004 channel sampling returned a weighted average gold analysis of 380 ppb (0.38 g/t Au), with negligible silver. This zone trends ENE and is subvertical. Better grade rubble (1214-2160 ppb Au) occurs ~250m along strike.

The newly discovered high grade JJ Showing is situated nearly three kilometers to the southwest of the Discovery Vein, on a subparallel ENE structural trend. It consists of a moderately dipping zone containing two closely spaced veins (Jan & Jodi Veins) and intensely altered andesite wallrock having an estimated combined 2m true width. Channel sampling of the JJ exposure has yielded impressive gold assays of 12.79 to 53.38 g/t from vein material and 4.49 to 9.15 g/t from the selvages. Corresponding sample silver assays range from 13 to 36 g/t (in vein) and 4 to 7 g/t (in the selvages).

The current soil and stream sediment sampling results have outlined two broad areas of gold-arsenic-antimony ± mercury enrichment which include and encompass the Discovery and JJ Areas. Several strong gold-in-silt anomalies remain to be explained, and their positions indicate good potential for locating strike extensions of the Discovery and JJ mineral zones.

The limited 2004 exploration program conducted on the SAM 1-10 claims has generated highly positive overall results for such an early stage project. Continued, more aggressive exploration is definitely warranted and is strongly recommended for the entire expanded property area.

2.0 RECOMMENDATIONS

The following exploration program is recommended for the expanded (SAM 1-16) claim group:

- Further prospecting and recon rock, silt geochemical sampling.
- Property-wide geological mapping at 1:10,000 scale, and at 1:5000 or larger scale in high priority areas.
- Coarse grid (200m x 50m) soil geochemical sampling, covering a 3.5 km x 3.4 km area which includes the SAM 1-10 claims and north half of the SAM 14 claim. This would involve establishing 63 line-km of grid control, and collecting 1278 soil samples for 36-element ICP-MS analysis. Subsequent infill sampling at 50m x 25m grid spacing should be conducted around all anomalous gold stations.
- Detailed grid (50m x 25m) soil sampling outwards from the Discovery and JJ Showings, for at least 300m in both strike directions and over 200m-widths across the mineral zone trends. (Two areas of 600m x 200m; 5.2 line-km of grid control; 234 soil samples for multi-element analysis as per above).
- Mechanized trenching, employing a track-mounted excavator, to test for continuity of structure and mineralization along projected trends of both the Discovery and JJ zones. At least 500m of trenching should be carried out, comprising ten 50m-long trenches (six in the JJ Area; four in Discovery Area) at 50m to 100m step-outs from the showings. This program can be accomplished from existing road access in the clear-cut (logged) blocks at these sites. All trenches that reach bedrock should be cleaned, mapped and channel sampled where alteration/mineralization is present. All samples yielding > 1000 ppb Au should be fire assayed for gold and silver.
- Detailed mineralogic, geochemical and fluid inclusion studies should be conducted on vein material from the JJ Showing in order to better understand the nature of this high grade mineralization.

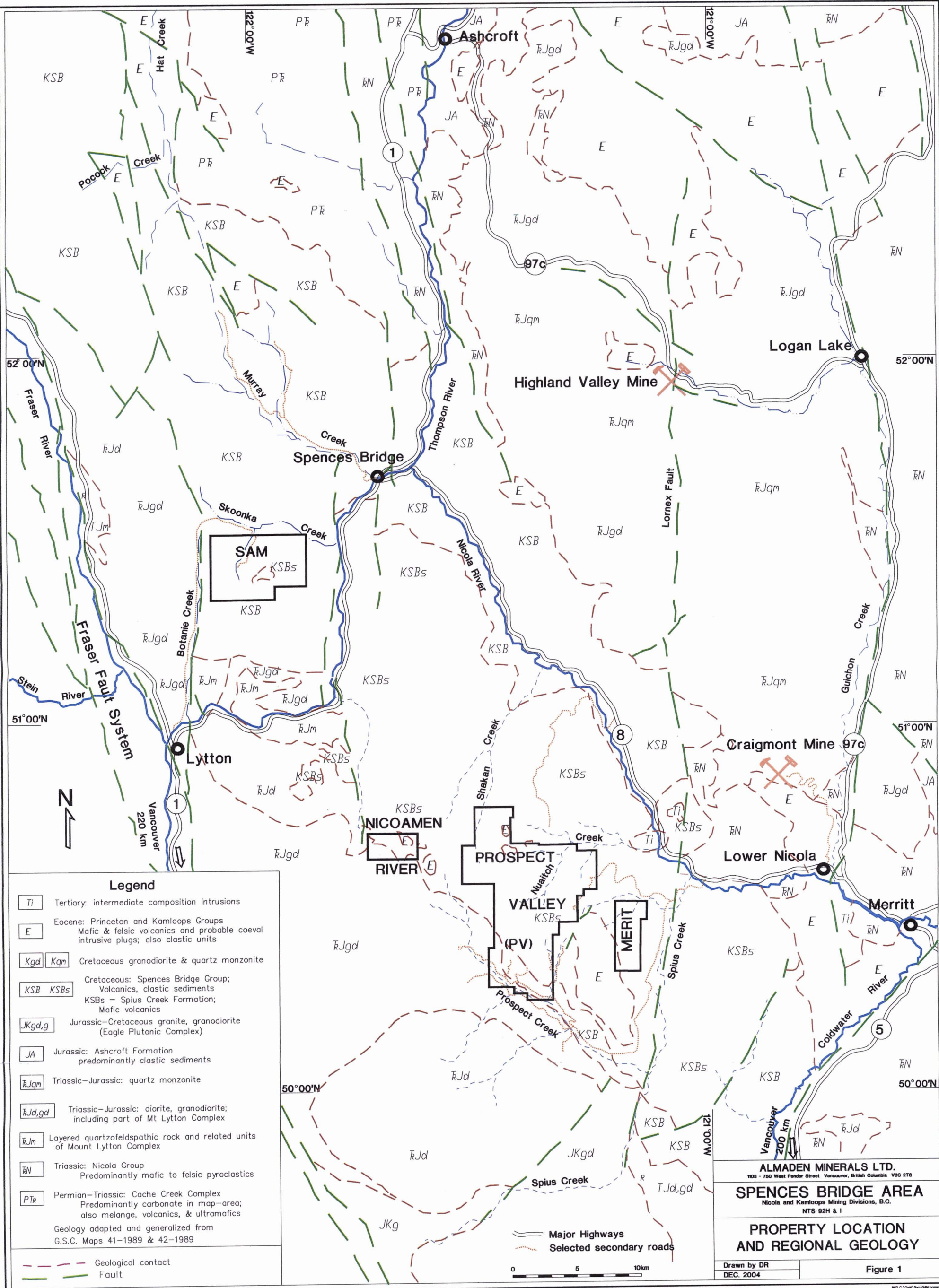
Respectfully submitted

ALMADEN MINERALS LTD.



E. A. Balon, P. Geo.

February 28, 2005



3.0 INTRODUCTION

This report describes the results of the 2004 exploration work conducted on the SAM 1-10 claim group and documents the related expenditures applied for assessment credits.

3.1 Location, Access, Physiography and Climate (Figures 1 & 2)

The SAM property is centered between the communities of Lytton and Spences Bridge in south-central British Columbia, at latitude 50°22'N and longitude 121°30' W (UTM Zone 10: 607000E/5580000N) on the boundary of NTS map areas 92I/5&6. Good ground access is afforded via the partly hard-surfaced Botanie Lake Road from Lytton, 20 km northerly, thence three to five kilometers easterly via a forestry gravel road system which passes through the southeast corner of Bootahnie Indian Reserve #15 and continues along the south side of Skoonka Creek valley. From the main trunk of this Skoonka Forestry Road, a number of old but partly serviceable logging spurs branch off southerly onto the claim group. For ease of reference relative to the property area, these subsidiary trails are named Northwest (NW), Central, East and West Spur Roads (see Figure 2).

The SAM claims are situated on the Scarped Range between the Fraser Plateau and the northern Cascade Mountains, within the western margin of the Intermontane physiographic region consisting of rolling upland to rugged mountainous terrain. Topography is moderate to locally steep, with elevations ranging from a low point of 1000 meters (3300 ft) on the northern property boundary to over 1780 meters (5800 ft) in the southeastern claim area. The principal drainage is northward along a major branch of Skoonka Creek, which in turn flows eastward into the Thompson River. This branch is called Gold Creek (Fig. 2). Soil and glacial till cover is extensive and generally shallow, but includes local deep mounds (to >5m thickness) particularly at the lower elevations in the northern property area. Overall bedrock exposure is moderate to locally abundant in road cuts and in some of the stream gullies, as well as on steep upper slopes and ridge tops. The local ice-flow direction, determined from glacial striae in outcrop along the West Spur Road, is to the east-southeast (azimuth $110^{\circ} \pm 5^{\circ}$).

The climate is semi-arid, with hot dry summers having temperatures commonly in the 30°C to above 40°C range at Lytton. All areas of the property are generally free of snow from late May or early June through October. Vegetation consists mainly of widely spaced lodgepole pine and Douglas fir grading to more dense balsam fir and spruce along creek valleys. Dense brush consisting of alder and willow is common along most of the stream gullies and road cuts. Approximately 40% of the SAM 1-10 claim area has been clear-cut logged during the 1980s to mid-1990s.

3.2 Claim Data

The property consists of 16 contiguous mineral claims totaling 140 legacy units (3500 hectares) in the Kamloops Mining Division, BCGS map area 092I033. The initial 43 units comprising the SAM 1-10 claims described in this report were located by Almaden Minerals Ltd. in early November 2003. Five 2-post claims (SAM 11-15/5 units) were added onto the southwest corner of this block on October 1st 2004, but they were later cancelled by Applications for Inclusion within overlapping 4-post claims (BC Mineral Titles Event Nos. 3220474, 76, 78, 80, 82).

Six 4-post claims (SAM 11-16) consisting of 97 units were added during mid-November 2004, after the first anniversary dates and work filing deadline for the SAM 1-10 group. During January 2005, following implementation of the new BC Mineral Titles Online (MTO) system, 13 adjacent SAMS (Sam South) claims comprising 300 BCGS grid cells were acquired electronically. However, any further discussion of these new *cell tenures* is beyond the scope of this report.

Locations of the SAM 1-16 legacy claims are shown on Figure 2 and respective claim data are summarized in Table 1. The expiry dates listed for SAM 1-10 are subject to filing and approval of this report. All of the claims are 100% owned by Almaden.

Table 1 Mineral Claim Summary – as at JAN 01/05

<u>Claim Name</u>	<u>Type</u>	<u># Units</u>	<u>Tenure No.</u>	<u>Expiry Date</u>
SAM 1	4 Post	20	406564	05 Nov 08
SAM 2	4 Post	15	406565	05 Nov 08
SAM 3	2 Post	1	406566	05 Nov 08
SAM 4	2 Post	1	406567	05 Nov 08
SAM 5	2 Post	1	406568	05 Nov 08
SAM 6	2 Post	1	406569	05 Nov 08
SAM 7	2 Post	1	406570	05 Nov 08
SAM 8	2 Post	1	406571	05 Nov 08
SAM 9	2 Post	1	406572	05 Nov 08
SAM 10	2 Post	1	406573	05 Nov 08
SAM 11	4 Post	12	415615	13 Nov 05
SAM 12	4 Post	18	415616	13 Nov 05
SAM 13	4 Post	15	415617	12 Nov 05
SAM 14	4 Post	12	415618	13 Nov 05
SAM 15	4 Post	20	415619	13 Nov 05
SAM 16	4 Post	20	415620	13 Nov 05

3.3 History

There are no published records of any prior mineral exploration work in the area covered by the SAM claims, and there are no documented mineral occurrences for this locality in the BC Minfile database. No old claim posts, nor any other ground evidence of previous exploration activity, have been found to date on the property.

During the Gold Rush era of the mid – 19th to early 20th centuries, placer gold was mined from gravel bars on the Fraser and Thompson Rivers and on most of their major tributary streams in the Ashcroft-Lytton-Lillooet district. Production records from this time period and region are not detailed, and there is no mention of Skoonka Creek in the published literature (BCMEMP Bulletin 28, GSC Map 1010A notes, GSC Memoir 262). However, it is interesting to note that the discovery of coarse placer gold in 1857 on the Thompson, near Nicoamen River, actually initiated the Gold Rush into interior British Columbia. This Nicoamen River site is only 12 km downstream from the mouth of Skoonka Creek. A present-day tourist stop along the Trans-Canada Highway, called Goldpan Provincial Park, is also located on the Thompson River just 2.5 km downstream from Skoonka Creek.

In 1981 a federal-provincial government Regional Geochemical Survey was carried out over the entire Ashcroft (NTS 92I) map area. The initial results of this survey were published in 1982 as BC RGS 8/GSC Open File 866. Years later, in 1994, the sample pulps were re-analyzed by improved techniques and for additional elements including gold. The new data were published as BC RGS 40/GSC Open File 2666 which identified a number of strong gold-in-silt anomalies including two located in the Skoonka Creek drainage, represented by Sample Numbers 815058 (21ppb Au/rerun 23ppb Au) and 815059 (19ppb Au).

During a 2003 regional gold exploration program, Almaden Minerals Ltd. conducted two brief stages of prospecting and reconnaissance geochemical sampling in the upper part of Skoonka Creek drainage above the RGS sample site 815058. Results of the initial examination (by Balon, Harwood) in August confirmed and enhanced the gold silt anomaly in this tributary, later named

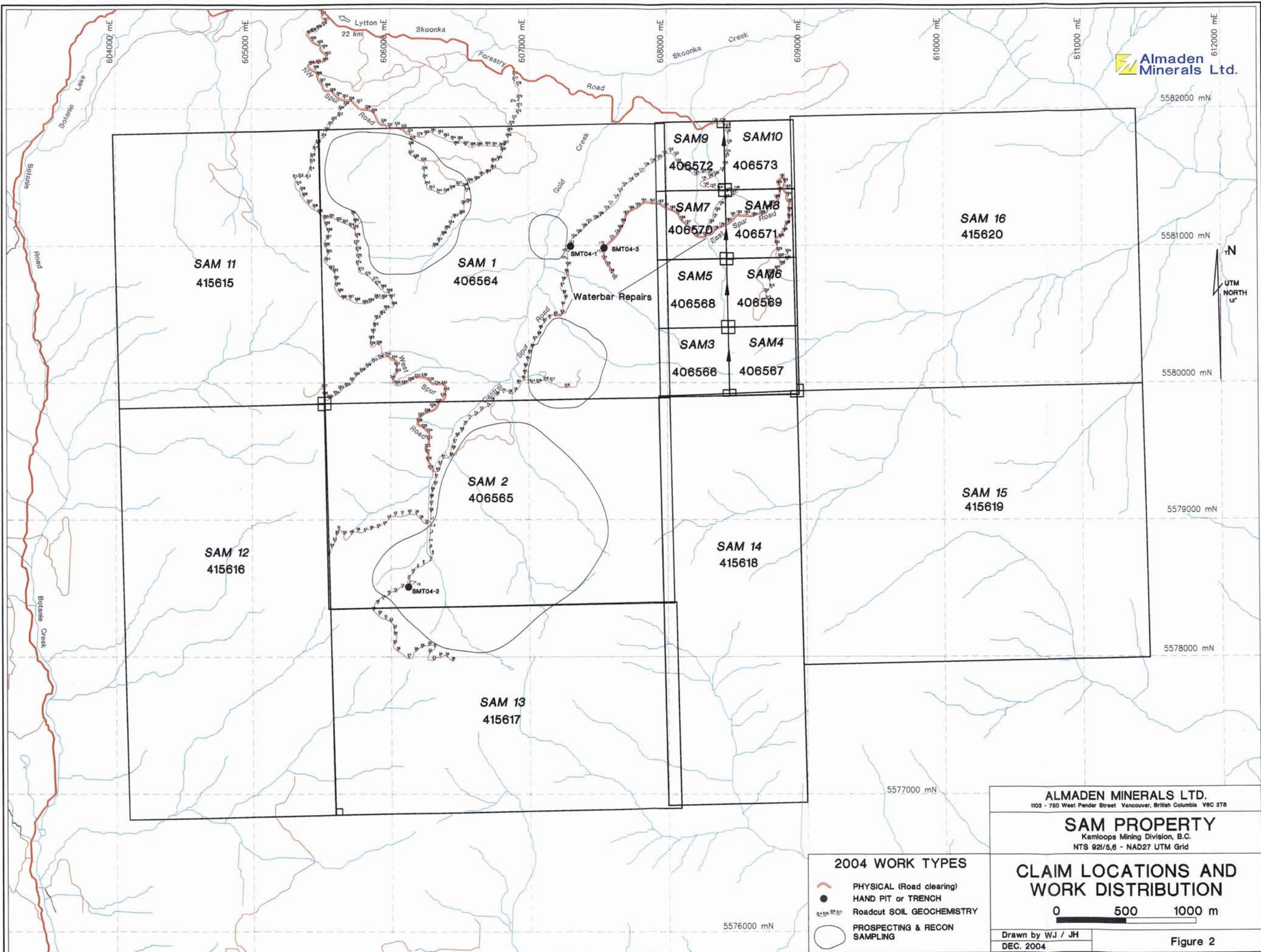
Gold Creek. Furthermore, a composite sample of chalcedonic quartz vein rubble found along an adjacent road cut returned a significant gold analysis of 1300 ppb (1.3 g/t Au). Follow-up work (by Balon, Ritcey) in October revealed several other mineralized quartz float occurrences, some of which yielded better gold grades up to 8678 ppb (~8.7 g/t Au). An in-situ large quartz breccia vein (the Discovery Vein) carrying anomalous gold values was also found near one of the mineralized float occurrences. This latter discovery prompted staking of the SAM 1-10 claims.

The 2003 work program on an around the SAM property area generated totals of 22 rock, 41 stream sediment, and 14 soil samples which were all analyzed for 36 elements. Fluid inclusion studies were conducted on two specimens of quartz vein material. All of the 2003 sample locations, descriptions and analytical data are incorporated in this report.

3.4 2004 Exploration Program

Field work in 2004 consisted of access road clearing and minor repairs, a road cut soil geochemical survey, further prospecting with reconnaissance rock/silt sampling, and limited hand trenching with related bedrock mapping/sampling. Totals of 41 rock, 8 silt, and 417 soil samples were collected and delivered to Acme Analytical Laboratories Ltd. in Vancouver, BC, for 36-element geochemical analysis plus a few selected assays. Work was conducted on the SAM 1, 2, 6-10 claims and immediate periphery during one day in August and during the period between September 19th to October 5th, by one Company employee and two contract field assistants. The crew was based at the Totem Motel in Lytton. All UTM grid locations were recorded in NAD 27 using Garmin 12XL handheld GPS receiver units. The work types and distributions are shown on Figure 2.

Property expansion after the assessment work period was carried out (NOV/04) by a three-man contract staking crew commuting by helicopter from Merritt, BC.



SAM 11
415615

SAM 1
406564

SAM 9 **SAM 10**
406572 406573

SAM 7 **SAM 8**
406570 406571

SAM 5 **SAM 6**
406568 406569

SAM 3 **SAM 4**
406566 406567

SAM 16
415620





SAM 2
406565

SAM 15
415619

SAM 12
415616

SAM 14
415618

SAM 13
415617

- 2004 WORK TYPES**
-  PHYSICAL (Road clearing)
 -  HAND PIT or TRENCH
 -  Roadcut SOIL GEOCHEMISTRY
 -  PROSPECTING & RECON SAMPLING

ALMADEN MINERALS LTD.
1103 - 750 West Pender Street Vancouver, British Columbia V6C 2T8

SAM PROPERTY
Kamloops Mining Division, B.C.
NTS 92/5,6 - NAD27 UTM Grid

CLAIM LOCATIONS AND WORK DISTRIBUTION

0 500 1000 m

Drawn by WJ / JH
DEC. 2004

Figure 2

4.0 GEOLOGIC SETTING

4.1 Regional Geology & Mineral Deposits (Figure 1)

The subject region lies within the Southern Intermontane (tectonic) Belt of the Canadian Cordillera. Regional bedrock geology is shown on Figure 1, which has been compiled and condensed from parts of GSC Maps 41-1989 (Hope, by J.W.H. Monger, 1989) and 42-1989 (Ashcroft, by J.W.H. Monger and W.J. McMillan, 1989).

Lithologies within the Figure 1 map-area include successions of Mesozoic to Tertiary volcanic and sedimentary rocks which have been intruded by plutons of various compositions and ages from Late Triassic and/or Jurassic to Miocene (?). Locally thick deposits of Pleistocene and Recent glacial drift and alluvium are prevalent in all of the major creek or river valleys. Much of the region was overridden during the last Pleistocene glaciation by ice moving southeastward across the SAM area (Fraser Plateau; Ryder, 1975).

The dominant rock assemblage underlying the SAM property and adjacent areas is the Cretaceous Spences Bridge Group (KSB / KSBS) comprising a broad northwest-southeast trending thick sequence of gently folded volcanics with lesser sediments, dipping generally shallowly in various directions. These rocks include intermediate, locally felsic and mafic flows and pyroclastics with some sandstone, shale and conglomerate (KSB), as well as a younger basaltic unit differentiated as the Spius Creek Formation (KSBS). This quite homogeneous conformable upper division was formerly called Kingsvale Group by early government geologists (Rice - 1947, Duffell and McTaggart - 1952, and others prior to Thorkelson - 1985).

The Spences Bridge Group is in fault contact with older plutonic and related metamorphic rocks of the Triassic-Jurassic Mount Lytton Complex (TrJgd, TrJm) to the south and west of the property area. This underlying Mount Lytton assemblage is host to a number of old known copper showings within a 10-15 km radius of the SAM claims (BC Minfile 092ISW030, 035, 039, 040, 057-062).

To the northwest (20-25 km) and southeast (25-40 km) of the property, the Spences Bridge Group is overlain by Tertiary (Eocene) mafic to felsic volcanics of the Kamloops and Princeton Groups (Ek, Ep). These younger volcanic units are cut by small (Miocene?) intrusions of intermediate composition (Ti), which may be part of a feeder system to them.

The major structural features in the region are steeply dipping normal faults, parallel and subparallel with those of its western bounding Fraser (River) fault system. The faults have two dominant trends, one at 140° - 150° azimuth and the other due north-south. One such latter feature is the prominent Spius Creek - Lornex Fault which passes through the Highland Valley copper mine area, 35 kilometers east-northeast of SAM. Two other parallel north-south faults occur on either side of the property, along Botanie Creek and the Thompson River. Rocks of the Spences Bridge Group are believed to have formed as a chain of stratovolcanoes associated with subsiding, fault-bounded basins (Souther, 1991 and Thorkelson, 1985).

Major mineral deposits in the region include those of the world-class porphyry copper producing Highland Valley district, where five major orebodies containing initial aggregate reserves of approximately 1.5 billion tonnes grading 0.4% Cu were developed in Upper Triassic intrusive rocks of the Guichon Creek Batholith. The former Craigmont Mine (45 km ESE of SAM) exploited an important copper-iron skarn deposit that contained about 33 million tonnes grading 1.3% Cu hosted by Triassic Nicola Group volcanics.

The Blackdome Mine, situated about 125 kilometers northwest of SAM (off Fig. 1), has exploited a bonanza-style low sulphidation epithermal vein deposit hosted in Eocene volcanics. Between 1986-91 the operation produced about 336,000 tonnes of ore at an average recovered grade of 21.6 g/t Au and 76.5 g/t Ag. There is a remaining (inferred) underground resource of approximately 124,000 tonnes grading 12.8 g/t Au and 33.7 g/t Ag (Ref. BCMEM Open File 2000-2).

Low sulphidation type epithermal gold-silver mineralization is hosted by quartz veins and breccia in Spences Bridge Group volcanics at the Nicoamen River (ZAK), Prospect Valley (PV-NIC) and Merit properties located 20 to 40 kilometers southeast of the SAM claims. These prospects are all new grassroots discoveries made by Almaden during 2001-04.

4.2 Property Geology, Alteration & Mineralization

No systematic property scale geological mapping has been conducted on the SAM claims, however local outcrop data have been noted during the course of other work. Very limited (areal) detailed bedrock mapping was carried out at two hand trench sites described under Section 6.3.

The Spences Bridge Group lower (KSB) division underlying most of the property area comprises a thick accumulation of subaerial, dominantly intermediate volcanoclastics and flows. Dips are generally low, and in many places are close to horizontal. The most common and widespread rock type is a massive, fine grained, dark grey to locally red-brown basaltic (pyroxene) andesite lava. Locally intercalated pyroclastic units include various tuffs, ignimbrite, lahar and breccia. Dark green coarse pyroclastics have been observed in outcrop at one location in the northwestern property area. In the upper part of the KSB assemblage, pale olive green to light grey crowded-feldspar porphyry sills and flows are common; several sections of this rock type are exposed in cuts along the Central Spur Road.

The Spius Creek Formation or upper (KSBS) division of mafic volcanics is a younger continuum of the Spences Bridge Group which has been mapped by Government geologists (Monger & McMillan, 1989) over a small area that is now within the southeastern SAM claims. This area was not visited during the 2004 season, however similar dark brown to maroon basalts were noted along segments of the West Spur and upper Central Spur roads. These rocks are generally aphanitic but locally vesicular and/or amygdaloidal. The amygdules commonly consist of opaque white to translucent light blue-grey and clear banded chalcedony (agate), and/or calcite.

Intrusive rocks consisting of both mafic and felsic (rhyolite) dykes cutting the Spences Bridge Group are reported in the published literature on the western Ashcroft map area (Monger, 1981; Souther, 1991). To date, such intrusions have not been found in place on the property. However, stream float and angular rubble of rhyolitic composition and texture have been located in lower Gold Creek and in cut banks along the Central and East Spur roads (Discovery Area, on Plates 1-7). This rock type is rusty-orange weathered, very siliceous, weakly pyritic, and commonly carries drusy quartz stringers, suggesting a spatial association with adjacent vein mineralization.

The most prominent structural feature in the local area is the Botanie Creek fault scarp, which is marked by a several-km long north-south line of steep bluffs along the western expanded property boundary (W. side of SAM 11 & 12 claims – Fig. 2). Another, much shorter, NNE-SSW line of bluffs forms the canyon of Gold Creek on the SAM 1 claim; this feature has not been closely examined in the field, but it represents an apparent subparallel fault or lineament. A couple of vague east to ENE-trending lineaments are discernible in the central property area, as interpreted from aerial photographs, topographic maps and limited field observations. These easterly striking features are each about 2-km in length, spaced 1.5 - 2.0 km apart, and are roughly parallel with the main geochemical trends and mineral showings identified to date.

Thus far, only a few small areas of significant alteration have been noted. The zones are marked by dark gossanous soil and strongly altered or decomposed volcanic bedrock exposed in various road cuts (Central, East & West Spurs), and on an old logging landing near the western common corner (LCP) of the SAM 1 & 2 claims. Alteration types at these sites consist of strong Fe/Mn oxide, intense argillic (associated with local shears), bleaching, and varying degrees of silicic \pm Fe carbonate. The two most prominent zones are both located adjacent to quartz vein showings, within approximately 50m - wide envelopes (Discovery and JJ Areas, Plates 1-7). Elsewhere on and around the property, strongly to intensely quartz-flooded and/or carbonatized float cobbles and boulders have been found in several stream gullies and in till banks.

Significant quartz hosted gold and lesser silver mineralization has been identified in a number of widely scattered float occurrences, and in **two major vein showings**, located on the SAM 1 and SAM 2 claims. All of these occurrences exhibit compositions and classic textures typical of low sulphidation epithermal veins and breccias. The styles of mineralization include massive multiphase vein, multistage breccia, stockwork veinlet, and pyritic silica-carbonate replacement of hostrock. Disseminated pyrite and specular hematite also occur in both quartz matrix and hostrock clasts at the **Discovery Showing**. This showing is an approximate **4m-wide**, ENE (075°)-striking, steeply dipping, **low grade gold bearing quartz breccia vein**. Fluid inclusion studies of two vein rubble samples from the discovery area have reported formation temperatures in the range of $<200^{\circ}\text{C}$ to 210°C , indicating minimal erosion of the epithermal system at this site (Reynolds, 2004). The **other major vein showing**, called **JJ**, is a subparallel (ENE-trending) structure **situated nearly three kilometers to the southwest** of the Discovery Vein. It consists of a **2m-wide**, moderately dipping **zone containing high grade gold-quartz vein(s)** and strongly altered hostrock material from which channel samples have returned **assays** ranging from 4.49 to **53.38 g/t Au**. The property-wide mineralized float occurrences, and the above-noted showings, are discussed in greater detail under Sections 5.4 and 6.2 respectively.

5.0 GEOCHEMISTRY

5.1 Introduction

Geochemical work on and surrounding the SAM claim area during 2003 and 2004 involved various phases of sampling which accounted for collection of the following sample types and numbers (n):

2003 (prior acquisition); 41 stream sediments (AC-n series), 14 roadcut soils (AC-Sn series), 22 reconnaissance rocks (AC-Rn series).

2004 (post acquisition); 8 stream sediments (AC-n series), 417 roadcut soils (SJ-n & SB-n series), 25 reconnaissance rocks (SAM-Rn series) and 16 trench rocks (continuous chip/channel type, SAM-Rn series).

All of the 49 silt, 431 soil, and 63 rock samples were analyzed for 36 elements. Complete results for the samples are listed on the Acme Analytical Laboratories Ltd. Geochemical Analysis Certificates contained in Appendix A (2003) and in appendix B (2004). Tables in these Appendices also give the UTM grid locations, brief descriptions and selected analytical results for all but the trench rock samples which are described in Section 6.2. Stream Sediment and soil sample locations and numbers are plotted on Plate 1; rocks sample locations and numbers are shown on Plate 6.

5.2 Sampling & Analytical Procedures

Sample locations were marked in the field with labeled blue and orange flagging for the 50m-spaced soil stations, and with pink flagging plus labeled weatherproof (Tyvek) tags for the stream sediment, recon rock, and closer-spaced soil sites.

A UTM grid location was recorded for every site by handheld GPS unit using the NAD 27 datum. All of the samples were shipped to Acme Analytical Laboratories Ltd. in Vancouver, BC, for 36-element analysis by Inductively Coupled Plasma – Mass Spectrometry (ICP-MS).

Soil samples were collected by mattock or rock hammer, mainly at 50m intervals, along the original cut banks of logging spur roads and skidder trails. In most cases the B horizon was sampled, but in a few rocky localities the combined B/C or C horizon was taken. Stream sediment samples were collected from the finest silt/sand material available in the active channel, with little or no organic matter. Individual soil and stream sediment sample weights were approximately 0.5 kilogram. Both types of samples were shipped to the laboratory in labeled standard 4"x6" Kraft paper bags. Sample preparation there involved drying at up to 60°C and sieving (up to) 100 grams from each to -80 mesh. Contingent upon the amount of -80 mesh material available, a 7.5, 15 - or 30- gram subsample was cut and then leached with 180 ml of 2-2-2 HCL-HNO₃-H₂O at 95°C for one hour, followed by dilution to 600ml and ICP-MS analysis.

Rock sample individual weights ranged from <1-3 kilograms for float samples and 2.5-10 kilograms for bedrock (continuous chip or channel) samples. The float samples were composed of chips from either a single large quartz vein/altered hostrock fragment or, in some cases, multiple smaller pieces of such material collected over a few tens of meters. At the laboratory, rock sample preparation consisted of crushing each to - 10 mesh (70%) followed by pulverizing a 250-gram split to 95% passing 150 mesh. A 30-gram subsample was then subjected to the same acid digestion and analytical procedure as that employed for the soil and silt samples.

5.2.1 Quality Control Measures

All of the soil sampling was conducted by very experienced samplers, with spot field checks for quality by the author. All of the stream sediment and most of the rock samples were collected by or under the direct supervision of the author. All samples were accounted for, packaged with due diligence, and personally delivered to the laboratory by the author.

At two locations in the Discovery Area, some rock samples collected during 2004 were near-duplicates of those taken in 2003 (i.e. 2004 sample SAM-R1 vs. 2003 sample AC-R7 and 2004 samples SAM-R21-R26 vs. 2003 samples AC-R17-R19). In both of these cases, the corresponding sample results for the elements of interest compare very closely. At the high grade JJ Showing, initial gold and silver geochemical analyses were later checked by metallics fire assays with good duplication of results from eight of nine samples. (See table of results on Fig. 5 in Section 6.2).

Acme Analytical Laboratories runs standards and provides resamples at varying intervals for each sample shipment received. A resample consists of analyzing a second cut (subsample) from the same sample pulp (or occasionally reject portion), and is reported as a rerun (RE) or reject rerun (RRE) on the analysis certificate. In most cases there is good reproducibility of results between the original subsamples and resamples, with the exception of gold in stream sediments and in some of the soils (particularly at the lower end of the detection range).

5.3 Soil and Stream Sediment Geochemical Results (Plates 2-5)

The merged 2003 and 2004 soil and stream sediment sample results for the four select elements gold (Au), arsenic (As), antimony (Sb) and mercury (Hg) are provided in Plates 2 to 5 respectively. These elements were chosen for plotting because they collectively represent the best pathfinder suite for epithermal mineralization. Two other, less definitive, local mineralization pathfinders are silver (Ag) and molybdenum (Mo).

5.3.1 Soils

Lognormalized frequency distributions for Au, As, Sb, Hg were constructed from the raw soil analytical data using results from 426 of the 431 (combined 2003 – 04) samples. The histograms are shown in Figure 3. Element concentration ranges used for statistical categories are based on the 50th, 70th, 90th and 95th percentiles.

The overall soil geochemical response is quite weak, with generally scattered to patchy distributions of anomalous values and only a few local concentrations of high values. The weak response in some areas may be partly or wholly due to the presence of local deep clay-rich till banks. The highest (Au, As, Sb, Hg plus Ag, Mo) values from the survey are tightly clustered near both the Discovery and JJ mineralized vein showings, where minor closely spaced sampling was conducted. The current (non-grid) sampling pattern and resultant low sample density on the property do not permit delineation of distinct geochemical trends. A brief discussion follows, on the anomaly clusters and some vague trends for each of the four elements plotted.

Gold (Plate 2)

- The main gold anomaly is located in the Discovery Area, trends ENE, and is about 1100m long by 500 to 150m wide from west to east. The highest soil value here is 322.7 ppb Au, at the Discovery Showing. This anomaly is open to the west, and the positions of four strong gold-in-silt values (40.1-82.7 ppb) in an adjacent drainage branch indicate potential for a 1000 to 1250m long westward extension.

- A second, stronger but much more confined, gold soil anomaly is situated in the JJ Area and contains the highest value (2094 ppb) obtained from the 2004 sampling program. This sample was collected in shallow overburden directly above the high grade JJ vein showing prior to its exposure by hand trenching. The primary zone of gold enrichment here is marked by five other very strong values (175.7 - 527.6 ppb) that were generated by infill sampling along a prominent roadcut gossan, between two earlier 50m-spaced stations (37.9 and 187.3 ppb Au). The immediate locales to the south and north, for about 500m in each direction, contain nine more stations with moderate values ranging from 11.3 to 49.5 ppb. The overall anomaly in this area has a north-south orientation, but its suspected trend is ENE as inferred from the JJ vein zone (070°-075°) strike and from the position of a strong silt anomaly (28 ppb Au) located ~ 850m to the east.
- A third, diffuse group of moderate soil values (9.0 – 20.2 ppb Au) straddles the northwest corner of the claim group over an area of ~1600 x 800m, with a possible ENE trend.

Arsenic (Plate 3)

There are two well defined clusters of anomalous arsenic soil values, which have very good correlation with gold. In the Discovery Area, the arsenic signature is somewhat broader to the north (than that of gold), and is more elongate in a NE rather than ENE direction, with a size of about 700m wide by 1600m long. In the JJ Area, the arsenic anomaly is highly coincident with that of gold in terms of relative strength as well as size and configuration. The few scattered elevated arsenic values in the northwestern claim area show an overall spatial relation to gold, but have generally poor station-to-station coincidence with gold.

Antimony (Plate 4)

Two discrete clusters of anomalous antimony soil values, also located in the Discovery and JJ Areas, show good correlation to both gold and arsenic but are somewhat lesser in magnitude. A small local antimony anomaly occurs along a short spur trail east of central Gold Creek, roughly between the Discovery and JJ zones. This minor (size) anomaly has good coincidence with gold, but not with arsenic. There is no significant antimony signature in the northwestern sample area.

Mercury (Plate 5)

The mercury in soils plot shows a widespread pattern of elevated to strongly anomalous values over the entire western half of the claim group. This signature is difficult to interpret because of poor contrast in the range of values. The only discrete high-order anomaly is in the JJ Area, coincident with gold-arsenic-antimony. A broad ENE trend is indicated by the positions of several spatially related strong mercury silt anomalies.

5.3.2 Stream Sediments

Separate statistics were not calculated for the stream sediment analyses because of the small sample population. The same element concentration ranges used to discriminate among background, threshold and anomalous values in the soils were applied to the silt results, and are symbolized similarly on the respective Au, As, Sb, Hg plots (Plates 2-5). These applications are quite valid based on local field experience and reference to the published government RGS data for NTS 921.

The current sediment sampling on and northwest of the SAM 1-10 claim group has greatly expanded and enhanced the initial gold anomaly at the mouth of Gold Creek. Twenty other sites of elevated to strongly anomalous gold have been identified, with values ranging from 4.1 to 82.7 ppb. Four of the five strongest values (40.1 – 82.7 ppb Au) occur in a short side branch of Gold Creek, to the west of the Discovery Area soil anomaly. The fifth strongest value (30.8 ppb Au) is in a minor tributary of Skoonka Creek which drains the northwest corner of the claim area. Six

sites with moderate to strong values (10.4 – 24.9 ppb Au) are located in other branches of Gold Creek to the north and east of the JJ Area soil anomaly.

The gold-in-silt anomalies have moderate coincidence with arsenic (9 of 20 sites), good coincidence with antimony (15 of 20 sites), and very good coincidence with mercury (17 of 20 sites). A prominent mercury-in-silt anomaly cluster, defined by nine samples with values from 0.08 to 0.17 ppm Hg, is situated immediately north and northeast of the JJ Area soil anomaly.

The overall multiple element stream geochemical anomaly signatures indicate probable extensions of the presently known mineral trends, westward from the Discovery Area and ENE from the JJ Area.

5.4 **Prospecting & Reconnaissance Rock Geochemical Results** (Figure 2 and Plates 6, 7)

Prospecting of gold stream sediment anomalies was carried out in the drainage areas noted on Figure 2. This work included the collection of additional silt and rock geochemical samples to those taken in 2003. All of the recon rock sample locations and numbers are shown on Plate 6, and the respective gold results are posted on Plate 7. Sample descriptions, UTM grid coordinates and select results are included in Appendices A (2003) and B (2004) with the analysis certificates.

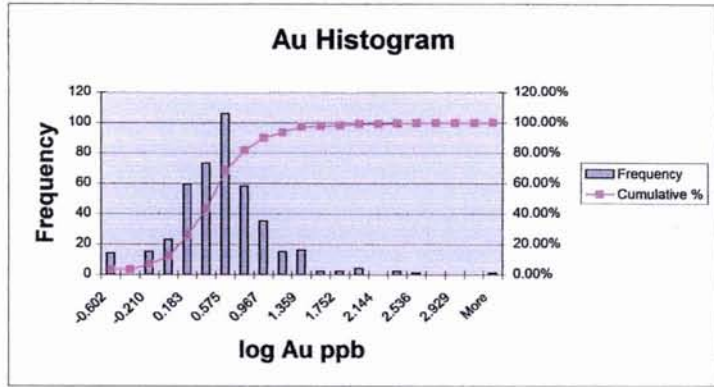
The total of 47 recon rock samples collected to date comprise 38 from float and seven (7) from bedrock or local rubble. All were composed of quartz vein/breccia material and/or altered volcanic or felsic dyke (?) hostrock. Many of the float samples contained angular to subangular fragments indicating a local provenance, but the sources remain to be found. The largest single float fragment encountered is a subrounded quartz breccia boulder measuring ~ 45 cm in diameter (2003 sample AC-R14 (553.7 ppb Au). **Gold analyses from the 38 float samples** range from 1.1 ppb to 8678.1 ppb, with an **average of 624 ppb (0.62 g/t Au)**. Gold values show weak positive correlations with Ag, As, Mo and poor or negative correlations with Sb, Hg, Ba as shown in the scatter plots on Figure 4.

A 500m long east-west mineral trend is evident in the Discovery Area, as defined by the locations of five mineralized float samples (455.2 – 2159.7 ppb Au) and three bedrock samples (128.3 – 338.3 ppb Au) which are detailed as an inset on Plates 6 & 7. This trend coincides with the local anomalous soil geochemistry and with the measured strike (075°) of the Discovery Vein zone. Eleven mineralized float occurrences, with gold values of 190 to 8678 ppb, are dispersed over a 1500m long by 500m wide arcuate belt to the northeast of the JJ Showing area; some of these occurrences coincide with the local anomalous stream sediment geochemistry, but only vague easterly or ENE trends are presently discernible. Four other, lower tenor float occurrences (187 – 425 ppb Au) situated in the northwestern corner of the claim group do not form any trend. The **highest grade recon bedrock sample (4397.6 ppb Au)** was collected from a quartz vein or lens (?) **within a wide alteration band about 40m northeast of the JJ Showing**. This occurrence requires further examination for determination of its size, trend and relation to the JJ zone.

SAM Soil Sample Histograms

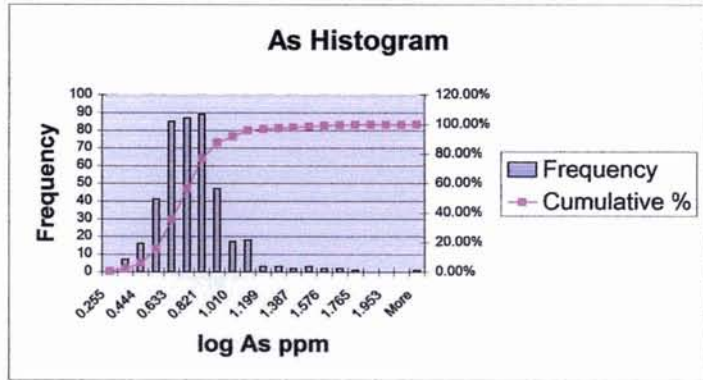
Gold

Log Au ppb	Frequency	Cumulative %	Au ppb
-0.602	14	3.29%	0
-0.406	0	3.29%	0
-0.210	15	6.81%	1
-0.014	23	12.21%	1
0.183	59	26.06%	2
0.379	73	43.19%	2
0.575	106	68.08%	4
0.771	58	81.69%	6
0.967	35	89.91%	9
1.163	15	93.43%	15
1.359	16	97.18%	23
1.556	2	97.65%	36
1.752	2	98.12%	56
1.948	4	99.06%	89
2.144	0	99.06%	139
2.340	2	99.53%	219
2.536	1	99.77%	344
2.733	0	99.77%	540
2.929	0	99.77%	849
3.125	0	99.77%	1333
More	1	100.00%	



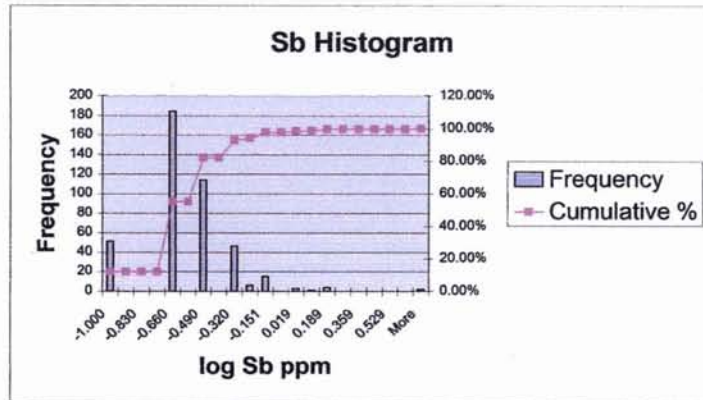
Arsenic

Bin	Frequency	Cumulative %	As ppm
0.255	2	0.47%	1,800
0.350	7	2.11%	2,237
0.444	16	5.87%	2,779
0.538	41	15.49%	3,454
0.633	85	35.45%	4,292
0.727	87	55.87%	5,333
0.821	89	76.76%	6,627
0.916	47	87.79%	8,235
1.010	17	91.78%	10,233
1.104	18	96.01%	12,716
1.199	3	96.71%	15,801
1.293	3	97.42%	19,634
1.387	2	97.89%	24,398
1.482	3	98.59%	30,318
1.576	2	99.06%	37,673
1.670	2	99.53%	46,814
1.765	1	99.77%	58,172
1.859	0	99.77%	72,286
1.953	0	99.77%	89,825
2.048	0	99.77%	111,619
More	1	100.00%	



Antimony

Log Sb ppm	Frequency	Cumulative %	Sb ppm
-1.000	51	11.97%	0.100
-0.915	0	11.97%	0.122
-0.830	0	11.97%	0.148
-0.745	0	11.97%	0.180
-0.660	184	55.16%	0.219
-0.575	0	55.16%	0.266
-0.490	114	81.92%	0.323
-0.405	0	81.92%	0.393
-0.320	46	92.72%	0.478
-0.235	6	94.13%	0.581
-0.151	15	97.65%	0.707
-0.066	0	97.65%	0.860
0.019	3	98.36%	1.046
0.104	1	98.59%	1.272
0.189	4	99.53%	1.546
0.274	0	99.53%	1.880
0.359	0	99.53%	2.287
0.444	0	99.53%	2.781
0.529	0	99.53%	3.381
0.614	0	99.53%	4.112
More	2	100.00%	



Mercury

Log Hg ppm	Frequency	Cumulative %	Hg ppb
-2.000	32	7.51%	0.010
-1.932	0	7.51%	0.012
-1.864	0	7.51%	0.014
-1.796	0	7.51%	0.016
-1.728	0	7.51%	0.019
-1.660	120	35.68%	0.022
-1.591	0	35.68%	0.025
-1.523	0	35.68%	0.030
-1.455	112	61.97%	0.035
-1.387	71	78.64%	0.041
-1.319	0	78.64%	0.048
-1.251	41	88.26%	0.056
-1.183	17	92.25%	0.066
-1.115	6	93.66%	0.077
-1.047	6	95.07%	0.090
-0.979	4	96.01%	0.105
-0.911	7	97.65%	0.123
-0.843	4	98.59%	0.144
-0.774	1	98.83%	0.168
-0.706	3	99.53%	0.197
More	2	100.00%	

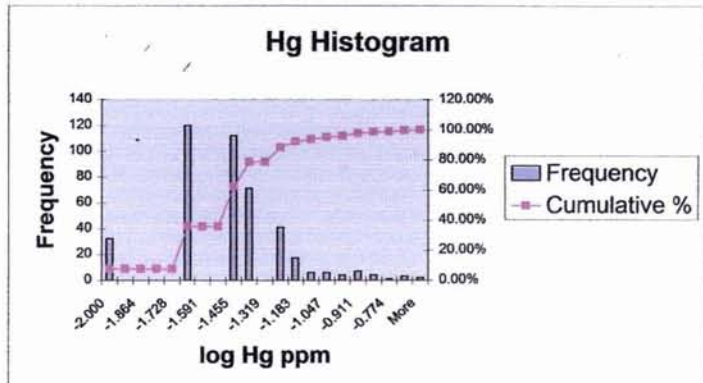


Figure 3: Soil Sample histograms - Au, As, Sb, Hg

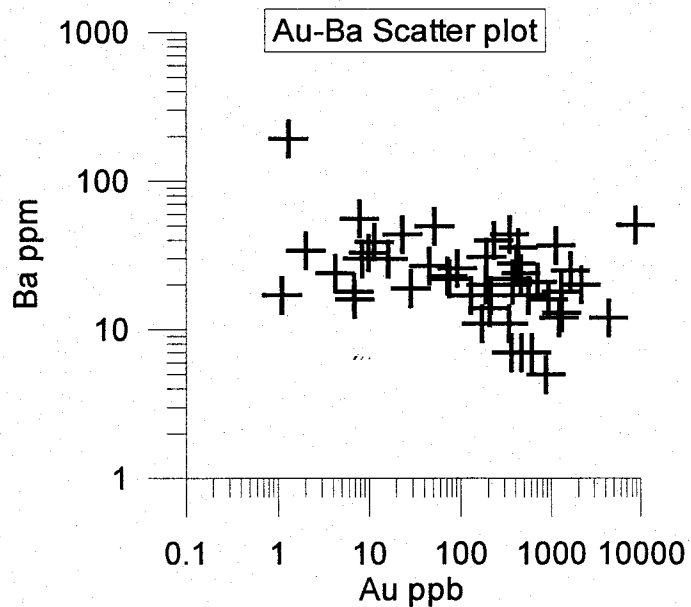
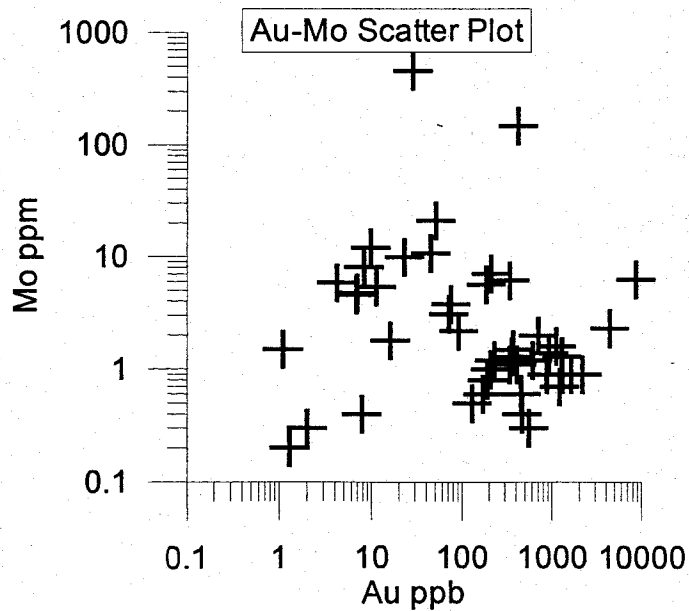
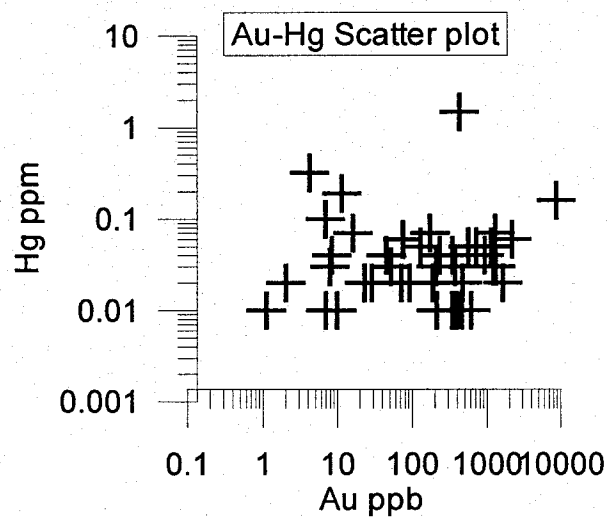
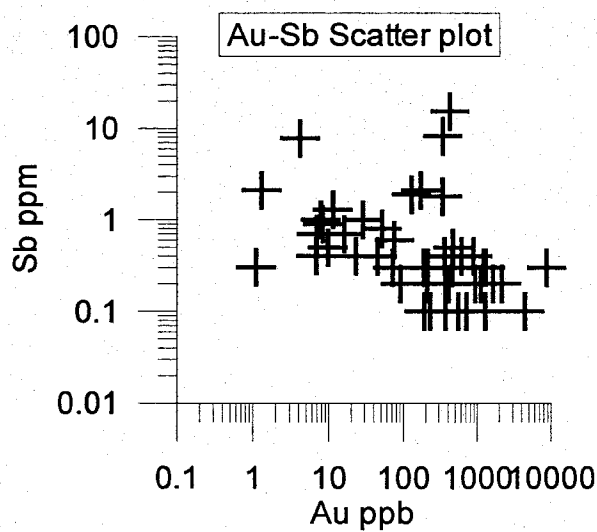
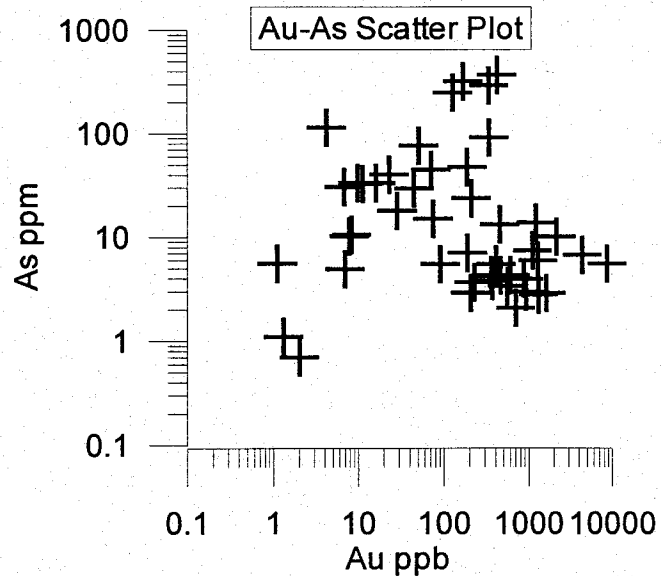
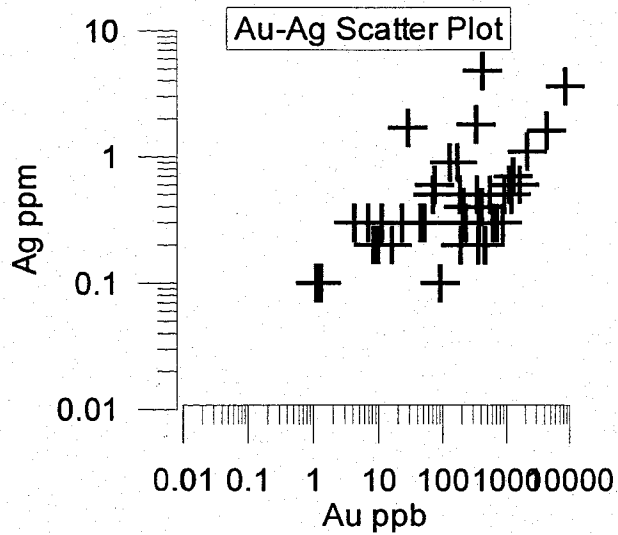


Figure 4: Recon Rock Sample Scatter Plots

6.0 PHYSICAL WORK

Physical work in 2004 consisted of manual road clearing and repair, and manual trenching at three locations. The work types and distributions are illustrated on Figure 2.

6.1 Road Clearing and Repair (Figure 2)

Road clearing involved mainly the cutting of alders, willows and other shrubbery along the sides and in the medians of several partly overgrown logging spurs, as well as the lopping of trees and cutting up of deadfall or blowdown. This work was carried out to facilitate truck access during the exploration program. Only hand tools (axe, machete, chainsaw) were employed. Within the boundaries of the SAM 1 – 10 claim group, sections of the East and West Spur Roads totaling 4.0 km in length were partially cleared. The widths of clearing, including both roadsides and median, varied from two to four meters depending upon the vegetation density. Intermittent segments required little or no clearing. The aggregate area of brush cutting is estimated at approximately 4000 square meters (0.4 hectares). The cut brush was stacked in small piles and/or scattered in the forest along the roadsides.

Waterbar repairs were conducted at two stream crossings on the Central Spur Road and at one on the East Spur Road. This pick-and-shovel work included partial backfilling of deep washouts and the removal of sharp or large boulders. An old log bridge at the East Spur site was improved by adding more sound timbers, and its approaches were refilled.

Total time expended for the (on-property) road clearing and repair was seven person-days.

6.2 Hand Trenching (Figure 2)

One test pit and two trenches were hand dug at the locations shown on Figure 2 and on Plates 1, 6 & 7. Where bedrock was achieved, excavation was followed by thorough cleaning, mapping and continuous chip/channel type rock sampling. This sampling was effected by hammer and chisel; the resultant channels averaged about 4cm wide by 4cm deep, and individual sample weights varied from 2.5 kg to over 10 kg. The trenches were surveyed by chain and compass from UTM grid control points established with a Garmin 12XL GPS receiver unit set to average for at least one hour. A summary of the excavations is provided in Table 2 below.

Table 2: SAM 2004 TEST PIT AND TRENCH SUMMARY

<u>PIT OR TRENCH No.</u>	<u>LENGTH (m)</u>	<u>AVG WIDTH (m)</u>	<u>AVG DEPTH (m)</u>	<u>VOLUME (m³)</u>	<u># ROCK SAMPLES</u>
SMT04-1	4.0	0.4	0.35	0.56	1
SMT04-1	2.0	0.4	0.90	0.72	
SMT04-2	3.5	3.2	0.40	4.48	9
SMT04-2	2.0	0.9	0.15	0.27	
SMT04-3	11.2	1.4	0.30	4.70	7
SMT04-3 (Pathway)	1.5	0.5	0.30	0.22	
TOTAL	24.2			10.95	16

6.2.1 PIT SMT04 – 1 Results

The test pit SMT04-1 was dug roughly at mid-section on a ~3m-high roadcut bank slope, nearly directly above the initial mineralized float occurrence found in 2003 (AC-R7, 1300 ppb Au & subsequent samples AC-R15, R16: 2160 and 1214 ppb Au). There is also a weak soil color anomaly at this site, with anomalous gold values (11.3 to 57.1 ppb) in four of nine soil samples taken in 2003 (AC-S2-S10 @ 10m spacing). Bedrock was not achieved; the pit was abandoned at a maximum depth of 1.0m in very compact clay-rich pebble/cobble till. Sparse, subangular quartz vein fragments were encountered; a composite sample of this material SAM-R1 was collected, which returned a gold analysis of 1627.5 ppb.

6.2.2 Trench SMT04-2 Results (Figure 5)

This trench was dug on a quartz rubble occurrence noted during the 2004 roadcut soil sampling program (soil sample station SJ-13, 2094 ppb Au). Bedrock was easily achieved beneath shallow overburden, resulting in a **new discovery of high grade gold-quartz vein mineralization called the JJ Showing**. The exposure reveals an ENE trending zone containing two closely spaced moderately dipping veins, named the **Jan and Jodi Veins**, together with intervening and bordering intensely altered andesite hostrock. **The veins and selvages have an estimated combined true width of 2.0 meters**. Nine large-sized channel samples were collected on a staggered pattern across the zone, as shown on the map in Figure 5. These samples yielded impressive **(initial) gold analyses ranging from 14,930 to 55,746 ppb (14.93-55.75 g/t Au) in vein material**, and from **1245 to 8853 ppb (1.25 – 8.85 g/t Au) in altered hostrock**. These values were **later confirmed by metallics fire assays** which returned **12.79 to 53.38 g/t Au from vein material** and **4.49 to 9.15 g/t Au from altered hostrock**. The corresponding sample silver assays are 13 to 36 g/t (in vein) and 4 to 7 g/t (in selvages). Individual sample gold and silver analyses and assays are listed in table form on figure 5. Select weighted average gold assays across the veins and vein zone are as follows:

1. Three samples (R9-R11) across the **Jan Vein**:
19.28 g/t Au over 1.0m length (**0.67m true width**)
2. Three samples (R12-R14) across the **Jodi Vein**:
42.64 g/t Au over 0.93m length (**0.62m true width**)
3. Sample string R9H-R9-R9F and 0.5m-offset string R14, R14F:
22.77 g/t Au over 3.0m length (**2.0m true width**)
4. Sample string R9H-R9-R9F and 0.5m-offset sample R13:
28.33 g/t Au over 2.5m length (**1.67m true width**)

6.2.3 Trench SMT04-3 Results (Figure 6)

This trench was dug on the lower section of a ~4m-high roadcut bank slope at the 2003 Discovery Vein rubble site. In October 2003 initial discontinuous chip/grab sampling of this angular quartz rubble suspended in overburden generated an average gold grade of 467 ppb, over a rough 6m width (Samples AC-R17-R19). Two local soil samples (AC-S11, S12) returned strong gold results of 323 ppb and 159 ppb. The 2004 trenching was successful in exposing bedrock, below an average 30cm overburden thickness on the slope. The exposure shows a subvertical, ENE trending, robust quartz vein breccia zone which has an estimated true width of 3.5m to 4.2m (incl. selvages). Six large-sized channel samples collected across the zone yielded a weighted average gold value of 380 ppb (0.38 g/t Au), and negligible silver results. A composite chip/grab sample (SAM-R20) from rubble located ~4.5m south of the vein zone returned an analysis of 872.4 ppb Au. Bedrock geology, sample locations and descriptions, and individual sample gold analyses are given in Figure 6.



Looking South onto Trench SMT04-2 across the Jodi Vein (foreground) and Jan Vein (background)

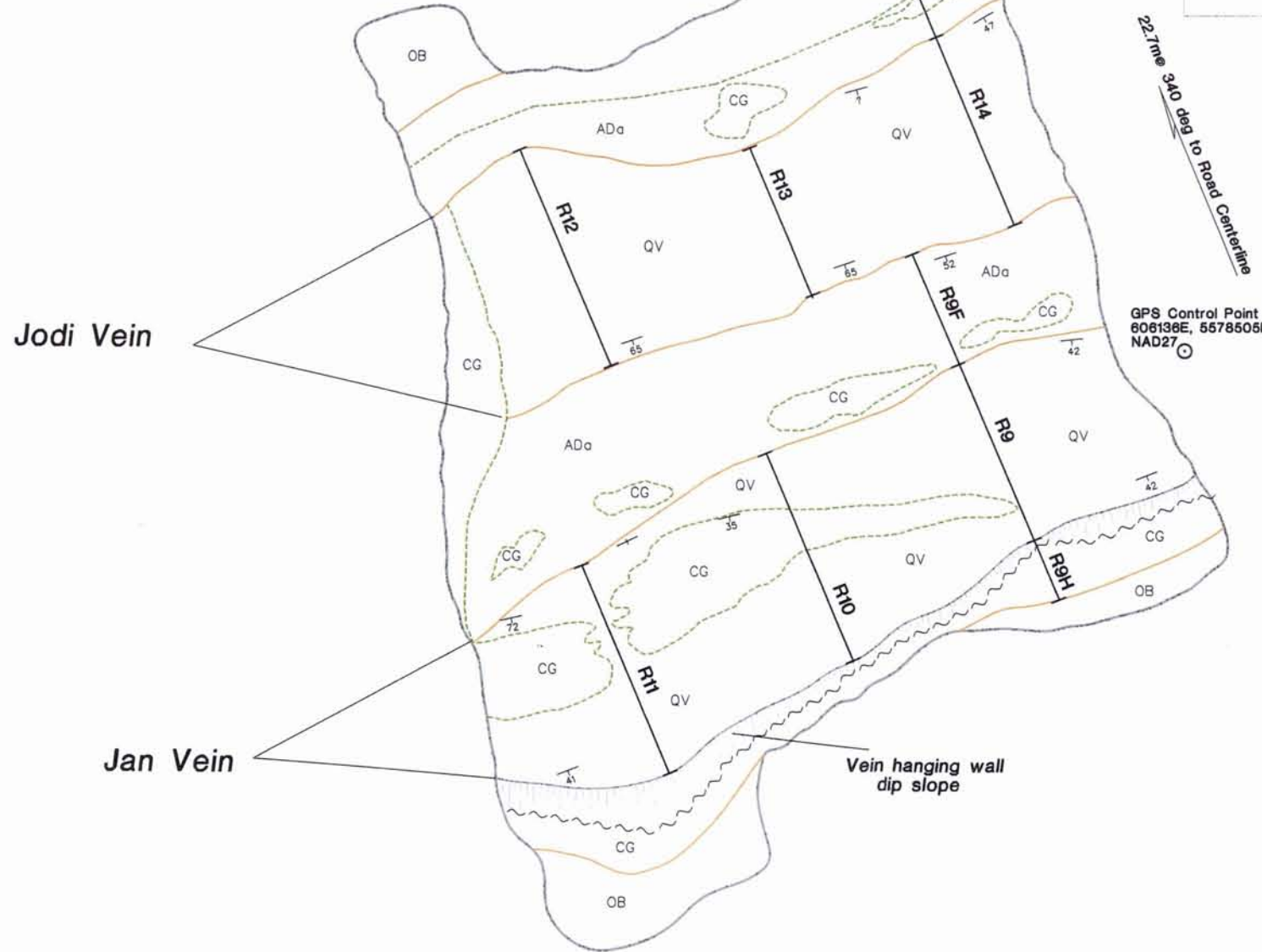
UTM NORTH
1.2 deg

TRENCH ROCK SAMPLE RESULTS – GOLD AND SILVER

SAMPLE NUMBER	SAMPLE LENGTH (m)	GOLD ANALYSIS		SILVER ANALYSIS	
		Au - ppb	Au - g/t	Ag - ppm	Ag - g/t
SAM-R9H	0.30	8,853	9.15	6.4	6.0
SAM-R9	0.90	29,800	27.51	21.0	22.0
SAM-R9F	0.55	5,639	5.97	5.6	7.0
SAM-R10	1.05	14,930	12.79	13.3	13.0
SAM-R11	1.05	19,185	18.71	14.5	15.0
SAM-R12	1.10	43,118	39.24	31.1	30.0
SAM-R13	0.75	55,746	53.38	35.1	36.0
SAM-R14	0.95	36,896	38.09	25.6	27.0
SAM-R14F	0.30	1,245	4.49	4.3	4.0

NOTES:

- Geochemical Analysis by ICP-MS, on 30g subsample.
- Metallics Fire Assay on 500g subsample.
- Estimated True Width (TW) = 0.67 x sample length.
- H - Hanging Wall alteration (gouge).
- F - Footwall or intervening alteration band.
- Average Zone Attitude = 072°/ 55°S



LEGEND

LITHOLOGY

- OB - Overburden: dark rusty orange-brown clayey soil layer (0.1-0.2m) atop dark grey compact cobble till to 0.8m depth along S. end of trench
- AD - Andesite: basaltic; massive, dark grey-black to purple-grey, locally red-brown; in part vesicular/amygdaloidal; locally pyritic.
- ADa - Altered Andesite: bleached and highly fractured with strong to locally intense argillic, silicic, FeO/MnO alteration.
- QV - Quartz Vein: low sulphidation epithermal type; generally massive opaque white and tan chalcedonic quartz, banded near hostrock contacts; locally highly fractured and limonitic; sparsely disseminated pyrite.
- CG - Clay Gouge: dominantly white to locally yellow clay minerals plus abundant QV and/or ADa fragments.

SYMBOLS

- geological contact
- - - differential alteration boundary
- ~ fault or shear
- 42 / strike and dip (inclined, vertical)
- RT channel sample location and number (SAM- prefix omitted on drawing)

ALMADEN MINERALS LTD.
1103 - 750 West Pender Street Vancouver, British Columbia V6C 2T8

SAM PROPERTY
Kamloops Mining Division, B.C.
NTS 921/5,6 NAD27 UTM Grid

JJ SHOWING
SMT04-2 TRENCH PLAN
SCALE 1:30

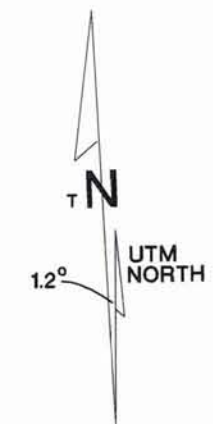
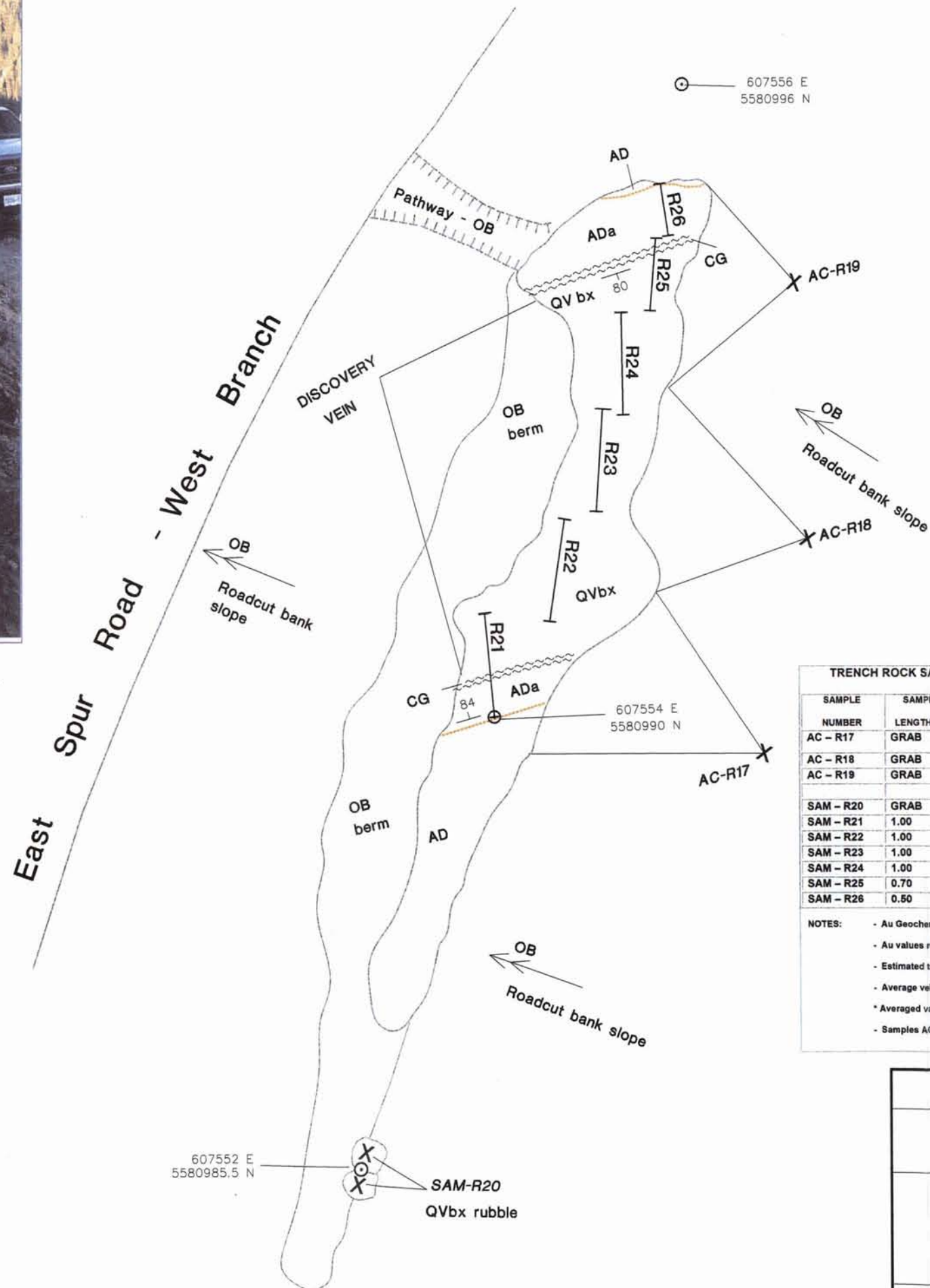
0 20 40 60 80 100 cm

Drawn by EB, WJ
JAN. 2005

Figure 5



Looking SSW onto Trench SMT04-3 across the Discovery Vein. The hammer is located at the junction of samples SAM-R22/R23.



LEGEND

- LITHOLOGY**
- OB** - Overburden: dominantly dark grey-brown boulder clay; 0.30m average thickness in roadcut slope above the trench area.
 - AD** - Andesite: basaltic; massive, fine-grained, generally dark grey-black to purple-grey, locally hematitic.
 - ADa** - Altered Andesite: partly veined (<5-10%) and variably silicified, bleached wallrock (selvage); minor patchy argillic alteration and weak FeO/MnO; strongly fractured.
 - QV bx** - Quartz Vein breccia: low sulphidation epithermal type; generally opaque white to light grey or tan chaledonic quartz matrix; weak FeO/MnO on fractures; sparsely disseminated pyrite and specularite; in part multistage breccia with variable ADa/QVbx fragments.
 - CG** - Clay Gauge: 1 - 5 cm wide dark grey to grey-brown clay seam with minor ADa/QVbx fragments.
- SYMBOLS**
- geological contact
 - fault or shear
 - strike and dip (inclined)
 - channel sample location and number (SAM- prefix omitted on drawing)
 - composite grab or chip sample from rubble (full sample number posted on map)
 - GPS control point; NAD27 UTM grid co-ordinates posted on map.

TRENCH ROCK SAMPLE DESCRIPTIONS and GOLD RESULTS

SAMPLE NUMBER	SAMPLE LENGTH (m)	GOLD ANALYSIS Au - ppb	COMMENTS
AC - R17	GRAB	358	> 50% QVbx material.
AC - R18	GRAB	435*	Variably silicified & veined hostrock (ADa).
AC - R19	GRAB	607	ADa with about 35% QV material.
SAM - R20	GRAB	872	>90% QVbx. 2x0.30m chips.
SAM - R21	1.00	427	~55% QVbx, 5% CG, 45% ADa.
SAM - R22	1.00	480	~90% QVbx, 10% ADa (clasts).
SAM - R23	1.00	290	~90% QVbx, 10% ADa (clasts).
SAM - R24	1.00	360	As per R22/R23; some crushed qtz.
SAM - R25	0.70	341	~85% QVbx, 15% ADa + CG.
SAM - R26	0.50	358	ADa with only about 5% QV material

NOTES:

- Au Geochemical Analysis by ICP-MS, on 30g subsample.
- Au values rounded to nearest 1 ppb.
- Estimated true width (TW) = 0.8 x sample length.
- Average vein zone attitude = 075°/subvertical
- * Averaged value from two analyses.
- Samples AC-R17, R18, R19 collected in 2003 (before trenching).

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SAM PROPERTY
Kamloops Mining Division, B.C.
NTS 921/5,6 NAD27 UTM Grid

DISCOVERY SHOWING
SMT04-3 TRENCH PLAN

SCALE 1:50

Drawn by EB, JH
JAN. 2005

Figure 6

7.0 PERSONNEL & CONTRACTORS

Company Personnel

	<u>Position</u>	<u>Work Time</u> (incl. Mob/Demob)	<u>Field Period</u>
E. A. Balon	Prospector & Project Mgr.	17 days	AUG 23, 2004 & SEP 19 - OCT 05, 2004

Contract Personnel

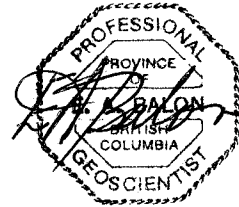
	<u>Position</u>	<u>Work Time</u>	<u>Field Period</u>
B. W. Sullivan (Bare West Enterprises Inc.) Vancouver, BC	Prospector & Gen. Field Assistant	12.5 days	AUG. 23, 2004 & SEP 19 - SEP 30, 2004
Jan Tindle Whistler, BC	Soil Sampler, Gen. Field Assistant	15 days	SEP 19 - OCT 05, 2004

8.0 STATEMENT OF COSTS

(All items rounded to nearest dollar; Expenditures prorated for on-property work)

SALARY & BENEFITS	\$ 4,250
(E.A. Balon)	
CONTRACT FIELD SERVICES.....	\$ 6,575
(B. W. Sullivan & J. Tindle)	
GEOCHEMICAL ANALYSIS & FREIGHT.....	\$ 5,739
TRUCK RENTALS, FUEL & MISCELLANEOUS TRAVEL EXPENSES	\$ 1,394
ACCOMMODATION & FOOD	\$ 3,046
COMMUNICATION	\$ 102
(Telephone & Courier)	
GENERAL FIELD SUPPLIES	\$ 276
MAPS, PHOTOS, REPRODUCTIONS	\$ 118

TOTAL EXPENDITURES **\$21,500**
(Exclusive of Report Compilation)

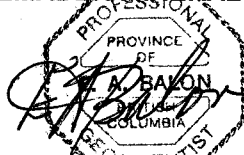


9.0 STATEMENT OF QUALIFICATIONS

I, Edward A. Balon, of North Vancouver, British Columbia hereby certify that:

1. I am a prospector and geological/mining technician residing at 501-250 West First Street, North Vancouver and am employed by Almaden Minerals Ltd. of 1103 - 750 West Pender Street, Vancouver, British Columbia, V6C 2T8.
2. I am a graduate of Northern College - Haileybury School of Mines, Ontario (1970), with a diploma in Mining Engineering Technology (integrated Geology, Mining and Metallurgy).
3. I have attended numerous Continuing Education Courses in Geoscience since 1970, including Exploration Geochemistry at the University of British Columbia, Vancouver, B.C. in 1984/1985.
4. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC), license number 20265, since 1993.
5. I have worked continuously in mineral exploration for thirty-five years in British Columbia, Yukon, Northwest Territories, USA and Mexico.
6. I am the author of this report and the supervisor of the field work performed on the SAM1 to 10 mineral claims during the period August 23, 2004 to October 05, 2004.

ALMADEN MINERALS LTD.



Edward A. Balon, P. Geo

10.0 REFERENCES

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APPENDIX A
SAM AREA 2003 RECON GEOCHEMICAL SAMPLE SUMMARY
ACME ANALYTICAL 2003 GEOCHEMICAL CERTIFICATES

SAM AREA 2003 RECON GEOCHEMICAL SAMPLE SUMMARY														
Sample Number	Easting	Northing	Mo ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Sb ppm	Ba ppm	Hg ppm	Au ppb	Assay Au ppb	Rock Type	Note
Rock Samples														
AC-R17	607557	5580989	1.3	1.7	10	0.2	4.3	0.4	7	0.01	357.9		QV & volc wallrock.	Intermittent grabs across southern 2m of o/c & subcrop; >50% vein.
AC-R10	607025	5580248	1.6	2.5	4	0.6	7.5	0.2	37	0.05	1119.6	1600	QV/bx; drusy veins to 15 mm w/ altd volc frags/inclusions.	Composite: All or part of 6 pcs (subang-subround) up to 6x8x9 cm- within 1
AC-R11	606290	5579122	6.3	1.3	5	3.6	5.6	0.3	51	0.16	8678.1	8450	QV; hematitic epithermal style drusy qz.	Tabular subrd 4.5x6x7cm.
AC-R12	606957	5579488	0.8	3.1	3	0.2	7.1	0.1	31	0.02	190		QV/BX; qz-flooded & veined orgng-pink volc.	Tabular subrded 5.5x8x11cm.
AC-R13	607147	5580950	1.1	3.1	44	1.8	291.8	1.8	11	0.04	338.3		Qz veinlets in pyritic andesite & lapilli tuff.	Select grabs w/ veins to 1.5 cm.
AC-R14	607092	5580816	0.3	2.1	6	0.5	3.4	0.1	17	0.05	553.7		QV/bx; qz-flooded & veined volc host.	Chips across several faces of subrd boulder ~45 cm in all dimensions.
AC-R15	607285	5580930	0.9	4	16	1.1	10.2	0.2	20	0.06	2159.7	2240	Alt'd & veined orange volc.	Composite; largest ang-subang pcs 11x11x15 & 7x8x8cm + 4 smaller (4-6c
AC-R16	607290	5580947	0.7	1.8	4	0.5	13.9	0.3	12	0.03	1213.7	980	Alt'd & veined orange volc.	2 ang pcs: 8x9x17cm silicified tan volc & 4x5x7cm stockwork thru rusty org
AC-R18	607557	5580991	0.4	1.2	10	0.2	4.3	0.5	7	0.02	464.6		Qz veined lt gry volc.	Intermittent grabs across middle 2m of o/c & subcrop area.
AC-R19	607557	5580994	1.2	1	10	0.3	4.3	0.4	7	0.01	607.1	730	Qz veined & silicified hostrock; 30-40% vein mat'l.	Intermittent grabs across northern 2m of o/c & subcrop area.
AC-R20	607643	5580984	0.6	0.8	12	0.2	13.3	0.3	24	0.01	455.2		QV/BX; qz-flooded & veined lt gry volc.	Ang-subang 16x23x23cm; several other 20-35 cm pieces in vicinity.
AC-R21	605700	5580000	5.4	5.5	12	0.3	32.6	1.3	39	0.19	11.3		Veined rusty org volc (PVite).	2 pcs: subang-subrd 4.5x7x12cm PVite w/stgrs; Subrd 6.5x8x15cm volc
AC-R22	605975	5581770	146.7	4.9	10	4.8	370	15.4	36	1.48	425	480	QV/BX.	Irreg/submd 8x10x13cm. Locly 10% fg py disse and fract fill.
AC-R23	605986	5581802	10.8	2.8	13	0.3	29.7	0.4	27	0.04	45.1		Qv/bx; vuggy/drusy qtz cuts lt gry-grn andesite & cements str alt'd	Rounded/submd 8x15x22cm.
AC-R24	605985	5581797	453.1	18.7	7	1.7	18	1	19	0.02	28.6		Qbx; lt tan-yellow volc w/ x-cutting comb-texture qz veinlets.	Tabular w/ rmded edges 9x11x17cm.
AC-R25	603504	5580161	4.8	0.7	10	-0.1	4.9	0.7	16	0.01	6.9		QV/BX	Triangular pyramidal bidr (rounded edges) 2x1.5x1.5m; scant chips across
AC-R26	604912	5581365	5.9	2.8	14	0.3	114.3	7.8	24	0.32	4.2		Silicified & veined/brecciated lt tan - red-brn volc.	Ang 6x7x9cm; vague qz stgrs in brecciated volc.
AC-R4	607550	5581850	1.5	5	65	0.1	5.6	0.3	17	0.01	1.1		Carb alt'd lapilli tuff- purple-gy to maroon.	Single tabular pc 8x10x18cm.
AC-R5	607515	5581815	8.1	10.7	32	0.2	10.6	0.9	30	0.04	8.3		Rusty weath lt gy rhyolite- very qtz-rich.	Rnded fgmnt 7X9X15cm.
AC-R6	607230	5581220	2.2	6.8	9	0.1	5.5	0.2	26	0.02	91		Qtz-mix volc bx- rusty red & org fgmnts.	Single subang pc 6X9X15cm. Upstream from AC-42 sed site.
AC-R7	607298	5580977	0.9	3	7	0.7	2.8	0.3	13	0.03	1299.6		QV/bx- tan rhyolitic volc w/ Chalced stringers.	Composite of numerous ang/subang pcs (up to 4X5X7cm) over 15m.
AC-R9	606542	5581272	4.6	4	10	0.3	30.5	0.4	18	0.1	6.8		Silicified volc (?) w/ QZ veins to 1 cm.	Tabular subangular 4.5x7x7cm.
Soil Samples														
AC-S10	607315	5581000	0.4	4.2	66	0.1	3.1	0.2	73	0.03	2.4		Abund FP cobbles in till.	+80m @ 020; Lt gy-brn clay soil.
AC-S11	607548	5580982	0.5	3.9	51	0.4	11	0.9	38	0.03	322.7		QV zone covered by AC-R17 to R19	Grabs across ~6m vein subcrop zone; rusty orgng in part.
AC-S12	607570	5581013	0.8	3.3	72	0.5	10.2	0.3	83	0.02	159.4		Rusty weathering Andesite (& possible felsic dyke).	Grabs across 10m; rusty orgng-brn in part.
AC-S13	605910	5580700	0.5	3.5	72	0.1	7	-0.1	51	0.04	-0.5		Mafic volcs.	Rusty org soil. Multiple grabs over ~15m along rd cut.
AC-S13A	605865	5580755	0.5	3.7	65	0.1	5.5	0.1	82	0.05	1		Mafic volcs.	Rusty org soil. Multiple grabs over ~12m along rd cut.
AC-S14	605520	5579820	0.6	4.3	53	-0.1	37.9	0.2	150	0.11	4.9		Shattered / sheared Andesite.	Dk rusty orgng-yellow-white clay-rich soil; 7 grabs over ~50m along rd cut &
AC-S2	607285	5580925	0.7	5	56	0.1	6.5	0.4	93	0.03	17.6		Rusty orgng felsic float w/ qtz stgrs.	Start of recce soil line; Dk brn clay-rich soil.
AC-S3	607289	5580934	0.5	4.7	60	0.1	5.5	0.3	82	0.02	2.9		Qtz chips.	+10m @ 020; Dk brn clay-rich soil.
AC-S4	607293	5580943	0.6	5	59	0.1	8.3	0.4	87	0.03	57.1		some felsic float & vein rubble	+20m @ 020; Dk brn clay-rich soil.
AC-S5	607297	5580952	0.5	5	64	0.1	7.5	0.4	87	0.03	11.3		Abund felsic float & vein rubble	+30m @ 020; Dk brn clay-rich soil.
AC-S6	607300	5580962	0.6	4.5	58	0.1	6.8	0.3	82	0.02	4.2			+40m @ 020; Dk brn clay-rich soil.
AC-S7	607304	5580971	0.5	6	62	0.1	10.2	0.4	79	0.02	20.2		Abund mineralized fragments.	+50m @ 020; grabs over 2m; Orgng-brn clay soil.
AC-S8	607308	5580980	0.6	4.2	58	0.1	6	0.3	82	0.01	3.9			+60m @ 020; Dull dk brn clay soil.
AC-S9	607311	5580990	0.5	4.3	58	0.1	4.8	0.2	81	0.02	3			+70m @ 020; Dull red-brn clay soil.
Stream Sediment Samples														
AC-29	605414	5582759	0.5	4.3	55	0.3	3.3	0.2	95	0.06	4.5		Dom mafic volc 1pc pyroc.	Br from WSW. Sand/grvl base-chnl <5m wide-dry.
AC-30	606554	5582334	0.8	8.9	110	0.2	8.6	0.5	128	0.11	10.6		Dom mafic some diorite intrusives.	Br from WSW. Sand/grvl base-chnl <5m wide-gentle flow.
AC30-1	605874	5581775	1	5.7	64	0.1	6.5	0.3	87	0.04	30.8		Many different cobbles; mafic volc o/c on SE bank just u/s.	Dry disturbed (cat track) 0.5-1.0 m chnl w/sand-grvl base.
AC-31	607582	5581880	0.5	4.1	56	0.1	4.9	0.3	69	0.02	19		Dom mafic some silicified pyritic rhyolite cobbles.	Br from WSW. Sand/grvl base- bidry chnl-chnl 2-3m wide-moderate flow.
AC-32	608220	5581478	0.5	4.5	52	0.1	4.1	0.4	84	0.02	4.1		Dom mafic volcs & intrusives (diorite & feldspar porphy).	Br from S. Sand/grvl base some mechanical disturbance-chnl. 5-1m wide-tr
AC32-1	608530	5581357	0.6	4.6	49	0.1	4.6	0.3	109	0.03	2.7		Few rmd'd mafic volcs cobbles & bidrs.	E br joins below -32; Dry vague chnl <0.5m wide doesn't cut org mat; loc'l s
AC32-2	608294	5581051	0.6	4.4	41	0.2	5.5	0.5	101	0.05	17.5		Dom dk gry & red/brn mafic volcs.	Rocky chnl 0.3-0.5m w/ sand & gravel atop org mat.
AC-33	607313	5580776	0.4	4.8	52	0.2	5.3	0.4	88	0.04	3.5		Dom mafic volcs.	Br from E. Coarse sand/grvl base-chnl. 5m wide-dry.
AC-34	607238	5580462	0.3	4	47	0.2	4.2	0.3	79	0.05	4.7		FP- some mafic volcs & rhyolite.	Br from SE. Rocky base-chnl. 5m wide-gentle flow-some orgs in sample.
AC-35	608301	5578720	0.6	5.3	61	0.1	5.4	0.2	113	0.16	2.6		Mafic volc pebbles.	Main ck. Grvl base on top of org mat-chnl. 5m wide- trickler.
AC-36	606275	5579208	0.5	4.5	106	0.1	7.2	0.3	111	0.04	2.5		Mafic volc pebbles.	Main ck. Sand/grvl base-chnl. 5-8m wide- weak flow.
AC-37	606257	5579237	0.5	4.8	61	0.2	8.2	0.3	111	0.05	24.9		Dom mafic pebbles	Side. Sand/grvl on org mat. chnl <0.5m wide- trickle.
AC37-1	605814	5579003	0.4	4.3	56	0.2	4.4	0.2	101	0.04	1.2		Red-brn mafic volc pebbles.	S (left) Br; sand/grvl base; trickle in 0.5m chan.
AC37-2	605814	5579090	0.4	4.7	58	0.2	4.1	0.2	120	0.04	1.1		Basaltic pebbles.	N (right) Br; Dry 0.5m chan only locly cuts org mat; local dirty grvl/sand bas
AC-38	606433	5579442	0.3	4.7	59	0.1	5.1	0.2	140	0.05	3.1		Mafic volc some rhyolite.	Br from SE. Sand/grvl some cobbles-chnl. 7.5-1.5m wide- gentle flow.

SAM AREA 2003 RECON GEOCHEMICAL SAMPLE SUMMARY													Assay		
Sample Number	Easting	Northing	Mo ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Sb ppm	Ba ppm	Hg ppm	Au ppb	Au ppb	Rock Type	Note	
AC-39	606770	5579982	0.6	4.8	84	0.1	5.4	0.3	96	0.04	2.9		Mafic volc some rhyolite & FP (porph volc?).	Main ck. Sand/grvl some cobbles- chnl 1-2m wide- gentle flow.	
AC-40	606771	5580006	0.3	4.3	57	0.2	3.4	0.2	76	0.05	78.2		Mafic volc some rhyolite.	Br from W. Sand/grvl bidry chnl- chnl 5-1m wide- trickler.	
AC40-1	606333	5580113	0.4	4.9	48	0.2	4.3	0.2	94	0.06	-0.5		Dk volc cobbles.	S br; Dry braided chnls <0.5m; choked by cobbles & veg; silt-sand-grvl atop	
AC40-2	606338	5580163	0.3	4.5	55	0.2	3.4	0.2	88	0.06	4.5		Dk volc cobbles.	N (right) Br; Dry 0.6m chan; pebbly grvl base / local fine deposits.	
AC-41	606877	5579915	0.4	5	60	0.1	5.5	0.3	84	0.03	17.1		Mafic volc sm pc rhyolite w/Qz str.	Br from SSE. Sand/grvl base- chnl 5-1m wide- trickler.	
AC41-1	606960	5579449	0.3	5.3	49	0.1	5.9	0.4	81	0.05	10.4		Angular dk volc cobbles & bidrs (contrast w/ md till cobbles dnstre	Trickle in rocky 1m chan; sand-silt only in local traps.	
AC-42	607189	5581202	0.3	4.5	63	0.1	4.9	0.3	84	0.03	65.7		Mafic volc some rhyolite.	Main ck. Sand/grvl base- chnl 3-4m wide- gentle flow.	
AC-43	607172	5581260	0.6	4.6	58	0.1	7.1	0.4	63	0.03	40.1		Mafic volc sm pc QzBx & 1pc pyroc.	Br from W. Sand/grvl base sm cobbles- chnl 75-1.25m wide- gentle flow.	
AC43-1	606298	5580909	0.5	4.7	63	0.1	4.6	0.2	89	0.03	1.6		Abund mafic volc ang cobbles; o/c slightly u/s.	E Br; local grvl base; trickle in stony cobby chnl 0.5m wide.	
AC43-2	606264	5580931	0.6	5.2	54	0.1	6.5	0.2	63	0.05	82.7		Blocky mafic volc talus; o/c immed u/s.	W Br; grvl base; trickle in rocky chnl 0.5-1m wide; partial moss-mat.	
AC43-3	606565	5581195	0.6	5.4	55	0.2	8	0.3	58	0.05	49.1		Dom mafic volc float.	Main; sand/grvl/cobble base; mod flow in 1-1.5m chan.	
AC-45	606211	5578786	0.3	4.7	48	0.2	16	0.7	127	0.17	4.5		Dom mafic volc- incl maroon Ba cobbles.	Trickle in chnl <0.5-0.75m wide; some silt-sand-gravl atop org mat; mod org	
AC-46	606254	5579312	0.5	4.8	42	0.2	4.8	0.2	84	0.09	-0.5		Mafic volc cobbles.	Dry chnl 0.3-0.5m wide; silt-sand-gravl mixed w/ orgs; Essentially an A-horiz	
AC-47	606429	5579664	0.6	4.2	62	0.1	3.9	0.2	68	0.04	11.6		Mafic volc cobbles.	Dry chnl 0.5-0.8m wide; sand-gravl-cobble base; Good quality clean silt.	
AC-48	606953	5580428	0.4	4.9	58	0.1	5.7	0.3	86	0.04	1.7		Subang mafic volc bidrs & cobbles.	Main; mod-sl flow in 3m chan w/ gravel-cobble base; abund bars & jams w/	
AC-49	606946	5580471	0.7	6.6	53	0.2	5.6	0.4	73	0.09	1.1		Subang mafic volc cobbles.	Side; dry gully w/ 0.3m chan loc'ly cut thru org mat; minimal transp'd sed's -	
AC-50	607110	5580827	0.4	5.1	59	0.1	5	0.3	78	0.03	4.7		Dom mafic volcs- but some rusty-orgng (rhyolite) float.	Main; bouldery 3m chan; good clean silt/sand from multiple bars.	
AC-51	607049	5580905	0.6	4.1	48	0.2	4.8	0.6	66	0.07	3.6		Dom mafic volc cobbles.	Side; dry veg-choked chnl; silt-sand w/ organics.	
AC-52	605010	5581235	0.7	5.1	61	0.1	7.8	0.4	100	0.06	6.8		Rnd'd till cobbles & subang dk volc; chloritic mafic pyroc o/c.	Main; sl/mod flow in 0.5m chan w/ grvl-cobble base; minor disturbance in ch	
AC-53	604912	5581355	0.5	4.5	50	0.1	6.8	0.5	242	0.16	1.4		Mostly mafic volc float.	Side br not on map; sl flow in 0.4m brushy chan w/ loc'ly good gravelly base	
AC-54	604500	5581650	0.5	4.7	52	0.1	6.8	0.2	145	0.04	8.7		Mostly mafic volc pebbles & cobbles- incl brick-red.	Side br S of IR; trickle in 1m chan w/ sand-gravel base.	
AC-55	603900	5579550	0.4	5.4	55	0.2	5	0.3	93	0.05	1.8		Dk gry Ba-Ad o/c on banks.	Rocky 1-1.25m chan; silt/ sand w/ inor organics from banks.	
AC-56a	603920	5579870	0.3	4.8	53	0.1	3.5	0.2	100	0.03	1.2		Dom mafic volc float; some greenish Ad & brick-red Ba.	Bouldery 1.5m chan /w mod flow; sand/grvl base.	
AC-56b	603920	5579870	0.3	5.1	57	0.1	3.7	0.2	104	0.03	2		Dom mafic volc float; some greenish Ad & brick-red Ba.	Bouldery 1.5m chan /w mod flow; sand/grvl base.	
AC-57	603745	5580480	0.2	4.5	45	0.1	12.8	0.1	109	0.02	0.8		Mafic volc & FP pebbles.	Trickle in <0.5-0.8m chan; sand/grvl atop lt brn clayey B-horiz soil; clean fin	



GEOCHEMICAL ANALYSIS CERTIFICATE



Almaden Minerals Ltd. PROJECT BCR03-4 File # A303133 Page 1

1103 - 750 W. Pender St., Vancouver BC V6C 2T8 Submitted by: Ed Balon

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Tl	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	
G-1	2.8	3.3	2.9	43	<.1	4.9	4.2	589	2.03	<.5	1.8	<.5	4.2	102	<.1	<.1	.4	43	.68	.079	12	20.3	.59	265	.148	<.1	1.15	.133	.53	5.3	.01	2.8	.3	<.05	5	<.5
AC-29	.5	44.9	4.3	55	.3	41.5	13.4	645	3.20	3.3	.7	4.5	1.2	98	.2	.2	.1	78	1.10	.044	14	46.5	.92	95	.168	2	3.14	.032	.07	.1	.06	9.8	<.1	<.05	8	.5
AC-30	.8	61.2	8.9	110	.2	63.0	25.2	1848	5.63	8.6	1.0	10.6	1.7	237	<.1	.5	.1	177	2.60	.107	19	71.2	1.78	128	.391	7	4.10	.084	.13	.1	.11	12.0	.1	<.05	13	.7
AC-31	.5	31.7	4.1	56	.1	30.4	13.4	551	3.13	4.9	.6	19.0	1.1	143	.1	.3	.1	95	1.45	.071	11	36.3	.92	69	.245	1	2.37	.049	.07	.1	.02	6.4	<.1	<.05	7	.5
AC-32	.5	28.8	4.5	52	.1	22.5	11.7	560	2.99	4.1	.4	4.1	.9	93	.1	.4	.1	88	1.04	.057	10	30.6	.77	84	.218	2	1.89	.028	.06	.1	.02	5.5	<.1	<.05	6	<.5
AC-33	.4	45.6	4.8	52	.2	27.6	13.3	647	3.12	5.3	.7	3.5	1.0	102	.1	.4	.1	83	1.44	.063	14	35.3	.97	88	.200	2	2.56	.033	.07	.1	.04	6.8	<.1	<.05	7	<.5
STANDARD DS5	12.3	145.3	23.5	130	.3	24.9	12.3	762	2.95	17.5	5.7	42.0	2.7	51	5.5	3.7	6.0	59	.76	.092	13	181.2	.68	134	.104	16	2.11	.036	.14	5.0	.18	3.6	1.0	<.05	7	4.9

GROUP 1DX - 30.0 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP-MS.
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.
- SAMPLE TYPE: STREAM SED. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 5 2003 DATE REPORT MAILED: Aug 22/03 SIGNED BY: C. L. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Date FA



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	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	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm
G-1	2.4	4.1	2.8	47	<.1	5.4	4.8	630	2.23	.6	2.1	.5	4.3	102	<.1	.1	.4	40	.72	.086	12	22.9	.61	269	.153	1	1.22	.134	.56	5.6	<.01	3.1	.3	<.05	6	<.5
AC-34	.3	33.7	4.0	47	.2	27.0	11.1	629	2.51	4.2	.6	4.7	.7	105	.2	.3	.2	62	1.62	.051	10	34.1	.81	79	.157	3	2.23	.034	.05	.1	.05	5.6	<.1	<.05	7	.6
AC-35	.6	30.7	5.3	61	.1	41.8	15.1	1192	2.74	5.4	.8	2.6	.5	253	.2	.2	.1	75	2.06	.087	10	34.3	1.15	113	.196	4	2.57	.064	.06	.1	.16	5.7	<.1	<.05	7	2.0
AC-36	.5	27.6	4.5	106	.1	35.9	14.8	833	3.17	7.2	.6	2.5	1.0	178	.1	.3	.1	85	1.42	.084	12	40.0	.94	111	.230	2	2.60	.052	.06	.1	.04	6.8	<.1	<.05	7	.6
AC-37	.5	33.0	4.8	61	.2	43.0	14.9	544	3.22	8.2	.8	24.9	.8	155	.1	.3	.1	88	1.54	.080	13	44.1	1.04	111	.205	2	2.98	.058	.07	.1	.05	7.9	<.1	<.05	8	<.5
AC-38	.3	34.5	4.7	59	.1	40.7	15.1	511	3.26	5.1	.9	3.1	.8	202	.1	.2	.1	87	1.64	.069	13	41.3	1.08	140	.229	3	3.04	.051	.07	.1	.05	7.7	<.1	<.05	8	.7
AC-39	.6	31.2	4.8	84	.1	35.2	14.3	612	3.36	5.4	.6	2.9	1.0	169	.1	.3	.1	97	1.41	.081	12	44.9	.98	96	.220	1	2.56	.052	.07	.1	.04	6.7	<.1	<.05	7	.9
AC-40	.3	37.8	4.3	57	.2	40.9	15.0	502	3.22	3.4	.8	78.2	.9	116	.1	.2	.1	90	1.19	.051	10	47.0	1.04	76	.202	3	2.95	.052	.06	.1	.05	7.4	<.1	<.05	8	.5
AC-41	.4	34.4	5.0	60	.1	30.4	14.6	639	3.29	5.5	.9	17.1	1.0	130	.1	.3	.1	95	1.52	.076	13	37.5	.94	84	.249	2	2.70	.041	.07	.1	.03	6.9	<.1	<.05	8	<.5
RE AC-41	.5	35.2	5.1	61	.1	33.9	14.8	670	3.42	5.6	.8	8.0	1.0	135	.1	.2	.1	100	1.61	.078	13	38.5	.97	89	.265	3	2.76	.045	.07	.1	.04	7.1	<.1	<.05	8	.5
AC-42	.3	33.5	4.5	63	.1	31.7	14.9	626	3.30	4.9	.6	65.7	1.2	152	.1	.3	.1	96	1.46	.073	12	39.3	.96	84	.257	5	2.63	.047	.07	.1	.03	6.9	<.1	<.05	8	.5
AC-43	.6	32.6	4.6	58	.1	31.1	13.7	550	3.21	7.1	.5	40.1	.8	124	.1	.4	.1	95	1.27	.061	10	41.3	.91	63	.195	4	2.04	.045	.06	.1	.03	5.9	<.1	<.05	7	.7
STANDARD	12.4	137.5	24.0	136	.3	23.1	11.7	746	2.86	17.6	5.8	40.0	2.6	51	5.4	3.5	6.0	58	.75	.091	13	179.9	.65	136	.105	17	2.07	.035	.14	4.9	.19	3.6	1.1	<.05	7	5.0

Standard is STANDARD DS5. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



GEOCHEMICAL ANALYSIS CERTIFICATE

Almaden Minerals Ltd. PROJECT BCR03-4 File # A303135

1103 - 750 W. Pender St., Vancouver BC V6C 2T8 Submitted by: Ed Balon

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Sample
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	gm	
S1	.5	3.3	1.0	17	<.1	1.8	.2	4	.07	1.3	<.1	<.5	<.1	2	.1	.2	<.1	<.1	.07	<.001	<.1	3.1	.02	3	.002	1	.01	.358	<.01	.1	.01	.1	<.1	.07	<.1	<.5	-
AC-R4	1.5	32.9	5.0	65	.1	11.2	13.4	844	3.54	5.6	.3	1.1	1.3	53	.1	.3	<.1	94	3.42	.123	17	17.6	.41	17	.017	3	.68	.033	.04	.2	.01	10.9	<.1	.16	3	<.5	1100
AC-R5	8.1	6.5	10.7	32	.2	2.0	1.3	193	1.51	10.6	.3	8.3	.8	27	.1	.9	<.1	11	.22	.037	12	3.8	.15	30	.128	1	.37	.050	.07	.5	.04	2.4	<.1	.64	3	<.5	800
AC-R6	2.2	6.2	6.8	9	.1	3.5	1.3	68	.55	5.5	.1	91.0	.5	6	<.1	.2	.1	5	.05	.005	7	10.5	.03	26	.004	1	.24	.007	.13	1.1	.02	.3	<.1	.06	1	<.5	1400
AC-R7	.9	6.6	3.0	7	.7	2.9	1.3	77	.45	2.8	.1	1299.6	.3	4	<.1	.3	<.1	3	.02	.005	4	8.9	.02	13	.007	1	.15	.006	.07	.8	.03	.3	<.1	.06	1	<.5	2800
STANDARD DS5	12.4	145.5	24.0	137	.3	24.3	11.8	748	2.87	18.4	6.1	42.0	2.6	48	5.9	3.6	6.0	59	.72	.092	12	189.0	.66	138	.095	16	2.04	.035	.14	4.7	.17	3.5	1.1	<.05	6	4.9	-

GROUP 1DX - 30.0 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP-MS.
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.
- SAMPLE TYPE: ROCK R150 60C

DATE RECEIVED: AUG 5 2003 DATE REPORT MAILED: *Aug 23/03* SIGNED BY: *CP* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

GEOCHEMICAL ANALYSIS CERTIFICATE

Almaden Minerals Ltd. PROJECT BCR03-7 File # A305188

1103 - 750 W. Pender St., Vancouver BC V6C 2T8 Submitted by: Ed Balon



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Sample
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	gm
AC32-1	.6	33.1	4.6	49	.1	27.1	12.7	636	2.89	4.6	.4	2.7	1.1	103	.1	.3	.1	71	1.35	.076	12	31.6	.93	109	.177	2	2.13	.025	.09	.1	.03	5.3	<.1	<.05	8	.7	30.0
AC32-2	.6	37.0	4.4	41	.2	24.5	9.8	388	2.25	5.5	1.0	17.5	.4	94	.1	.5	.1	63	1.92	.064	11	31.9	.87	101	.142	4	1.64	.019	.03	.1	.05	4.6	<.1	.13	6	1.9	15.0
AC37-1	.4	31.3	4.3	56	.2	45.0	14.6	924	2.95	4.4	.9	1.2	.9	133	.1	.2	.1	81	1.37	.069	15	39.4	1.13	101	.168	<1	2.35	.049	.05	.1	.04	6.9	<.1	.07	7	.6	15.0
AC37-2	.4	31.0	4.7	58	.2	47.0	15.0	558	3.22	4.1	.8	1.1	.9	175	.1	.2	.1	95	1.44	.061	11	41.9	1.21	120	.223	4	2.68	.048	.07	.1	.04	6.7	<.1	<.05	8	<.5	30.0
AC40-1	.4	36.0	4.9	48	.2	40.2	13.6	671	2.97	4.3	.8	<.5	1.0	113	.2	.2	.1	85	1.42	.057	13	41.2	1.11	94	.146	2	2.65	.042	.06	.1	.06	8.0	<.1	<.05	8	.6	15.0
AC40-2	.3	33.8	4.5	55	.2	44.2	13.8	577	2.99	3.4	1.0	4.5	.8	120	.2	.2	.1	81	1.32	.059	12	42.8	1.14	88	.163	<1	2.59	.048	.06	<.1	.06	7.5	<.1	.06	7	<.5	15.0
AC41-1	.3	33.1	5.3	49	.1	27.7	12.2	632	2.94	5.9	.8	10.4	.9	130	.2	.4	.1	81	1.67	.072	17	29.5	.99	81	.182	2	2.45	.031	.06	.1	.05	7.1	<.1	<.05	8	.6	15.0
AC43-1	.5	41.8	4.7	63	.1	58.7	18.6	624	3.69	4.6	.8	1.6	.9	135	.1	.2	.1	111	1.47	.062	11	43.4	1.49	69	.160	2	2.61	.064	.07	<.1	.03	6.3	<.1	<.05	8	.8	30.0
AC43-2	.6	36.3	5.2	54	.1	35.0	14.1	688	3.10	6.5	.6	82.7	.9	123	.1	.2	.1	91	1.56	.072	13	38.7	1.01	63	.171	3	1.99	.042	.06	<.1	.05	6.4	<.1	<.05	7	.8	15.0
AC43-3	.6	37.7	5.4	55	.2	37.8	15.4	743	3.13	8.0	.6	49.1	.9	125	.1	.3	<.1	84	1.56	.080	14	33.5	1.13	58	.109	2	2.11	.040	.07	<.1	.05	6.0	<.1	.06	7	1.0	15.0
RE AC43-3	.6	37.4	5.4	52	.2	35.1	14.5	724	3.05	8.2	.6	13.1	.8	123	.1	.3	.1	81	1.49	.074	14	33.8	1.10	54	.110	5	2.03	.040	.07	<.1	.08	5.7	<.1	<.05	7	.9	15.0
AC-45	.3	31.4	4.7	48	.2	30.1	12.6	750	2.62	16.0	.7	4.5	.5	133	.1	.7	.1	67	1.51	.079	14	26.5	.84	127	.067	1	2.29	.030	.05	<.1	.17	5.6	.1	.07	7	.5	15.0
AC-46	.5	34.3	4.8	42	.2	35.6	10.6	403	2.49	4.8	1.1	<.5	.8	110	.1	.2	.1	71	1.41	.059	13	35.4	.88	84	.139	2	2.48	.042	.05	.1	.09	6.0	<.1	<.05	7	.6	15.0
AC-47	.6	32.0	4.2	62	.1	38.2	13.5	550	3.38	3.9	.6	11.6	1.1	142	.1	.2	.1	102	1.40	.071	12	41.3	1.10	68	.211	2	2.20	.056	.06	.1	.04	6.3	<.1	<.05	7	<.5	30.0
AC-48	.4	31.9	4.9	68	.1	35.7	15.0	676	3.41	5.7	.7	1.7	1.2	155	.1	.3	.1	97	1.52	.080	13	36.6	1.09	86	.255	1	2.58	.036	.08	.1	.04	7.1	<.1	<.05	8	<.5	30.0
AC-49	.7	61.2	6.6	53	.2	38.6	14.7	697	3.35	5.6	1.0	1.1	1.2	160	.2	.4	<.1	84	2.34	.068	19	40.3	1.10	73	.143	8	2.94	.041	.08	.1	.09	7.8	<.1	.06	9	.8	7.5
AC-50	.4	28.5	5.1	59	.1	32.0	14.2	605	3.35	5.0	.6	4.7	1.2	148	.1	.3	.1	96	1.40	.072	12	35.1	1.04	78	.256	1	2.40	.039	.07	<.1	.03	6.5	<.1	<.05	7	<.5	30.0
AC-51	.6	54.3	4.1	48	.2	25.4	11.7	599	2.75	4.8	1.0	3.6	.7	131	.1	.6	.1	73	1.71	.056	12	30.4	.90	66	.149	8	2.27	.037	.06	<.1	.07	5.7	<.1	.06	7	1.2	15.0
STANDARD DS5	12.5	136.3	25.5	131	.3	24.2	11.9	789	3.01	19.2	5.8	43.0	2.6	47	5.3	3.8	6.0	59	.72	.088	12	181.7	.65	137	.097	16	2.00	.032	.13	5.0	.18	3.3	1.1	<.05	6	5.0	30.0

GROUP 1DX - 30.0 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP-MS.
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.
- SAMPLE TYPE: STREAM SED. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: OCT 23 2003 DATE REPORT MAILED: *Oct 28/03* SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



GEOCHEMICAL ANALYSIS CERTIFICATE



Almaden Minerals Ltd. PROJECT BCR03-7 File # A305189

1103 - 750 W. Pender St., Vancouver BC V6C 2T8 Submitted by: Ed Balon

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	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 %	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
SI	.1	.6	.3	1	<.1	.3	.1	6	.09	.5	<.1	<.5	<.1	3	<.1	<.1	<.1	<.1	.12	<.001	<.1	1.5	<.01	3	.001	1	.01	.497	.01	<.1	<.01	.1	<.1	<.05	<.1	<.5	-
AC-R9	4.6	4.4	4.0	10	.3	1.8	.6	91	.73	30.5	.2	6.8	.6	10	<.1	.4	<.1	12	.05	.026	9	12.4	.08	18	.003	1	.24	.016	.08	.9	.10	.7	<.1	<.05	1	<.5	400
AC-R10	1.6	5.0	2.5	4	.6	1.2	.5	31	.36	7.5	.2	1119.6	.7	20	<.1	.2	.2	3	.08	.027	7	13.1	.02	37	<.001	3	.18	.014	.08	.2	.05	.2	<.1	<.05	<.1	<.5	1700
AC-R11	6.3	1.4	1.3	5	3.6	1.6	.3	41	.30	5.6	.1	8678.1	<.1	3	<.1	.3	<.1	2	.03	.003	2	16.5	.01	51	.002	2	.10	.002	.07	1.5	.16	.2	<.1	<.05	<.1	<.5	500
AC-R12	.8	2.2	3.1	3	.2	.9	.2	24	.44	7.1	.2	190.0	1.4	8	<.1	.1	.2	4	.04	.006	11	7.5	.01	31	<.001	3	.21	.006	.11	.1	.02	.3	<.1	<.05	<.1	<.5	800
AC-R13	1.1	19.5	3.1	44	1.8	20.5	14.6	403	3.48	291.8	.5	338.3	.6	24	.1	1.8	.1	74	.86	.105	7	48.9	1.14	11	.396	3	1.54	.015	.07	1.4	.04	9.3	<.1	.43	8	2.2	1900
AC-R14	.3	3.5	2.1	6	.5	1.0	.3	22	.36	3.4	.1	553.7	.4	4	<.1	.1	<.1	2	.02	.004	6	13.6	.01	17	.001	2	.15	.003	.09	.2	.05	.2	<.1	<.05	<.1	<.5	1700
AC-R15	.9	5.4	4.0	16	1.1	2.2	1.4	138	.70	10.2	.2	2159.7	.7	6	<.1	.2	.1	11	.04	.012	13	10.5	.04	20	.004	1	.32	.018	.13	.5	.06	.5	<.1	<.05	1	<.5	1500
AC-R16	.7	7.4	1.8	4	.5	2.4	2.5	84	.58	13.9	<.1	1213.7	.1	8	<.1	.3	.2	10	.05	.008	4	15.9	.03	12	.001	2	.19	.004	.08	.2	.03	.5	<.1	<.05	1	<.5	1700
AC-R17	1.3	22.0	1.7	10	.2	4.4	4.6	92	.87	4.3	.1	357.9	.2	9	<.1	.4	.4	17	.25	.031	3	11.5	.06	7	.002	1	.56	.015	.10	.7	.01	1.1	<.1	<.05	1	<.5	2100
AC-R18	.4	14.3	1.2	10	.2	2.7	3.3	128	.79	4.3	.1	464.6	.4	12	<.1	.5	.2	14	.30	.037	4	9.3	.10	7	.008	3	.64	.017	.12	.2	.02	1.4	.1	<.05	2	<.5	1600
RE AC-R18	.3	13.8	1.1	10	.2	2.4	3.4	126	.78	3.8	.1	406.1	.4	13	<.1	.5	.2	13	.30	.038	4	9.3	.10	7	.006	2	.63	.017	.11	.2	.02	1.3	.1	<.05	1	<.5	-
AC-R19	1.2	20.0	1.0	10	.3	3.7	2.9	101	.73	4.3	.1	607.1	.3	12	<.1	.4	.2	17	.25	.051	3	15.9	.10	7	.009	1	.48	.011	.10	.9	.01	1.4	<.1	<.05	2	<.5	2400
AC-R20	.6	8.4	.8	12	.2	3.4	2.9	232	.76	13.3	.1	455.2	.2	5	.1	.3	<.1	8	.12	.022	4	13.4	.15	24	.002	2	.39	.002	.10	.2	.01	.6	<.1	<.05	1	<.5	1600
STANDARD DS5	12.7	145.3	26.7	135	.3	25.2	12.6	745	2.92	19.0	6.1	43.7	2.6	46	5.7	4.0	6.4	57	.72	.089	12	179.8	.66	135	.090	22	2.00	.032	.13	4.8	.18	3.3	1.1	<.05	6	5.0	-

GROUP 1DX - 30.0 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP-MS.
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.
- SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: OCT 23 2003

DATE REPORT MAILED: *Oct 28/03*

SIGNED BY: *CH* D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

ASSAY CERTIFICATE



Almaden Minerals Ltd. PROJECT SAM File # A305189R
1103 - 750 W. Pender St., Vancouver BC V6C 2T8 Submitted by: Ed Balon

SAMPLE#	Ag** gm/mt	Au** gm/mt
SI	<2	.01
AC-R10	<2	1.60
AC-R11	4.2	8.45
AC-R15	<2	2.24
AC-R16	<2	.98
AC-R19	<2	.73
AC-R22	5.2	.48
STANDARD GC-2/AU-1	1064.0	3.38

GROUP 6 - PRECIOUS METALS BY FIRE ASSAY FROM 1 A.T. SAMPLE, ANALYSIS BY ICP-ES.
- SAMPLE TYPE: ROCK REJ.

DATE RECEIVED: DEC 4 2003

DATE REPORT MAILED: Dec 9/03

SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



GEOCHEMICAL ANALYSIS CERTIFICATE



Almaden Minerals Ltd. PROJECT BCR03-8 File # A305275

1103 - 750 W. Pender St., Vancouver BC V6C 2T8 Submitted by: Ed Balon

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	% ppm	% ppm	% ppm	%	%	%	% ppm	ppm	ppm	ppm	ppm	% ppm	ppm	ppm
G-1	1.5	3.1	2.3	48	<.1	5.1	4.5	571	2.05	<.5	2.0	<.5	4.8	88	<.1	<.1	.1	44	.62	.074	10	15.8	.57	234	.143	1	.93	.095	.50	2.3	<.01	2.5	.3	<.05	5	<.5
AC30-1	1.0	39.0	5.7	64	.1	35.3	17.1	880	3.42	6.5	.6	30.8	1.3	90	.1	.3	.1	97	1.17	.070	16	41.9	1.02	87	.196	2	2.36	.028	.09	.1	.04	8.1	<.1	<.05	8	<.5
AC-32d	.4	37.4	4.4	52	.2	23.4	11.6	523	2.59	4.5	.6	3.8	.7	91	.1	.4	<.1	76	1.66	.066	11	30.7	.89	93	.177	4	1.87	.024	.06	.1	.04	4.5	<.1	.08	6	1.0
AC-52	.7	40.0	5.1	61	.1	36.8	17.1	877	3.49	7.8	.7	6.8	1.3	147	.1	.4	.1	105	1.46	.098	16	39.6	1.20	100	.195	3	2.52	.044	.08	.1	.06	8.1	<.1	<.05	8	<.5
AC-53	.5	50.4	4.5	50	.1	33.1	14.2	1561	2.88	6.6	.6	1.4	.8	126	.2	.5	.1	83	1.61	.067	14	34.6	.95	242	.141	6	1.96	.036	.05	.1	.16	6.0	<.1	<.05	6	.8
AC-54	.5	33.2	4.7	52	.1	41.2	14.8	626	2.98	6.8	.7	8.7	1.1	115	.1	.2	.1	81	1.10	.065	15	43.9	.92	145	.137	2	2.09	.038	.06	<.1	.04	6.5	<.1	<.05	7	<.5
AC-55	.4	40.8	5.4	55	.2	49.8	13.4	430	2.43	5.0	2.0	1.8	1.1	117	.1	.3	.1	75	1.17	.056	11	62.9	1.13	93	.111	5	1.56	.055	.08	.1	.05	5.7	<.1	<.05	5	.5
AC-56a	.3	37.2	4.8	53	.1	53.7	15.5	476	2.46	3.5	.6	1.2	1.3	106	.1	.2	.1	69	.93	.055	10	70.2	1.45	100	.095	4	1.61	.055	.09	<.1	.03	5.1	<.1	<.05	5	.5
AC-56b	.3	40.3	5.1	57	.1	62.5	18.1	596	2.73	3.7	.6	2.0	1.4	108	.1	.2	.1	78	.99	.057	10	74.9	1.47	104	.099	4	1.64	.057	.11	<.1	.03	5.4	<.1	<.05	5	.5
RE AC-57	.2	22.7	4.8	47	.1	20.1	10.2	486	1.62	13.5	1.1	.7	1.2	81	.1	.2	.1	58	.56	.025	7	30.4	.50	113	.061	3	1.28	.049	.06	<.1	.02	3.7	.1	<.05	4	<.5
AC-57	.2	21.6	4.5	45	.1	19.0	9.4	448	1.50	12.8	1.0	.8	1.0	73	<.1	.1	.1	52	.54	.025	6	28.3	.45	109	.053	1	1.12	.045	.06	<.1	.02	3.7	.1	<.05	4	<.5
AC-58	.3	48.9	4.7	54	.3	54.2	14.5	509	2.40	6.7	1.9	1.4	1.1	107	.1	.2	.1	71	.93	.048	15	73.3	1.08	97	.088	3	1.99	.055	.07	<.1	.05	7.5	<.1	<.05	5	.5
STANDARD	12.4	146.5	24.8	139	.3	24.1	12.6	771	2.85	17.6	6.2	43.6	2.7	45	5.7	3.8	6.4	61	.75	.089	13	191.2	.69	131	.095	17	2.03	.034	.14	4.9	.18	3.5	1.1	<.05	6	4.6

Standard is STANDARD DS5.

GROUP 1DX - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP-MS.

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.

- SAMPLE TYPE: STREAM SED. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: OCT 27 2003

DATE REPORT MAILED: *Nov 6/03*

SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



GEOCHEMICAL ANALYSIS CERTIFICATE



Almaden Minerals Ltd. PROJECT BCR03-8 File # A305276

1103 - 750 W. Pender St., Vancouver BC V6C 2T8 Submitted by: Ed Balon

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	
G-1	1.5	2.8	2.4	44	<.1	4.9	4.2	561	2.00	.5	1.9	1.1	4.6	88	<.1	<.1	.1	39	.58	.078	10	14.5	.53	234	.134	1	1.01	.092	.46	2.9	<.01	2.5	.3	<.05	5	<.5
AC-S2	.7	32.5	5.0	56	.1	25.4	12.9	558	3.36	6.5	.6	17.6	1.3	107	.1	.4	.1	89	1.04	.076	13	34.2	.88	93	.245	3	2.72	.022	.10	.1	.03	7.7	<.1	<.05	8	.5
AC-S3	.5	31.3	4.7	60	.1	25.1	11.6	458	3.12	5.5	.5	2.9	1.3	91	.1	.3	.1	82	.89	.068	11	29.7	.78	82	.216	1	2.36	.020	.09	.1	.02	6.6	<.1	<.05	7	<.5
AC-S4	.6	42.5	5.0	59	.1	29.3	15.7	753	3.49	8.3	.5	57.1	1.4	124	.1	.4	.1	86	1.30	.088	14	33.6	1.07	87	.221	2	2.99	.038	.08	.1	.03	7.7	<.1	<.05	9	<.5
AC-S5	.5	36.5	5.0	64	.1	29.4	14.5	742	3.19	7.5	.5	11.3	1.4	108	.1	.4	.1	83	1.20	.083	14	34.8	.96	87	.228	2	2.94	.026	.09	.1	.03	7.7	<.1	<.05	8	<.5
AC-S6	.6	38.4	4.5	58	.1	30.9	15.0	658	3.39	6.8	.5	4.2	1.4	115	.1	.3	.1	86	1.24	.082	14	35.8	.98	82	.248	2	2.85	.024	.10	.1	.02	7.8	<.1	<.05	9	<.5
AC-S7	.5	41.6	6.0	62	.1	27.2	15.6	817	3.34	10.2	.6	20.2	1.5	87	.1	.4	.1	80	.90	.074	15	31.2	.93	79	.198	<1	2.60	.016	.11	.1	.02	7.0	<.1	<.05	8	<.5
AC-S8	.6	51.5	4.2	58	.1	36.1	16.8	682	3.59	6.0	.6	3.9	1.6	143	.1	.3	<.1	90	1.54	.084	15	41.8	1.13	82	.277	<1	3.55	.027	.10	<.1	.01	10.6	<.1	<.05	10	<.5
AC-S9	.5	54.1	4.3	58	.1	49.5	18.8	674	3.94	4.8	.7	3.0	1.7	154	.1	.2	.1	93	1.65	.084	16	44.5	1.38	81	.323	<1	3.85	.025	.12	.1	.02	12.1	<.1	<.05	11	<.5
AC-S10	.4	22.2	4.2	66	.1	23.8	9.0	312	2.33	3.1	.4	2.4	1.2	49	.1	.2	.1	57	.41	.043	7	28.6	.64	73	.140	3	1.91	.017	.08	<.1	.03	4.1	<.1	<.05	6	<.5
AC-S11	.5	59.5	3.9	51	.4	19.0	15.2	414	3.35	11.0	.4	322.7	1.0	81	.1	.9	.4	77	1.22	.082	11	22.3	.81	38	.101	<1	3.04	.058	.17	.1	.03	5.8	.1	<.05	8	.6
AC-S12	.8	74.2	3.3	72	.5	27.0	19.9	526	4.06	10.2	.3	159.4	.9	172	.1	.3	.1	73	.85	.094	9	32.6	1.00	83	.234	<1	3.24	.023	.20	.1	.02	6.9	.1	<.05	10	.8
RE AC-S12	.8	77.2	3.4	74	.5	28.1	21.1	545	4.27	10.7	.3	40.3	.9	176	.1	.3	.1	74	.85	.099	10	32.8	1.01	84	.234	1	3.29	.023	.19	.1	.02	6.9	.1	<.05	11	.9
AC-S13	.5	55.1	3.5	72	.1	70.2	27.6	1266	4.61	7.0	.6	<.5	1.0	190	.1	<.1	<.1	93	1.04	.110	20	60.3	.73	51	.118	2	2.55	.039	.04	<.1	.04	14.3	.1	<.05	6	<.5
AC-S13A	.5	47.5	3.7	65	.1	60.4	26.8	869	4.31	5.5	.3	1.0	1.3	189	.1	.1	<.1	84	1.49	.114	16	62.5	1.40	82	.034	<1	4.20	.058	.08	<.1	.05	11.8	.1	<.05	9	<.5
AC-S14	.6	60.8	4.3	53	<.1	66.9	20.7	930	4.54	37.9	.9	4.9	1.6	163	.1	.2	<.1	78	.74	.113	18	54.8	.62	150	.009	<1	2.40	.030	.05	<.1	.11	12.3	.1	<.05	6	<.5
STANDARD DS5	12.6	137.1	24.1	135	.3	24.6	11.8	769	2.98	18.8	5.8	43.7	2.6	50	5.3	3.9	5.9	58	.71	.089	12	181.7	.68	142	.096	16	2.10	.032	.13	4.8	.17	3.4	1.0	<.05	7	5.0

GROUP 1DX - 15.0 GM SAMPLE LEACHED WITH 90 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 300 ML, ANALYSED BY ICP-MS.
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.
- SAMPLE TYPE: SOIL SS80 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: OCT 27 2003 DATE REPORT MAILED: Nov 7/03 SIGNED BY: *[Signature]* TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



GEOCHEMICAL ANALYSIS CERTIFICATE



Almaden Minerals Ltd. PROJECT BCR03-8 File # A305277
1103 - 750 W. Pender St., Vancouver BC V6C 2T8 Submitted by: Ed Balon

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	
SI	.1	1.3	.4	1	<.1	.2	<.1	<.1	.08	.8	<.1	<.5	<.1	2	<.1	<.1	<.1	<.1	.08	<.001	<.1	<.1	<.01	6	<.001	2	.01	.351	<.01	<.1	<.01	.2	<.1	<.05	<.1	<.5
AC-R21	5.4	46.2	5.5	12	.3	1.8	1.0	94	1.28	32.6	.3	11.3	.5	15	<.1	1.3	<.1	17	.05	.024	11	13.1	.13	39	.004	1	.36	.034	.12	.9	.19	1.0	<.1	.12	2	<.5
AC-R22	146.7	20.3	4.9	10	4.8	1.8	3.4	29	1.89	370.0	4.9	425.0	.7	31	.2	15.4	<.1	10	.77	.363	6	9.4	.02	36	<.001	<.1	.24	.009	.14	.4	1.48	.6	1.5	1.22	1	1.2
AC-R23	10.8	15.8	2.8	13	.3	7.4	5.1	352	1.05	29.7	.1	45.1	.2	15	<.1	.4	.1	1	.19	.025	2	16.0	.11	27	<.001	1	.38	.002	.08	1.9	.04	.5	.1	.23	<.1	<.5
AC-R24	453.1	6.7	18.7	7	1.7	1.6	.7	38	1.02	18.0	.1	28.6	.1	6	<.1	1.0	.1	5	.04	.016	5	8.8	.04	19	<.001	3	.22	.004	.10	.1	.02	.3	.1	<.05	1	<.5
AC-R25	4.8	8.7	.7	10	<.1	3.9	.3	27	.48	4.9	1.2	6.9	.4	2	<.1	.7	<.1	12	.04	.017	25	39.3	<.01	16	.002	<.1	.02	.001	.01	3.5	.01	.2	<.1	<.05	<.1	<.5
AC-R26	5.9	18.7	2.8	14	.3	3.0	2.1	112	1.18	114.3	.1	4.2	.3	6	.1	7.8	<.1	14	.04	.021	4	12.0	.10	24	<.001	<.1	.24	.002	.08	.1	.32	.5	.1	.08	2	<.5
STANDARD DS5	12.2	146.6	25.4	141	.3	24.7	11.9	738	2.95	19.5	5.8	44.0	2.6	49	5.6	3.6	6.1	58	.73	.088	11	174.1	.65	136	.097	17	1.98	.031	.13	4.7	.18	3.5	1.0	.06	7	5.0

GROUP 1DX - 30.0 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP-MS.
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.
- SAMPLE TYPE: ROCK R150 60C

DATE RECEIVED: OCT 27 2003 DATE REPORT MAILED: *Nov 7/03* SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

APPENDIX B
SAM AREA 2004 RECON GEOCHEMICAL SAMPLE SUMMARY
ACME ANALYTICAL 2004GEOCHEMICAL & ASSAY CERTIFICATES

SAM AREA 2004 RECON GEOCHEMICAL SAMPLE SUMMARY													Assay	Rock Type	Note	Sample Typ.	Project	Ship No.
Sample Number	Easting	Northing	Mo ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Sb ppm	Ba ppm	Hg ppm	Au ppb	Au ppb						
Stream Sediment Samples																		
AC34-1	607489	5580207	0.3	4.8	40	0.1	5.6	0.4	64	0.04	18.1		Ad/Ba float pebbles.	0.4m chnl. Intermit gentle flow. 1-2cm active seds atop org mat.	Strm Sed	SAM	SAM04-2	
AC35-1	606439	5578315	0.4	5.3	56	0.2	6.6	0.3	99	0.08	3.2		Dom Ad/Ba float w/some porph volcs & mafic pyrox	Irreg chnl <0.3-0.75m. Sand/grvl base. Stagnant pools/trickle.	Strm Sed	SAM	SAM04-2	
AC35-2	606450	5578320	0.5	5	57	0.2	7.4	0.3	96	0.11	2.3		Dom Ad/Ba float w/some porph volcs & mafic pyrox	Avg chnl width 0.8m sand/grvl atop org mat. Trickle. Fine silt grabs over 15m.	Strm Sed	SAM	SAM04-2	
AC38-1	606665	5579075	0.6	6	55	0.2	5.3	0.3	141	0.15	3.1		Dom dk gm Ad/Ba float. Some maroon Ba.	1.0m chnl grvl/cobble base. Weak flow. Coarse seds w/some orgs.	Strm Sed	SAM	SAM04-2	
AC38-2	606645	5578815	0.4	5.5	52	0.2	4.3	0.3	159	0.09	2.8		Dull gy-bik & minor red-bm volc float.	0.75m chnl sand/grvl atop org mat base. Weak flow. Coarse seds w/mixed orgs.	Strm Sed	SAM	SAM04-2	
AC38-3	607018	5578573	0.3	5.1	51	0.2	5.4	0.2	118	0.08	3.3		Dull gy-bik & minor red-bm volc float.	0.70m chnl sand/grvl base. Trickle. Good clean fine seds.	Strm Sed	SAM	SAM04-2	
AC38-4	606995	5578564	0.4	5.3	50	0.3	4.2	0.4	221	0.12	2.4		Dk volc float pebbles.	Rt br irreg boggy chnl <0.5-1.0m. Intermit weak flow. Coarse seds atop org mat.	Strm Sed	SAM	SAM04-2	
AC41-2	607320	5579108	0.4	5	55	0.3	8.6	0.3	105	0.1	1.8		Dk gy basaltic andasite.	Trickle 0.6m chnl. Coarse dk br silt/sand atop cobbly org mat.	Strm Sed	SAM	SAM04-2	
Rock Samples																		
SAM-R1	607299	5580976	0.9	3.2	11	0.6	2.9	0.2	25	0.02	1627.5		Silic bleached Ad/Ba hostrock w/QVlt stockwork.	8 pcs ang rubble. Largest 8*8*13cm & 8*7*11cm.	Grab	SAM	SAM04-1	
SAM-R15	606120	5580908	5.7	4.6	22	0.5	47.5	0.3	20	0.02	187		Rusty-orig volc w/irregular Qtz vns-stringers-vugs.	4 pcs over 100m of silt bed. Largest 7*8*11cm- mded.	Grab	SAM	SAM04-2	
SAM-R16	606050	5580920	7.1	4	9	0.4	23.9	0.3	17	0.01	211		QV w/some intergrown altid volc hostrock.	Single pc-tabular-subang- 5*6*7cm.	Grab	SAM	SAM04-2	
SAM-R17	605770	5581160	3.1	3	32	0.6	45	0.3	23	0.02	71		Gm-gy porphyritic volc.	FaO on frac sfs."	Grab	SAM	SAM04-2	
SAM-R18	606480	5581417	6.2	2.9	31	0.5	92.2	8.2	44	0.01	341		QV/bx.	1 subang pc 2*3*4.5cm. 1 subrd pc 5*6.5*7cm.	Grab	SAM	SAM04-2	
SAM-R19	606284	5581611	3.8	3.5	11	0.6	15.1	0.6	22	0.06	75		Silic rusty orig volc- in part bx- w/QVns 0.5-3cm.	hematitic staining."	Grab	SAM	SAM04-2	
SAM-R20	607281	5580912	0.4	0.7	10	0.1	10.2	1	56	0.03	7.8		Msv lt & dk gy/bm & clear multistage chalcodony.	11*15*24cm subrounded float cobble.	Grab	SAM	SAM04-1	
SAM-R21	607552	5580985	0.9	1	10	0.3	4	0.4	5	-0.01	872.4		Epithermal QV mtri (90-95%) w/some Ad/Ba inclus	30cm cont chips across 2 bldrs- Discovery Showing Tr.area	Grab	SAM	SAM04-2	
SAM-R22	607045	5580225	1.2	3.9	10	0.3	3.7	0.1	40	0.04	228.9		Qtz-flooded lt gy volc bx.	1mm-1cm."	Grab	SAM	SAM04-2	
SAM-R28	607396	5580011	0.3	3.2	39	-0.1	0.7	-0.1	34	0.02	2		Dk gm subvolc(?) w/network of QVns-stringers.	"drusy & comb-textured QVns up to 4cm thick."	Grab	SAM	SAM04-2	
SAM-R29	607364	5580067	2	1.4	5	0.3	2.1	0.1	21	0.05	703.7		Qtz-flooded rusty orig volc.	comb vns up to 2.5cm	Grab	SAM	SAM04-2	
SAM-R3	606524	5579882	1.8	5.1	15	0.2	33.4	0.7	30	0.07	16.1		Tan & rusty-orig silica flooded volc.	also lt gy chalcodony."	Grab	SAM	SAM04-2	
SAM-R30	607361	5580090	1	1	4	0.3	2.9	0.2	14	0.03	207.1		Chalcodonic QV/bx.	mainly opaque white	Grab	SAM	SAM04-2	
SAM-R31	607490	5580130	1.9	2.2	6	0.3	4.2	0.1	22	0.03	369		Chalcodonic QV/bx.	lt gy to semi-cl."	Grab	SAM	SAM04-2	
SAM-R32	607147	5580951	0.5	4.4	67	0.9	248.6	1.9	17	0.05	128.3		Rusty frac silic med-dk gm Ad incl narrow shear.	Location is 15-70cm N of 2003 Sample AC-R13 (Au-338 ppb).	0.55m Chl	SAM	SAM04-2	
SAM-R33	607147	5580950	0.8	3.4	63	0.9	320.6	2.1	11	0.07	189.9		Rusty frac silic med-dk gm Ad. Dom frags @ 0.80g	Continuous to S of R32. Incl altid zn sampled as AC-R13.	0.30m Chl	SAM	SAM04-2	
SAM-R34	606662	5579125	1.1	1.7	7	0.4	5.5	0.2	28	0.01	406		Chalcodonic QV/bx.	Single quite mded pc 13*20*22cm.	Grab	SAM	SAM04-2	
SAM-R35	606568	5581810	12.1	3.2	40	0.2	33.4	0.5	33	0.01	9.8		Lt gy qtz-flooded volc(?)	Single tabular pc 7*8*15cm. Rnded one side.	Grab	SAM	SAM04-2	
SAM-R36	606930	5581743	10	7.2	15	0.3	40.4	0.4	44	0.02	23		Qtz-flooded red bm volc.	Single mded fgmrt 4.5*9*10.5cm.	Grab	SAM	SAM04-2	
SAM-R37	604263	5581478	0.7	3.9	18	0.1	0.9	1	198	-0.01	-0.5		Basaltic Ad(?) hosted Qtz-Calcite vits/vns to 4cm.	Vn attitude 020/80. A Molnar sample / SAM 11 claim.	Grab	SAM	SAM04-3	
SAM-R38	604071	5580949	0.2	3.7	19	0.1	1.1	2.1	193	-0.01	1.3		Basaltic Ad(?) hosted Qtz vits/vns to 10cm width.	Vn attitude 070/80. A Molnar sample / SAM 11 claim.	Grab	SAM	SAM04-2	
SAM-R4	606583	5579580	21.1	9.1	18	0.3	78.5	0.8	50	0.03	51.4		Rusty-orig weak silic felsic dyke(?)/rock.	sparse glassy qtz & chalcodony vits."	Grab	SAM	SAM04-2	
SAM-R5	606990	5579430	1.4	1.2	3	0.5	3	0.2	16	0.04	928.7		Opaque white to lt tan msv chalcodonic qtz.	1 tabular subang pc 4*7*8cm. 1 mded pc 4*7*5*8cm.	Grab	SAM	SAM04-2	
SAM-R6	607189	5579270	1.5	1.8	7	0.3	3.8	0.2	20	0.03	368.7		Qtz-flooded volc w/dense stockwork QVns-stringer	1 tabular pc 9*18*19cm- mded edges. 1 angular 5.5*9*7.5cm	Grab	SAM	SAM04-2	
SAM-R7	607328	5579144	1.3	1.2	4	0.7	6	0.1	18	0.07	1284.8		White to lt tan & gy chalcodonic qtz w/itry druses.	Single pc- quite mded- 8*9*10cm.	Grab	SAM	SAM04-2	
SAM-R8	606163	5578534	2.3	0.5	4	1.8	8.8	0.1	12	-0.01	4397.6		Qtz vms/stringers hosted in dk gy-bik Ad/Ba.	Composite chips over 2m-length on rdbed between J&J Showing and SJ-12 soil stn.	Grab	SAM	SAM04-2	
Soil Samples																		
SB-1	606175	5578546	3.5	7.4	38	0.8	221.8	1.6	151	0.07	527.6		Altid basaltic Ad hosting nearby QVns.	On roadbed very near SJ-12 soil stn. J&J Showing area.	Rdbed Soil	SAM	SAM04-2	
SB-2	606146	5578559	0.7	12	41	0.3	104.5	1.4	36	0.12	175.7		Altid basaltic Ad hosting nearby QVns.	Dk rusty cut between SJ-11/12 sites. J&J Showing area.	Rdcut Soil	SAM	SAM04-2	
SB-3	606141	5578560	0.9	10.1	42	0.7	648.6	2.3	40	0.23	469		Altid basaltic Ad hosting nearby QVns.	Dk rusty cut between SJ-11/12 sites. J&J Showing area.	Rdcut Soil	SAM	SAM04-2	
SB-4	606136	5578561	0.8	10.6	50	0.5	495.3	3	41	0.49	317.5		Altid basaltic Ad hosting nearby QVns.	Dk rusty cut between SJ-11/12 sites. J&J Showing area.	Rdcut Soil	SAM	SAM04-2	
SB-5	606131	5578562	9	6.2	39	0.8	437.2	4.2	52	0.34	299.3		Altid basaltic Ad hosting nearby QVns.	Dk rusty cut between SJ-11/12 sites. J&J Showing area.	Rdcut Soil	SAM	SAM04-2	
SJ-1	606292	5579009	0.4	4.6	48	0.1	4.6	0.3	79	0.02	1.4		Road Soils					
SJ-2	606295	5578959	0.6	4.7	59	-0.1	9.1	0.3	74	0.03	4.6		Road Soils					
SJ-3	606286	5578902	0.5	5.1	54	0.1	5.7	0.4	108	0.03	3.1		Road Soils					
SJ-4	606281	5578853	0.4	4.3	49	-0.1	4.8	0.3	151	0.03	4.5		Road Soils					
SJ-5	606283	5578799	0.4	5.3	48	0.1	3.8	0.2	86	0.02	11.3		Road Soils					
SJ-6	606304	5578753	0.4	5.1	55	0.1	4.1	0.3	90	0.02	1.5		Road Soils					
SJ-7	606286	5578704	0.8	6	49	0.1	8.3	0.2	120	0.05	3.1		Road Soils					
SJ-8	606236	5578690	0.4	3.8	51	-0.1	5.3	0.4	105	0.08	3.4		Road Soils					
SJ-9	606195	5578652	0.4	3.8	51	-0.1	6.4	0.4	152	0.03	2.3		Road Soils					
SJ-10	606159	5578615	0.4	4.7	55	0.1	7.2	0.4	84	0.03	-0.5		Road Soils					
SJ-11	606132	5578571	0.7	4.7	56	0.6	50.5	0.7	99	0.18	37.9		Road Soils					
SJ-12	606178	5578548	1.2	4.7	51	0.4	45.3	1.3	141	0.1	187.3		Road Soils					
SJ-13	606129	5578525	1.5	5.1	44	1.4	138.7	1.4	113	0.18	2094		Road Soils					
SJ-14	606082	5578510	0.4	4.8	50	0.2	25.9	0.6	114	0.08	3.8		Road Soils					
SJ-15	606030	5578475	0.4	4.8	56	0.1	32.3	0.6	150	0.11	12.5		Road Soils					
SJ-16	605983	5578457	0.3	4.8	49	-0.1	28.9	0.6	165	0.12	20.3		Road Soils					
SJ-17	605943	5578423	0.6	5.7	59	0.1	29	0.7	146	0.15	19.9		Road Soils					
SJ-18	605901	5578389	0.4	4	50	0.1	11.1	0.3	214	0.05	3		Road Soils					
SJ-19	605872	5578340	0.2	6.4	39	0.3	7.3	0.1	78	0.04	1.3		Road Soils					
SJ-20	605916	5578310	0.4	4.2	57	-0.1	10.5	0.3	170	0.08	3.1		Road Soils					
SJ-21	605961	5578280	0.4	4.8	59	-0.1	13.2	0.4	174	0.1	5.9		Road Soils					
SJ-22	605997	5578256	0.9	5.3	55	0.1	8.3	0.3	87	0.07	-0.5		Road Soils					
SJ-23	606024	5578207	0.4	4.8	56	-0.1	16.4	0.5	137	0.13	11.4		Road Soils					
SJ-24	606028	5578160	0.4	5.2	51	0.1	32	0.6	158	0.19	16.5		Road Soils					
SJ-25	606024	5578096	0.4	6.8	39	0.2	4.8	0.1	65	0.03	0.5		Road Soils					
SJ-26	606049	5578047	0.5	5	53	0.1	18.1	0.4	161	0.13	13.6		Road Soils					
SJ-27	606127	5577997	0.8	7.1	66	0.1	6.3	0.2	127	0.05	3.4		Road Soils					
SJ-28	606178	5578044	0.7															

SAM AREA 2004 RECON GEOCHEMICAL SAMPLE SUMMARY													Assay	Rock Type	Note	Sample Typ	Project	Ship No
Sample Number	Easting	Northing	Mo ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Sb ppm	Ba ppm	Hg ppm	Au ppb	Au ppb						
SJ-29	606223	5578070	1	6	68	0.1	5.2	0.2	80	0.06	3			Road Soils				
SJ-30	606275	5578086	0.9	5	69	0.1	7.3	0.2	107	0.05	6			Road Soils				
SJ-31	606315	5578073	0.7	6.1	56	0.1	8.7	0.2	110	0.12	2.9			Road Soils				
SJ-32	606277	5578033	0.6	4.1	60	0.1	12.2	0.3	120	0.08	15.8			Road Soils				
SJ-33	606305	5577981	0.5	5.7	55	0.1	11.7	0.2	116	0.06	4.2			Road Soils				
SJ-34	606393	5578007	0.7	5.9	55	0.1	13.2	0.3	122	0.13	3.7			Road Soils				
SJ-35	606401	5578006	0.9	5.1	60	0.1	8.8	0.3	89	0.07	2.6			Road Soils				
SJ-36	606444	5577973	0.8	6.7	62	0.1	10.2	0.3	121	0.06	2.6			Road Soils				
SJ-37	606258	5578073	0.8	4.7	56	0.1	8.2	0.6	94	0.05	3.9			Road Soils				
SJ-38	606219	5579007	0.4	4	47	0.1	12.1	1.3	107	0.21	49.5			Road Soils				
SJ-39	606187	5579048	0.5	5.1	52	-0.1	7.7	0.4	109	0.11	3.3			Road Soils				
SJ-40	606134	5579050	0.5	5	56	0.1	6.8	0.3	127	0.04	2.6			Road Soils				
SJ-41	606084	5579042	0.6	5.4	63	0.1	5.7	0.2	134	0.03	3.7			Road Soils				
SJ-42	606031	5579036	0.5	4.9	53	0.1	7.6	0.3	144	0.04	2.7			Road Soils				
SJ-43	605984	5579010	0.5	4.6	50	0.1	4.8	0.3	127	0.04	1.2			Road Soils				
SJ-44	605954	5578966	0.5	4.9	54	0.1	9.6	0.2	119	0.02	1.9			Road Soils				
SJ-45	605907	5578944	0.4	4.4	63	0.2	5.5	0.1	155	0.05	2.5			Road Soils				
SJ-46	605857	5578931	0.5	4.8	55	0.1	5.9	0.2	123	0.04	1.8			Road Soils				
SJ-47	605813	5578917	0.7	4.8	51	-0.1	9	0.2	102	0.03	7.8			Road Soils				
SJ-48	605761	5578917	0.7	4.9	55	-0.1	5.8	0.2	112	0.03	1.7			Road Soils				
SJ-49	605714	5578909	0.6	5.7	57	0.1	4.4	0.2	123	0.04	-0.5			Road Soils				
SJ-50	605664	5578894	0.6	4.7	51	0.1	5.8	0.3	119	0.04	6.2			Road Soils				
SJ-51	605623	5578830	0.8	4.6	55	-0.1	4.6	0.2	99	0.05	1.5			Road Soils				
SJ-52	605609	5578894	0.5	4.9	58	0.1	4.6	0.3	116	0.03	2.8			Road Soils				
SJ-53	605590	5578844	0.4	4.6	55	0.1	4.6	0.3	114	0.04	0.6			Road Soils				
SJ-54	605571	5578802	0.3	4.3	49	0.1	3.8	0.2	90	0.03	0.9			Road Soils				
SJ-55	605546	5578746	0.2	6.1	61	0.1	4	0.2	68	0.03	-0.5			Road Soils				
SJ-56	606293	5579061	0.6	5.2	59	-0.1	6.8	0.4	93	0.04	3.5			Road Soils				
SJ-57	606294	5579113	0.5	5.5	55	-0.1	6.9	0.4	103	0.04	3.9			Road Soils				
SJ-58	606295	5579163	0.4	5	56	0.1	4.6	0.3	95	0.02	3			Road Soils				
SJ-59	606303	5579212	0.4	5.4	64	0.1	9	0.3	92	0.05	-0.5			Road Soils				
SJ-60	606323	5579265	0.5	4.8	55	0.1	4.2	0.3	134	0.03	2.3			Road Soils				
SJ-61	606332	5579310	0.8	4.1	53	0.2	8.4	0.3	115	0.08	1			Road Soils				
SJ-62	606341	5579356	0.8	5.6	57	-0.1	4.6	0.4	109	0.03	3.1			Road Soils				
SJ-63	606357	5579403	0.6	5	55	-0.1	5.5	0.3	125	0.06	3.6			Road Soils				
SJ-64	606381	5579452	0.6	5.2	66	-0.1	4.3	0.2	100	0.11	4.3			Road Soils				
SJ-65	606439	5579465	0.8	5.5	55	0.1	5.6	0.3	108	0.06	2.9			Road Soils				
SJ-66	606455	5579517	0.6	5.9	58	0.1	4.2	0.2	107	0.03	0.7			Road Soils				
SJ-67	606484	5579564	1.2	5.9	76	0.1	6.3	0.2	103	0.03	3.2			Road Soils				
SJ-68	606482	5579610	0.7	5.1	59	-0.1	5.6	0.3	208	0.04	1.5			Road Soils				
SJ-69	606515	5579651	0.4	4.9	49	-0.1	5	0.3	117	0.03	2.8			Road Soils				
SJ-70	606539	5579696	0.3	5.2	59	0.1	1.8	0.2	67	0.01	1.4			Road Soils				
SJ-71	606573	5579740	1.1	5.6	57	-0.1	6	0.4	135	0.01	6.4			Road Soils				
SJ-72	606516	5579766	0.7	5.1	53	0.1	5.6	0.4	100	0.05	6.9			Road Soils				
SJ-73	606655	5579800	0.7	4.9	58	-0.1	6.7	0.4	133	0.04	6.1			Road Soils				
SJ-74	606707	5579829	0.6	4.8	59	-0.1	6.7	0.3	98	0.05	6.5			Road Soils				
SJ-75	606737	5579867	0.7	5	60	0.1	4.8	0.3	143	0.03	11.7			Road Soils				
SJ-76	606773	5579911	0.6	4.8	56	0.1	4.9	0.3	77	0.02	2.3			Road Soils				
SJ-77	606818	5579932	0.5	4.9	58	0.1	6.1	0.2	89	0.03	2.8			Road Soils				
SJ-78	606863	5579925	0.7	4.8	55	0.1	5.6	0.3	86	0.02	2.5			Road Soils				
SJ-79	606903	5579940	0.5	4.8	54	-0.1	4.9	0.2	79	0.02	3.8			Road Soils				
SJ-80	606927	5579997	0.4	3.8	51	-0.1	3.8	0.2	62	0.02	2.3			Road Soils				
SJ-81	606964	5580028	0.6	4.8	68	0.1	4.5	0.2	107	0.02	3.2			Road Soils				
SJ-82	606971	5580070	0.5	4.7	51	-0.1	5.7	0.3	117	0.04	4.1			Road Soils				
SJ-83	606977	5580117	0.6	5.3	50	0.1	4.9	0.3	71	0.02	6			Road Soils				
SJ-84	606993	5580168	0.3	4.4	55	0.1	7.4	0.2	83	0.03	2.7			Road Soils				
SJ-85	607007	5580216	0.3	5.1	59	0.1	3.7	0.3	74	0.04	7.2			Road Soils				
SJ-86	607026	5580259	0.4	4.7	52	0.1	5.3	0.4	84	0.05	8.7			Road Soils				
SJ-87	607043	5580313	0.5	5	57	0.1	5.6	0.3	76	0.02	5.2			Road Soils				
SJ-88	607075	5580350	0.5	4.5	56	-0.1	4.6	0.2	75	0.03	3.9			Road Soils				
SJ-89	607086	5580395	0.7	4.6	53	-0.1	4.9	0.4	118	0.03	6.3			Road Soils				
SJ-90	607112	5580444	0.6	4.4	67	0.1	3.4	0.2	132	0.02	4.9			Road Soils				
SJ-91	607153	5580471	0.5	4.8	51	-0.1	5.5	0.2	93	0.02	5.8			Road Soils				
SJ-92	607193	5580494	0.4	4.9	68	0.1	4.2	0.3	97	0.03	4.9			Road Soils				
SJ-93	607240	5580507	0.7	4.7	54	0.1	8.1	0.3	87	0.04	3.9			Road Soils				
SJ-94	607248	5580566	0.6	6.8	61	0.1	5.9	0.2	83	0.03	2.1			Road Soils				
SJ-95	607269	5580614	0.5	4.1	56	0.1	6.1	0.3	96	0.03	21.8			Road Soils				
SJ-96	607257	5580650	0.5	4.2	45	0.1	5.4	0.4	100	0.03	5.4			Road Soils				
SJ-97	607243	5580704	0.5	4.1	47	0.1	5.9	0.4	80	0.03	5.4			Road Soils				
SJ-98	607262	5580748	0.5	4	47	0.1	6.6	0.4	67	0.02	12.8			Road Soils				
SJ-99	607274	5580804	0.5	4.5	48	0.1	7.8	0.4	76	0.01	6.3			Road Soils				
SJ-100	607285	5580855	0.6	4.2	44	-0.1	6.9	0.3	66	0.02	4.5			Road Soils				

SAM AREA 2004 RECON GEOCHEMICAL SAMPLE SUMMARY														Assay	Rock Type	Note	Sample Typ	Project	Ship No
Sample Number	Eastng	Northng	Mo ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Sb ppm	Ba ppm	Hg ppm	Au ppb	Assay Au ppb							
SJ-101	607278	5580907	0.7	4.7	60	0.1	4.5	0.3	77	0.02	18.1		Road Soils						
SJ-102	607290	5580959	0.5	4.1	52	0.1	6.7	0.3	73	0.02	15.3		Road Soils						
SJ-103	607307	5581010	0.6	4.3	53	0.1	6.6	0.3	98	0.02	4		Road Soils						
SJ-104	607327	5581058	0.5	4	50	0.1	7.5	0.4	83	0.03	2.7		Road Soils						
SJ-105	607362	5581092	0.5	3.8	46	0.1	5.4	0.3	58	0.03	3.7		Road Soils						
SJ-106	607401	5581135	0.5	4.5	49	0.1	3.7	0.2	66	0.02	4		Road Soils						
SJ-107	607435	5581168	0.4	3.8	62	0.1	3.7	0.2	72	0.02	2.7		Road Soils						
SJ-108	607484	5581195	0.5	3.8	47	0.1	5.5	0.4	58	0.02	2.4		Road Soils						
SJ-109	607520	5581220	0.4	3.7	46	0.1	5	0.3	53	0.01	1.8		Road Soils						
SJ-110	607563	5581264	0.3	4.1	70	0.1	6.9	0.9	57	0.01	3.8		Road Soils						
SJ-111	607594	5581301	0.5	4.7	63	0.1	12.6	1.1	51	0.02	8.3		Road Soils						
SJ-112	607631	5581347	1	5.4	62	0.1	11.8	0.5	72	0.04	3.7		Road Soils						
SJ-113	607660	5581392	0.9	5.1	54	0.1	11.8	0.6	88	0.04	12.8		Road Soils						
SJ-114	607692	5581435	0.6	3.9	57	0.1	5.4	0.3	71	0.02	0.7		Road Soils						
SJ-115	607739	5581470	1	6	63	0.1	7.7	0.4	117	0.03	3		Road Soils						
SJ-116	607778	5581503	0.5	4.5	53	0.1	6.9	0.4	74	0.01	4		Road Soils						
SJ-117	607813	5581539	0.5	6.2	115	0.1	3.7	0.2	113	0.03	1.1		Road Soils						
SJ-118	607851	5581582	0.8	5.1	46	0.1	4.5	0.2	70	0.01	1.3		Road Soils						
SJ-119	607896	5581612	1	4.5	45	0.1	6.1	0.3	66	0.01	2.9		Road Soils						
SJ-120	607942	5581637	0.7	4.2	39	-0.1	4.1	0.2	72	0.02	1.2		Road Soils						
SJ-121	607966	5581665	0.9	5.6	84	0.1	3.4	0.1	107	0.01	-0.5		Road Soils						
SJ-122	608029	5581695	0.7	6	87	0.1	3.1	0.1	170	0.01	2		Road Soils						
SJ-123	608067	5581857	0.8	7.1	67	0.1	3.8	0.2	97	0.03	0.9		Road Soils						
SJ-124	608083	5581807	0.5	5.3	58	0.1	4.3	0.3	64	0.02	3.2		Road Soils						
SJ-125	608125	5581575	0.6	4	50	0.1	4.8	0.2	88	0.02	1.9		Road Soils						
SJ-126	608167	5581555	0.6	4.4	50	0.1	4	0.3	71	0.02	1.9		Road Soils						
SJ-127	608213	5581520	0.6	4.4	55	0.1	5.8	0.3	86	0.03	3		Road Soils						
SJ-128	608263	5581534	0.6	4.8	43	-0.1	6.6	0.4	87	0.02	5.4		Road Soils						
SJ-129	608309	5581533	0.5	4.6	41	0.1	3.6	0.3	106	0.04	5.1		Road Soils						
SJ-130	608357	5581516	0.9	4.9	52	0.1	6.7	0.3	95	0.03	2.8		Road Soils						
SJ-131	608406	5581546	1.1	6	65	0.1	7.5	0.3	109	0.03	1.9		Road Soils						
SJ-132	608422	5581589	1.1	5.4	53	0.1	6.3	0.3	102	0.03	2.1		Road Soils						
SJ-133	608431	5581545	1.2	4.9	53	0.1	5.4	0.2	129	0.02	1		Road Soils						
SJ-134	608442	5581575	0.9	4.7	52	0.2	5.3	0.3	168	0.02	1		Road Soils						
SJ-135	608451	5581745	2.4	5.8	60	0.1	10.4	0.4	97	0.05	2.9		Road Soils						
SJ-136	608443	5581821	2.5	5.8	64	0.1	11.3	0.4	105	0.04	5.4		Road Soils						
SJ-137	608436	5581863	1.5	4.8	59	0.1	7.5	0.4	92	0.04	4.6		Road Soils						
SJ-138	608405	5581900	2.5	5.8	51	0.1	12.1	0.4	76	0.02	2.4		Road Soils						
SJ-139	608350	5581901	1.7	5.8	105	0.2	5.4	0.2	178	0.02	0.5		Road Soils						
SJ-140	608315	5581499	0.5	3.9	44	0.1	4.5	0.3	87	0.03	2.8		Road Soils						
SJ-141	608271	5581480	0.6	3.9	40	-0.1	5.9	0.4	86	0.03	2.1		Road Soils						
SJ-142	608283	5581436	0.5	4.2	42	0.1	6.6	0.4	88	0.03	4.2		Road Soils						
SJ-143	608333	5581428	0.8	4.2	41	0.1	4	0.3	89	0.03	8.2		Road Soils						
SJ-144	608392	5581410	0.5	3.8	42	0.1	4.1	0.3	76	0.01	3.3		Road Soils						
SJ-145	608440	5581396	0.6	4.4	47	0.1	5	0.2	91	0.03	1.8		Road Soils						
SJ-146	608507	5581409	0.7	4.4	47	0.1	5.9	0.3	90	0.03	3.4		Road Soils						
SJ-147	608481	5581377	0.5	5.1	68	0.1	4.2	0.2	128	0.01	2.2		Road Soils						
SJ-148	608431	5581346	0.6	5	54	0.1	7.3	0.4	116	0.02	4.7		Road Soils						
SJ-149	608392	5581298	0.5	4.8	53	0.3	7.1	0.3	121	0.05	3.8		Road Soils						
SJ-150	608365	5581252	0.3	4.6	45	0.1	2.7	0.2	94	-0.01	8.3		Road Soils						
SJ-151	608349	5581207	0.4	4.1	47	0.1	5.7	0.3	88	0.03	4		Road Soils						
SJ-152	608321	5581166	0.6	4.5	51	0.1	5.8	0.3	101	0.03	2.8		Road Soils						
SJ-153	608300	5581115	0.5	4.3	53	0.1	6.8	0.3	90	0.02	9.2		Road Soils						
SJ-154	608278	5581074	0.6	4.4	47	0.1	9.5	0.6	157	0.04	8.9		Road Soils						
SJ-155	608222	5581075	0.5	4.4	47	0.1	11	0.7	105	0.02	7.6		Road Soils						
SJ-156	608184	5581112	0.6	5.3	53	0.1	17.1	1	72	0.01	9.9		Road Soils						
SJ-157	608151	5581159	0.4	5	50	0.1	23.8	1.5	76	0.01	7.2		Road Soils						
SJ-158	608111	5581191	0.6	4.7	55	0.2	8.3	0.5	69	0.03	15.2		Road Soils						
SJ-159	608086	5581236	0.3	4.9	49	0.1	8.2	0.7	69	0.01	4		Road Soils						
SJ-160	608040	5581265	0.3	5.2	54	0.2	7.1	0.3	43	0.04	4.6		Road Soils						
SJ-161	607997	5581284	0.5	4.4	42	0.1	6.1	0.4	91	0.02	5		Road Soils						
SJ-162	607953	5581310	0.4	4.7	39	0.1	4.7	0.2	99	0.01	0.6		Road Soils						
SJ-163	607891	5581318	0.5	4.4	47	-0.1	7.9	0.5	73	0.02	1.9		Road Soils						
SJ-164	607830	5581320	0.4	5.6	78	0.1	5.4	0.2	90	0.02	1.7		Road Soils						
SJ-165	607787	5581287	0.6	5.9	56	0.1	7.3	0.4	69	0.02	2.4		Road Soils						
SJ-166	607740	5581263	0.5	4.1	68	0.1	5.5	0.6	68	0.01	15.7		Road Soils						
SJ-167	607701	5581227	0.7	6.2	69	0.1	4.8	0.3	78	0.03	1.9		Road Soils						
SJ-168	607680	5581170	0.4	3.4	41	0.1	3.8	0.2	95	0.01	1.6		Road Soils						
SJ-169	607659	5581124	0.8	4.2	55	0.1	5.8	0.2	98	0.01	3.3		Road Soils						
SJ-170	607637	5581089	0.7	5	56	0.1	7	0.4	91	0.02	6.6		Road Soils						
SJ-171	607600	5581049	0.5	4.3	68	0.2	11.7	0.2	105	0.02	8.4		Road Soils						
SJ-172	607557	5581004	0.7	3.3	68	0.7	14.3	0.4	50	0.03	73.2		Road Soils						

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Sample Number	Eastng	Northng	Mo ppm	Pb ppm	Zn ppm	Aq ppm	As ppm	Sb ppm	Ba ppm	Hg ppm	Au ppb	Au ppb							
SJ-173	607541	5580955	0.7	4.1	60	0.4	12.1	0.6	85	0.04	58.2			Road Soils					
SJ-174	607543	5580901	0.6	4.5	57	0.2	12.4	0.6	83	0.04	67.9			Road Soils					
SJ-175	607569	5580855	0.7	4	61	0.1	7.4	0.4	93	0.01	3.2			Road Soils					
SJ-176	607596	5580804	0.5	4.5	52	0.2	6.8	0.3	153	0.04	17			Road Soils					
SJ-177	607818	5580758	0.6	4.8	44	0.1	7.9	0.4	95	0.04	9.2			Road Soils					
SJ-178	608331	5581117	0.5	4.2	52	0.1	5.2	0.3	71	0.02	2.8			Road Soils					
SJ-179	608396	5581141	0.5	4.8	55	0.1	4.3	0.2	84	0.03	2.4			Road Soils					
SJ-180	608448	5581176	0.4	4.5	52	0.1	4.8	0.3	74	0.01	3.4			Road Soils					
SJ-181	608478	5581117	0.4	4.4	49	0.1	3.9	0.2	161	0.01	1.9			Road Soils					
SJ-182	608522	5581230	0.5	3.6	49	0.1	6.4	0.2	82	0.02	3.7			Road Soils					
SJ-183	608579	5581229	0.6	5.7	62	0.1	4	0.2	143	0.02	2.3			Road Soils					
SJ-184	608629	5581216	0.5	4.4	53	0.2	3.9	0.3	191	0.04	2.4			Road Soils					
SJ-185	608687	5581230	0.8	5.7	52	0.1	5.8	0.3	83	0.02	2.7			Road Soils					
SJ-186	608728	5581271	1	5.3	47	0.1	5.4	0.2	106	0.03	2.5			Road Soils					
SJ-187	608754	5581302	0.6	5.4	50	0.1	5.7	0.2	82	0.02	5.7			Road Soils					
SJ-188	608792	5581345	0.6	5.1	55	0.1	5.9	0.3	84	0.03	4.3			Road Soils					
SJ-189	608815	5581398	0.7	4.8	56	0.1	4	0.2	116	0.02	1.2			Road Soils					
SJ-190	608809	5581447	0.5	4.7	55	0.1	3	0.1	77	0.02	1.9			Road Soils					
SJ-191	608834	5581496	0.8	5.3	57	-0.1	2.9	0.2	113	0.02	2.6			Road Soils					
SJ-192	608853	5581463	0.4	4.4	47	0.1	3.7	0.2	71	0.03	2.5			Road Soils					
SJ-193	608872	5581417	0.4	4.4	66	0.1	3.7	0.2	76	0.01	2.4			Road Soils					
SJ-194	608877	5581384	0.5	4.2	63	0.1	4.3	0.2	87	0.02	2.9			Road Soils					
SJ-195	608889	5581315	0.5	4	50	0.1	5.9	0.3	77	0.02	2			Road Soils					
SJ-196	608888	5581254	0.5	7.5	55	0.1	3.8	0.2	91	0.02	8.6			Road Soils					
SJ-197	608884	5581204	0.5	6.1	59	0.1	6	0.3	106	0.03	3.5			Road Soils					
SJ-198	608967	5581154	0.3	7.1	62	0.1	4.4	0.3	154	0.02	-0.5			Road Soils					
SJ-199	608849	5581104	0.2	4.3	55	0.2	8.8	0.4	381	0.03	1.9			Road Soils					
SJ-200	608821	5581060	0.5	5.3	82	0.1	3.7	0.2	148	0.02	1.1			Road Soils					
SJ-201	608794	5581010	0.4	8.2	44	0.1	2.8	0.3	87	0.02	-0.5			Road Soils					
SJ-202	608806	5580962	0.5	5.4	49	0.3	4.1	0.2	72	0.04	1.9			Road Soils					
SJ-203	608818	5580915	0.4	4.3	46	0.1	5.8	0.3	112	0.02	2.7			Road Soils					
SJ-204	608871	5580948	0.5	5.3	57	0.1	3.6	0.2	150	0.02	1.3			Road Soils					
SJ-205	608870	5580898	0.4	5.3	49	0.1	3.7	0.3	108	0.01	2.3			Road Soils					
SJ-206	608828	5580862	0.4	4.9	45	-0.1	4.5	0.3	146	0.02	3.6			Road Soils					
SJ-207	608792	5580827	0.4	4.7	41	0.1	3.5	0.3	128	0.02	1.4			Road Soils					
SJ-208	608746	5580802	0.5	5.2	73	0.1	5.7	0.3	181	0.04	3.6			Road Soils					
SJ-209	608742	5580750	0.6	5.8	69	0.1	4.6	0.2	165	0.02	8.1			Road Soils					
SJ-210	608754	5580694	0.5	6.2	74	0.1	4	0.2	188	0.03	5.4			Road Soils					
SJ-211	608717	5580661	0.7	6	75	0.1	3.7	0.2	176	0.04	1.6			Road Soils					
SJ-212	608727	5580609	0.8	8.4	73	0.3	5.4	0.2	141	0.05	3			Road Soils					
SJ-213	608747	5580558	0.6	5.3	86	0.3	3.1	0.2	83	0.02	13.7			Road Soils					
SJ-214	607022	5580001	0.6	4.7	54	0.1	4.9	0.3	118	0.02	3.5			Road Soils					
SJ-215	607068	5580002	0.3	4.3	44	-0.1	5.3	0.4	86	0.02	8.4			Road Soils					
SJ-216	607120	5580018	0.3	4.1	39	-0.1	5.1	0.5	73	0.02	8.5			Road Soils					
SJ-217	607166	5580012	0.3	4.4	39	0.1	4.4	0.4	82	0.03	32.8			Road Soils					
SJ-218	607273	5579967	0.8	5.6	50	0.1	8.9	0.6	93	0.04	15.5			Road Soils					
SJ-219	608296	5579371	0.6	4.7	59	0.1	5.4	0.2	119	0.03	2.7			Road Soils					
SJ-220	606272	5579434	0.7	4.8	51	0.1	8.8	0.3	110	0.07	3.6			Road Soils					
SJ-221	606266	5579489	0.7	4.5	58	0.1	4.9	0.2	115	0.06	0.9			Road Soils					
SJ-222	606264	5579526	0.6	4.3	61	0.1	3.8	0.2	82	0.08	1.4			Road Soils					
SJ-223	606276	5579586	0.8	5.2	60	0.1	3	0.1	94	0.08	2.2			Road Soils					
SJ-224	606279	5579640	0.4	4.3	52	0.1	3.4	0.1	64	0.04	1			Road Soils					
SJ-225	606240	5579672	0.5	4.7	63	0.1	4.2	0.2	107	0.03	0.9			Road Soils					
SJ-226	606206	5579713	0.5	4.1	52	0.1	4.6	0.2	100	0.05	2.3			Road Soils					
SJ-227	606217	5579756	0.5	4.1	45	0.1	5.4	0.3	74	0.06	3.6			Road Soils					
SJ-228	606263	5579786	0.4	3.9	58	0.1	3.3	0.2	91	0.04	2.8			Road Soils					
SJ-229	606303	5579823	0.3	4.5	57	0.1	2.7	0.2	78	0.03	4.8			Road Soils					
SJ-230	606344	5579856	0.4	4	60	0.1	2.9	0.2	77	0.03	2.1			Road Soils					
SJ-231	606379	5579900	0.6	4.3	69	-0.1	2	0.2	113	0.02	0.8			Road Soils					
SJ-232	606402	5579941	0.4	4	55	-0.1	3.7	0.3	89	0.04	4.2			Road Soils					
SJ-233	606385	5579988	0.8	5.7	64	0.1	5.8	0.2	125	0.05	1.3			Road Soils					
SJ-234	606335	5579988	0.5	4.8	63	0.1	4.1	0.2	120	0.02	-0.5			Road Soils					
SJ-235	606291	5580013	0.5	4.8	56	0.1	4.7	0.2	167	0.03	3.9			Road Soils					
SJ-236	606242	5580044	0.5	4.6	57	-0.1	4	0.2	137	0.03	2.7			Road Soils					
SJ-237	606193	5580038	0.6	4.2	53	0.1	5.1	0.3	91	0.04	3.7			Road Soils					
SJ-238	606145	5580014	0.6	4.4	54	-0.1	3.8	0.2	125	0.05	2			Road Soils					
SJ-239	606096	5579991	0.4	4.3	54	0.1	3.1	0.2	95	0.03	2.7			Road Soils					
SJ-240	606047	5579990	0.6	4.3	51	0.1	5.6	0.3	81	0.04	2			Road Soils					
SJ-241	606015	5580029	0.5	4.1	47	0.1	4.1	0.2	77	0.04	3.8			Road Soils					
SJ-242	606052	5580077	0.4	5.1	69	0.1	2.1	0.1	91	0.03	2.1			Road Soils					
SJ-243	606044	5580126	0.4	4.5	52	-0.1	3.5	0.2	107	0.04	4			Road Soils					
SJ-244	606027	5580175	0.4	6.1	58	-0.1	5.2	0.2	149	0.04	3.3			Road Soils					

SAM AREA 2004 RECON GEOCHEMICAL SAMPLE SUMMARY														Assay	Rock Type	Note	Sample Typ	Project	Ship No
Sample Number	Easting	Northing	Mo ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Sb ppm	Ba ppm	Hg ppm	Au ppb	Au ppb							
SJ-245	605979	5580197	0.5	4.5	52	-0.1	4.4	0.2	94	0.03	2.8								
SJ-246	605927	5580179	0.3	5	51	-0.1	2.3	0.1	139	0.03	2.9								
SJ-247	605981	5580152	0.4	6.1	59	0.1	5.8	0.1	124	0.04	0.8								
SJ-248	605936	5580117	0.6	5	51	0.1	4.1	0.2	126	0.03	3.1								
SJ-249	605793	5580083	0.7	5.2	49	0.1	6.9	0.2	82	0.05	2.4								
SJ-250	605782	5580051	0.4	4.6	53	0.1	4.1	0.2	100	0.03	2.1								
SJ-251	605720	5580013	0.2	4.2	53	-0.1	3	0.1	83	0.03	1.6								
SJ-252	605683	5579975	0.3	4.5	58	0.1	4.6	0.1	74	0.03	1.6								
SJ-253	605637	5579954	0.5	4.1	43	-0.1	5.8	0.2	136	0.03	3.6								
SJ-254	605603	5579916	0.5	3.6	47	-0.1	4.2	0.1	160	0.02	2.5								
SJ-255	605556	5579887	0.5	4.9	62	0.1	4.5	0.1	142	0.03	2.2								
SJ-256	605522	5579911	0.6	4.5	49	0.1	5.9	0.2	111	0.02	7.7								
SJ-257	605517	5579963	0.3	2.6	54	-0.1	2.4	0.1	139	0.02	2.2								
SJ-258	605915	5580281	0.3	5.3	48	0.1	3.1	0.1	61	0.02	0.7								
SJ-259	605888	5580276	0.6	4.6	52	0.1	5.8	0.2	95	0.05	3.9								
SJ-260	605860	5580317	0.4	3.9	48	-0.1	3.3	0.2	74	0.04	2.4								
SJ-261	605878	5580368	0.3	3.7	51	0.2	3.8	0.2	70	0.07	5.4								
SJ-262	605899	5580413	0.4	4.1	48	0.1	4.2	0.2	124	0.05	3.8								
SJ-263	605902	5580468	0.6	4.2	60	0.2	5.3	0.2	150	0.04	1.3								
SJ-264	605941	5580499	0.6	5.3	70	0.1	5.5	0.2	158	0.04	1								
SJ-265	605970	5580539	0.4	3.3	60	0.1	2.5	0.1	107	0.02	1.4								
SJ-266	606026	5580566	0.6	6.2	82	0.1	2.8	0.2	84	0.04	1.7								
SJ-267	606010	5580620	0.5	3.8	49	0.1	4	0.1	137	0.03	5.2								
SJ-268	605992	5580660	0.7	5.9	70	0.1	4.1	0.2	121	0.05	0.5								
SJ-269	605949	5580691	0.7	4.8	75	0.1	3.3	0.1	72	0.04	0.5								
SJ-270	605906	5580718	0.4	3.4	53	0.1	2.7	0.1	83	0.03	1.8								
SJ-271	605873	5580749	0.4	1.9	87	-0.1	2.5	-0.1	69	0.04	0.5								
SJ-272	605895	5580784	0.7	2.7	57	0.1	2.8	0.1	111	0.05	-0.5								
SJ-273	605785	5580817	0.4	4.3	66	0.1	1.9	0.1	57	0.03	0.6								
SJ-274	605787	5580866	0.4	4.9	59	0.1	4.7	0.2	97	0.04	2								
SJ-275	605770	5580915	0.5	5.6	64	0.1	6	0.2	126	0.03	2.5								
SJ-276	605786	5580966	0.6	4.7	70	0.1	4.5	0.2	132	0.02	2.2								
SJ-277	605753	5581014	0.7	5	70	0.1	12.8	0.2	118	0.04	1.5								
SJ-278	605760	5581067	0.3	4.7	53	-0.1	4.7	0.2	113	0.04	2								
SJ-279	605747	5581124	0.7	5.7	54	0.2	6.3	0.2	131	0.03	0.5								
SJ-280	605749	5581174	0.6	6.4	64	0.2	4.4	0.2	131	0.05	0.7								
SJ-281	605734	5581229	0.5	6.6	75	0.3	24.2	0.2	124	0.04	1.1								
SJ-282	605952	5580617	0.5	4	67	0.1	1.9	0.1	125	0.02	0.7								
SJ-283	605903	5580620	0.6	4.3	75	0.1	1.8	0.1	73	0.03	0.6								
SJ-284	605853	5580591	0.4	3.3	58	0.1	3.3	0.1	97	0.04	1.3								
SJ-285	605815	5580578	0.7	4.9	66	0.1	4.7	0.2	136	0.04	1.5								
SJ-286	605759	5580596	0.7	4.3	57	0.1	3.1	0.1	95	0.04	-0.5								
SJ-287	605712	5580615	0.3	6.6	68	0.1	1.9	0.1	64	0.03	-0.6								
SJ-288	605680	5580614	0.5	4.5	54	-0.1	3.7	0.2	165	0.03	0.6								
SJ-289	605635	5580662	0.7	5.1	59	0.1	5.1	0.2	130	0.02	0.9								
SJ-290	605614	5580708	0.4	4.3	72	0.1	3.1	0.2	124	0.03	0.6								
SJ-291	605609	5580755	0.4	6.9	75	0.1	2.9	0.2	90	0.12	0.5								
SJ-292	605598	5580808	0.9	5.3	70	0.1	4.7	0.2	112	0.04	0.9								
SJ-293	605571	5580831	1.1	5.7	68	0.1	3.9	0.2	132	0.03	1.4								
SJ-294	605541	5580891	0.6	5.3	60	0.1	5.8	0.3	155	0.02	1.2								
SJ-295	605553	5580948	0.5	7.1	80	0.1	4.5	0.2	100	0.03	-0.6								
SJ-296	605538	5580999	1	6.3	61	0.1	5.4	0.2	94	0.04	1								
SJ-297	605550	5581054	0.6	5.8	60	0.1	5.2	0.2	145	0.06	1.3								
SJ-298	605558	5581106	1	4.7	69	0.2	6.3	0.2	129	0.23	1								
SJ-299	605540	5581154	0.7	5.2	53	0.1	5.7	0.3	145	0.04	0.9								
SJ-300	605529	5581201	0.6	4.8	50	0.1	4.3	0.2	186	0.04	0.7								
SJ-301	605574	5581207	1.2	4.6	54	0.1	5.7	0.2	90	0.06	0.8								
SJ-302	605624	5581183	1.3	5.7	63	0.1	4.1	0.2	107	0.04	1								
SJ-303	605669	5581166	0.8	5.4	63	0.1	7.8	0.2	204	0.05	1								
SJ-304	605715	5581142	1.2	6	80	0.1	5.2	0.2	116	0.03	1.1								
SJ-305	605487	5581242	0.6	5.7	54	-0.1	3.8	0.2	193	0.05	6.6								
SJ-306	605452	5581281	1.2	6.4	63	0.1	3.4	0.2	109	0.05	0.8								
SJ-307	605412	5581313	0.8	5.3	68	0.1	3.7	0.2	80	0.05	6.1								
SJ-308	605377	5581365	0.9	6.3	61	0.1	4.4	0.2	123	0.05	1.8								
SJ-309	605362	5581407	0.8	5.8	60	0.1	4.3	0.2	85	0.05	2.3								
SJ-310	605336	5581450	0.6	5	63	0.1	3.1	0.1	63	0.05	1.6								
SJ-311	605311	5581498	0.7	4.9	70	0.1	4.9	0.2	101	0.05	17.3								
SJ-312	605350	5581503	0.5	8.8	58	0.2	4.8	0.3	103	0.06	2								
SJ-313	605403	5581497	0.5	4.8	57	0.1	5.4	0.3	123	0.06	1								
SJ-314	605429	5581555	0.5	4	55	0.1	2.6	0.2	79	0.03	1.3								
SJ-315	605434	5581610	0.3	4.7	62	0.1	2.7	0.1	72	0.03	1.7								
SJ-316	605437	5581651	0.2	4.1	63	0.1	2.2	0.1	79	0.02	1.3								

SAM AREA 2004 RECON GEOCHEMICAL SAMPLE SUMMARY													Assay	Rock Type	Note	Sample Typ	Project	Ship No
Sample Number	Easting	Northing	Mo ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Sb ppm	Ba ppm	Hg ppm	Au ppb	Au ppb						
SJ-317	605455	5581704	0.5	4.3	63	0.1	3.5	0.1	110	0.04	2		Road Soils					
SJ-318	605476	5581749	0.5	4.3	58	0.1	3.6	0.2	139	0.05	7.4		Road Soils					
SJ-319	605503	5581743	0.7	5.1	50	0.2	6.8	0.2	71	0.06	3		Road Soils					
SJ-320	605535	5581781	0.6	3.9	78	0.1	4.4	0.1	125	0.05	1.2		Road Soils					
SJ-321	605577	5581889	0.9	5.3	47	0.1	4	0.3	64	0.02	5.9		Road Soils					
SJ-322	605590	5581915	0.6	4.9	66	0.2	3.1	0.2	103	0.04	1.1		Road Soils					
SJ-323	605834	5581947	0.5	5	68	0.1	4.9	0.3	105	0.04	2.2		Road Soils					
SJ-324	605843	5581995	0.6	5.2	69	0.2	4.7	0.2	99	0.03	1.3		Road Soils					
SJ-325	605679	5582025	0.8	5.1	60	0.1	8.5	0.3	90	0.03	4.8		Road Soils					
SJ-326	605718	5582061	0.6	4.4	40	0.1	4.7	0.2	95	0.03	3.5		Road Soils					
SJ-327	605774	5582042	1.5	6.1	56	0.1	9.2	0.4	103	0.04	7.1		Road Soils					
SJ-328	605835	5581998	0.6	4.5	44	0.1	8	0.6	210	0.14	5.7		Road Soils					
SJ-329	605883	5581973	0.7	5.1	43	0.1	5.2	0.3	94	0.03	3.7		Road Soils					
SJ-330	605951	5581898	0.6	5.5	98	0.1	3.3	0.1	151	0.03	0.6		Road Soils					
SJ-331	605998	5581868	0.9	5.4	44	0.1	6.9	0.3	81	0.02	7.5		Road Soils					
SJ-332	606050	5581875	0.9	4.7	44	0.1	6.2	0.3	108	0.05	16		Road Soils					
SJ-333	606098	5581958	0.7	4.2	83	0.1	3	0.1	185	0.02	1.3		Road Soils					
SJ-334	606144	5581924	0.6	5.3	86	0.2	3.7	0.2	104	0.02	3.1		Road Soils					
SJ-335	606163	5581771	0.5	4.8	89	0.3	2.9	0.2	112	0.02	2.1		Road Soils					
SJ-336	606151	5581733	0.6	4.5	47	0.1	4.1	0.2	81	0.02	2.7		Road Soils					
SJ-337	606150	5581667	0.6	4.6	74	0.2	4.1	0.2	80	0.03	1.4		Road Soils					
SJ-338	606187	5581639	0.5	4.5	54	0.1	4.5	0.2	81	0.02	2.7		Road Soils					
SJ-339	606241	5581816	0.5	5.2	46	0.1	3.4	0.2	92	0.02	2.7		Road Soils					
SJ-340	606249	5581552	0.6	5	70	0.1	3.3	0.2	70	0.02	1.9		Road Soils					
SJ-341	606254	5581496	0.4	4.9	92	0.2	2.8	0.2	86	0.02	10		Road Soils					
SJ-342	606288	5581448	0.6	5.3	72	0.1	3.2	0.2	69	0.02	5.5		Road Soils					
SJ-343	606300	5581414	0.5	4.2	57	0.2	3.8	0.2	78	0.02	1.1		Road Soils					
SJ-344	606354	5581390	0.3	3.8	81	0.1	3.9	0.1	58	0.04	1.1		Road Soils					
SJ-345	606405	5581392	0.5	6.6	72	0.2	3.5	0.2	87	0.04	11.5		Road Soils					
SJ-346	606448	5581415	0.4	5.5	59	0.1	2.3	0.2	75	0.02	4.2		Road Soils					
SJ-347	606496	5581444	0.5	4.7	76	0.1	3.5	0.2	141	0.03	1.5		Road Soils					
SJ-348	606539	5581432	0.6	4.4	87	0.2	3.1	0.2	131	0.03	1.5		Road Soils					
SJ-349	606556	5581399	0.6	4.7	64	0.1	3.1	0.2	93	0.01	1.8		Road Soils					
SJ-350	606565	5581317	0.6	5.6	51	0.1	2.7	0.3	87	0.01	1.7		Road Soils					
SJ-351	606531	5581304	0.5	4.8	82	0.1	4.2	0.2	81	0.02	1.8		Road Soils					
SJ-352	606517	5581233	0.5	4.2	47	0.1	3.5	0.2	66	0.04	3.8		Road Soils					
SJ-353	606489	5581208	0.3	3.3	64	0.1	4.1	0.1	40	0.02	1.5		Road Soils					
SJ-354	606440	5581159	0.3	3.6	73	0.1	2.9	0.1	51	0.01	0.9		Road Soils					
SJ-355	606412	5581121	0.3	3.8	71	0.1	2.6	0.1	41	0.02	2.5		Road Soils					
SJ-356	606397	5581081	1.1	5.8	55	0.1	5.4	0.3	76	0.04	3.2		Road Soils					
SJ-357	606356	5581033	0.4	6	94	0.1	3.8	0.1	56	0.03	0.9		Road Soils					
SJ-358	606325	5580995	0.6	4.7	50	0.1	5.3	0.3	58	0.03	3.4		Road Soils					
SJ-359	606575	5581467	0.4	4.7	58	0.1	2	0.2	84	0.02	0.6		Road Soils					
SJ-360	606625	5581462	0.4	4.6	100	0.1	3.2	0.3	113	0.02	1.6		Road Soils					
SJ-361	606662	5581515	0.4	4.5	50	0.1	3.3	0.2	101	0.02	2.3		Road Soils					
SJ-362	606707	5581531	0.5	5.4	104	0.1	3.1	0.2	146	0.02	2.5		Road Soils					
SJ-363	606744	5581563	0.1	3	44	0.1	2.7	0.2	99	0.02	1.6		Road Soils					
SJ-364	606747	5581814	0.5	4.6	63	0.1	4.9	0.2	102	0.02	1.2		Road Soils					
SJ-365	606786	5581830	0.5	4.4	51	0.2	3.8	0.3	87	0.03	13.3		Road Soils					
SJ-366	606815	5581692	0.5	5.3	125	0.1	3.9	0.2	107	0.02	2		Road Soils					
SJ-367	606835	5581739	0.2	4.5	74	0.1	2.9	0.2	140	0.02	2		Road Soils					
SJ-368	606853	5581793	0.4	4.5	115	0.1	3.5	0.1	106	0.03	1.4		Road Soils					
SJ-369	606863	5581834	0.4	4.4	82	0.1	2.3	0.2	71	0.01	9		Road Soils					
SJ-370	606877	5581883	0.3	4.1	55	0.2	3.8	0.2	64	0.06	2.6		Road Soils					
SJ-371	606898	5581925	0.7	4.7	53	0.1	4.7	0.3	81	0.03	3.7		Road Soils					
SJ-372	606927	5581966	0.4	4.2	52	0.1	5.7	0.3	52	0.02	4		Road Soils					
SJ-373	606931	5582013	0.6	4.3	72	0.2	3.8	0.1	83	0.03	2		Road Soils					
SJ-374	606927	5582059	0.5	4.6	62	0.1	4	0.2	98	0.03	1.3		Road Soils					
SJ-375	606933	5582073	0.4	4.6	90	0.1	3.7	0.1	103	0.02	1.1		Road Soils					
SJ-376	606928	5582170	0.4	3.6	69	0.1	3.6	0.1	77	0.02	2.3		Road Soils					
SJ-377	606902	5582204	0.7	3.8	85	0.1	7	0.2	93	0.04	7.4		Road Soils					
SJ-378	606901	5582244	0.5	3.4	74	0.1	5.7	0.2	88	0.02	5.9		Road Soils					
SJ-379	606214	5581800	0.4	4.2	78	0.1	3.1	0.1	124	0.02	3.6		Road Soils					
SJ-380	606263	5581813	0.5	5.4	84	0.2	4.2	0.2	127	0.03	1.9		Road Soils					
SJ-381	606314	5581828	0.6	4.9	78	0.2	4.2	0.1	137	0.02	1.8		Road Soils					
SJ-382	606363	5581817	1	5.3	53	0.1	10.5	0.1	101	0.03	10.4		Road Soils					
SJ-383	606405	5581792	0.6	3.9	81	0.2	4.1	0.2	91	0.02	3.1		Road Soils					
SJ-384	606455	5581774	0.5	4.7	79	0.1	3.7	0.1	117	0.02	2.5		Road Soils					
SJ-385	606477	5581738	0.3	4.2	41	0.1	2.9	0.1	90	0.01	2.4		Road Soils					
SJ-386	606504	5581771	0.5	4.3	119	0.2	2.6	0.2	171	0.02	2.3		Road Soils					
SJ-387	606547	5581735	0.7	5	80	0.1	4.7	0.3	91	0.04	3.3		Road Soils					
SJ-388	606596	5581728	0.4	4.9	106	0.2	3.7	0.1	133	0.02	1.8		Road Soils					

SAM AREA 2004 RECON GEOCHEMICAL SAMPLE SUMMARY													Assay	Rock Type	Note	Sample Typ	Project	Ship No
Sample Number	Easting	Northing	Mo ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Sb ppm	Ba ppm	Hg ppm	Au ppb	Au ppb						
SJ-389	606646	5581728	0.6	4.8	97	0.1	6.8	0.2	160	0.02	2.1			Road Soils				
SJ-390	606704	5581732	0.4	6.3	59	0.1	4.9	0.2	105	0.01	1.2			Road Soils				
SJ-391	606756	5581729	0.5	5.5	100	0.1	3.8	0.2	131	0.02	1.9			Road Soils				
SJ-392	606805	5581725	0.7	5.9	92	0.1	5.4	0.3	125	0.03	4.7			Road Soils				
SJ-393	605871	5582079	0.9	5.1	47	0.1	5.0	0.3	70	0.02	20.2			Road Soils				
SJ-394	605827	5582098	1.1	5.3	45	0.1	7	0.3	82	0.05	7			Road Soils				
SJ-395	605882	5582124	0.5	4.8	54	0.1	6.1	0.3	97	0.07	2.6			Road Soils				
SJ-396	605545	5582161	0.5	4.5	50	0.1	3.9	0.3	125	0.06	1.5			Road Soils				
SJ-397	605508	5582196	0.6	4.9	71	0.1	3.8	0.2	125	0.05	0.5			Road Soils				
SJ-398	605482	5582247	0.5	4.9	44	0.1	5.2	0.4	96	0.09	2.9			Road Soils				
SJ-399	605461	5582292	0.5	5.8	52	0.1	5.2	0.2	85	0.02	0.9			Road Soils				
SJ-400	605428	5582327	0.6	5.6	52	-0.1	6.9	0.2	97	0.09	3.8			Road Soils				
SJ-401	605481	5582336	0.6	4.9	48	-0.1	5.4	0.2	90	0.07	3			Road Soils				
SJ-402	605529	5582350	0.7	5.1	52	0.1	6.6	0.3	78	0.03	1.7			Road Soils				
SJ-403	605547	5582393	0.4	5.2	68	0.1	4	0.1	47	0.01	11.8			Road Soils				
SJ-404	605524	5582444	0.4	4.8	50	-0.1	4.6	0.2	70	0.06	2.2			Road Soils				
SJ-405	605491	5582476	0.7	5.6	70	0.1	5.7	0.2	111	0.04	1.2			Road Soils				
SJ-406	605443	5582505	0.4	5.3	45	0.1	3.9	0.2	83	0.05	0.9			Road Soils				
SJ-407	605414	5582551	0.5	5	56	0.2	4.4	0.2	84	0.08	1.4			Road Soils				
SJ-408	605441	5582587	0.5	4.5	59	0.1	5.5	0.2	109	0.05	2.2			Road Soils				
SJ-409	605482	5582587	0.4	5.1	68	0.2	4.3	0.2	95	0.05	0.8			Road Soils				
SJ-410	605523	5582613	0.5	4.6	60	0.1	4.5	0.2	103	0.03	1.2			Road Soils				
SJ-411	605538	5582641	0.5	4.5	50	0.1	5.5	0.3	106	0.03	2.5			Road Soils				
SJ-412	605515	5582686	0.6	4.8	90	0.2	4.4	0.2	121	0.04	1.3			Road Soils				



GEOCHEMICAL ANALYSIS CERTIFICATE



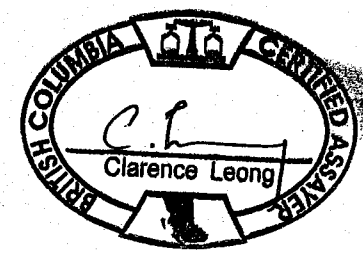
Almaden Minerals Ltd. PROJECT SAM04-1 File # A404950

1103 - 750 W. Pender St., Vancouver BC V6C 2T8 Submitted by: Ed Balon

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Sample
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	kg
SI	.2	.6	.3	1	<.1	.3	<.1	3	.12	<.5	<.1	.5	<.1	3	<.1	<.1	<.1	1	.13	<.001	<1	2.0	<.01	4	<.001	1	.01	.560	.01	<.1	<.01	.1	<.1	<.05	<1	<.5	-
SAM-R1	.9	3.1	3.2	11	.6	2.1	.7	158	.64	2.9	.2	1627.5	.5	6	<.1	.2	.1	9	.04	.011	7	6.0	.04	25	.002	1	.29	.025	.11	.5	.02	.3	<.1	<.05	1	<.5	1.65
SAM-R2	.4	4.4	.7	10	<.1	7.6	1.5	159	.50	10.2	.5	7.8	.3	17	.1	1.0	<.1	70	2.44	.083	2	10.0	1.16	56	.002	3	.11	.012	.05	<.1	.03	.4	<.1	<.05	<1	<.5	1.40
STANDARD DS5	13.1	137.1	25.2	137	.3	25.8	11.8	785	3.00	17.7	6.2	41.4	2.8	46	5.4	3.5	5.9	62	.76	.093	12	185.0	.68	134	.101	16	2.09	.033	.14	4.7	.17	3.4	1.0	<.05	7	4.9	-

GROUP 1DX - 30.0 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 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

Data FA DATE RECEIVED: AUG 25 2004 DATE REPORT MAILED: Sept. 13/04.....





GEOCHEMICAL ANALYSIS CERTIFICATE



Almaden Minerals Ltd. PROJECT SAM04-2 File # A406176 Page 1

1103 - 750 W. Pender St., Vancouver BC V6C 2T8 Submitted by: Ed Baton

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	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 % ppm	Ba ppm	Ti % ppm	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S % ppm	Ga ppm	Se ppm
SI	.3	1.4	.3	1	<.1	.4	.1	9	.11	.7	<.1	1.4	<.1	4	<.1	<.1	<.1	<.1	.19	<.001	<.1	1.7	<.01	5	<.001	<.1	.01	.710	.01	<.1	.01	.2	<.1	<.05	<.1	<.5
SAM-R3	1.8	5.0	5.1	15	.2	1.8	1.4	210	.87	33.4	.6	16.1	.5	11	.1	.7	.3	12	.36	.044	10	9.0	.10	30	.006	1	.38	.037	.08	.1	.07	1.3	<.1	<.05	2	<.5
SAM-R4	21.1	12.4	9.1	18	.3	4.9	1.8	40	1.68	76.5	.3	51.4	.8	25	<.1	.8	.1	14	.11	.060	17	8.1	.02	50	.003	1	.49	.077	.20	<.1	.03	2.5	<.1	.45	1	<.5
SAM-R5	1.4	5.6	1.2	3	.5	2.5	.4	42	.44	3.0	.1	928.7	.2	4	<.1	.2	.1	2	.02	.002	3	18.2	.01	16	.001	<.1	.15	.005	.09	2.1	.04	.3	<.1	<.05	<.1	<.5
SAM-R6	1.5	4.0	1.8	7	.3	1.9	.5	63	.57	3.8	.2	368.7	1.1	4	<.1	.2	.1	2	.03	.005	7	10.8	.02	20	.001	2	.22	.006	.11	.1	.03	.4	<.1	<.05	<.1	<.5
SAM-R7	1.3	4.4	1.2	4	.7	2.6	.5	75	.44	6.0	.1	1284.8	.3	6	<.1	.1	.1	1	.02	.004	2	20.8	.01	18	.001	<.1	.14	.004	.07	2.4	.07	.3	<.1	<.05	<.1	<.5
SAM-R8	2.3	8.9	.5	4	1.6	4.1	1.7	87	.79	6.8	<.1	4397.6	<.1	6	<.1	.1	<.1	5	.13	.007	1	17.7	.10	12	.005	<.1	.36	.004	.08	.1	<.01	.7	<.1	<.05	1	<.5
SAM-R9	4.3	15.5	1.2	9	21.0	11.6	4.1	43	1.97	196.2	.1	29800.2	.1	7	<.1	.6	<.1	14	.10	.029	2	14.7	.10	14	.002	1	1.40	.005	.09	1.0	.09	.9	<.1	<.05	1	.6
SAM-R9F	3.5	24.3	3.1	34	5.6	25.6	4.6	150	3.85	164.8	.3	5639.1	.6	18	<.1	.4	<.1	44	.32	.079	7	50.4	.85	47	.001	<.1	1.66	.010	.19	<.1	.12	3.2	.2	.07	5	.7
SAM-R9H	3.9	17.2	3.3	10	6.4	4.7	1.4	45	1.93	125.5	.2	8853.2	.4	38	<.1	.5	.1	28	.25	.038	4	17.4	.18	47	.001	2	.76	.021	.25	.2	.11	1.8	.2	.06	2	.8
SAM-R10	6.9	14.5	1.8	6	13.3	3.8	1.1	24	1.73	217.5	.1	14929.7	.2	16	<.1	.6	<.1	14	.12	.034	2	15.4	.10	19	.001	<.1	.41	.006	.12	<.1	.11	1.0	.1	<.05	1	.7
SAM-R11	2.7	9.6	.9	7	14.5	4.9	1.6	40	1.18	116.6	.1	19184.8	.1	7	<.1	.6	<.1	10	.08	.018	1	15.6	.08	13	.001	2	.34	.006	.10	1.0	.06	.7	.1	<.05	1	.7
SAM-R12	3.3	28.2	1.3	13	31.1	11.8	2.1	42	1.65	121.5	.1	43118.2	.2	8	<.1	.6	<.1	16	.24	.022	1	16.8	.17	14	.001	1	.73	.006	.13	<.1	.10	1.5	.1	<.05	1	<.5
SAM-R13	5.2	33.5	2.2	16	35.1	14.9	2.4	36	2.39	182.5	.2	55745.9	.2	11	<.1	.8	<.1	19	.21	.040	2	16.3	.16	22	.001	1	.80	.008	.15	.7	.16	1.4	.1	<.05	1	.6
SAM-R14	4.0	31.1	1.6	10	25.6	10.8	2.0	23	1.60	120.6	.2	36896.1	.2	6	<.1	.7	<.1	14	.14	.027	1	11.5	.11	14	.001	1	.46	.004	.12	<.1	.12	.9	.1	<.05	1	<.5
SAM-R14F	2.4	36.2	3.2	33	4.3	22.1	10.7	175	2.69	193.9	.3	1244.6	.6	10	<.1	.9	.1	53	.34	.060	5	21.2	.56	28	.003	2	1.19	.022	.15	<.1	.11	4.6	.1	<.05	3	.5
SAM-R15	5.7	11.3	4.6	22	.5	2.7	1.9	223	1.25	47.5	.1	187.0	.5	7	.1	.3	.1	8	.12	.034	7	8.0	.05	20	.002	2	.30	.018	.12	<.1	.02	1.0	<.1	<.05	1	<.5
SAM-R16	7.1	7.6	4.0	9	.4	3.1	.7	42	.71	23.9	.1	211.0	.3	4	<.1	.3	<.1	6	.04	.013	4	14.9	.03	17	.004	2	.24	.007	.13	1.2	.01	.6	<.1	<.05	1	<.5
SAM-R17	3.1	48.6	3.0	32	.5	12.6	6.9	347	2.05	45.0	.2	71.0	.2	10	<.1	.3	<.1	33	.17	.049	7	23.1	.47	23	.002	1	.88	.028	.07	<.1	.02	1.8	<.1	<.05	4	.9
RE SAM-R17	3.1	49.2	2.7	32	.5	12.6	6.3	345	2.03	44.7	.2	65.7	.2	10	<.1	.3	<.1	33	.17	.049	6	22.1	.47	21	.002	2	.85	.027	.07	<.1	.03	1.6	<.1	<.05	4	.7
SAM-R18	6.2	15.2	2.9	31	.5	3.9	1.4	260	1.78	92.2	.1	341.0	.3	13	.1	8.2	<.1	16	.04	.032	5	15.0	.17	44	.002	2	.41	.003	.16	2.0	.01	.9	.1	<.05	2	<.5
SAM-R19	3.8	8.3	3.5	11	.6	3.2	1.8	148	.86	15.1	.1	75.0	.4	9	<.1	.6	<.1	11	.05	.019	6	14.1	.10	22	.002	2	.29	.009	.10	<.1	.06	.9	<.1	<.05	1	<.5
SAM-R20	.9	17.9	1.0	10	.3	3.2	2.9	102	.69	4.0	.1	872.4	.2	10	<.1	.4	.2	11	.31	.044	3	11.1	.05	5	.004	2	.49	.014	.11	1.1	<.01	1.1	<.1	<.05	1	<.5
SAM-R21	.8	27.0	1.8	32	.2	6.8	8.5	212	2.44	6.9	.2	427.0	.7	18	.1	.3	.4	27	.44	.081	9	10.4	.26	18	.018	2	1.07	.017	.30	.1	.02	2.0	.1	<.05	3	.6
SAM-R22	.6	17.3	1.3	13	.2	4.1	3.5	124	1.07	6.6	.1	480.0	.2	12	<.1	.5	.2	15	.25	.059	3	10.4	.07	6	.005	3	.48	.005	.10	.8	.02	1.3	<.1	<.05	1	<.5
SAM-R23	.9	19.3	1.0	14	.2	4.1	3.1	164	1.04	6.0	.1	289.9	.3	17	<.1	.7	.1	18	.44	.054	3	9.2	.11	9	.008	2	.81	.026	.09	.1	.02	1.4	<.1	<.05	2	<.5
SAM-R24	.8	20.2	1.2	13	.2	6.0	3.7	199	1.03	5.3	.1	360.1	.4	14	.1	.5	.1	23	.43	.034	5	10.0	.11	13	.009	3	.92	.028	.15	.9	.01	1.7	.1	<.05	2	<.5
SAM-R25	1.1	25.5	1.5	19	.2	8.8	6.3	201	1.30	6.4	.3	341.0	.6	18	<.1	.4	.2	47	.64	.065	8	12.9	.23	18	.015	2	1.19	.044	.21	<.1	.01	2.2	.1	<.05	3	<.5
SAM-R26	.5	49.3	1.9	34	.3	14.3	9.8	305	2.39	15.2	.4	357.6	1.2	20	<.1	.2	.1	121	.90	.088	9	22.0	.70	23	.049	2	1.87	.060	.44	.4	.01	4.7	.2	<.05	6	<.5
SAM-R27	1.2	4.0	3.9	10	.3	1.7	.6	52	.66	3.7	.4	228.9	1.5	8	<.1	.1	.4	6	.06	.014	15	6.5	.04	40	.001	2	.40	.005	.24	<.1	.04	.5	<.1	<.05	1	<.5
SAM-R28	.3	28.4	3.2	39	<.1	23.6	10.2	469	2.38	.7	.6	2.0	1.5	133	.1	<.1	<.1	75	3.57	.045	9	35.4	1.06	34	.196	7	5.14	.318	.06	.1	.02	5.6	<.1	<.05	7	<.5
SAM-R29	2.0	3.7	1.4	5	.3	1.1	.5	51	.52	2.1	.1	703.7	.5	5	<.1	.1	<.1	3	.03	.004	7	9.4	.02	21	.001	2	.24	.011	.11	<.1	.05	.5	<.1	<.05	1	<.5
SAM-R30	1.0	4.7	1.0	4	.3	2.3	.6	48	.39	2.9	.1	207.1	.3	4	<.1	.2	<.1	2	.04	.003	3	16.8	.03	14	.002	2	.16	.005	.07	1.3	.03	.4	<.1	<.05	<.1	<.5
SAM-R31	1.3	3.7	2.2	6	.3	1.8	.7	63	.45	4.2	.1	369.0	.3	6	<.1	.1	.2	2	.03	.004	6	12.1	.03	22	.002	3	.22	.005	.10	<.1	.03	.4	<.1	<.05	<.1	<.5
SAM-R32	.5	29.3	4.4	67	.9	36.0	24.1	699	4.98	248.6	.5	128.3	.9	24	.1	1.9	.1	96	1.12	.145	10	70.9	1.82	17	.499	3	2.13	.039	.17	1.3	.05	11.1	.1	.44	10	1.1
STANDARD DS5	12.1	142.5	25.4	138	.3	25.9	11.6	764	3.03	17.9	6.4	42.0	2.6	46	5.5	3.6	5.9	60	.74	.090	12	194.4	.64	135	.095	18	2.01	.033	.15	5.1	.17	3.3	1.0	<.05	6	4.8

GROUP 1DX - 30.0 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	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	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm
SAM-R33	.6	16.7	3.4	63	.9	37.9	22.0	644	4.74	320.6	.5	169.9	.7	21	.1	2.1	.1	89	1.08	.154	8	70.9	1.81	11	.427	3	2.06	.022	.11	.9	.07	9.9	.1	.46	10	1.5
SAM-R34	1.1	4.9	1.7	7	.4	3.2	.9	116	.54	5.5	.1	408.0	.2	5	<.1	.2	<.1	7	.04	.005	4	18.1	.05	28	.006	2	.27	.005	.14	1.7	.01	.4	<.1	<.05	1	<.5
SAM-R35	12.1	9.9	3.2	40	.2	5.3	2.8	226	1.41	33.4	.2	9.8	.6	6	<.1	.5	<.1	17	.09	.043	11	13.1	.26	33	.005	1	.69	.007	.18	<.1	.01	1.0	.1	<.05	2	.5
SAM-R36	10.0	8.1	7.2	15	.3	3.0	1.3	106	1.09	40.4	.2	23.0	.6	11	<.1	.4	.2	11	.06	.030	12	9.5	.07	44	.001	3	.42	.021	.21	.8	.02	.7	.1	<.05	1	<.5
STANDARD	12.2	142.0	25.7	137	.3	25.4	11.6	735	2.98	17.4	6.4	45.7	2.6	49	5.3	3.3	5.9	62	.75	.095	13	189.5	.65	135	.094	19	1.99	.032	.15	4.8	.19	3.3	1.1	<.05	7	4.8

Standard is STANDARD DS5.



ASSAY CERTIFICATE



Almaden Minerals Ltd. PROJECT SAM04-2 File # A406176R

1103 - 750 W. Pender St., Vancouver BC V6C 2T8 Submitted by: Ed Balon

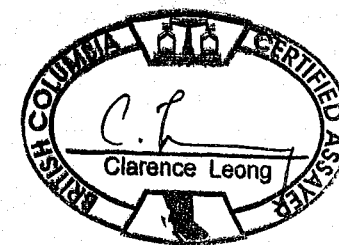
SAMPLE#	S.Wt gm	NAu mg	-Au gm/mt	DupAu gm/mt	TotAu gm/mt
SI	<1	<.01	.01	-	.01
SAM-R9	539	.07	27.38	-	27.51
SAM-R9F	544	.05	5.88	-	5.97
SAM-R9H	553	<.01	9.15	-	9.15
SAM-R10	561	<.01	12.79	-	12.79
SAM-R11	523	<.01	18.71	-	18.71
SAM-R12	533	.06	39.13	-	39.24
SAM-R13	554	.19	53.04	51.23	53.38
SAM-R14	542	<.01	38.09	-	38.09
SAM-R14F	578	1.72	1.51	-	4.49
STANDARD AU-1	<1	<.01	3.39	-	3.39

-AU : -150 AU BY FIRE ASSAY FROM 1 A.T. SAMPLE. DUPAU: AU DUPLICATED FROM -150 MESH. NAU - NATIVE GOLD, TOTAL SAMPLE FIRE ASSAY.
- SAMPLE TYPE: ROCK REJ.

Data ___ FA ✓

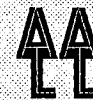
DATE RECEIVED: NOV 8 2004

DATE REPORT MAILED: Dec 2/04





ASSAY CERTIFICATE



Almaden Minerals Ltd. PROJECT SAM04-2 File # A406176R

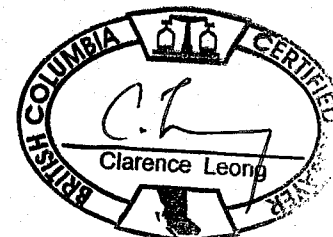
1103 - 750 W. Pender St., Vancouver BC V6C 2T8 Submitted by: Ed Balon

SAMPLE#	S.Wt gm	NAg mg	-Ag gm/mt	DupAg gm/mt	TotAg gm/mt
SI	<1	<.06	<1	-	<2
SAM-R9	539	.34	21	-	22
SAM-R9F	544	.20	6	-	7
SAM-R9H	553	<.06	6	-	6
SAM-R10	561	.39	13	-	13
SAM-R11	523	.58	14	-	15
SAM-R12	533	<.06	30	-	30
SAM-R13	578	.53	35	-	36
SAM-R14	542	.18	27	-	27
SAM-R14F	554	.06	4	4	4
STANDARD GC-2a	<1	<.06	1034	-	1034

-AG : -150 AG BY FIRE ASSAY FROM 1 A.T. SAMPLE. DUPAG: AG DUPLICATED FROM -150 MESH. NAG - NATIVE SILVER, TOTAL SAMPLE FIRE ASSAY.
- SAMPLE TYPE: ROCK REJ.

Data FA Y

DATE RECEIVED: NOV 8 2004 DATE REPORT MAILED: Dec 2/04





GEOCHEMICAL ANALYSIS CERTIFICATE



Almaden Minerals Ltd. PROJECT SAM04-2 File # A406177

1103 - 750 W. Pender St., Vancouver BC V6C 2T8 Submitted by: Ed Balon

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	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	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
G-1	1.1	2.6	2.2	40	<.1	3.7	3.6	477	1.66	.5	2.1	<.5	4.3	61	<.1	<.1	.1	36	.49	.082	6	11.7	.49	168	.106	1	.76	.070	.34	1.2	<.01	1.7	.3	<.05	4	<.5	30
AC34-1	.3	26.6	4.8	40	.1	27.3	11.4	835	2.29	5.6	.9	18.1	.8	96	.1	.4	.1	70	1.57	.042	7	35.3	.83	64	.176	2	1.91	.027	.04	.1	.04	5.4	<.1	<.05	6	<.5	30
AC35-1	.4	34.9	5.3	56	.2	39.9	13.3	471	2.83	6.6	.8	3.2	.9	200	.2	.3	.1	92	1.62	.087	10	42.0	1.17	99	.207	3	2.55	.063	.05	.1	.08	6.4	<.1	<.05	8	1.1	30
AC35-2	.5	50.9	5.0	57	.2	39.5	13.3	556	2.96	7.4	1.1	2.3	.9	158	.2	.3	.1	89	1.67	.078	11	41.2	1.14	95	.183	2	3.16	.043	.05	.1	.11	6.9	<.1	<.05	9	1.0	30
AC38-1	.6	48.1	6.0	55	.2	36.6	13.4	581	2.81	5.3	1.1	3.1	.9	169	.2	.3	<.1	83	1.91	.087	14	41.2	1.14	141	.167	5	2.87	.043	.07	.1	.15	8.0	<.1	.06	8	1.6	30
AC38-2	.4	40.0	5.5	52	.2	32.0	12.6	557	2.79	4.3	.8	28.0	.9	179	.2	.3	<.1	79	1.69	.082	13	37.8	1.07	159	.167	4	2.55	.041	.07	.1	.09	7.0	<.1	<.05	7	1.0	30
AC38-3	.3	38.8	5.1	51	.2	39.1	15.2	805	3.02	5.4	1.1	3.3	1.1	203	.1	.2	<.1	91	1.77	.073	15	42.6	1.18	118	.203	3	2.91	.050	.07	.1	.08	8.2	<.1	<.05	8	.7	30
AC38-4	.4	46.9	5.3	50	.3	29.2	11.7	583	2.49	4.2	.9	2.4	.4	173	.2	.4	<.1	69	2.07	.099	15	32.3	1.02	221	.112	4	2.37	.041	.06	.1	.12	5.9	<.1	.10	6	1.3	30
AC41-2	.4	48.1	5.0	55	.3	29.2	12.1	771	2.72	8.6	1.5	1.8	.8	125	.1	.3	.1	87	1.82	.093	15	33.9	.94	105	.159	3	3.26	.041	.07	.1	.10	8.8	<.1	<.05	9	.5	15
STANDARD DS5	12.5	145.6	25.3	140	.3	25.9	12.7	792	2.93	17.7	6.1	45.1	2.9	45	5.4	3.5	6.0	63	.76	.092	12	187.8	.69	136	.103	18	1.98	.034	.14	5.1	.17	3.6	1.1	<.05	7	5.0	30

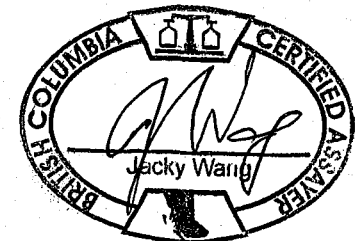
GROUP 1DX - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP-MS.
(>) CONCENTRATION EXCEEDS UPPER LIMITS. SOME MINERALS MAY BE PARTIALLY ATTACKED. REFRACTORY AND GRAPHITIC SAMPLES CAN LIMIT AU SOLUBILITY.
- SAMPLE TYPE: S.SED.SS80

Data 1 FA

DATE RECEIVED: OCT 5 2004

DATE REPORT MAILED:

Nov 4 / 2004





GEOCHEMICAL ANALYSIS CERTIFICATE

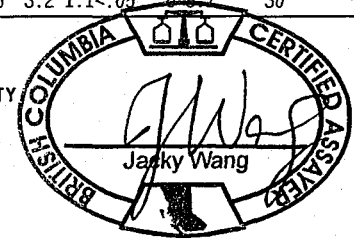


Almaden Minerals Ltd. PROJECT SAM04-2 File # A406178 Page 1
1103 - 750 W. Pender St., Vancouver BC V6C 2T8 Submitted by: Ed Balon

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Sample
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	gm
G-1	1.2	2.7	2.2	46	<.1	4.4	4.1	576	1.90	<.5	2.0	<.5	4.2	77	<.1	<.1	.1	39	.50	.083	7	11.4	.60	255	.128	1	.95	.066	.52	1.2	<.01	1.8	.4	<.05	5	<.5	30
SB-1	3.5	36.6	7.4	38	.8	21.4	9.9	286	5.53	221.8	.9	527.6	1.1	93	<.1	1.6	<.1	63	.64	.125	16	23.4	.74	151	.068	<.1	1.38	.022	.11	.1	.07	6.2	.1	.14	5	.7	30
SB-2	.7	16.8	12.0	41	.3	11.3	2.3	346	3.43	104.5	.2	175.7	.5	61	<.1	1.4	<.1	20	.63	.069	8	15.4	.91	36	.001	1	1.98	.008	.09	<.1	.12	3.3	<.1	.14	5	<.5	15
SB-3	.9	55.7	10.1	42	.7	15.5	14.5	440	5.26	648.6	.6	469.0	1.3	80	.1	2.3	<.1	40	.73	.149	16	20.3	.95	40	.001	1	2.13	.011	.09	.1	.23	6.8	.1	.13	5	<.5	30
SB-4	.8	82.3	10.6	50	.5	24.7	25.9	815	5.61	495.3	.7	317.5	1.6	59	.1	3.0	<.1	48	.82	.154	23	19.7	1.26	41	.001	<.1	2.54	.007	<.1	.49	7.8	.2	<.05	6	.8	30	
SB-5	9.0	46.1	6.2	39	.8	22.2	10.4	390	4.23	437.2	.7	299.3	1.2	71	<.1	4.2	.1	61	.76	.126	16	22.4	1.18	52	.002	<.1	2.42	.012	.08	.1	.34	5.7	.2	<.05	6	<.5	15
SJ-1	.4	24.3	4.6	48	.1	27.0	10.8	471	3.01	4.6	.6	1.4	1.2	136	.1	.3	.1	104	1.02	.065	11	34.2	.84	79	.283	1	2.31	.034	.06	.1	.02	5.9	<.1	<.05	6	<.5	30
SJ-2	.6	41.1	4.7	59	<.1	43.7	17.2	876	3.53	9.1	.7	4.6	1.6	167	.1	.3	.1	98	1.44	.093	14	39.0	1.21	74	.259	2	2.99	.052	.07	.1	.03	8.7	<.1	<.05	9	<.5	15
SJ-3	.5	28.9	5.1	54	.1	35.6	11.6	494	3.30	5.7	.7	3.1	1.3	161	.1	.4	.1	101	.95	.072	11	40.0	.93	108	.279	<.1	2.76	.035	.07	.1	.03	6.5	<.1	<.05	8	<.5	30
SJ-4	.4	28.1	4.3	49	<.1	33.8	11.9	400	3.34	4.6	.6	4.5	1.2	158	.1	.3	.1	112	.85	.047	8	40.3	.90	151	.294	<.1	2.72	.030	.07	<.1	.03	6.4	<.1	<.05	7	<.5	30
SJ-5	.4	20.5	5.3	48	.1	30.1	9.5	293	2.79	3.8	.5	11.3	1.0	80	.1	.2	.1	78	.68	.060	7	31.5	.76	88	.204	1	2.61	.025	.05	<.1	.02	4.5	<.1	<.05	7	<.5	30
SJ-6	.4	20.0	5.1	55	.1	29.6	10.4	412	2.86	4.1	.6	1.5	1.2	107	.1	.3	.1	92	.92	.053	9	35.0	.76	90	.239	1	2.30	.035	.05	.1	.02	5.6	<.1	<.05	7	<.5	30
SJ-7	.8	21.5	6.0	49	.1	35.3	11.3	304	3.34	8.3	.5	3.1	1.1	112	.1	.2	.1	80	.65	.070	7	34.9	.77	120	.162	1	3.24	.030	.04	<.1	.05	4.4	<.1	<.05	9	<.5	15
RE SJ-7	.7	21.5	5.8	45	.1	36.8	11.3	301	3.07	7.3	.5	4.0	1.1	105	.1	.3	.1	80	.57	.068	7	34.0	.73	118	.149	1	3.09	.028	.04	<.1	.04	4.2	<.1	<.05	9	<.5	15
SJ-8	.4	39.2	3.8	51	<.1	51.8	17.6	800	3.62	5.3	.6	3.4	1.5	218	.1	.4	.1	86	1.56	.110	14	43.1	1.26	105	.134	1	2.86	.049	.09	.1	.08	8.7	<.1	<.05	8	<.5	15
SJ-9	.4	25.2	3.8	51	<.1	50.2	14.1	404	3.75	6.4	.5	2.3	.9	177	<.1	.4	.1	93	.92	.064	9	50.3	1.11	152	.105	<.1	3.33	.022	.07	<.1	.03	6.3	<.1	<.05	7	<.5	30
SJ-10	.4	19.4	4.7	55	.1	25.1	10.4	227	2.75	7.2	.3	<.5	.3	43	.1	.4	.1	64	.69	.087	4	20.8	.80	84	.011	<.1	2.35	.009	.06	<.1	.03	2.8	<.1	<.05	7	<.5	15
SJ-11	.7	59.1	4.7	56	.6	34.7	12.1	869	2.87	50.5	1.5	37.9	5	165	.2	.7	.1	63	1.24	.113	24	31.9	.81	99	.039	<.1	3.11	.044	.06	<.1	.18	8.7	<.1	<.05	8	1.0	15
SJ-12	1.2	36.4	4.7	51	.4	36.6	18.9	737	3.75	45.3	.6	187.3	1.2	169	.1	1.3	.1	77	1.30	.095	15	34.4	1.22	141	.083	<.1	2.83	.040	.08	.1	.10	8.0	.1	<.05	7	.5	15
SJ-13	1.5	25.5	5.1	44	1.4	38.9	13.8	556	3.21	138.7	.4	2094.0	1.0	133	.1	1.4	.1	75	1.00	.061	12	39.9	1.23	113	.061	1	2.21	.038	.09	<.1	.18	6.3	.2	<.05	6	.8	15
SJ-14	.4	25.0	4.8	50	.2	28.3	10.6	294	2.70	25.9	.4	3.8	.7	169	.1	.6	.1	71	.56	.098	6	27.4	.76	114	.071	1	3.06	.025	.06	<.1	.08	3.6	<.1	<.05	8	.5	30
SJ-15	.4	36.7	4.8	56	.1	44.5	16.0	551	3.68	32.3	.6	12.5	1.2	187	.1	.6	.1	94	1.08	.131	11	37.3	1.36	150	.103	<.1	3.79	.038	.08	.1	.11	6.6	.1	<.05	9	.5	15
SJ-16	.3	33.3	4.8	49	<.1	39.3	16.0	790	3.54	28.9	.7	20.3	1.4	277	.1	.6	<.1	96	1.11	.070	16	37.5	1.29	165	.186	<.1	3.70	.048	.06	.1	.12	8.2	.1	<.05	9	<.5	15
SJ-17	.6	29.7	5.7	59	.1	42.9	14.1	552	3.58	29.0	.6	19.9	1.4	206	.1	.7	.1	89	.97	.112	13	36.3	1.17	146	.148	<.1	3.30	.037	.07	.1	.15	7.2	<.1	<.05	9	<.5	15
SJ-18	.4	37.2	4.0	50	.1	56.5	18.1	639	3.68	11.1	.5	3.0	1.5	517	<.1	.3	<.1	98	1.33	.075	12	40.2	1.63	214	.218	<.1	4.28	.054	.11	<.1	.05	7.2	<.1	<.05	8	<.5	15
SJ-19	.2	18.7	6.4	39	.3	21.9	7.0	398	2.11	7.3	.7	1.3	.9	36	.1	.1	.1	70	.52	.042	8	25.4	.49	78	.081	<.1	2.31	.024	.03	<.1	.04	3.6	<.1	<.05	7	<.5	30
SJ-20	.4	36.6	4.2	57	<.1	53.2	17.8	672	3.81	10.5	.9	3.1	1.5	335	.1	.3	<.1	91	1.22	.057	14	39.2	1.55	170	.243	<.1	4.41	.042	.09	<.1	.08	11.0	<.1	<.05	10	<.5	15
SJ-21	.4	39.1	4.8	59	<.1	50.2	16.8	570	3.70	13.2	.7	5.9	1.8	242	.1	.4	.1	91	.99	.097	14	42.3	1.41	174	.193	1	4.32	.035	.07	.1	.10	9.6	<.1	<.05	9	<.5	15
SJ-22	.9	27.2	5.3	55	.1	37.1	12.3	392	3.08	8.3	.5	<.5	1.4	73	.1	.3	.1	75	.43	.115	6	33.3	.91	67	.132	1	3.71	.015	.06	.1	.07	4.7	<.1	<.05	9	<.5	30
SJ-23	.4	31.6	4.8	56	<.1	42.2	14.4	560	3.47	16.4	.7	11.4	1.3	157	<.1	.5	<.1	88	.95	.084	13	37.7	1.21	137	.116	1	3.30	.031	.05	<.1	.13	7.4	<.1	<.05	9	<.5	15
SJ-24	.4	26.5	5.2	51	.1	40.2	14.0	566	3.36	32.0	.6	16.5	1.3	192	<.1	.6	.1	89	.93	.089	11	35.3	1.09	158	.137	<.1	3.04	.043	.05	<.1	.19	6.4	.1	<.05	8	<.5	15
SJ-25	.4	14.9	6.8	39	.2	13.9	5.5	143	2.00	4.8	.4	.5	1.0	23	.1	.1	.1	49	.20	.103	6	21.5	.32	65	.084	<.1	2.56	.016	.03	<.1	.03	3.5	<.1	<.05	9	<.5	30
SJ-26	.5	42.4	5.0	53	.1	51.9	16.7	670	3.68	16.1	.9	13.6	1.9	181	.1	.4	<.1	114	.75	.113	15	42.1	1.41	161	.216	<.1	5.03	.028	.10	.1	.13	7.8	<.1	<.05	10	<.5	30
SJ-27	.8	24.9	7.1	66	.1	41.4	13.1	627	3.08	6.3	.5	3.4	1.4	136	.1	.2	.1	76	.46	.119	7	32.0	1.00	127	.189	1	3.98	.024	.08	.1	.05	4.5	.1	<.05	10	<.5	30
SJ-28	.7	34.4	4.9	74	.1	57.6	17.1	531	3.89	7.0	.7	3.4	2.0	208	.1	.3	.1	94	.72	.124	10	43.8	1.22	128	.242	1	5.17	.027	.10	.1	.05	6.7	.1	<.05	13	<.5	30
STANDARD DS5	12.4	139.3	25.5	136	.3	26.1	10.7	831	3.04	18.0	6.7	42.1	2.6	49	5.4	3.8	6.4	63	.73	.091	12	191.4	.69	133	.093	19	2.10	.032	.13	5.2	.16	3.2	1.1	<.05	6.5	1	30

GROUP 1DX - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 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: SOIL SS80 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data 1 FA _____ DATE RECEIVED: OCT 5 2004 DATE REPORT MAILED: Nov 4 / 2004





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	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
SJ-29	1.0	18.9	6.0	68	.1	26.3	10.5	522	2.91	5.2	.4	3.0	1.0	45	.1	.2	.1	63	.35	.203	5	26.7	.67	80	.128	2	3.33	.015	.08	.1	.06	3.2	<.1	.07	10	.5	30
SJ-30	.9	31.0	5.0	69	.1	42.2	14.4	346	3.62	7.3	.6	6.0	1.7	105	.1	.2	.1	73	.40	.169	7	34.2	1.16	107	.181	2	4.63	.013	.11	.1	.05	5.0	<.1	<.05	11	.5	30
SJ-31	.7	34.8	6.1	56	.1	47.9	15.1	616	3.51	8.7	.7	2.9	1.7	404	.2	.2	.1	81	.97	.126	10	35.3	1.37	110	.227	3	4.73	.052	.09	.1	.12	8.0	<.1	<.05	11	<.5	30
SJ-32	.6	41.2	4.1	60	.1	46.8	13.7	443	3.67	12.2	.9	15.6	1.8	156	.1	.3	.1	86	.74	.108	12	44.4	1.33	120	.148	4	4.30	.027	.08	.1	.06	7.8	<.1	<.05	11	.6	30
SJ-33	.5	56.8	5.7	55	.1	51.3	16.5	688	3.76	11.7	.8	4.2	2.0	201	.1	.2	.1	93	1.59	.117	17	54.5	1.62	116	.222	2	5.95	.025	.14	.1	.08	8.8	.1	<.05	13	<.5	30
SJ-34	.7	46.9	5.5	55	.1	48.8	17.0	640	3.90	13.2	1.1	3.7	1.8	235	.1	.3	.1	97	.80	.150	18	39.8	1.57	122	.232	<1	6.05	.032	.08	.1	.13	8.1	<.1	<.05	13	<.5	30
SJ-35	.9	29.6	5.1	60	.1	32.0	11.1	318	3.09	6.8	.7	2.6	1.8	74	.1	.3	.1	70	.26	.088	9	31.8	1.00	89	.152	1	4.17	.013	.06	.1	.07	5.8	.1	<.05	9	.6	30
SJ-36	.8	47.9	6.7	62	.1	49.2	17.3	514	4.09	10.2	.8	2.6	1.9	219	.2	.3	.1	97	.76	.093	12	46.7	1.49	121	.218	2	4.92	.029	.08	.1	.06	6.8	<.1	<.05	12	.5	30
SJ-37	.8	41.5	4.7	56	.1	42.4	16.3	832	3.76	8.2	.7	3.9	1.4	197	.1	.6	<.1	101	1.74	.103	15	41.3	1.28	94	.271	3	2.97	.061	.13	.1	.05	8.4	<.1	<.05	8	<.5	30
SJ-38	.4	42.6	4.0	47	.1	38.2	15.1	625	4.22	12.1	.6	49.5	1.4	274	.1	1.3	<.1	97	1.49	.087	13	44.4	1.19	107	.121	1	3.13	.053	.07	<.1	.21	9.6	<.1	<.05	8	<.5	30
SJ-39	.5	44.6	5.1	52	<.1	42.8	17.3	828	4.05	7.7	.9	3.3	1.7	222	.1	.4	.1	100	1.34	.110	18	49.0	1.40	109	.220	1	3.43	.050	.08	.1	.11	10.1	<.1	<.05	9	.5	30
SJ-40	.5	28.5	5.0	56	.1	36.2	12.5	327	3.49	6.8	.5	2.6	1.2	99	.1	.3	.1	89	.54	.070	8	43.8	.91	127	.180	<1	3.45	.020	.06	.1	.04	4.9	<.1	<.05	8	<.5	30
SJ-41	.6	31.4	5.4	63	.1	40.7	13.6	359	3.54	5.7	.5	3.7	1.6	96	.1	.2	.1	89	.49	.100	9	46.5	1.06	134	.184	2	4.02	.021	.08	<.1	.03	5.7	.1	<.05	9	.5	30
SJ-42	.5	38.5	4.9	53	.1	43.2	14.4	443	3.85	7.6	.6	2.7	1.5	133	<.1	.3	.1	101	.66	.066	11	56.6	1.20	144	.201	2	4.30	.022	.09	<.1	.04	6.8	.1	<.05	9	<.5	30
SJ-43	.5	35.5	4.6	50	.1	43.6	13.6	427	3.72	4.8	.6	1.2	1.6	140	.1	.3	<.1	94	.83	.055	10	51.0	1.23	127	.179	1	3.62	.034	.06	<.1	.04	7.9	<.1	<.05	9	<.5	15
RE SJ-43	.4	34.8	4.3	49	.1	43.1	14.1	422	3.53	4.8	.6	2.1	1.6	144	.1	.2	<.1	92	.79	.051	10	51.6	1.22	127	.181	1	3.66	.035	.06	<.1	.03	8.0	.1	<.05	9	<.5	15
SJ-44	.5	37.0	4.9	54	.1	39.8	13.7	511	3.44	9.6	1.0	1.9	1.3	119	.1	.2	.1	101	.98	.072	15	46.8	1.10	119	.177	2	3.72	.037	.05	<.1	.02	5.8	<.1	<.05	8	.6	30
SJ-45	.4	34.0	4.4	63	.2	59.4	17.9	697	3.56	5.5	.8	2.5	1.4	254	.1	.1	.1	87	1.18	.086	10	46.8	1.81	155	.218	2	4.65	.047	.14	<.1	.05	8.1	<.1	<.05	11	<.5	30
SJ-46	.5	30.3	4.8	55	.1	38.9	13.5	456	3.50	5.9	.6	1.8	1.5	164	.1	.2	.1	82	.74	.099	11	42.8	1.14	123	.181	2	3.82	.031	.08	.1	.04	6.5	<.1	<.05	9	<.5	30
SJ-47	.7	41.9	4.8	51	<.1	45.3	16.1	895	4.02	6.0	.9	7.8	1.5	203	.1	.2	<.1	109	1.26	.090	15	52.5	1.36	102	.230	1	3.02	.057	.09	<.1	.03	9.5	<.1	<.05	8	<.5	30
SJ-48	.7	38.9	4.8	55	<.1	48.2	18.1	844	4.22	5.5	.7	1.7	1.5	185	.1	.2	<.1	102	1.27	.092	16	55.7	1.55	112	.217	2	3.21	.061	.10	<.1	.03	10.3	<.1	<.05	9	<.5	15
SJ-49	.6	32.1	5.7	57	.1	38.3	13.8	490	3.40	4.4	.6	<.5	1.2	126	.1	.2	.1	81	.65	.084	11	42.6	1.09	123	.154	<1	4.29	.025	.07	<.1	.04	5.5	.1	<.05	11	<.5	30
SJ-50	.6	35.9	4.7	51	.1	43.1	14.8	733	3.91	5.8	.7	6.2	1.5	201	.1	.3	<.1	112	1.08	.086	15	53.8	1.22	119	.247	2	3.20	.055	.10	<.1	.04	8.8	<.1	<.05	8	<.5	30
SJ-51	.6	45.7	4.6	55	<.1	57.8	18.0	931	4.23	4.6	.7	1.5	1.4	215	.1	.2	<.1	102	1.43	.092	15	55.7	1.68	99	.208	1	3.14	.074	.08	<.1	.05	9.4	<.1	<.05	9	<.5	15
SJ-52	.5	45.8	4.9	58	.1	40.2	16.1	642	4.07	4.6	.7	2.8	1.5	197	.1	.3	.1	98	1.43	.060	12	54.4	1.28	116	.293	2	3.39	.052	.08	<.1	.03	12.0	<.1	<.05	10	<.5	15
SJ-53	.4	33.2	4.6	55	.1	34.7	14.4	500	3.67	4.6	1.1	.6	1.5	196	<.1	.3	.1	98	1.21	.047	13	47.0	1.19	114	.259	3	3.22	.054	.05	<.1	.04	10.2	<.1	<.05	8	<.5	30
SJ-54	.3	25.5	4.3	49	.1	32.2	10.0	324	2.78	3.8	.5	.9	1.3	97	.1	.2	.1	74	.78	.030	9	44.7	.94	90	.177	1	2.67	.035	.05	<.1	.03	5.4	.1	<.05	7	<.5	30
SJ-55	.2	24.0	6.1	61	.1	28.0	9.5	330	2.75	4.0	.8	<.5	1.6	71	.1	.2	.1	84	.63	.016	9	39.1	.85	68	.143	1	2.81	.034	.03	<.1	.03	5.8	<.1	<.05	8	<.5	30
SJ-56	.6	42.5	5.2	59	<.1	39.5	17.3	833	4.05	6.8	.6	3.5	1.6	205	.2	.4	.1	112	1.62	.103	16	46.6	1.26	93	.285	1	3.04	.059	.10	<.1	.04	7.9	<.1	<.05	9	<.5	15
SJ-57	.5	32.7	5.5	55	<.1	33.6	13.6	609	3.94	6.9	.7	3.9	1.4	184	.1	.4	.1	109	1.21	.090	14	48.7	1.13	103	.290	1	2.94	.036	.09	.1	.04	7.7	<.1	<.05	8	<.5	30
SJ-58	.4	27.3	5.0	56	.1	32.1	11.5	405	3.28	4.6	.6	3.0	1.3	114	.1	.3	.1	95	.81	.062	11	45.5	.93	95	.229	3	2.67	.029	.07	.1	.02	4.9	<.1	<.05	7	<.5	30
SJ-59	.4	31.1	5.4	64	.1	34.4	11.6	417	3.13	9.0	.5	<.5	1.3	112	.1	.3	.1	86	.79	.060	10	44.2	.97	92	.196	2	3.18	.032	.06	<.1	.05	6.0	.1	<.05	9	<.5	30
SJ-60	.5	27.4	4.8	55	.1	46.6	12.7	371	3.31	4.2	.5	2.3	1.2	160	.1	.3	.1	86	.90	.041	8	46.7	1.21	134	.213	2	3.24	.037	.07	<.1	.03	5.6	<.1	<.05	8	<.5	30
SJ-61	.6	41.7	4.1	53	.2	44.2	14.7	446	3.65	8.4	.7	1.0	1.8	156	.1	.3	<.1	90	.87	.165	13	50.7	1.17	115	.161	1	4.88	.031	.11	.1	.06	6.9	<.1	<.05	11	<.5	15
STANDARD DS5	12.9	141.3	25.4	137	.3	23.9	11.2	762	3.02	18.1	6.0	39.9	3.0	57	5.6	4.0	5.6	65	.78	.089	14	177.1	.70	142	.096	17	1.98	.034	.15	4.9	.18	3.6	1.0	<.05	7	4.8	30

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	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	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
SJ-62	.6	27.4	5.6	57	<.1	31.8	10.7	343	3.18	4.6	.6	3.1	1.4	135	.1	.4	.1	92	.94	.050	9	41.0	.92	109	.212	1	2.09	.034	.06	<.1	.03	6.6	.1	<.05	7	<.5	30.0
SJ-63	.6	39.6	5.0	55	<.1	44.2	14.5	520	3.57	5.5	.8	3.6	1.7	148	.1	.3	.1	99	1.41	.078	14	48.3	1.30	125	.245	1	3.30	.032	.10	<.1	.06	9.1	<.1	<.05	10	<.5	15.0
SJ-64	.6	52.9	5.2	66	<.1	53.2	19.5	755	3.89	4.3	.6	4.3	1.6	167	.1	.2	.1	101	2.25	.095	13	42.7	1.60	100	.223	1	3.94	.047	.08	<.1	.11	9.7	<.1	<.05	12	<.5	15.0
SJ-65	.8	31.7	5.5	55	.1	36.1	13.2	465	3.13	5.6	.6	2.9	1.4	107	.1	.3	.1	76	.91	.165	9	36.6	.96	108	.181	2	3.42	.028	.07	.1	.06	6.2	<.1	<.05	10	<.5	30.0
SJ-66	.6	26.4	5.9	56	.1	29.7	11.8	601	2.50	4.2	.6	.7	1.0	84	.1	.2	.1	69	.72	.102	7	34.8	.85	107	.135	1	2.59	.021	.07	.1	.03	5.1	<.1	<.05	8	.5	7.5
SJ-67	1.2	22.5	5.9	76	.1	35.7	12.2	248	2.91	6.3	.5	3.2	1.5	30	.1	.2	.1	69	.29	.200	5	36.0	.51	103	.122	1	3.36	.018	.06	.1	.03	4.2	.1	<.05	9	<.5	30.0
SJ-68	.7	36.8	5.1	59	<.1	44.8	13.9	523	3.41	5.6	.7	1.5	1.8	156	.1	.3	.1	92	1.19	.104	12	46.3	1.18	208	.193	2	3.24	.039	.10	<.1	.04	7.5	<.1	<.05	8	<.5	15.0
SJ-69	.4	31.8	4.9	49	<.1	36.2	11.1	376	3.15	5.0	.7	2.8	1.7	153	.1	.3	.1	89	1.42	.084	12	45.3	1.09	117	.280	1	2.72	.048	.08	<.1	.03	8.6	<.1	<.05	8	<.5	15.0
SJ-70	.3	17.7	5.2	50	.1	23.1	7.1	205	2.16	1.8	.4	1.4	1.0	47	.1	.2	.1	57	.49	.024	7	31.2	.64	67	.138	2	1.92	.020	.05	<.1	.01	4.9	<.1	<.05	6	<.5	30.0
SJ-71	1.1	32.8	5.6	57	<.1	36.8	12.3	390	3.48	6.0	.7	6.4	1.8	115	.1	.4	.1	96	.99	.059	14	43.2	1.12	135	.235	2	2.57	.028	.08	<.1	.01	7.3	<.1	<.05	7	<.5	30.0
SJ-72	.7	38.2	5.1	53	.1	37.4	13.9	517	3.14	5.6	.7	6.9	1.3	125	.1	.4	.1	81	.95	.083	11	39.9	1.03	100	.162	2	2.57	.033	.07	.1	.05	7.8	<.1	<.05	7	<.5	15.0
SJ-73	.7	39.6	4.9	58	<.1	43.9	15.4	536	3.67	6.7	.7	6.1	1.7	158	.1	.4	.1	98	1.16	.082	14	49.3	1.20	133	.217	<1	3.13	.034	.08	.1	.04	8.8	<.1	<.05	9	<.5	15.0
SJ-74	.6	48.1	4.8	59	<.1	49.1	19.3	720	3.84	6.7	.7	6.5	1.7	212	.1	.3	.1	102	1.71	.101	14	47.3	1.47	98	.277	1	3.35	.055	.11	.1	.05	9.1	<.1	<.05	10	<.5	30.0
SJ-75	.7	38.7	5.0	60	.1	42.9	14.4	460	3.61	4.8	.7	11.7	1.7	192	.1	.3	.1	90	.95	.060	13	47.9	1.13	143	.195	1	3.57	.034	.09	<.1	.03	9.4	.1	<.05	9	<.5	30.0
SJ-76	.6	44.4	4.8	56	.1	36.0	12.0	386	3.12	4.9	.7	2.3	1.6	101	.1	.3	.1	86	.84	.043	9	42.1	1.08	77	.187	1	2.78	.024	.06	<.1	.02	7.2	.1	<.05	8	<.5	30.0
SJ-77	.5	40.9	4.9	58	.1	45.1	16.4	526	3.42	6.1	.7	2.8	1.6	170	.1	.2	.1	96	1.24	.081	11	41.4	1.45	89	.250	1	3.80	.035	.10	<.1	.03	8.8	<.1	<.05	10	<.5	30.0
SJ-78	.7	36.2	4.8	55	.1	35.7	15.1	582	3.38	5.6	.7	2.5	1.4	147	.1	.3	.1	94	1.44	.089	13	38.1	1.21	86	.235	2	2.73	.049	.08	.1	.02	7.9	<.1	<.05	9	<.5	30.0
SJ-79	.5	37.9	4.8	54	<.1	38.5	17.0	742	3.47	4.9	.6	3.8	1.6	141	.1	.2	.1	90	1.62	.108	14	38.4	1.25	79	.236	<1	2.81	.047	.08	.1	.02	7.3	<.1	<.05	9	<.5	15.0
SJ-80	.4	35.6	3.8	51	<.1	35.7	16.3	670	2.91	3.8	.5	2.3	1.2	145	.1	.2	<.1	65	1.50	.094	11	30.1	1.23	62	.135	1	2.39	.044	.06	.1	.02	6.3	<.1	<.05	8	<.5	15.0
SJ-81	.6	26.9	4.8	68	.1	34.8	12.8	382	3.21	4.5	.5	3.2	1.5	70	.1	.2	.1	79	.62	.127	8	41.2	.81	107	.208	2	2.81	.023	.09	.1	.02	6.0	<.1	<.05	8	<.5	15.0
RE SJ-81	.5	26.9	4.8	66	.1	34.0	12.5	366	3.12	4.5	.6	.8	1.4	71	.1	.2	.1	78	.63	.124	8	39.6	.78	107	.208	2	2.78	.022	.08	.1	.02	6.0	<.1	<.05	8	<.5	15.0
SJ-82	.5	45.8	4.7	51	<.1	42.8	16.7	1216	3.49	5.7	1.0	4.1	1.8	164	.1	.3	.1	90	1.86	.080	13	44.9	1.17	117	.256	1	3.74	.058	.08	.1	.04	10.1	<.1	<.05	10	<.5	7.5
SJ-83	.6	34.8	5.3	50	.1	29.6	14.9	541	3.06	4.9	.8	6.0	1.5	127	.1	.3	<.1	88	1.57	.094	13	33.1	1.06	71	.245	2	2.54	.032	.07	.1	.02	7.7	<.1	<.05	8	<.5	30.0
SJ-84	.3	24.9	4.4	55	.1	34.3	13.8	701	2.96	7.4	.8	2.7	1.3	106	.1	.2	.1	65	1.07	.061	9	41.3	1.07	83	.163	2	2.36	.035	.07	.1	.03	7.7	<.1	<.05	7	<.5	15.0
SJ-85	.3	29.0	5.1	59	.1	32.5	12.3	580	2.76	3.7	.8	7.2	1.2	115	.1	.3	.1	78	1.16	.070	11	33.9	.97	74	.234	1	2.33	.027	.09	.1	.04	6.7	<.1	<.05	7	<.5	30.0
SJ-86	.4	42.7	4.7	52	.1	32.1	14.0	885	2.70	5.3	1.1	8.7	1.5	139	.2	.4	<.1	78	1.44	.085	13	39.5	1.06	84	.254	2	2.46	.038	.10	.1	.05	7.9	<.1	<.05	8	<.5	15.0
SJ-87	.5	42.9	5.0	57	.1	34.5	16.9	671	3.59	5.6	.7	5.2	1.4	148	.1	.3	<.1	91	1.52	.076	13	36.6	1.29	76	.258	<1	2.86	.034	.09	.1	.02	8.4	<.1	<.05	9	<.5	15.0
SJ-88	.5	38.7	4.5	56	<.1	29.3	14.9	608	3.41	4.6	.6	3.9	1.3	162	.1	.2	.1	89	1.46	.086	12	38.2	1.14	75	.228	1	3.21	.052	.09	.1	.03	8.0	<.1	<.05	9	<.5	30.0
SJ-89	.7	40.6	4.6	53	<.1	30.3	12.8	423	3.49	4.9	.7	6.3	1.6	160	<.1	.4	.1	89	1.41	.063	16	38.7	1.09	118	.210	<1	3.22	.038	.11	<.1	.03	8.9	<.1	<.05	10	<.5	30.0
SJ-90	.6	34.8	4.4	67	.1	36.2	12.7	346	3.22	3.4	.6	4.9	1.7	85	.1	.2	.1	73	.71	.067	10	43.0	.89	132	.186	2	3.34	.019	.14	<.1	.02	7.6	.1	<.05	9	<.5	30.0
SJ-91	.5	39.0	4.8	51	<.1	42.3	16.2	484	3.78	5.5	.8	5.8	1.6	160	.1	.2	.1	92	1.57	.069	14	44.1	1.19	93	.311	2	3.27	.037	.15	.1	.02	9.8	<.1	<.05	9	<.5	30.0
SJ-92	.4	35.5	4.9	58	.1	31.8	11.7	461	3.06	4.2	.9	4.9	1.6	101	.1	.3	.1	83	.95	.048	16	39.4	.86	97	.207	1	2.84	.034	.08	<.1	.03	8.1	<.1	<.05	8	<.5	15.0
SJ-93	.7	46.1	4.7	54	.1	34.4	16.4	730	3.45	8.1	.6	3.9	1.3	133	.1	.3	.1	83	1.36	.099	14	40.0	1.28	87	.186	<1	2.65	.034	.09	.1	.04	7.1	<.1	<.05	9	<.5	7.5
SJ-94	.6	24.7	6.8	61	.1	21.2	12.2	789	2.71	5.9	.4	2.1	.8	135	.1	.2	.1	72	1.31	.080	8	26.9	.76	83	.149	<1	3.16	.025	.13	<.1	.03	4.7	<.1	<.05	9	<.5	30.0
STANDARD DS5	12.4	139.1	26.0	130	.3	24.4	11.5	739	3.01	18.4	6.1	41.1	2.9	50	5.3	3.9	6.1	63	.79	.097	12	186.8	.71	139	.101	17	2.06	.035	.16	5.0	.18	3.4	1.0	<.05	7	5.1	30.0

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	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	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
SJ-95	.6	32.4	4.1	56	.1	26.0	12.7	495	3.23	6.1	.6	21.8	1.8	118	.1	.3	.1	91	.99	.081	14	39.0	.79	96	.180	1	2.46	.029	.08	.1	.03	7.5	<.1	.08	7	<.5	30
SJ-96	.6	30.3	4.2	45	.1	24.4	11.3	443	2.90	5.4	.6	5.4	1.8	113	.1	.4	.1	79	.99	.063	14	37.2	.78	100	.169	1	2.06	.032	.08	.1	.03	7.4	<.1	<.05	6	<.5	15
SJ-97	.5	36.0	4.1	47	.1	22.8	11.7	476	2.87	5.9	.5	5.4	1.3	116	.1	.4	.1	83	1.22	.062	14	33.1	.92	80	.187	1	2.18	.037	.07	.1	.03	6.8	<.1	<.05	7	<.5	15
SJ-98	.6	31.8	4.0	47	.1	20.5	10.1	454	2.93	6.6	.6	12.6	1.4	101	.1	.4	.1	82	1.01	.068	13	27.6	.79	67	.182	<1	1.95	.030	.07	<.1	.02	6.2	<.1	<.05	6	<.5	15
SJ-99	.5	34.9	4.5	48	.1	22.2	11.3	574	3.04	7.8	.6	6.3	1.3	120	.1	.4	.1	85	1.27	.087	13	31.9	.96	76	.188	<1	2.34	.035	.08	<.1	.01	6.9	<.1	<.05	7	<.5	15
SJ-100	.6	30.0	4.2	44	<.1	19.2	9.5	435	2.71	6.9	.5	4.5	1.2	122	<.1	.3	<.1	77	1.31	.086	11	27.4	.77	68	.195	1	2.12	.034	.07	.1	.02	6.0	<.1	<.05	7	<.5	15
SJ-101	.7	22.9	4.7	60	.1	20.6	9.5	403	2.66	4.5	.4	18.1	1.2	73	.1	.3	.1	80	.50	.049	6	30.2	.69	77	.178	<1	1.78	.017	.12	<.1	.02	4.5	<.1	<.05	5	<.5	30
SJ-102	.5	36.4	4.1	52	.1	24.8	13.4	610	2.93	6.7	.5	15.3	1.4	130	.1	.3	.1	92	1.30	.090	14	36.8	.91	73	.216	<1	2.63	.029	.09	.1	.02	7.1	<.1	<.05	8	<.5	15
SJ-103	.6	37.7	4.3	53	.1	24.2	11.7	441	3.28	6.6	.6	4.0	1.7	129	.1	.3	.1	95	.99	.087	13	37.7	.95	98	.182	<1	2.62	.035	.09	<.1	.02	7.3	<.1	<.05	8	<.5	15
SJ-104	.5	39.1	4.0	50	.1	28.7	13.7	606	3.39	7.5	.6	2.7	1.4	136	.1	.4	<.1	90	1.42	.094	14	40.6	1.15	83	.216	1	3.06	.031	.08	.1	.03	7.1	<.1	<.05	8	<.5	15
SJ-105	.5	32.7	3.6	46	.1	21.7	10.2	380	2.95	5.4	.5	3.7	1.3	114	<.1	.3	<.1	81	.97	.064	13	33.2	.80	58	.180	1	2.09	.034	.07	.1	.03	6.3	<.1	<.05	6	<.5	30
SJ-106	.5	20.5	4.5	49	.1	17.8	8.5	366	2.50	3.7	.4	4.0	1.0	84	.1	.2	.1	74	.61	.062	7	28.7	.63	66	.165	<1	2.04	.017	.07	<.1	.02	4.4	<.1	<.05	6	<.5	30
SJ-107	.4	23.7	3.8	62	.1	19.9	8.7	362	2.43	3.7	.4	27.0	1.1	82	.1	.2	.1	64	.66	.067	7	28.0	.67	72	.139	1	1.94	.025	.06	<.1	.02	4.4	<.1	<.05	6	<.5	30
SJ-108	.5	24.4	3.8	47	.1	19.1	9.9	394	2.53	5.5	.5	2.4	1.0	97	<.1	.4	.1	72	.90	.060	11	26.2	.76	58	.185	<1	2.00	.021	.07	<.1	.02	5.0	<.1	<.05	6	<.5	30
SJ-109	.4	42.8	3.7	46	.1	22.4	14.3	389	3.21	5.0	.4	1.8	.9	222	.1	.3	.1	95	1.26	.077	11	30.1	1.03	53	.221	<1	2.59	.076	.06	.1	.01	5.0	<.1	<.05	7	<.5	30
SJ-110	.3	23.0	4.1	70	.1	23.4	13.4	440	3.06	6.9	.4	3.6	1.0	87	.1	.9	.1	82	.84	.064	7	40.0	.95	57	.270	1	2.61	.021	.07	.1	.01	6.5	<.1	<.05	8	<.5	15
RE SJ-110	.4	21.7	4.1	67	.1	22.5	12.6	404	3.01	6.5	.4	2.4	.9	87	.1	.8	.1	77	.81	.061	6	37.1	.90	56	.254	1	2.42	.019	.07	.1	.01	6.5	<.1	<.05	7	<.5	15
SJ-111	.5	63.8	4.7	63	.1	29.6	18.4	555	3.96	12.6	.5	8.3	1.0	192	.1	1.1	.2	123	1.66	.085	9	43.1	1.25	51	.340	1	3.63	.039	.10	.1	.02	10.1	<.1	<.05	11	<.5	30
SJ-112	1.0	47.6	5.4	62	.1	27.4	15.2	567	3.63	11.6	.7	3.7	1.6	124	<.1	.5	.2	99	1.38	.083	17	41.2	1.10	72	.205	1	3.11	.026	.08	<.1	.04	8.9	<.1	<.05	9	<.5	15
SJ-113	.9	45.1	5.1	54	.1	24.2	12.7	553	3.43	11.8	.5	12.8	1.3	132	.1	.5	.1	91	1.39	.090	16	37.7	1.05	88	.185	<1	2.88	.033	.07	<.1	.04	7.4	<.1	<.05	8	<.5	15
SJ-114	.6	30.8	3.9	57	.1	24.3	11.3	356	2.94	5.4	.4	.7	1.2	92	<.1	.3	.1	83	.65	.062	8	35.0	.82	71	.164	<1	2.32	.020	.08	.1	.02	5.1	<.1	<.05	6	<.5	30
SJ-115	1.0	38.8	6.0	63	.1	26.7	15.0	757	3.47	7.7	.5	3.0	1.1	143	.1	.4	.1	77	1.27	.118	16	36.5	1.20	117	.175	1	2.91	.040	.08	.1	.03	6.4	<.1	<.05	8	<.5	15
SJ-116	.5	35.8	4.5	53	.1	21.3	12.3	545	3.13	6.9	.4	4.0	1.2	162	.1	.4	.1	81	1.50	.092	13	32.6	.98	74	.190	1	2.56	.057	.07	.1	.01	6.4	<.1	<.05	8	<.5	15
SJ-117	.5	17.8	6.2	115	.1	19.5	7.4	672	2.10	3.7	.5	1.1	1.0	74	.1	.2	.1	49	.66	.102	7	24.7	.57	113	.103	1	2.65	.018	.12	.1	.03	3.5	<.1	<.05	8	<.5	30
SJ-118	.8	21.1	5.1	46	.1	15.2	8.6	286	2.46	4.5	.4	1.3	.9	102	<.1	.2	.1	79	.69	.035	6	26.9	.60	70	.183	<1	1.70	.019	.08	<.1	.01	4.2	<.1	<.05	6	<.5	30
SJ-119	1.0	36.4	4.5	45	.1	19.5	9.6	419	2.78	6.1	.5	2.9	1.1	173	.1	.3	.1	75	1.18	.073	15	35.4	.77	66	.137	1	2.36	.055	.04	<.1	.01	5.5	<.1	<.05	7	<.5	15
SJ-120	.7	31.9	4.2	39	<.1	12.0	7.6	298	2.24	4.1	.4	1.2	1.0	234	<.1	.2	.1	69	1.46	.065	12	21.4	.61	72	.117	<1	2.92	.059	.08	<.1	.02	3.8	<.1	<.05	8	<.5	30
SJ-121	.6	21.3	5.6	84	.1	19.9	8.7	440	2.26	3.4	.3	<.5	1.1	58	.1	.1	.1	54	.40	.098	6	25.2	.57	107	.092	2	2.75	.019	.07	<.1	.01	3.0	.1	<.05	8	<.5	30
SJ-122	.7	21.6	6.0	87	.1	22.3	9.3	291	2.35	3.1	.3	2.0	1.4	40	.1	.1	.1	54	.28	.110	5	28.2	.55	170	.110	1	3.41	.014	.07	.1	.01	3.1	.1	<.05	8	<.5	30
SJ-123	.8	35.4	7.1	67	.1	23.9	10.0	357	2.51	3.8	.4	.9	1.4	90	.1	.2	.1	72	.57	.077	6	33.1	.70	97	.108	1	3.31	.027	.08	<.1	.03	3.4	<.1	<.05	9	<.5	30
SJ-124	.5	29.8	5.3	58	.1	17.0	10.2	429	2.73	4.3	.5	3.2	1.1	150	.1	.3	.1	90	1.06	.072	10	29.6	.72	64	.166	1	2.60	.041	.08	<.1	.02	5.3	<.1	<.05	8	<.5	30
SJ-125	.6	26.5	4.0	50	.1	19.2	9.6	305	2.51	4.8	.4	1.9	1.0	109	<.1	.2	.1	69	.75	.053	8	27.7	.64	88	.143	<1	2.50	.023	.14	<.1	.02	4.9	<.1	<.05	7	<.5	30
SJ-126	.6	21.9	4.4	50	.1	19.8	9.8	339	2.60	4.0	.4	1.9	1.0	91	.1	.3	.1	74	.76	.047	6	29.6	.74	71	.180	1	2.17	.019	.11	<.1	.02	4.3	<.1	<.05	6	<.5	30
SJ-127	.6	41.0	4.4	55	.1	28.3	15.3	676	3.15	5.8	.4	3.0	1.2	150	.1	.3	.1	85	1.72	.100	13	36.0	1.19	86	.193	1	2.67	.040	.07	.1	.03	6.0	<.1	<.05	8	<.5	15
STANDARD DS5	12.6	143.6	24.3	135	.3	23.1	12.1	791	2.98	18.8	6.1	43.7	2.8	50	5.9	3.7	6.3	63	.76	.097	12	196.5	.66	131	.096	16	2.04	.034	.14	4.9	.18	3.4	1.0	<.05	6	4.6	30

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	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	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
SJ-128	.6	36.8	4.8	43	<.1	24.3	11.2	475	3.77	6.6	.5	5.4	1.2	109	.1	.4	.1	105	1.05	.072	12	34.4	.86	87	.153	<1	2.17	.030	.07	.1	.02	5.8	<.1	.06	7	<.5	30.0
SJ-129	.5	29.7	4.6	41	.1	22.5	11.0	465	3.02	3.6	.5	5.1	1.2	102	.1	.3	.1	85	.92	.022	13	32.4	.83	106	.204	1	2.01	.032	.07	.1	.04	6.0	<.1	<.05	6	<.5	30.0
SJ-130	.9	37.4	4.9	52	.1	28.2	15.1	849	3.33	6.7	.5	2.8	1.1	126	<.1	.3	.1	80	1.24	.104	16	40.7	1.16	95	.169	<1	2.38	.036	.09	.1	.03	6.0	<.1	<.05	7	<.5	15.0
SJ-131	1.1	45.3	6.0	65	.1	31.2	16.0	853	3.62	7.5	.5	1.9	1.4	164	.1	.3	.1	82	1.91	.105	13	42.9	1.27	109	.157	<1	2.73	.052	.09	.1	.03	5.8	<.1	<.05	8	<.5	15.0
SJ-132	1.1	34.4	5.4	53	.1	25.0	13.3	687	3.06	6.3	.5	2.1	1.3	109	<.1	.3	.1	79	1.03	.084	13	37.7	1.02	102	.162	<1	2.46	.031	.11	.1	.03	5.6	<.1	<.05	7	<.5	15.0
SJ-133	1.2	25.1	4.9	53	.1	23.8	10.6	372	2.92	5.4	.6	1.0	1.2	69	.1	.2	.1	74	.70	.056	12	34.3	.82	129	.164	<1	2.11	.019	.09	<.1	.02	5.0	<.1	<.05	6	<.5	30.0
SJ-134	.9	31.4	4.7	52	.2	22.8	10.5	438	2.88	5.3	.5	1.0	1.3	75	.1	.3	.1	68	.94	.043	16	33.2	.78	168	.130	1	2.18	.025	.09	.1	.02	5.3	<.1	<.05	6	<.5	15.0
SJ-135	2.4	43.5	5.8	60	.1	30.3	14.1	647	3.52	10.4	.4	2.9	1.0	106	.1	.4	.1	74	.89	.081	13	46.2	1.15	97	.164	<1	2.73	.021	.10	.1	.05	5.1	<.1	<.05	8	<.5	15.0
SJ-136	2.5	44.1	5.8	64	.1	35.2	15.7	718	3.72	11.3	.5	5.4	1.2	109	.1	.4	.1	77	1.13	.103	14	51.8	1.45	105	.157	<1	3.15	.034	.09	.1	.04	6.4	<.1	<.05	9	<.5	15.0
SJ-137	1.5	44.5	4.8	59	.1	35.4	16.3	672	3.30	7.5	.4	4.6	1.1	91	.1	.4	.1	67	1.19	.089	12	52.0	1.45	92	.132	<1	2.54	.028	.07	.1	.04	6.2	.1	<.05	8	<.5	30.0
SJ-138	2.5	27.6	5.6	51	.1	25.3	11.3	440	3.06	12.1	.4	2.4	.9	81	<.1	.4	.1	78	.69	.075	12	38.6	.96	76	.198	<1	2.07	.022	.06	.1	.02	4.9	<.1	<.05	7	<.5	30.0
SJ-139	1.7	26.2	5.8	105	.2	23.9	10.8	978	2.54	5.4	.3	.5	.9	67	.4	.2	.1	54	.64	.120	7	31.1	.66	176	.118	1	2.19	.014	.19	<.1	.02	3.5	<.1	<.05	6	<.5	30.0
SJ-140	.5	36.8	3.9	44	.1	26.0	11.0	480	3.01	4.5	.6	2.8	1.3	103	.1	.3	<.1	72	1.09	.053	22	32.3	.94	87	.167	1	2.19	.029	.08	.1	.03	6.2	<.1	<.05	7	<.5	15.0
SJ-141	.6	27.5	3.9	40	<.1	21.0	10.2	453	2.72	5.9	.5	2.1	1.2	121	<.1	.4	<.1	72	1.20	.087	14	28.6	.83	86	.184	<1	2.14	.032	.07	.1	.03	4.9	<.1	<.05	6	<.5	30.0
SJ-142	.5	31.2	4.2	42	.1	24.4	11.1	457	2.89	6.6	.6	4.2	1.2	114	.1	.4	.1	75	1.16	.082	15	32.1	.94	88	.182	<1	2.25	.029	.07	.1	.03	5.4	<.1	<.05	6	<.5	30.0
SJ-143	.6	28.3	4.2	41	.1	23.4	10.3	394	3.00	4.0	.5	8.2	1.3	96	.1	.3	.1	78	.91	.040	13	34.0	.92	89	.181	1	2.06	.031	.06	.1	.03	5.3	<.1	<.05	6	<.5	15.0
SJ-144	.5	25.2	3.8	42	.1	20.7	10.6	384	2.71	4.1	.5	3.3	1.0	81	.1	.3	.1	74	.69	.058	10	31.3	.89	76	.188	<1	1.85	.021	.07	.1	.01	4.6	<.1	<.05	6	<.5	30.0
SJ-145	.6	27.6	4.4	47	.1	25.7	11.0	416	2.92	5.0	.7	1.8	1.4	78	<.1	.2	.1	78	.68	.044	11	37.5	.79	91	.148	<1	2.30	.023	.07	<.1	.03	5.1	<.1	<.05	7	.6	30.0
SJ-146	.7	34.5	4.4	47	.1	28.2	12.9	438	3.31	5.9	.5	3.4	1.3	88	<.1	.3	.1	88	.84	.047	13	38.7	.94	90	.200	2	2.33	.032	.08	.1	.03	5.6	<.1	<.05	7	<.5	30.0
SJ-147	.5	28.5	5.1	68	.1	28.4	11.2	450	2.85	4.2	.6	2.2	1.5	93	.1	.2	.1	71	.61	.078	10	35.1	.84	128	.142	1	2.65	.023	.07	.1	.01	5.0	.1	<.05	8	<.5	30.0
SJ-148	.6	40.3	5.0	54	.1	27.9	13.2	599	3.57	7.3	.6	4.7	1.5	138	.1	.4	.1	86	1.24	.100	19	40.5	1.12	116	.188	<1	2.90	.027	.10	.1	.02	7.1	<.1	<.05	9	<.5	15.0
SJ-149	.5	50.0	4.8	53	.3	37.6	12.6	453	3.57	7.1	1.1	3.8	1.9	91	.1	.3	.1	82	.93	.035	23	45.6	1.13	121	.162	2	3.22	.029	.10	<.1	.05	8.1	<.1	<.05	9	.5	7.5
RE SJ-150	.4	20.7	4.8	47	.1	25.1	10.1	321	2.56	2.7	.5	<.5	1.3	65	.1	.2	.1	72	.58	.016	9	32.7	.75	93	.211	1	2.13	.023	.08	<.1	.01	4.8	<.1	<.05	7	<.5	15.0
SJ-150	.3	20.8	4.6	45	.1	24.7	10.2	325	2.55	2.7	.5	8.3	1.3	64	.1	.2	.1	73	.58	.016	9	34.0	.76	94	.206	3	2.18	.023	.08	<.1	<.01	4.4	.1	<.05	7	.5	15.0
SJ-151	.4	39.7	4.1	47	.1	27.3	14.5	686	3.13	5.7	.6	4.0	1.3	123	.1	.3	<.1	87	1.41	.091	16	36.6	1.13	88	.203	3	2.72	.031	.08	.1	.03	6.6	<.1	<.05	8	<.5	30.0
SJ-152	.6	42.2	4.5	51	.1	30.7	14.7	584	3.40	5.8	.6	2.8	1.3	134	.1	.3	<.1	81	1.37	.100	15	43.0	1.25	101	.197	2	2.56	.039	.07	.1	.03	6.8	<.1	<.05	8	<.5	15.0
SJ-153	.5	31.8	4.3	53	.1	26.9	12.5	446	3.09	5.8	.6	9.2	1.4	96	.1	.3	.1	83	.91	.067	14	35.8	.98	90	.245	2	2.36	.025	.07	.1	.02	6.6	<.1	<.05	8	<.5	30.0
SJ-154	.6	31.0	4.4	47	.1	26.9	13.1	583	3.04	9.5	.6	8.9	1.4	124	.1	.6	.1	93	1.27	.101	17	36.7	1.05	157	.228	2	2.05	.036	.06	.1	.04	6.0	<.1	<.05	7	<.5	30.0
SJ-155	.5	38.5	4.4	47	.1	24.0	13.0	559	3.31	11.0	.6	7.6	1.4	131	.1	.7	.1	98	1.09	.067	15	34.4	.98	105	.229	1	2.17	.034	.06	.1	.02	7.8	<.1	<.05	7	<.5	30.0
SJ-156	.6	43.5	5.3	53	.1	28.1	14.4	584	3.70	17.1	.8	9.9	1.5	116	.1	1.0	.1	109	1.25	.079	15	41.1	1.22	72	.302	2	2.64	.022	.10	.1	.01	8.6	<.1	<.05	8	<.5	30.0
SJ-157	.4	34.7	5.0	50	.1	27.5	13.9	563	3.60	23.6	.8	7.2	1.4	135	.1	1.5	.1	106	1.48	.083	16	37.7	1.21	76	.282	2	2.85	.029	.09	.1	.01	7.6	<.1	<.05	8	<.5	30.0
SJ-158	.6	41.4	4.7	55	.2	31.7	12.9	483	3.06	9.3	.8	15.2	1.3	85	.1	.5	.1	96	1.18	.079	12	42.3	1.23	69	.238	2	3.00	.018	.11	.1	.03	6.3	<.1	<.05	9	<.5	30.0
SJ-159	.3	32.6	4.9	49	.1	37.4	13.3	433	3.32	8.2	1.0	4.0	1.8	127	<.1	.7	.1	113	1.88	.041	23	53.0	1.47	69	.338	1	3.69	.033	.07	.1	.01	8.9	<.1	<.05	10	<.5	30.0
SJ-160	.3	47.2	5.2	54	.2	49.5	17.7	690	3.30	7.1	1.1	4.6	1.7	85	.1	.3	<.1	79	2.10	.071	17	62.9	1.83	43	.234	2	4.03	.017	.07	.2	.04	8.2	<.1	<.05	12	<.5	7.5
STANDARD DS5	12.8	145.2	25.2	136	.3	24.1	12.3	819	3.03	18.6	6.8	43.9	2.7	47	5.5	3.9	6.3	60	.75	.094	12	195.6	.71	138	.092	17	2.00	.034	.14	4.7	.18	3.4	1.1	<.05	7	5.0	30.0

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	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	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
SJ-161	.5	21.1	4.4	42	.1	21.2	8.6	331	2.64	6.1	.6	5.0	1.0	108	<.1	.4	.1	85	.88	.045	7	30.4	.80	91	.191	1	2.43	.027	.06	<.1	.02	5.1	<.1	.11	8	<.5	30
SJ-162	.4	23.6	4.7	39	.1	10.8	6.8	274	2.28	4.7	.3	.6	.9	168	<.1	.2	<.1	64	1.36	.042	9	15.3	.64	99	.095	<1	2.77	.034	.15	<.1	.01	3.8	<.1	.08	9	<.5	30
SJ-163	.5	33.2	4.4	47	<.1	17.3	9.3	438	3.03	7.9	.6	1.9	1.1	151	.1	.5	.1	93	1.37	.121	13	27.3	.86	73	.203	<1	2.31	.049	.05	.1	.02	6.3	<.1	.05	8	<.5	30
SJ-164	.4	27.3	5.6	78	.1	14.1	7.4	347	1.97	5.4	.3	1.7	.7	118	.1	.2	.1	49	.87	.084	6	16.5	.63	90	.081	1	3.05	.032	.10	.1	.02	3.1	<.1	.05	10	<.5	30
SJ-165	.6	22.5	5.9	56	.1	15.6	9.4	529	2.49	7.3	.7	2.4	1.4	86	.1	.4	.1	70	.75	.058	9	23.8	.77	69	.195	1	2.21	.021	.10	<.1	.02	5.1	<.1	.05	8	<.5	30
SJ-166	.5	38.2	4.1	66	.1	22.7	12.6	595	2.90	5.5	.6	15.7	1.0	112	.1	.6	.1	85	1.20	.061	11	31.5	1.06	68	.259	2	2.88	.021	.09	.1	.01	7.6	<.1	.05	9	<.5	30
SJ-167	.7	42.6	6.2	69	.1	25.9	20.5	366	3.30	4.8	.5	1.9	.9	121	.1	.3	.1	85	.62	.096	7	27.7	1.05	78	.191	1	3.85	.025	.09	<.1	.03	3.8	<.1	.05	10	.8	30
SJ-168	.4	39.3	3.4	41	.1	24.4	11.2	277	2.97	3.8	.5	1.6	1.3	105	.1	.2	.1	97	.82	.042	9	32.4	.81	95	.204	1	2.38	.053	.08	<.1	.01	4.2	<.1	.05	7	<.5	30
SJ-169	.6	42.0	4.2	55	.1	22.1	12.5	449	3.15	5.6	.4	3.3	.9	323	.1	.2	<.1	100	.98	.091	10	32.3	1.00	98	.214	1	3.14	.045	.15	<.1	.01	5.0	<.1	.05	8	.5	30
SJ-170	.7	33.3	5.0	56	.1	28.5	11.4	337	2.92	7.0	.7	6.6	1.3	104	<.1	.4	.1	87	.77	.035	8	37.1	.96	91	.193	<1	2.49	.018	.14	<.1	.02	6.2	<.1	.05	8	<.5	30
SJ-171	.5	50.0	4.3	68	.2	21.4	14.5	645	3.44	11.7	.5	8.4	1.4	172	<.1	.2	.1	64	1.18	.091	12	31.2	1.30	106	.210	1	3.19	.040	.36	.1	.02	6.6	.1	.05	10	<.5	30
SJ-172	.7	58.1	3.3	68	.7	20.0	15.7	536	3.98	14.3	.4	73.2	1.0	139	.1	.4	.1	53	1.41	.068	9	33.1	1.08	50	.231	<1	2.89	.028	.20	.3	.03	7.8	.1	.05	9	.7	30
SJ-173	.7	49.0	4.1	60	.4	30.4	14.2	377	3.56	12.1	.6	58.2	1.3	106	.1	.6	.1	103	.96	.068	11	47.1	1.18	85	.266	<1	2.73	.039	.11	.1	.04	7.8	.1	.05	9	<.5	30
SJ-174	.6	47.2	4.5	57	.2	30.3	14.3	441	3.88	12.4	.7	67.9	1.6	124	.1	.6	.1	106	1.01	.083	13	44.2	1.21	83	.240	1	3.14	.027	.11	.1	.04	8.7	<.1	.05	9	<.5	15
SJ-175	.7	26.0	4.0	61	.1	26.0	10.3	403	2.79	7.4	.6	3.2	1.4	64	.1	.4	.1	78	.62	.061	9	35.0	.83	93	.176	1	2.25	.016	.13	<.1	.01	6.2	<.1	.05	7	<.5	15
RE SJ-175	.6	25.7	4.3	61	.1	27.0	9.9	374	2.75	7.1	.5	5.1	1.5	61	.1	.4	.1	74	.56	.062	9	34.2	.82	90	.177	<1	2.21	.016	.12	<.1	.01	5.9	.1	.05	6	<.5	15
SJ-176	.5	37.2	4.5	52	.2	24.7	10.4	379	3.19	6.8	.5	17.0	1.7	71	.1	.3	.1	77	.91	.030	13	35.7	.89	153	.187	2	2.77	.028	.11	.1	.04	7.7	<.1	.05	8	<.5	30
SJ-177	.6	34.6	4.8	44	.1	19.0	10.1	528	2.87	7.9	.6	9.2	1.3	113	.1	.4	.1	74	1.13	.066	18	29.5	.93	95	.133	<1	2.45	.039	.09	.1	.04	6.2	<.1	.05	7	<.5	15
SJ-178	.5	35.4	4.2	52	.1	27.5	13.1	576	3.07	5.2	.7	2.8	1.2	91	.1	.3	<.1	88	1.10	.080	10	30.6	1.20	71	.264	<1	2.72	.018	.07	.1	.02	6.4	<.1	.05	8	<.5	30
SJ-179	.5	25.6	4.8	55	.1	24.8	11.0	561	2.73	4.3	.6	2.4	1.0	75	.1	.2	.1	73	.70	.088	8	28.3	.96	84	.211	1	2.14	.016	.07	.1	.03	5.1	<.1	.05	7	<.5	30
SJ-180	.4	38.2	4.5	52	.1	29.0	13.5	515	3.19	4.8	.8	3.4	1.3	105	.1	.3	<.1	91	1.19	.074	14	31.8	1.22	74	.270	1	2.69	.017	.08	.1	.01	6.9	<.1	.05	8	<.5	30
SJ-181	.4	33.8	4.4	49	.1	20.9	11.1	469	2.57	3.9	.7	1.9	1.2	292	.1	.2	<.1	77	.93	.040	9	26.3	.82	161	.156	<1	2.69	.022	.10	<.1	.01	6.7	<.1	.05	7	<.5	30
SJ-182	.5	30.2	3.6	49	.1	30.3	13.0	455	2.99	6.4	.7	3.7	1.1	271	.1	.2	.1	97	1.36	.057	9	40.4	1.24	82	.263	1	3.47	.032	.08	.1	.02	5.5	<.1	.05	8	.5	30
SJ-183	.6	24.2	5.7	62	.1	24.2	9.1	365	2.53	4.0	.7	2.3	1.5	59	.1	.2	.1	68	.49	.059	12	30.7	.75	143	.158	1	2.20	.019	.06	<.1	.02	4.9	.1	.05	7	<.5	30
SJ-184	.5	42.7	4.4	53	.2	34.2	15.6	681	3.39	3.9	1.0	2.4	1.5	119	.1	.3	<.1	74	1.46	.067	19	40.4	1.44	191	.168	3	2.91	.029	.09	.1	.04	7.0	<.1	.05	9	<.5	15
SJ-185	.8	44.5	5.7	52	.1	30.8	15.9	724	3.61	5.8	.7	2.7	1.3	127	.1	.3	<.1	82	1.27	.086	15	34.7	1.27	83	.198	<1	2.78	.029	.08	<.1	.02	6.8	<.1	.05	8	<.5	15
SJ-186	1.0	38.1	5.3	47	.1	32.5	15.1	580	3.52	5.4	.7	2.5	1.4	97	.1	.2	<.1	90	1.00	.025	21	41.1	1.25	106	.215	1	2.67	.031	.06	.1	.03	6.9	<.1	.05	8	.6	15
SJ-187	.6	40.3	5.4	50	.1	31.9	14.0	629	3.14	5.7	.4	5.7	1.0	124	.1	.2	.1	71	1.29	.096	13	38.1	1.28	82	.130	1	2.79	.038	.06	<.1	.02	5.6	<.1	.05	8	<.5	15
SJ-188	.6	36.8	5.1	55	.1	27.6	12.7	662	3.19	5.9	.6	4.3	1.3	95	.1	.3	.1	74	1.34	.068	13	36.6	1.16	84	.204	1	2.71	.039	.08	.1	.03	6.5	<.1	.05	8	.5	15
SJ-189	.7	27.0	4.8	56	.1	26.6	12.6	607	3.17	4.0	.6	1.2	1.2	114	.1	.2	<.1	78	.93	.094	13	33.9	1.11	116	.229	2	2.55	.024	.12	<.1	.02	5.7	<.1	.05	7	<.5	30
SJ-190	.5	30.7	4.7	55	.1	28.5	13.1	499	2.99	3.0	.6	1.9	1.1	145	.1	.1	<.1	87	1.09	.040	10	36.3	1.09	77	.239	3	2.65	.039	.10	.1	.02	6.0	<.1	.05	7	<.5	30
SJ-191	.6	22.1	5.3	57	<.1	25.1	10.5	437	2.64	2.9	.4	2.6	1.4	75	.2	.2	.1	70	.45	.048	6	33.9	.81	113	.145	1	2.95	.015	.07	<.1	.02	4.2	<.1	.05	8	<.5	30
SJ-192	.4	35.3	4.4	47	.1	25.5	9.8	349	2.72	3.7	.6	2.5	1.7	60	.1	.2	.1	76	.76	.031	10	37.7	.87	71	.129	<1	2.69	.031	.07	<.1	.03	5.3	<.1	.05	6	<.5	30
SJ-193	.4	37.3	4.4	66	.1	38.8	14.4	688	3.16	3.7	.8	2.4	1.4	296	.2	.2	.1	90	1.18	.051	9	65.1	1.39	76	.236	<1	3.48	.053	.07	.1	.01	6.8	<.1	.05	10	<.5	30
STANDARD DS5	12.9	145.2	25.0	135	.3	24.1	11.6	812	3.03	18.8	6.6	43.3	2.6	50	5.4	3.8	5.8	63	.73	.093	12	199.4	.72	139	.099	17	1.92	.034	.14	4.9	.19	3.3	1.0	<.05	6	4.7	30

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Sample
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	gm
SJ-194	.5	27.7	4.2	53	.1	25.3	10.9	412	2.80	4.3	.5	2.9	1.2	98	.1	.2	.1	79	.79	.078	11	34.9	.90	87	.193	1	2.11	.021	.09	<.1	.02	5.2	<.1	.06	7	<.5	30.0
SJ-195	.5	33.8	4.0	50	.1	29.0	12.9	463	2.98	5.9	.7	2.0	1.5	127	.1	.3	.1	79	1.01	.046	11	40.6	.98	77	.198	1	2.47	.033	.06	<.1	.02	6.2	<.1	<.05	8	<.5	30.0
SJ-196	.5	20.7	7.5	55	.1	18.2	8.6	633	2.26	3.6	.7	8.6	1.1	111	.1	.2	.1	55	.94	.084	13	22.3	.73	91	.169	1	2.53	.024	.10	.1	.02	4.1	<.1	<.05	8	.5	30.0
SJ-197	.5	38.0	6.1	59	.1	30.0	14.0	703	3.24	6.0	.8	3.5	1.4	137	.1	.3	.1	82	1.32	.093	16	36.0	1.28	106	.211	2	2.90	.042	.07	.1	.03	5.9	<.1	<.05	9	.5	15.0
SJ-198	.3	19.6	7.1	62	.1	15.7	8.5	552	2.14	4.4	1.1	<.5	1.2	128	.1	.3	.1	54	1.26	.090	11	17.9	.60	154	.181	1	2.99	.032	.13	.1	.02	3.8	<.1	<.05	8	.5	30.0
SJ-199	.2	46.9	4.3	55	.2	30.2	17.6	807	3.23	8.8	1.0	1.9	1.5	105	.1	.4	<.1	63	1.51	.059	17	29.3	1.24	381	.213	1	2.93	.024	.09	.1	.03	6.6	<.1	<.05	8	<.5	7.5
SJ-200	.5	19.3	5.3	82	.1	27.3	10.1	749	2.29	3.7	.5	1.1	1.1	42	.1	.2	.1	62	.42	.101	6	29.4	.75	148	.156	2	2.59	.013	.08	.1	.02	3.7	.1	<.05	8	<.5	30.0
SJ-201	.4	26.1	8.2	44	.1	14.1	6.0	675	1.98	2.8	.5	<.5	1.9	42	.1	.3	.1	47	.52	.052	27	19.9	.47	87	.061	1	1.39	.009	.07	.1	.02	3.5	<.1	<.05	4	<.5	30.0
SJ-202	.5	20.6	5.4	49	.3	19.6	8.1	342	1.99	4.1	3.6	1.9	.8	86	.1	.2	.1	51	.90	.039	18	26.7	.57	72	.106	3	2.12	.026	.04	<.1	.04	3.4	<.1	<.05	7	<.5	15.0
SJ-203	.4	31.2	4.3	46	.1	26.6	12.0	547	3.11	5.8	.8	2.7	1.3	121	.1	.3	<.1	89	1.32	.099	15	32.0	1.15	112	.270	2	2.49	.027	.07	.1	.02	6.3	<.1	<.05	7	<.5	30.0
SJ-204	.5	21.8	5.3	57	.1	22.3	9.1	306	2.48	3.6	.5	1.3	1.6	66	.1	.2	.1	68	.42	.049	9	32.7	.62	150	.132	1	2.01	.013	.07	<.1	.02	4.0	.1	<.05	6	<.5	30.0
SJ-205	.4	24.7	5.3	49	.1	24.0	9.9	470	2.64	3.7	.6	2.3	1.2	91	.1	.3	.1	83	.89	.057	8	31.7	.83	108	.260	2	2.42	.013	.07	.1	.01	5.5	<.1	<.05	7	<.5	30.0
SJ-206	.4	23.0	4.9	45	<.1	21.0	8.7	299	2.63	4.6	.5	3.6	1.5	66	.1	.3	.1	72	.60	.041	11	29.0	.71	146	.155	1	1.79	.013	.07	<.1	.02	4.8	<.1	<.05	6	<.5	15.0
RE SJ-206	.5	22.7	4.7	48	<.1	20.9	8.8	293	2.56	4.7	.6	1.8	1.4	65	<.1	.2	.1	74	.57	.041	11	31.1	.69	151	.160	2	1.82	.013	.07	<.1	.01	4.8	<.1	<.05	6	<.5	15.0
SJ-207	.4	20.0	4.7	41	.1	20.5	9.4	332	2.50	3.5	.5	1.4	1.1	77	.1	.3	.1	68	.58	.029	8	27.2	.73	128	.147	1	1.93	.012	.06	.1	.02	4.1	<.1	<.05	6	<.5	30.0
SJ-208	.5	38.2	5.2	73	.1	26.4	12.6	702	2.90	5.7	.6	3.6	1.3	141	.1	.3	.1	78	.64	.079	7	33.0	.93	181	.177	1	3.56	.014	.07	.1	.04	5.4	<.1	<.05	10	<.5	30.0
SJ-209	.6	28.9	5.6	69	.1	26.9	11.8	763	2.76	4.6	.4	8.1	1.0	114	.1	.2	.1	76	.87	.084	7	31.2	.83	165	.150	3	3.53	.012	.12	<.1	.02	4.8	.1	<.05	10	<.5	30.0
SJ-210	.5	22.2	6.2	74	.1	24.3	10.6	652	2.50	4.0	.4	5.4	1.2	52	.1	.2	.1	65	.51	.079	5	29.1	.73	188	.121	2	3.17	.012	.09	<.1	.03	3.9	.1	<.05	9	<.5	30.0
SJ-211	.7	28.8	6.0	75	.1	29.3	11.8	519	2.71	3.7	.5	1.6	1.6	59	.1	.2	.1	71	.36	.078	8	35.6	.68	176	.108	1	3.49	.012	.07	<.1	.04	3.8	.1	<.05	9	<.5	30.0
SJ-212	.8	29.2	6.4	73	.3	24.6	10.8	463	2.63	5.4	.6	3.0	1.4	43	.2	.2	.1	71	.37	.125	7	30.3	.77	141	.152	1	3.41	.014	.06	.1	.05	4.7	.1	<.05	9	<.5	30.0
SJ-213	.6	14.5	5.3	86	.3	20.8	9.0	904	2.09	3.1	.4	13.7	1.1	26	.1	.2	.1	54	.41	.123	7	24.6	.47	83	.110	2	2.15	.016	.08	.1	.02	3.6	.1	<.05	7	<.5	30.0
SJ-214	.6	28.9	4.7	54	.1	31.8	12.5	406	3.22	4.9	.8	3.5	1.8	103	.1	.3	.1	98	.89	.104	12	40.8	.90	118	.237	1	2.74	.026	.07	.1	.02	7.2	<.1	<.05	7	<.5	30.0
SJ-215	.3	24.3	4.3	44	<.1	28.0	10.6	325	2.89	5.3	.7	8.4	1.4	121	.1	.4	.1	93	1.00	.067	11	38.2	.85	86	.251	2	2.09	.023	.07	.1	.02	6.4	<.1	<.05	6	<.5	30.0
SJ-216	.3	21.4	4.1	39	<.1	24.2	10.4	366	2.90	5.1	.8	8.5	1.4	146	<.1	.5	.1	98	1.13	.055	13	36.5	.88	73	.308	1	2.07	.021	.09	.1	.02	7.5	<.1	<.05	6	<.5	30.0
SJ-217	.3	23.1	4.4	39	.1	21.6	9.6	380	2.48	4.4	.9	32.8	1.4	120	.1	.4	.1	92	1.00	.042	13	33.3	.78	82	.286	2	1.78	.031	.05	.1	.03	7.3	<.1	<.05	6	<.5	30.0
SJ-218	.8	31.3	5.6	50	.1	27.8	12.8	856	3.15	8.9	.9	15.5	1.8	116	.2	.6	.1	91	1.21	.091	14	38.6	.80	93	.193	2	1.83	.030	.06	.1	.04	8.0	<.1	<.05	6	<.5	30.0
SJ-219	.6	29.8	4.7	59	.1	39.9	14.2	509	3.32	5.4	.6	2.7	1.5	128	.1	.2	.1	91	.80	.066	11	46.1	1.03	119	.210	2	2.86	.026	.08	<.1	.03	7.2	<.1	<.05	8	<.5	30.0
SJ-220	.7	41.7	4.8	51	.1	49.0	16.8	809	3.69	8.8	.8	3.6	1.9	188	.1	.3	<.1	107	1.29	.090	15	55.1	1.33	110	.209	2	3.36	.041	.08	<.1	.07	12.1	<.1	<.05	9	<.5	15.0
SJ-221	.7	30.4	4.5	58	.1	39.3	13.3	526	3.16	4.9	.6	.9	1.7	139	.1	.2	.1	86	.89	.087	11	46.3	1.17	115	.181	1	3.39	.021	.08	.1	.06	7.0	<.1	<.05	9	<.5	30.0
SJ-222	.6	29.4	4.3	61	.1	36.4	13.3	517	3.16	3.8	.8	1.4	1.8	150	.1	.2	.1	91	.90	.080	12	40.2	1.08	82	.199	2	3.29	.024	.10	.1	.08	7.1	<.1	<.05	9	<.5	30.0
SJ-223	.6	33.2	5.2	60	.1	29.4	14.1	555	2.97	3.0	.8	2.2	1.8	110	.2	.1	.1	86	1.23	.068	11	30.4	.98	94	.219	2	3.98	.027	.09	<.1	.08	7.5	<.1	<.05	11	<.5	30.0
SJ-224	.4	28.8	4.3	52	.1	30.2	12.3	714	2.44	3.4	.5	1.0	1.0	119	.1	.1	.1	62	2.11	.071	9	26.3	.87	64	.105	1	4.91	.026	.15	<.1	.04	6.1	<.1	<.05	12	<.5	30.0
SJ-225	.5	28.1	4.7	63	.1	40.0	13.2	461	2.95	4.2	.5	.9	1.3	98	.1	.2	.1	77	.58	.099	8	40.0	1.08	107	.142	2	3.33	.022	.07	<.1	.03	5.1	<.1	<.05	9	<.5	30.0
SJ-226	.5	34.3	4.1	52	.1	44.3	16.3	787	3.35	4.6	.9	2.3	1.5	143	.1	.2	<.1	95	1.16	.066	13	50.9	1.24	100	.165	1	2.65	.046	.07	<.1	.05	9.3	<.1	<.05	8	<.5	7.5
STANDARD DS5	12.4	140.1	24.4	142	.3	24.0	12.2	836	3.07	18.7	6.4	42.6	3.0	51	5.9	3.9	6.5	64	.77	.095	13	194.7	.72	146	.101	19	2.05	.034	.15	4.8	.18	3.6	1.0	<.05	7	5.1	30.0

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	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 %	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
SJ-227	.5	35.5	4.1	45	.1	28.0	11.1	478	3.09	5.4	.7	3.6	1.5	137	.1	.3	<.1	118	1.23	.078	15	34.2	.90	74	.224	1	2.49	.063	.06	<.1	.06	7.5	<.1	<.05	6	<.5	30.0
SJ-228	.4	34.9	3.9	58	.1	55.1	14.8	405	3.39	3.3	.7	2.6	1.9	158	.1	.2	.1	100	1.19	.049	12	69.9	1.20	91	.239	2	3.57	.046	.10	<.1	.04	10.8	<.1	.06	9	<.5	30.0
SJ-229	.3	33.7	4.5	57	.1	47.6	13.2	471	3.11	2.7	.9	4.6	2.0	181	.1	.2	<.1	94	1.73	.058	14	59.8	1.31	78	.275	1	3.36	.052	.13	<.1	.03	11.3	<.1	<.05	9	<.5	30.0
SJ-230	.4	39.6	4.0	60	.1	49.1	14.4	576	3.37	2.9	1.0	2.1	2.0	216	.1	.2	.1	103	1.35	.045	13	66.5	1.32	77	.294	2	3.02	.057	.07	<.1	.03	10.5	<.1	<.05	9	<.5	30.0
SJ-231	.6	18.4	4.3	69	<.1	30.4	8.8	422	2.40	2.0	.4	.8	1.2	79	<.1	.2	.1	65	.55	.043	5	38.4	.73	113	.186	2	2.17	.020	.12	<.1	.02	4.0	<.1	<.05	6	<.5	30.0
SJ-232	.4	36.9	4.0	55	<.1	43.9	12.9	470	3.51	3.7	.8	4.2	1.6	198	.1	.3	<.1	105	1.28	.061	14	53.6	1.25	89	.270	1	3.03	.059	.07	<.1	.04	10.9	<.1	<.05	8	<.5	30.0
SJ-233	.8	33.5	5.7	64	.1	43.5	13.3	559	3.15	5.8	.8	1.3	2.1	78	.1	.2	.1	88	.45	.105	9	46.7	1.00	125	.193	2	3.86	.019	.07	.1	.05	6.6	<.1	<.05	11	<.5	30.0
SJ-234	.5	29.1	4.8	63	.1	42.4	13.9	480	3.19	4.1	.6	<.5	1.3	106	.1	.2	.1	94	.72	.080	9	46.9	1.16	120	.186	<.1	3.16	.025	.07	<.1	.02	6.0	<.1	<.05	8	<.5	30.0
SJ-235	.5	34.6	4.8	56	.1	42.1	14.3	395	3.38	4.7	.6	3.9	1.6	138	.1	.2	.1	97	.74	.054	10	46.2	1.20	167	.166	<.1	3.67	.027	.07	<.1	.03	6.4	<.1	<.05	9	<.5	30.0
SJ-236	.5	29.6	4.6	57	<.1	43.1	13.7	435	3.17	4.0	.6	2.7	1.4	95	.1	.2	.1	91	.62	.069	10	47.1	1.07	137	.172	1	3.24	.021	.07	<.1	.03	6.5	<.1	<.05	9	<.5	30.0
SJ-237	.6	55.1	4.2	53	.1	48.7	17.9	776	3.59	5.1	1.5	3.7	1.5	141	.1	.3	<.1	94	1.32	.073	18	56.8	1.45	91	.117	<.1	3.01	.046	.06	<.1	.04	11.5	<.1	<.05	8	<.5	7.5
SJ-238	.6	32.6	4.4	54	<.1	47.4	15.6	576	3.63	3.8	.6	2.0	1.4	168	<.1	.2	<.1	100	1.14	.069	14	45.0	1.33	125	.232	1	3.15	.037	.06	<.1	.05	7.1	<.1	<.05	8	<.5	30.0
SJ-239	.4	33.5	4.3	54	.1	48.0	15.5	571	3.54	3.1	.8	2.7	1.3	152	.1	.2	.1	111	1.18	.051	14	49.1	1.40	95	.255	1	2.68	.050	.05	<.1	.03	8.8	<.1	<.05	8	<.5	30.0
SJ-240	.6	43.3	4.3	51	.1	51.1	15.9	661	3.57	5.6	2.0	2.0	1.5	155	.1	.3	<.1	113	1.41	.089	18	48.6	1.54	81	.217	1	2.65	.074	.07	<.1	.04	10.1	<.1	<.05	7	<.5	7.5
SJ-241	.5	32.2	4.1	47	.1	41.0	12.9	494	3.24	4.1	.7	3.8	1.5	169	.1	.2	<.1	104	1.15	.064	15	48.2	1.23	77	.255	1	2.65	.052	.06	.1	.04	9.4	<.1	<.05	7	<.5	30.0
SJ-242	.4	38.5	5.1	69	.1	46.3	16.7	1076	3.36	2.1	.9	2.1	1.9	344	.1	.1	.1	104	1.09	.050	13	56.6	1.35	91	.247	2	3.35	.043	.10	<.1	.03	9.4	<.1	<.05	10	<.5	30.0
SJ-243	.4	30.2	4.5	52	<.1	40.9	14.1	508	3.42	3.6	.7	4.0	1.6	171	.1	.2	.1	101	.96	.067	14	51.0	1.27	107	.246	1	3.08	.035	.07	<.1	.04	9.4	<.1	<.05	8	<.5	30.0
SJ-244	.4	34.6	6.1	58	<.1	45.8	14.6	540	3.66	5.2	.9	3.3	2.2	156	.1	.2	.1	104	.84	.074	19	52.4	1.29	149	.227	<.1	4.24	.030	.07	.1	.04	9.7	<.1	<.05	11	<.5	30.0
SJ-245	.5	32.9	4.5	52	<.1	43.0	15.1	656	3.42	4.4	.7	2.8	1.7	166	.1	.2	<.1	93	1.04	.071	15	47.3	1.20	94	.222	1	2.91	.039	.07	<.1	.03	9.5	<.1	<.05	8	<.5	15.0
SJ-246	.3	25.9	5.0	51	<.1	47.1	12.9	446	2.96	2.3	.6	2.9	1.0	119	.1	.1	<.1	82	.66	.032	8	41.7	1.23	139	.196	1	2.76	.029	.05	<.1	.03	4.8	<.1	<.05	8	<.5	30.0
SJ-247	.4	23.1	6.1	59	.1	33.1	11.1	217	2.91	5.8	.6	.8	1.6	33	.1	.1	.1	71	.28	.168	7	33.5	.57	124	.128	2	3.79	.019	.04	.1	.04	4.2	.1	<.05	10	<.5	30.0
SJ-248	.6	31.1	5.0	51	.1	37.0	13.1	413	3.40	4.1	.6	3.1	1.4	162	.1	.2	<.1	95	.73	.061	15	43.4	1.14	126	.213	1	3.52	.026	.06	<.1	.03	6.7	<.1	<.05	9	<.5	30.0
SJ-249	.7	23.2	5.2	49	.1	31.5	9.7	257	2.84	6.9	.6	2.4	1.3	47	.1	.2	.1	78	.40	.055	10	35.6	.73	82	.118	2	2.92	.019	.05	.1	.05	5.0	.1	<.05	8	<.5	30.0
SJ-250	.4	24.6	4.6	53	.1	36.1	11.8	449	2.84	4.1	.5	2.1	1.1	97	.1	.2	.1	85	.81	.051	10	41.9	1.13	100	.169	2	2.45	.035	.06	<.1	.03	5.7	<.1	<.05	7	<.5	15.0
RE SJ-250	.5	25.6	4.8	51	.1	37.6	12.0	472	2.80	3.6	.5	1.7	1.1	95	.1	.1	.1	82	.78	.052	10	40.2	1.10	102	.158	1	2.37	.032	.06	<.1	.03	5.5	<.1	<.05	7	<.5	15.0
SJ-251	.2	44.2	4.2	53	<.1	73.8	20.7	705	3.93	3.0	.7	1.6	1.3	200	.1	.1	<.1	93	1.13	.056	11	51.9	1.78	83	.168	1	3.24	.105	.08	<.1	.03	8.9	<.1	<.05	8	<.5	30.0
SJ-252	.3	29.7	4.5	58	.1	39.1	10.9	493	2.71	4.6	.7	1.6	1.2	103	.1	.1	.1	106	.88	.060	9	43.2	1.09	74	.177	2	2.06	.050	.05	<.1	.03	8.1	<.1	<.05	6	<.5	30.0
SJ-253	.5	28.3	4.1	43	<.1	35.5	11.6	432	3.07	5.8	.7	3.6	2.0	166	.1	.2	.1	91	.82	.057	13	48.0	.83	136	.204	1	2.51	.038	.06	<.1	.03	9.7	<.1	<.05	6	<.5	30.0
SJ-254	.5	25.9	3.6	47	<.1	37.7	12.5	341	3.19	4.2	.5	2.5	1.4	132	<.1	.1	<.1	85	.69	.054	11	51.9	.99	160	.148	1	2.90	.035	.06	<.1	.02	7.6	<.1	<.05	7	<.5	30.0
SJ-255	.5	28.5	4.9	62	.1	45.4	12.2	326	2.93	4.5	.5	2.2	1.4	88	.1	.1	.1	78	.47	.060	8	42.9	.80	142	.109	1	2.72	.019	.05	<.1	.03	5.1	<.1	<.05	7	<.5	30.0
SJ-256	.6	35.6	4.5	49	.1	48.0	13.4	591	3.35	5.9	1.0	7.7	1.6	127	.1	.2	.1	94	.89	.057	15	48.9	1.06	111	.193	1	2.44	.035	.08	<.1	.02	8.0	<.1	<.05	7	<.5	15.0
SJ-257	.3	36.1	2.6	54	<.1	80.6	22.6	486	3.87	2.4	.5	2.2	1.3	204	.1	.1	<.1	77	.82	.079	15	65.1	2.15	139	.104	1	3.52	.035	.05	<.1	.02	10.5	<.1	<.05	7	<.5	30.0
SJ-258	.3	21.5	5.3	48	.1	27.3	8.1	230	2.26	3.1	.7	.7	1.1	56	.1	.1	.1	68	.46	.029	7	33.2	.62	61	.133	2	2.13	.029	.03	<.1	.02	4.1	<.1	<.05	7	<.5	30.0
SJ-259	.6	40.9	4.6	52	.1	50.0	16.6	774	3.80	5.6	.8	3.9	1.6	164	.1	.2	<.1	103	1.24	.077	15	50.4	1.44	95	.220	2	2.72	.056	.07	.1	.05	9.7	<.1	<.05	8	<.5	15.0
STANDARD DS5	11.9	138.7	24.7	128	.3	25.1	11.2	756	2.89	17.6	6.3	44.6	2.8	47	5.1	4.0	5.9	61	.72	.088	12	182.2	.70	125	.094	17	1.91	.033	.14	5.1	.19	3.2	1.1	<.05	6	5.1	30.0

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	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 %	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
SJ-260	.4	31.1	3.9	48	<.1	33.6	13.3	441	3.09	3.3	.6	2.4	1.5	158	<.1	.2	.1	94	.99	.063	12	46.7	1.08	74	.220	2	2.76	.059	.06	<.1	.04	9.3	<.1	<.05	7	<.5	30
SJ-261	.3	45.7	3.7	51	.2	39.5	13.7	461	3.07	3.8	1.0	5.4	1.6	127	<.1	.2	.1	90	1.68	.044	10	50.3	1.21	70	.195	1	3.72	.052	.08	<.1	.07	12.6	<.1	<.05	10	<.5	15
SJ-262	.4	36.3	4.1	48	.1	38.8	14.1	465	3.21	4.2	.9	3.8	1.7	175	<.1	.2	<.1	110	.95	.058	12	48.1	1.16	124	.238	1	3.29	.044	.05	<.1	.05	7.8	<.1	<.05	8	<.5	30
SJ-263	.6	29.1	4.2	60	.2	40.9	13.5	316	3.13	5.3	.6	1.3	1.3	68	<.1	.2	.1	79	.53	.132	7	40.6	.95	150	.165	1	4.26	.025	.07	<.1	.04	5.4	<.1	<.05	10	.6	30
SJ-264	.6	30.9	5.3	70	.1	36.9	14.5	361	3.29	5.5	.7	1.0	2.0	57	.1	.2	.1	83	.45	.078	10	52.1	1.06	158	.154	2	3.85	.015	.07	<.1	.04	6.2	.1	<.05	9	.5	30
SJ-265	.4	49.0	3.3	60	.1	71.9	20.1	508	3.64	2.5	.6	1.4	1.6	133	.1	.1	.1	105	.93	.055	11	42.2	1.81	107	.181	1	3.52	.043	.06	<.1	.02	11.3	<.1	<.05	9	<.5	30
SJ-266	.6	37.2	6.2	82	.1	64.5	19.5	1080	3.45	2.8	.4	1.7	1.0	52	.2	.2	.1	82	.60	.146	6	29.8	1.50	84	.184	1	3.37	.021	.08	.1	.04	5.7	<.1	<.05	11	<.5	30
SJ-267	.5	30.9	3.8	49	.1	42.7	15.6	496	3.35	4.0	.6	5.2	1.4	149	<.1	.1	.1	86	.76	.083	9	46.8	1.52	137	.163	1	4.20	.027	.07	.1	.03	7.0	<.1	<.05	9	<.5	30
SJ-268	.7	23.0	5.9	70	.1	33.5	12.3	649	2.81	4.1	.5	.5	1.3	80	.1	.2	.1	69	.48	.130	8	36.8	.99	121	.128	1	3.44	.017	.07	.1	.05	4.5	<.1	<.05	9	<.5	30
SJ-269	.7	30.8	4.8	75	.1	74.7	24.6	797	4.44	3.3	.5	.5	.9	125	.1	.1	.1	101	.72	.101	7	51.1	1.77	72	.257	2	3.60	.026	.05	<.1	.04	7.9	<.1	<.05	10	<.5	30
SJ-270	.4	44.4	3.4	53	.1	50.6	19.4	623	3.90	2.7	.4	1.8	.9	167	.1	.1	.1	99	.88	.071	12	54.6	1.29	83	.125	1	2.98	.039	.05	<.1	.03	10.0	<.1	<.05	7	<.5	30
SJ-271	.4	63.8	1.9	87	<.1	88.2	38.6	3876	5.87	2.5	.2	.5	1.0	186	.2	<.1	<.1	98	1.30	.092	13	66.8	2.98	69	.044	1	3.16	.056	.03	<.1	.04	18.0	<.1	<.05	7	.5	30
SJ-272	.7	71.9	2.7	57	.1	65.6	32.3	1215	5.23	2.6	.4	<.5	.9	161	.1	.1	<.1	79	.84	.080	8	35.6	3.18	111	.097	<.1	4.89	.029	.05	<.1	.05	6.4	<.1	<.05	10	<.5	30
SJ-273	.4	42.0	4.3	66	.1	46.3	17.5	649	3.05	1.9	.7	.6	1.7	120	.1	.1	<.1	76	1.65	.146	11	48.5	1.72	57	.249	<.1	3.70	.039	.12	<.1	.03	9.3	<.1	<.05	11	<.5	30
SJ-274	.4	35.9	4.9	59	.1	46.9	18.9	542	3.57	4.7	.4	2.0	1.1	144	<.1	.2	.1	94	.87	.064	10	60.2	1.30	97	.117	1	3.33	.034	.06	<.1	.04	9.8	<.1	<.05	8	<.5	30
SJ-275	.5	39.1	5.6	64	.1	31.1	17.4	823	4.15	6.0	.7	2.5	1.8	149	.1	.2	.1	97	1.30	.098	16	28.7	1.26	126	.183	<.1	4.34	.038	.09	<.1	.03	9.8	.1	<.05	11	<.5	30
SJ-276	.6	27.4	4.7	70	.1	35.6	13.8	525	3.35	4.5	.4	2.2	1.2	98	.1	.2	.1	80	.66	.076	9	38.3	.99	132	.132	1	3.43	.026	.07	<.1	.02	6.3	<.1	<.05	9	.5	30
SJ-277	.7	35.6	5.0	70	.1	42.9	16.0	567	3.51	12.5	.6	1.5	1.6	76	.1	.2	.1	82	.52	.145	8	39.6	1.07	118	.134	1	3.94	.016	.16	<.1	.04	6.3	.1	<.05	9	<.5	30
SJ-278	.3	41.3	4.7	53	<.1	51.4	18.1	697	3.84	4.7	.6	2.0	2.0	179	.1	.2	.1	72	1.01	.057	19	40.7	1.38	113	.058	1	3.00	.035	.10	<.1	.04	10.5	.1	<.05	7	<.5	15
SJ-279	.7	19.4	5.7	54	.2	31.0	11.6	268	3.14	6.3	.4	.5	1.0	52	.1	.2	.1	75	.56	.068	5	34.5	.76	131	.106	1	3.52	.018	.05	<.1	.03	4.0	<.1	<.05	9	<.5	15
RE SJ-279	.7	20.1	5.4	53	.2	33.2	12.5	264	3.13	5.8	.4	1.6	1.0	51	.1	.2	.1	73	.50	.067	5	34.5	.77	127	.101	1	3.54	.018	.05	<.1	.04	4.1	<.1	<.05	9	<.5	15
SJ-280	.6	22.9	6.4	64	.2	31.7	12.5	484	2.83	4.4	.5	.7	1.1	76	.1	.2	.1	71	.56	.124	7	32.5	.83	131	.157	1	3.46	.018	.10	<.1	.05	4.6	<.1	<.05	9	<.5	30
SJ-281	.5	29.0	6.6	75	.3	34.9	11.0	635	2.82	24.2	.5	1.1	1.5	42	.1	.2	.1	76	.43	.126	5	36.0	.63	124	.111	1	3.65	.021	.05	.1	.04	4.9	.1	<.05	9	<.5	30
SJ-282	.5	24.1	4.0	67	.1	48.9	15.7	552	3.31	1.9	.4	.7	1.0	188	.1	.1	.1	91	.85	.094	9	44.7	1.33	125	.218	<.1	3.49	.032	.05	<.1	.02	5.8	<.1	<.05	9	<.5	15
SJ-283	.6	21.3	4.3	75	.1	56.9	16.8	705	3.34	1.8	.4	.6	.9	92	.1	.1	.1	84	.71	.088	7	42.0	1.12	73	.303	1	3.34	.037	.08	<.1	.03	7.0	<.1	<.05	7	<.5	30
SJ-284	.4	39.3	3.3	58	.1	59.7	19.3	1231	3.55	3.3	.7	1.3	1.3	176	.1	.1	.1	99	.99	.062	13	51.0	1.74	97	.198	1	3.69	.032	.07	<.1	.04	15.7	.1	<.05	9	<.5	30
SJ-285	.7	28.0	4.9	66	.1	40.5	13.7	437	3.23	4.7	.4	1.5	1.3	63	.1	.2	.1	82	.38	.107	6	40.0	.96	136	.170	1	3.86	.014	.07	<.1	.04	4.7	<.1	<.05	10	<.5	30
SJ-286	.7	25.7	4.3	57	.1	40.8	13.7	341	3.16	3.1	.4	<.5	1.4	107	.1	.1	.1	75	.38	.082	6	48.9	1.01	95	.172	<.1	4.03	.018	.08	<.1	.04	4.9	<.1	<.05	10	<.5	30
SJ-287	.3	39.3	6.6	68	.1	67.8	23.4	1083	3.49	1.9	.8	<.5	1.4	166	.1	.1	.1	107	1.27	.099	13	64.0	1.77	64	.354	1	3.09	.041	.15	<.1	.03	10.3	<.1	.06	9	<.5	30
SJ-288	.5	27.8	4.5	54	<.1	31.8	13.9	420	3.17	3.7	.6	.6	1.9	101	.1	.2	.1	68	.75	.069	10	38.4	1.03	165	.143	1	3.87	.020	.12	<.1	.03	6.1	.1	<.05	9	.5	30
SJ-289	.7	31.0	5.1	59	.1	34.0	13.2	411	3.12	5.1	.5	.9	1.4	69	.1	.2	.1	76	.48	.096	10	42.1	.81	130	.152	1	4.09	.012	.12	<.1	.02	6.1	.1	<.05	9	<.5	30
SJ-290	.4	24.5	4.3	72	.1	32.3	13.2	583	2.99	3.1	.4	.8	1.3	64	.2	.2	.1	71	.43	.077	7	47.6	.77	124	.151	1	3.29	.017	.23	<.1	.03	6.4	.1	<.05	8	<.5	30
SJ-291	.4	35.6	6.9	75	.1	56.0	21.5	1552	3.45	2.9	.5	.5	1.5	44	.2	.2	.1	58	.80	.091	14	63.5	1.27	90	.307	1	2.50	.022	.13	.1	.12	11.8	<.1	.08	9	<.5	30
SJ-292	.9	22.9	5.3	70	.1	47.3	14.4	672	3.20	4.7	.7	.9	1.8	74	.1	.2	.1	83	.30	.127	6	81.7	1.27	112	.212	<.1	4.82	.021	.07	<.1	.04	6.1	.1	<.05	11	.6	30
STANDARD DS5	12.6	142.9	25.1	139	.3	24.5	11.7	758	2.90	17.5	6.4	43.4	2.8	47	5.2	3.9	6.5	57	.72	.092	12	183.2	.68	133	.090	16	2.09	.032	.14	4.8	.18	3.4	1.1	<.05	7	4.8	30

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	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	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
SJ-293	1.1	18.7	5.7	68	.1	32.1	11.5	262	3.34	3.9	.3	1.4	1.2	27	.1	.2	.1	72	.19	.044	4	38.7	.70	132	.106	2	2.93	.014	.04	.1	.03	3.2	<.1	.08	10	<.5	30.0
SJ-294	.6	25.8	5.3	60	.1	33.7	13.3	368	3.34	5.8	.6	1.2	1.9	101	.1	.3	.1	87	.50	.071	8	46.3	.84	155	.158	2	3.79	.020	.08	<.1	.02	5.3	<.1	.05	10	<.5	30.0
SJ-295	.5	41.0	7.1	80	.1	41.9	17.3	737	3.84	4.5	.4	<.5	1.1	158	.2	.2	.2	64	.80	.091	7	39.7	1.13	100	.253	2	2.88	.036	.07	<.1	.03	6.3	<.1	.05	9	<.5	30.0
SJ-296	1.0	27.0	6.3	61	.1	34.9	12.4	449	3.46	5.4	.5	1.0	1.6	58	.1	.2	.1	84	.33	.129	6	30.6	.87	94	.218	2	4.10	.021	.06	.1	.04	5.2	<.1	.05	11	.6	30.0
SJ-297	.6	34.6	5.6	60	.1	33.4	15.0	413	3.76	5.2	.8	1.3	1.9	77	.1	.2	.1	77	.86	.077	15	34.4	1.10	145	.180	1	4.93	.022	.14	<.1	.06	8.7	<.1	.05	11	<.5	30.0
SJ-298	1.0	50.2	4.7	69	.2	58.8	15.6	513	4.08	6.3	.7	1.0	2.1	91	.1	.2	.1	89	.75	.096	10	39.2	1.27	129	.309	1	4.63	.017	.09	.1	.23	6.7	<.1	.05	13	<.5	30.0
SJ-299	.7	26.3	5.2	53	.1	32.6	12.6	361	3.51	5.7	.6	.9	1.4	91	.1	.3	.1	94	.51	.081	9	40.4	.96	145	.173	1	3.78	.020	.06	<.1	.04	5.8	<.1	.05	9	<.5	30.0
SJ-300	.6	26.4	4.8	50	.1	37.0	13.5	426	3.28	4.3	.9	.7	2.5	166	.1	.2	.1	81	.85	.084	14	42.0	1.10	186	.202	1	4.26	.030	.07	.1	.04	7.7	<.1	.05	11	<.5	30.0
SJ-301	1.2	26.2	4.6	54	.1	33.0	11.4	389	3.15	5.7	.7	.8	1.8	62	.1	.2	.1	80	.50	.158	6	35.3	.85	90	.199	1	4.33	.016	.06	.2	.06	4.7	<.1	.05	10	.6	30.0
SJ-302	1.3	20.5	5.7	63	.1	30.7	10.4	508	2.92	4.1	.5	1.0	1.4	34	.1	.2	.1	67	.23	.131	6	34.7	.71	107	.152	2	3.24	.014	.06	.1	.04	4.4	<.1	.05	9	<.5	30.0
SJ-303	.8	29.6	5.4	63	.1	37.2	14.4	421	3.54	7.8	.7	1.0	1.6	110	.1	.2	.1	91	.64	.107	9	47.8	1.06	204	.198	1	4.59	.026	.05	<.1	.05	6.4	<.1	.05	11	<.5	30.0
SJ-304	1.2	17.4	6.0	80	.1	26.4	10.7	320	3.00	5.2	.5	1.1	1.1	37	.1	.2	.1	67	.35	.078	6	33.0	.63	116	.105	2	3.36	.016	.05	.1	.03	3.7	<.1	.05	9	<.5	30.0
SJ-305	.6	24.3	5.7	54	<.1	37.5	13.8	379	3.29	3.6	.6	6.6	1.8	88	.1	.2	.1	81	.55	.083	6	36.5	.95	193	.171	1	4.45	.016	.11	.1	.05	5.8	<.1	.05	11	<.5	30.0
SJ-306	1.2	31.1	6.4	63	.1	28.0	11.1	382	3.16	3.4	.6	.8	1.2	49	.1	.2	.1	83	.36	.116	7	30.9	.73	109	.191	2	3.51	.018	.08	.1	.05	5.1	<.1	.05	10	.5	15.0
RE SJ-306	1.2	30.9	6.0	63	.1	26.2	10.3	379	3.18	3.5	.6	1.0	1.2	50	.1	.2	.1	79	.35	.121	7	29.1	.72	102	.193	1	3.62	.017	.07	.1	.07	5.1	<.1	.05	10	<.5	15.0
SJ-307	.8	27.3	5.3	68	.1	34.0	13.9	424	3.17	3.7	.6	6.1	1.3	69	.1	.2	.1	81	.70	.085	8	32.0	1.15	80	.250	2	3.88	.021	.09	.1	.05	5.6	<.1	.05	12	<.5	30.0
SJ-308	.9	20.1	6.3	61	.1	28.1	11.4	388	3.09	4.4	.5	1.8	1.5	52	.1	.2	.1	74	.29	.087	6	30.6	.80	123	.160	1	3.56	.016	.08	.1	.05	4.0	<.1	.05	9	.5	30.0
SJ-309	.8	26.4	5.8	80	.1	32.2	14.6	722	3.46	4.3	.7	2.3	1.4	42	.2	.2	.1	97	.65	.114	9	31.7	1.01	95	.214	3	4.15	.021	.07	.1	.05	5.6	<.1	.05	12	<.5	30.0
SJ-310	.6	30.6	5.0	63	.1	25.1	10.8	447	2.80	3.1	.6	1.6	1.2	56	<.1	.1	.1	78	1.05	.116	9	24.6	.91	63	.181	2	4.41	.019	.08	.1	.05	6.5	<.1	.05	14	.6	30.0
SJ-311	.7	27.1	4.9	70	.1	33.6	11.5	567	3.04	4.9	.5	17.3	1.3	47	.1	.2	.1	76	.40	.127	6	35.2	.90	101	.156	3	3.10	.016	.07	.1	.05	4.7	<.1	.05	10	<.5	30.0
SJ-312	.5	24.0	8.8	58	.2	24.9	10.3	406	2.93	4.8	.6	2.0	1.6	97	.1	.3	.1	71	.73	.061	12	31.7	.91	103	.164	1	3.75	.029	.09	.1	.06	5.6	<.1	.05	10	<.5	30.0
SJ-313	.5	34.7	4.8	57	.1	37.8	13.1	464	3.45	5.4	.8	1.0	1.9	158	.1	.3	.1	102	.84	.084	15	44.2	1.16	123	.269	2	3.79	.033	.08	.1	.06	7.5	<.1	.05	10	.6	30.0
SJ-314	.5	33.8	4.0	55	.1	28.1	14.4	467	3.31	2.6	.9	1.3	2.3	129	.1	.2	.1	89	1.04	.050	13	29.3	1.10	79	.221	2	3.72	.044	.08	<.1	.03	9.2	<.1	.05	10	<.5	30.0
SJ-315	.3	31.5	4.7	62	.1	35.5	15.4	549	3.41	2.7	.9	1.7	2.1	126	.1	.1	.1	100	1.14	.059	14	29.2	1.27	72	.272	2	4.15	.036	.08	<.1	.03	9.3	<.1	.05	12	.5	30.0
SJ-316	.2	32.8	4.1	63	.1	54.7	18.0	628	3.68	2.2	1.0	1.3	1.9	149	.1	.1	.1	103	1.17	.043	17	42.0	1.61	79	.374	1	3.60	.042	.09	<.1	.02	11.1	<.1	.05	11	<.5	30.0
SJ-317	.5	27.0	4.3	63	.1	41.0	13.2	498	2.91	3.5	.6	2.0	1.4	184	.1	.1	.1	71	.71	.076	9	34.4	1.17	110	.221	2	3.53	.031	.08	.1	.04	5.6	<.1	.05	10	.5	30.0
SJ-318	.5	28.8	4.3	58	.1	54.1	15.5	491	3.40	3.6	.9	7.4	2.2	278	.1	.2	.1	92	.80	.079	12	48.3	1.60	139	.277	1	4.12	.034	.07	<.1	.05	7.8	<.1	.05	11	.6	30.0
SJ-319	.7	37.9	5.1	50	.2	41.0	14.0	747	3.11	6.8	1.0	3.0	1.4	98	.1	.2	.1	105	1.04	.050	17	48.2	1.19	71	.169	1	2.57	.034	.05	<.1	.06	10.4	<.1	.05	8	<.5	7.5
SJ-320	.5	37.9	3.6	76	.1	61.8	18.0	679	3.59	4.4	.5	1.2	1.4	174	.1	.1	.1	75	.90	.130	12	57.8	1.41	125	.177	2	3.90	.031	.07	.1	.05	9.4	<.1	.05	11	<.5	30.0
SJ-321	.9	19.6	5.3	47	.1	21.7	10.4	414	3.00	5.0	.5	5.9	1.2	57	.1	.3	.1	92	.65	.022	9	37.9	.65	64	.205	2	1.53	.023	.06	<.1	.02	5.3	<.1	.05	6	<.5	30.0
SJ-322	.6	14.4	4.9	66	.2	26.9	10.8	462	2.64	3.1	.4	1.1	.9	60	.1	.2	.1	66	.47	.130	5	27.8	.62	103	.173	2	2.54	.018	.10	.1	.04	4.9	<.1	.05	8	<.5	30.0
SJ-323	.5	26.1	5.0	68	.1	24.6	12.1	481	3.31	4.9	.7	2.2	1.3	117	.1	.3	.1	103	.76	.102	11	32.0	1.00	105	.258	2	2.62	.022	.12	.1	.04	7.7	<.1	.05	8	<.5	30.0
SJ-324	.6	18.9	5.2	69	.2	23.8	9.2	450	2.47	4.7	.5	1.3	1.1	56	.1	.2	.1	70	.51	.107	8	28.4	.62	99	.145	2	2.38	.018	.08	<.1	.03	4.5	<.1	.05	7	<.5	30.0
SJ-325	.8	21.1	5.1	60	.1	28.6	10.9	454	2.96	6.5	.6	4.8	1.2	89	.1	.3	.1	81	.68	.078	11	35.9	.80	90	.205	2	2.41	.022	.08	.1	.03	5.6	<.1	.05	7	.5	30.0
STANDARD DS5	12.6	138.1	24.1	136	.3	22.9	11.3	768	2.96	17.8	6.3	41.4	2.8	48	5.6	4.0	6.1	62	.69	.090	12	182.2	.68	136	.093	16	1.93	.033	.14	4.8	.18	3.4	1.1	<.05	6	5.0	30.0

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	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	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
SJ-326	.6	24.4	4.4	40	.1	26.5	10.0	346	2.91	4.7	.5	3.5	1.1	100	.1	.2	.1	93	.67	.046	7	31.3	.67	95	.231	<1	2.13	.025	.08	<.1	.03	4.7	<.1	.06	7	<.5	30
SJ-327	1.5	42.2	6.1	56	.1	37.1	15.9	893	3.50	9.2	.5	7.1	1.4	102	.1	.4	.1	79	1.44	.097	17	35.8	1.16	103	.138	2	2.33	.040	.09	.1	.04	6.9	<.1	<.05	8	<.5	30
SJ-328	.6	69.1	4.5	44	.1	51.2	17.2	706	4.06	8.0	.8	5.7	1.6	321	.1	.6	<.1	99	1.62	.066	22	43.4	1.09	210	.185	1	3.37	.073	.09	<.1	.14	11.0	<.1	<.05	9	.5	30
SJ-329	.7	24.5	5.1	43	.1	28.0	9.3	325	2.91	5.2	.5	3.7	1.1	98	.1	.3	.1	90	.61	.034	8	35.2	.70	94	.253	1	2.43	.024	.11	<.1	.03	5.0	<.1	<.05	7	<.5	30
SJ-330	.6	11.5	5.5	98	.1	19.3	6.5	621	1.77	3.3	.3	.6	1.3	48	.2	.1	.1	42	.49	.326	6	25.1	.35	151	.103	1	1.94	.020	.08	.1	.03	3.9	<.1	<.05	7	<.5	30
SJ-331	.9	27.2	5.4	44	.1	26.2	10.8	509	2.98	6.9	.5	7.5	1.1	89	<.1	.3	.1	88	.81	.075	11	35.0	.78	81	.203	1	2.23	.023	.09	<.1	.02	6.4	<.1	<.05	7	<.5	30
SJ-332	.9	33.7	4.7	44	.1	31.6	12.5	445	3.29	6.2	.6	16.0	1.4	108	.1	.3	.1	99	1.10	.039	14	40.3	.96	108	.214	1	2.98	.032	.06	<.1	.03	8.0	<.1	<.05	9	<.5	30
SJ-333	.7	41.4	4.2	63	.1	47.5	16.4	607	3.26	3.0	.5	1.3	1.4	295	.1	.1	.1	69	.71	.114	9	39.8	1.31	185	.168	1	4.43	.020	.12	<.1	.02	6.4	<.1	<.05	10	<.5	30
SJ-334	.6	24.8	5.3	86	.2	30.6	9.6	576	2.45	3.7	.4	3.1	1.1	65	.1	.2	.1	63	.51	.133	6	30.1	.60	104	.150	2	2.43	.017	.10	<.1	.02	4.3	<.1	<.05	7	<.5	30
SJ-335	.5	19.7	4.8	89	.3	33.6	10.9	492	2.40	2.9	.3	2.1	1.1	39	.1	.2	.1	55	.34	.145	5	29.3	.58	112	.108	2	2.67	.016	.10	<.1	.02	3.8	<.1	<.05	8	<.5	30
SJ-336	.6	30.0	4.5	47	.1	33.2	10.2	371	2.94	4.1	.7	2.7	1.5	100	.1	.2	.1	91	.70	.037	16	38.4	.81	81	.271	<1	2.50	.029	.08	<.1	.02	7.8	<.1	<.05	7	<.5	30
SJ-337	.6	20.8	4.6	74	.2	32.7	11.3	510	2.82	4.1	.5	1.4	1.0	53	.1	.2	.1	72	.57	.182	7	33.7	.67	80	.208	2	2.30	.021	.10	.1	.03	4.6	<.1	<.05	7	<.5	30
SJ-338	.5	30.8	4.5	54	.1	36.3	12.4	431	3.04	4.5	.5	2.7	1.0	99	.1	.2	.1	88	.82	.076	7	38.9	.95	81	.230	3	2.65	.025	.14	<.1	.02	5.7	<.1	<.05	8	.6	30
SJ-339	.5	17.5	5.2	46	.1	26.7	8.6	391	2.71	3.4	.5	2.7	.9	65	.1	.2	.1	85	.72	.024	7	36.0	.63	92	.231	3	2.09	.034	.06	<.1	.02	4.9	<.1	<.05	6	<.5	30
SJ-340	.6	24.7	5.0	70	.1	30.0	10.5	487	3.06	3.3	.6	1.9	1.2	62	.1	.2	.1	85	.72	.051	8	35.5	.81	70	.255	1	1.95	.027	.08	<.1	.02	6.2	<.1	<.05	7	<.5	30
SJ-341	.4	22.4	4.9	92	.2	35.4	9.2	429	2.43	2.8	.4	10.0	1.2	41	.1	.2	.1	59	.43	.119	5	30.8	.58	86	.141	1	2.31	.021	.09	.1	.02	3.8	<.1	<.05	8	<.5	30
SJ-342	.6	28.0	5.3	72	.1	34.1	12.1	513	3.01	3.2	.6	5.5	1.2	65	.1	.2	.1	77	.69	.070	10	33.4	.91	69	.256	1	2.28	.025	.13	<.1	.02	6.3	<.1	<.05	8	<.5	30
SJ-343	.5	43.7	4.2	57	.2	42.0	13.4	432	3.35	3.8	.6	1.1	1.3	109	.1	.2	.1	91	1.09	.070	9	35.7	1.21	78	.247	1	3.55	.028	.09	<.1	.02	7.1	<.1	<.05	11	<.5	15
RE SJ-343	.5	42.7	4.5	60	.2	41.4	13.8	442	3.29	3.6	.7	1.5	1.4	111	.1	.2	.1	96	1.13	.071	8	36.0	1.25	72	.258	2	3.70	.029	.08	.1	.01	7.5	<.1	<.05	11	<.5	15
SJ-344	.3	30.7	3.6	61	.1	43.9	10.3	435	2.43	3.9	.5	1.1	1.1	68	.2	.1	.1	59	.89	.165	11	35.1	.87	58	.164	2	2.46	.022	.07	<.1	.04	7.7	<.1	<.05	8	<.5	30
SJ-345	.5	41.1	6.6	72	.2	51.2	14.7	770	3.04	3.5	.6	11.5	1.1	125	.1	.2	.1	76	1.12	.112	10	38.8	1.30	87	.247	2	3.38	.024	.10	<.1	.04	7.3	<.1	<.05	10	.5	30
SJ-346	.4	21.2	5.5	59	.1	36.6	10.1	461	2.59	2.3	.4	4.2	.9	110	.1	.2	.1	69	.97	.051	6	32.7	.90	75	.232	1	2.69	.033	.05	.1	.02	4.8	<.1	<.05	8	<.5	30
SJ-347	.5	23.6	4.7	76	.1	46.7	13.4	464	3.12	3.5	.5	1.5	1.2	111	.1	.2	.1	71	.59	.070	7	39.8	1.12	141	.163	1	3.59	.024	.04	<.1	.03	5.0	<.1	<.05	9	<.5	30
SJ-348	.6	30.8	4.4	87	.2	41.0	11.1	420	2.57	3.1	.4	1.5	1.1	52	.2	.2	.1	64	.43	.077	6	37.6	.85	131	.150	2	2.62	.023	.09	<.1	.03	3.9	<.1	<.05	8	<.5	30
SJ-349	.6	21.1	4.7	64	.1	26.5	9.0	360	2.84	3.1	.4	1.8	1.0	60	.1	.2	.1	78	.51	.051	6	32.5	.67	93	.217	1	2.10	.023	.12	<.1	.01	5.2	<.1	<.05	7	<.5	30
SJ-350	.6	19.0	5.6	51	.1	29.2	10.2	362	3.02	2.7	.5	1.7	.9	81	.1	.3	.1	85	.60	.038	6	34.6	.73	87	.280	1	2.10	.019	.14	<.1	.01	4.5	<.1	<.05	6	<.5	30
SJ-351	.5	31.6	4.8	62	.1	43.5	13.2	370	3.35	4.2	.6	1.6	1.4	84	.2	.2	.1	85	.66	.075	8	42.6	.98	81	.226	1	2.88	.024	.12	<.1	.02	7.0	<.1	<.05	9	<.5	30
SJ-352	.5	41.7	4.2	47	.1	39.5	11.7	397	3.36	3.5	.6	3.8	1.5	132	.1	.2	.1	99	1.28	.072	12	43.0	1.05	66	.290	1	2.89	.054	.07	<.1	.04	10.5	<.1	<.05	8	<.5	30
SJ-353	.3	44.2	3.3	64	.1	72.3	18.7	495	3.71	4.1	.7	1.5	1.6	119	.1	.1	<.1	94	1.65	.057	10	58.3	1.58	40	.269	3	4.18	.037	.11	<.1	.02	11.4	<.1	<.05	11	<.5	30
SJ-354	.3	45.5	3.6	73	.1	69.8	18.4	787	3.80	2.9	.7	.9	1.4	172	.1	.1	<.1	102	1.26	.047	11	60.8	1.79	61	.316	2	3.43	.034	.12	<.1	.01	11.6	<.1	<.05	11	<.5	30
SJ-355	.3	45.6	3.8	71	.1	54.8	17.3	510	3.47	2.6	.8	2.5	2.0	125	.2	.1	<.1	85	2.17	.087	11	32.3	1.44	41	.265	3	3.94	.027	.13	<.1	.02	8.9	<.1	<.05	13	<.5	30
SJ-356	1.1	46.0	5.8	55	.1	32.7	13.4	706	3.36	5.4	.7	3.2	1.8	129	.1	.3	.1	92	1.30	.087	15	36.6	1.01	76	.246	1	2.80	.038	.11	.1	.04	8.9	<.1	<.05	8	<.5	30
SJ-357	.4	35.5	6.0	94	.1	26.8	10.8	614	2.57	3.6	.5	.9	1.8	104	.2	.1	.1	63	.82	.248	8	25.6	.76	56	.159	4	2.94	.025	.14	.1	.03	6.6	<.1	<.05	9	<.5	30
SJ-358	.6	39.5	4.7	50	.1	28.9	12.4	590	3.16	5.3	.5	3.4	1.4	123	.1	.3	.1	91	1.15	.085	12	34.8	.99	58	.209	2	2.58	.044	.07	<.1	.03	8.4	<.1	<.05	7	<.5	30
STANDARD DS5	12.9	141.2	25.3	128	.3	24.3	10.9	776	2.87	17.5	5.9	43.7	2.6	47	5.5	3.8	5.8	97	.74	.100	12	177.7	.65	137	.092	17	2.00	.033	.14	4.8	.17	3.4	1.0	<.05	7	4.9	30

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	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	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
SJ-359	.4	16.1	4.7	58	.1	25.7	8.9	391	2.42	2.0	.3	.6	1.0	56	.1	.2	.1	67	.46	.027	5	36.3	.70	84	.152	<1	1.88	.015	.05	<.1	.02	3.7	<.1	.06	6	<.5	30
SJ-360	.4	16.7	4.6	100	.1	25.7	8.8	477	2.16	3.2	.3	1.6	.9	37	.1	.3	.1	53	.41	.092	4	25.8	.66	113	.131	1	2.09	.013	.08	<.1	.02	3.4	<.1	.05	7	<.5	30
SJ-361	.4	25.0	4.5	50	.1	21.3	9.0	261	2.57	3.3	.4	2.3	1.1	76	<.1	.2	.1	68	.57	.047	7	29.5	.67	101	.124	<1	2.19	.021	.05	<.1	.02	3.9	<.1	.05	7	<.5	30
SJ-362	.5	18.3	5.4	104	.1	24.2	9.2	657	2.24	3.1	.3	2.5	1.2	43	.1	.2	.1	57	.31	.063	5	30.3	.61	146	.104	1	2.81	.016	.06	<.1	.02	3.4	<.1	.05	8	<.5	30
SJ-363	.1	22.0	3.0	44	.1	13.7	7.6	211	2.19	2.7	.3	1.6	.8	112	<.1	.2	.1	53	.81	.040	9	18.6	.50	99	.030	<1	2.21	.031	.03	<.1	.02	4.4	<.1	.05	7	<.5	30
SJ-364	.5	27.1	4.6	63	.1	20.2	9.1	305	2.66	4.9	.4	1.2	1.0	67	.1	.2	.1	66	.47	.080	7	27.8	.66	102	.118	1	2.47	.017	.05	<.1	.02	4.2	<.1	.05	8	<.5	30
SJ-365	.5	39.9	4.4	51	.2	26.2	10.5	322	2.77	3.8	.5	13.3	1.0	68	.1	.3	.1	74	.58	.024	8	35.4	.76	67	.146	1	1.98	.022	.04	<.1	.03	4.4	<.1	.05	6	<.5	30
SJ-366	.5	22.4	5.3	125	.1	29.2	9.2	424	2.28	3.9	.4	2.0	1.3	29	.1	.2	.1	50	.34	.167	6	27.7	.62	107	.115	2	2.25	.017	.12	<.1	.02	3.8	<.1	.05	7	<.5	30
SJ-367	.2	19.3	4.5	74	.1	21.6	8.3	260	2.16	2.9	.4	2.0	1.2	43	.1	.2	.1	58	.34	.054	6	27.7	.59	140	.135	<1	2.19	.019	.07	<.1	.02	4.2	<.1	.05	6	<.5	30
SJ-368	.4	17.3	4.5	115	.1	25.4	8.3	415	2.01	3.5	.3	1.4	1.1	31	.2	.1	.1	48	.34	.186	4	24.0	.56	106	.096	2	1.91	.014	.10	.1	.03	3.3	<.1	.05	6	<.5	30
SJ-369	.4	15.1	4.4	62	.1	16.2	7.7	323	2.04	2.3	.3	9.0	.8	40	<.1	.2	.1	56	.38	.047	4	21.7	.52	71	.137	1	1.58	.016	.05	<.1	.01	3.1	<.1	.05	5	<.5	15
SJ-370	.3	26.8	4.1	55	.2	25.0	9.4	346	2.30	3.8	.6	2.6	1.2	47	.1	.2	.1	65	.54	.024	9	31.6	.75	64	.145	1	2.17	.025	.06	<.1	.06	5.6	<.1	.05	6	<.5	15
SJ-371	.7	23.5	4.7	53	.1	23.1	10.3	482	2.72	4.7	.5	3.7	1.2	71	.1	.3	.1	80	.70	.052	11	29.7	.73	81	.213	1	1.96	.021	.07	<.1	.03	6.4	<.1	.05	6	<.5	15
SJ-372	.4	36.8	4.2	52	.1	20.4	12.2	344	3.48	5.7	.7	4.0	1.4	78	.1	.3	<.1	112	1.01	.052	11	24.7	.84	52	.391	3	2.48	.023	.09	.1	.02	9.7	<.1	.05	9	<.5	30
SJ-373	.6	28.5	4.3	72	.2	22.4	9.3	403	2.33	3.8	.3	2.0	.7	60	.1	.1	.1	54	.50	.135	5	23.0	.74	83	.100	1	2.63	.016	.09	.1	.03	4.2	<.1	.05	7	.5	15
RE SJ-373	.5	29.0	4.2	73	.2	22.8	10.0	413	2.38	3.8	.4	1.7	.7	59	.1	.2	.1	58	.50	.129	5	25.7	.74	83	.101	1	2.45	.014	.09	.1	.03	4.1	<.1	.05	7	<.5	15
SJ-374	.5	26.0	4.6	62	.1	28.0	10.5	316	2.59	4.0	.7	1.3	1.3	56	.1	.2	.1	56	.50	.101	7	30.6	.79	98	.134	2	2.65	.020	.10	.1	.03	5.0	<.1	.05	7	<.5	15
SJ-375	.4	21.7	4.6	90	.1	24.1	9.7	511	2.53	3.7	.3	1.1	1.0	55	.1	.1	.1	57	.41	.083	5	27.0	.74	103	.119	2	2.26	.014	.09	.1	.02	4.6	<.1	.05	7	<.5	30
SJ-376	.4	26.0	3.6	69	.1	26.2	8.7	318	2.29	3.6	.4	2.3	1.1	51	.1	.1	.1	55	.43	.078	5	28.0	.72	77	.105	2	2.11	.018	.07	<.1	.02	4.5	<.1	.05	6	<.5	30
SJ-377	.7	58.8	3.8	85	.1	25.9	12.9	569	3.43	7.0	.5	7.4	1.0	95	.1	.2	.1	103	.77	.037	9	39.8	1.26	93	.129	2	2.27	.030	.05	<.1	.04	11.0	<.1	.05	7	<.5	30
SJ-378	.5	28.4	3.4	74	.1	28.9	10.4	372	2.67	5.7	.3	5.9	1.0	55	.1	.2	.1	67	.47	.066	5	34.1	.81	88	.120	1	2.25	.015	.11	<.1	.02	4.7	<.1	.05	7	<.5	30
SJ-379	.4	16.9	4.2	78	.1	27.3	10.1	413	2.29	3.1	.4	3.6	1.0	49	.1	.1	.1	53	.54	.185	6	28.1	.68	124	.165	3	2.12	.017	.11	<.1	.02	4.0	<.1	.05	7	<.5	30
SJ-380	.5	22.3	5.4	84	.2	30.7	10.0	504	2.28	4.2	.4	1.9	.9	59	.2	.2	.1	60	.63	.106	6	28.7	.68	127	.147	3	2.31	.020	.10	<.1	.03	4.0	<.1	.05	7	<.5	15
SJ-381	.6	27.0	4.8	76	.2	33.6	9.6	353	2.48	4.2	.5	1.8	1.6	33	.1	.1	.1	58	.31	.098	7	33.5	.67	137	.132	2	3.06	.018	.08	.1	.02	4.2	<.1	.05	8	<.5	30
SJ-382	1.0	40.9	5.3	53	.1	33.3	13.0	626	3.38	10.5	.6	10.4	1.4	107	.1	.3	.1	80	1.02	.086	18	41.7	1.07	101	.160	1	2.39	.022	.11	<.1	.03	9.4	<.1	.05	8	<.5	30
SJ-383	.6	19.3	3.9	61	.2	24.3	8.0	270	2.56	4.1	.4	3.1	.8	59	.1	.2	.1	71	.47	.051	6	28.3	.56	91	.185	2	1.80	.020	.07	<.1	.02	4.1	<.1	.05	6	<.5	30
SJ-384	.5	17.1	4.7	79	.1	26.4	8.5	415	2.26	3.7	.3	2.5	.9	40	<.1	.1	.1	55	.34	.153	4	27.8	.53	117	.128	1	2.26	.018	.06	.1	.02	3.7	<.1	.05	7	<.5	30
SJ-385	.3	20.8	4.2	41	.1	28.9	12.0	285	2.59	2.9	.5	2.4	1.0	102	.1	.1	.1	77	.73	.031	6	35.7	.90	90	.238	1	2.19	.030	.06	<.1	.01	5.3	<.1	.05	7	<.5	30
SJ-386	.5	25.7	4.3	119	.2	35.0	10.2	365	2.23	2.6	.4	2.3	1.4	33	.1	.2	.1	50	.37	.070	5	32.8	.69	171	.111	2	2.44	.018	.11	<.1	.02	4.1	<.1	.05	7	<.5	30
SJ-387	.7	24.3	5.0	60	.1	26.4	10.0	431	2.72	4.7	.5	3.3	1.2	91	.1	.3	.1	71	.77	.063	11	34.8	.81	91	.169	2	2.10	.021	.12	<.1	.04	6.5	<.1	.05	6	<.5	15
SJ-388	.4	21.1	4.9	106	.2	27.3	9.1	689	2.29	3.7	.6	1.8	1.2	34	.1	.1	.1	48	.32	.160	8	34.7	.71	133	.092	2	2.59	.017	.07	<.1	.02	4.2	<.1	.05	8	<.5	30
SJ-389	.6	21.1	4.8	97	.1	28.7	9.8	509	2.30	6.8	.4	2.1	1.1	38	.2	.2	.1	51	.43	.248	6	30.3	.54	160	.104	3	2.20	.016	.09	<.1	.02	4.6	<.1	.05	7	<.5	30
SJ-390	.4	18.9	6.3	59	.1	22.3	8.2	583	1.94	4.9	.5	1.2	.8	68	.1	.2	.1	46	.69	.090	6	25.4	.52	105	.096	3	2.00	.023	.10	<.1	.01	3.1	<.1	.05	6	<.5	30
SJ-391	.5	21.0	5.5	100	.1	26.0	10.2	736	2.22	3.6	.4	1.9	1.1	56	.1	.2	.1	57	.48	.152	6	28.6	.67	131	.129	2	2.52	.017	.08	<.1	.02	4.1	<.1	.05	7	<.5	30
STANDARD DS5	12.5	138.2	25.1	141	.3	23.0	11.9	802	2.91	17.2	6.3	41.4	2.6	45	5.2	3.9	6.4	63	.75	.093	12	190.0	.70	135	.097	17	2.06	.033	.13	4.7	.18	3.5	1.1	<.05	6	5.0	30

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	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 %	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm	Sample gm
SJ-392	.7	24.6	5.9	92	.1	25.1	10.2	804	2.45	5.4	.4	4.7	1.2	48	.1	.3	.1	58	.44	.142	5	27.7	.66	125	.114	2	2.56	.012	.08	<.1	.03	3.5	.1	.06	8	.5	30
SJ-393	.9	23.5	5.1	47	.1	25.8	10.3	404	2.84	5.6	.6	20.2	1.1	103	.1	.3	<.1	89	.76	.052	10	34.1	.79	70	.229	2	1.81	.021	.07	.1	.02	5.3	<.1	.07	6	<.5	30
SJ-394	1.1	32.4	5.3	45	.1	28.0	11.8	541	2.94	7.0	.7	7.0	1.3	93	.1	.3	<.1	88	.83	.049	21	35.7	.89	82	.173	1	2.02	.020	.09	.1	.05	6.8	<.1	<.05	6	<.5	15
SJ-395	.5	37.2	4.8	54	.1	41.6	14.6	519	3.14	6.1	.7	2.6	1.5	168	.1	.3	.1	97	1.37	.071	13	43.1	1.10	97	.205	1	2.94	.044	.06	.1	.07	7.3	<.1	<.05	8	<.5	30
SJ-396	.5	39.2	4.5	50	.1	50.5	15.0	533	3.17	3.9	.5	1.5	1.1	289	.1	.3	<.1	98	1.20	.082	12	50.7	1.12	125	.224	1	3.52	.043	.08	.1	.06	7.0	<.1	<.05	8	.5	30
SJ-397	.6	33.9	4.9	71	.1	50.6	13.7	549	2.88	3.8	.5	.5	1.1	180	.1	.2	.1	78	.78	.125	8	54.8	1.05	125	.146	1	3.04	.031	.06	.1	.05	5.4	<.1	<.05	8	<.5	30
SJ-398	.5	28.0	4.9	44	.1	26.4	10.7	403	3.00	5.2	.9	2.9	1.5	135	.1	.4	.1	111	1.11	.042	11	38.7	.81	96	.279	2	2.40	.046	.05	.1	.09	7.3	<.1	<.05	7	<.5	15
SJ-399	.5	33.0	5.6	52	.1	26.1	11.1	424	3.03	5.2	.8	.9	1.9	105	.1	.2	<.1	95	.94	.069	13	32.1	.88	85	.270	1	3.06	.025	.06	.1	.02	6.3	<.1	<.05	9	.5	30
SJ-400	.6	37.4	5.6	52	<.1	25.9	10.5	456	3.11	6.9	1.0	3.8	2.1	149	.1	.2	.1	96	1.36	.066	17	32.9	.87	97	.278	1	3.55	.027	.08	.1	.09	8.5	<.1	<.05	10	.5	30
SJ-401	.6	37.5	4.9	48	<.1	31.7	11.5	484	3.31	5.4	.9	3.0	1.9	135	<.1	.2	<.1	98	1.22	.070	20	44.0	1.09	90	.250	1	3.36	.024	.08	.1	.07	8.8	<.1	<.05	9	<.5	15
RE SJ-401	.5	38.0	5.1	51	.1	30.4	12.0	516	3.48	6.0	.9	28.8	1.9	133	.1	.2	<.1	100	1.26	.072	20	45.5	1.11	91	.259	1	3.43	.024	.08	<.1	.07	9.3	<.1	<.05	10	<.5	15
SJ-402	.7	36.6	5.1	52	.1	24.4	11.6	404	3.18	6.6	.8	1.7	1.7	104	.1	.3	.1	96	.88	.043	15	32.4	.88	78	.242	<.1	2.70	.025	.05	.1	.03	7.7	<.1	<.05	8	<.5	30
SJ-403	.4	29.3	5.2	68	.1	24.8	9.0	268	2.47	4.0	.4	11.8	1.0	37	.1	.1	.1	74	.37	.019	7	36.3	.74	47	.110	1	2.15	.020	.04	<.1	.01	3.5	<.1	<.05	6	<.5	30
SJ-404	.4	34.1	4.8	50	<.1	35.5	13.0	481	3.03	4.6	.8	2.2	1.8	129	.1	.2	<.1	88	1.49	.073	15	36.3	1.00	70	.257	1	3.03	.034	.06	.1	.06	8.0	<.1	<.05	9	<.5	30
SJ-405	.7	30.1	5.6	70	.1	29.3	11.8	601	2.93	5.7	.6	1.2	1.4	71	.1	.2	.1	73	.70	.126	10	29.6	.95	111	.206	2	3.71	.019	.06	.1	.04	5.2	<.1	<.05	11	<.5	30
SJ-406	.4	30.0	5.3	45	.1	24.4	9.8	370	2.89	3.9	.9	.9	1.7	114	.1	.2	<.1	81	1.11	.037	16	29.9	.77	63	.271	2	2.61	.036	.05	.1	.05	7.8	<.1	<.05	8	<.5	30
SJ-407	.5	35.0	5.0	56	.2	26.6	11.3	410	3.01	4.4	1.0	1.4	1.7	95	.1	.2	.1	86	.84	.029	13	34.3	1.02	84	.203	1	3.10	.025	.04	<.1	.06	7.8	<.1	<.05	9	<.5	30
SJ-408	.5	43.9	4.5	59	.1	32.6	13.3	437	3.46	5.5	.7	2.2	1.7	132	.1	.2	.1	106	1.11	.038	16	43.3	1.08	109	.167	1	3.64	.039	.05	.1	.05	9.3	<.1	<.05	9	.6	30
SJ-409	.4	29.6	5.1	68	.2	27.2	9.5	406	2.64	4.3	.7	.8	1.2	74	.1	.2	.1	80	.76	.036	8	33.4	.76	95	.172	1	2.61	.025	.04	.1	.05	6.0	<.1	<.05	7	<.5	30
SJ-410	.5	32.8	4.6	60	.1	27.1	11.9	385	3.00	4.5	.6	1.2	1.4	114	.1	.2	.1	90	.85	.046	10	33.7	.90	103	.205	1	3.14	.020	.08	<.1	.03	6.0	<.1	<.05	9	<.5	30
SJ-411	.5	33.2	4.5	50	.1	27.8	11.8	479	3.40	5.5	.7	2.5	1.4	202	<.1	.3	.1	98	1.04	.047	14	36.5	.97	106	.229	1	3.06	.022	.08	<.1	.03	7.9	<.1	<.05	8	.5	30
SJ-412	.6	26.6	4.8	90	.2	30.2	10.7	477	2.47	4.4	.4	1.3	1.3	43	.1	.2	.1	58	.38	.140	6	31.0	.66	121	.110	2	2.51	.015	.06	<.1	.04	3.6	<.1	<.05	7	<.5	30
STANDARD DS5	12.6	141.0	25.4	131	.3	22.6	10.9	751	2.88	18.1	6.6	44.8	2.9	48	5.4	4.1	5.8	59	.75	.093	12	172.6	.72	134	.095	16	1.93	.033	.13	5.0	.17	3.3	1.0	<.05	6	4.9	30

Sample type: SOIL SS80 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



GEOCHEMICAL ANALYSIS CERTIFICATE



Almaden Minerals Ltd. PROJECT SAM04-3 File # A407473
1103 - 750 W. Pender St., Vancouver BC V6C 2T8 Submitted by: Ed Balon

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	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	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm
SI	.1	.7	.1	<1	<.1	.2	<.1	1	.04	<.5	<.1	<.5	<.1	2	<.1	<.1	<.1	3	.11	<.001	<1	<1	<.01	2	<.001	1	<.01	.488	<.01	.2	<.01	<.1	<.1	<.05	<1	<.5
SAM-R37	.7	9.7	3.9	18	.1	5.4	3.1	736	.84	.9	.5	<.5	1.3	69	<.1	1.0	<.1	23	3.01	.021	5	17.5	.25	196	.047	2	.51	.083	.16	<.1	<.01	1.7	<.1	<.05	2	<.5
SAM-R38	.2	15.0	3.7	19	.1	3.3	2.6	100	.70	1.1	.4	1.3	1.0	85	<.1	2.1	.1	19	.30	.015	3	17.2	.14	193	.041	1	.48	.137	.08	<.1	<.01	1.3	<.1	<.05	2	<.5
STANDARD	11.5	124.6	30.7	145	.3	24.3	10.4	721	2.87	20.8	6.7	49.4	3.2	41	6.0	3.5	4.9	56	.88	.075	15	185.7	.59	167	.087	16	1.86	.076	.16	3.6	.22	3.2	1.7	<.05	6	4.5

Standard is STANDARD DS6.

GROUP 1DX - 30.0 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP-MS.

(>) CONCENTRATION EXCEEDS UPPER LIMITS. SOME MINERALS MAY BE PARTIALLY ATTACKED. REFRACTORY AND GRAPHITIC SAMPLES CAN LIMIT AU SOLUBILITY.

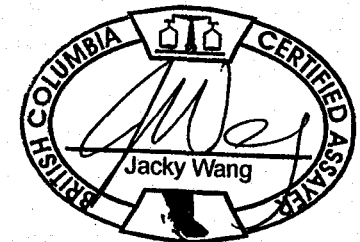
- SAMPLE TYPE: ROCK R150 60C

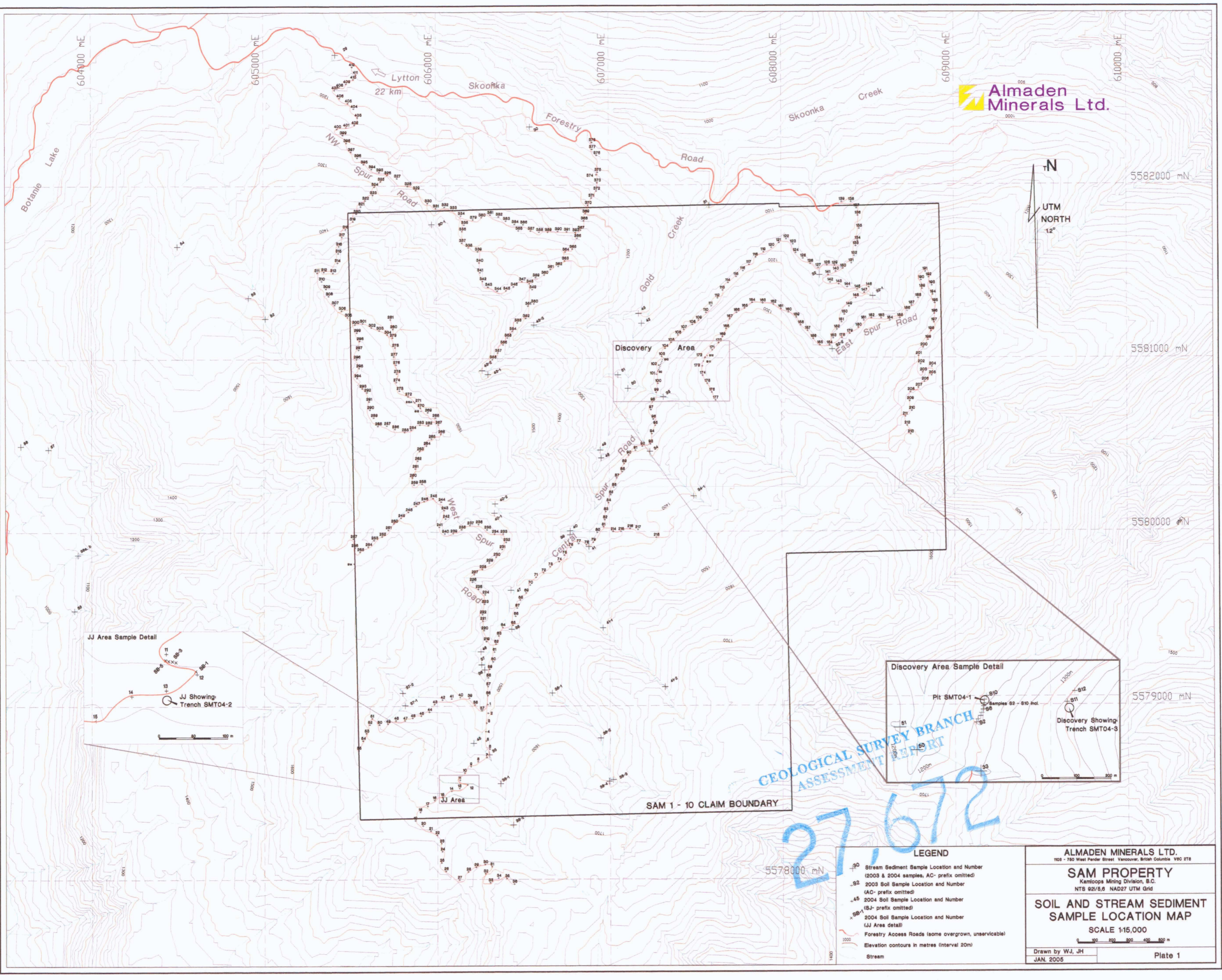
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DATE RECEIVED: DEC 3 2004

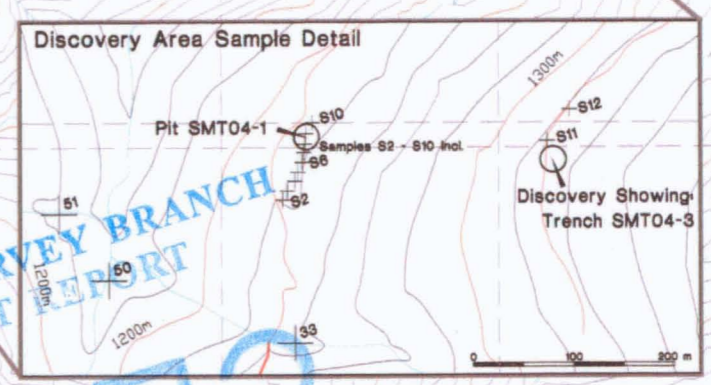
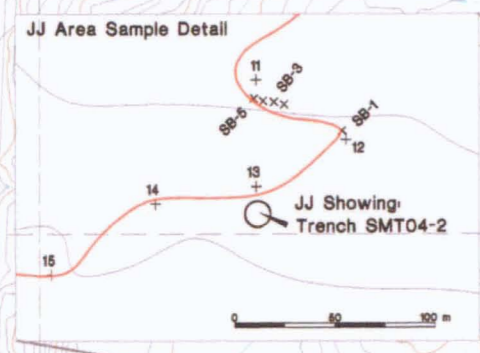
DATE REPORT MAILED: ...

Dec 17/2004





UTM NORTH
12°



SAM 1 - 10 CLAIM BOUNDARY

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

LEGEND

- 30 Stream Sediment Sample Location and Number (2003 & 2004 samples, AC- prefix omitted)
- 92 2003 Soil Sample Location and Number (AC- prefix omitted)
- 45 2004 Soil Sample Location and Number (BJ- prefix omitted)
- 89-1 2004 Soil Sample Location and Number (JJ Area detail)
- Forestry Access Roads (some overgrown, unservicable)
- Elevation contours in metres (interval 20m)
- Stream

ALMADEN MINERALS LTD.
103 - 780 West Pender Street Vancouver, British Columbia V6C 2T8

SAM PROPERTY
Kamloops Mining Division, B.C.
NTS 92/5.9 NAD27 UTM Grid

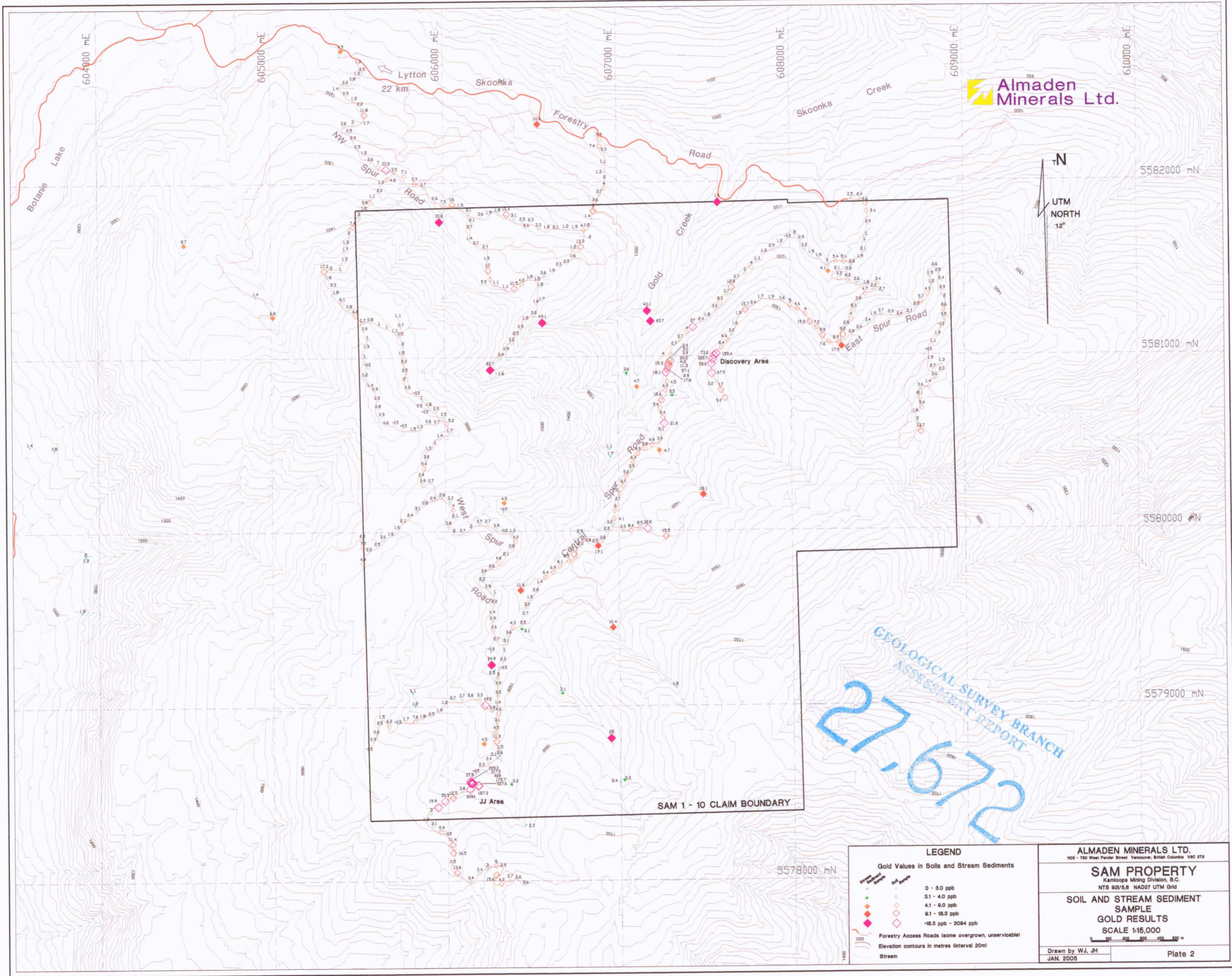
**SOIL AND STREAM SEDIMENT
SAMPLE LOCATION MAP**

SCALE 1:15,000

0 100 200 300 400 500 m

Drawn by WJ, JH
JAN. 2005

Plate 1



27.672

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

SAM 1 - 10 CLAIM BOUNDARY

LEGEND	
	0 - 0.0 ppb
	0.1 - 4.0 ppb
	4.1 - 8.0 ppb
	8.1 - 18.3 ppb
	>18.3 ppb - 2084 ppb
	Forestry Access Roads (some overgrown, unservicable)
	Elevation contours in metres (interval 20m)
	Stream

ALMADEN MINERALS LTD.
1103 - 780 West Pender Street Vancouver, British Columbia V6C 2T6

SAM PROPERTY
Kamloops Mining Division, B.C.
NTS 92/5.6 NAD27 UTM Grid

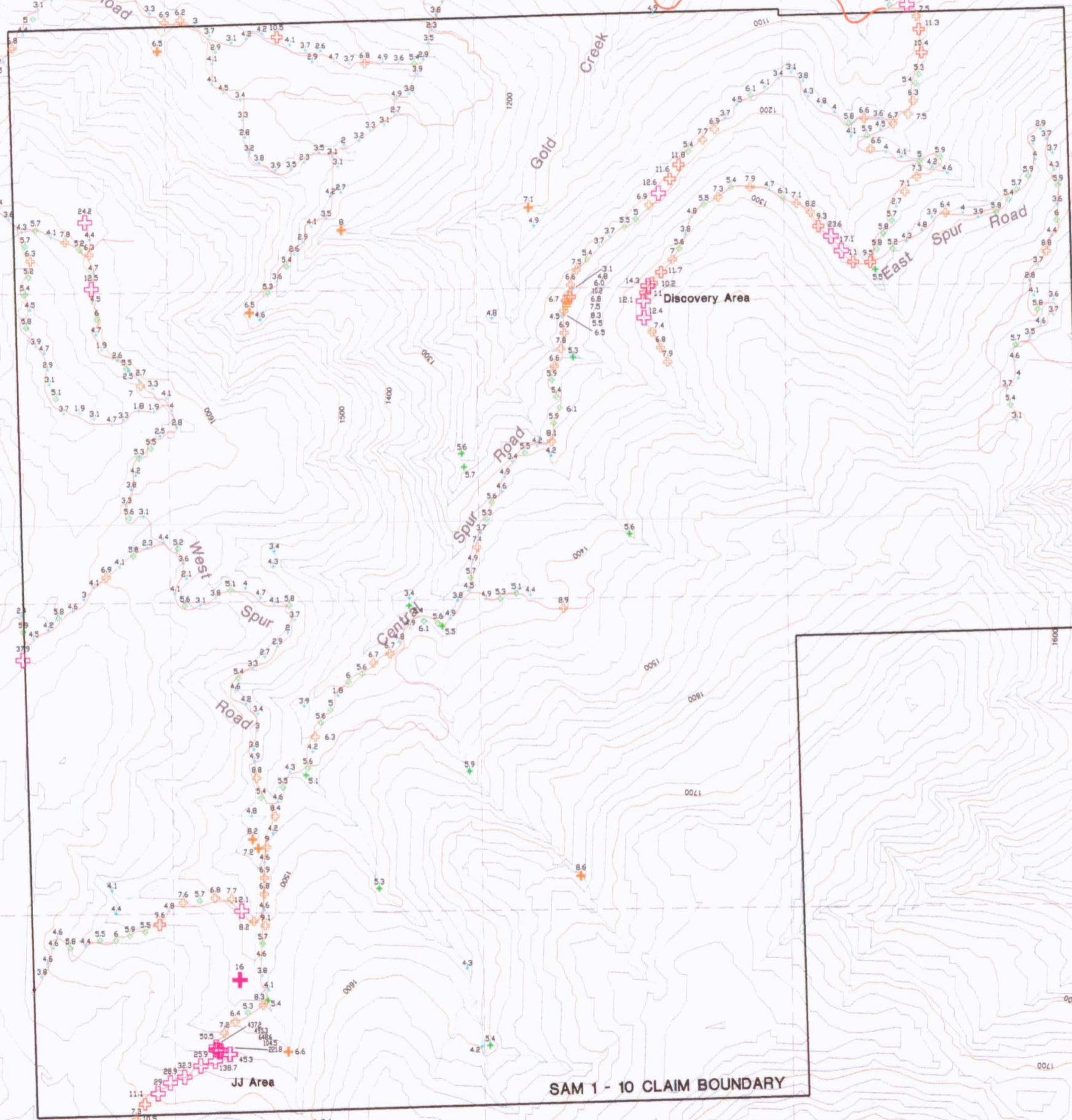
**SOIL AND STREAM SEDIMENT
SAMPLE
GOLD RESULTS**

SCALE 1:15,000

0 100 200 300 400 500 m

Drawn by WJ, JH
JAN. 2005

Plate 2



27,672
GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

LEGEND

Arsenic Values in Soils and Stream Sediments

	0 - 6.0 ppm
	6.1 - 6.2 ppm
	6.3 - 6.3 ppm
	6.4 - 12.1 ppm
	12.1 - 648.6 ppm

Forestry Access Roads (some overgrown, unservicable)

Elevation contours in metres (interval 20m)

Stream

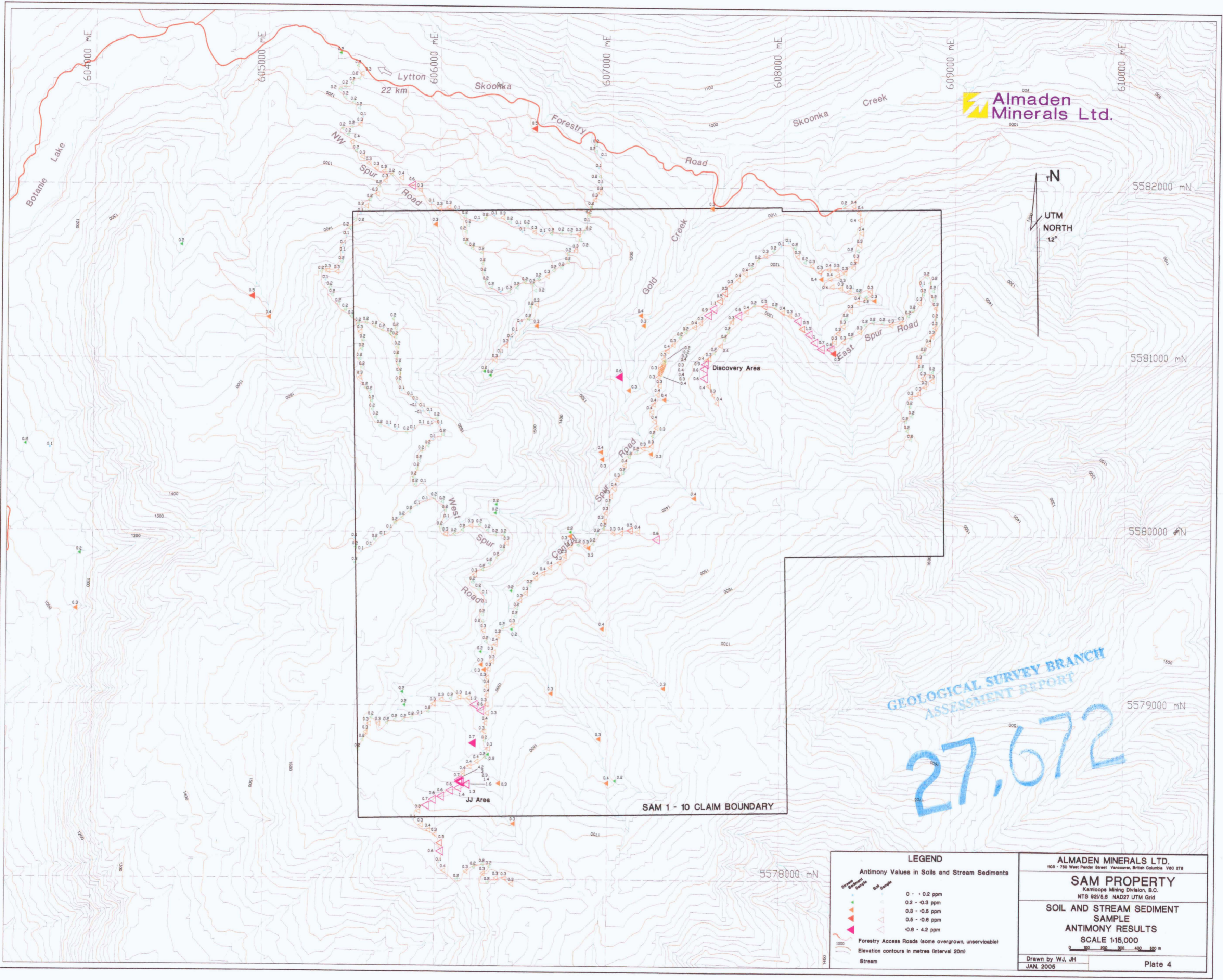
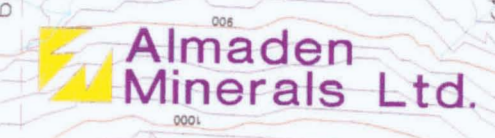
ALMADEN MINERALS LTD.
100 - 780 West Pender Street Vancouver, British Columbia V6C 2T6

SAM PROPERTY
Kamloops Mining Division, B.C.
NTS 92/5,6 NAD27 UTM Grid

**SOIL AND STREAM SEDIMENT
SAMPLE
ARSENIC RESULTS
SCALE 1:15,000**

Drawn by WJ, JH
JAN. 2005

Plate 3



GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

27,672

SAM 1 - 10 CLAIM BOUNDARY

LEGEND

Stream Sediment Sample	Soil Sample	Antimony Values in Soils and Stream Sediments
		0 - 0.2 ppm
		0.2 - 0.3 ppm
		0.3 - 0.5 ppm
		0.5 - 0.6 ppm
		0.6 - 4.2 ppm

Forestry Access Roads (some overgrown, unservicable)
Elevation contours in metres (interval 20m)
Stream

ALMADEN MINERALS LTD.
1103 - 780 West Pender Street Vancouver, British Columbia V6C 2T8

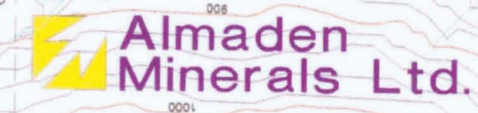
SAM PROPERTY
Kamloops Mining Division, B.C.
NTS 92/5,8 NAD27 UTM Grid

**SOIL AND STREAM SEDIMENT
SAMPLE
ANTIMONY RESULTS**

SCALE 1:15,000
0 100 200 300 400 500 m

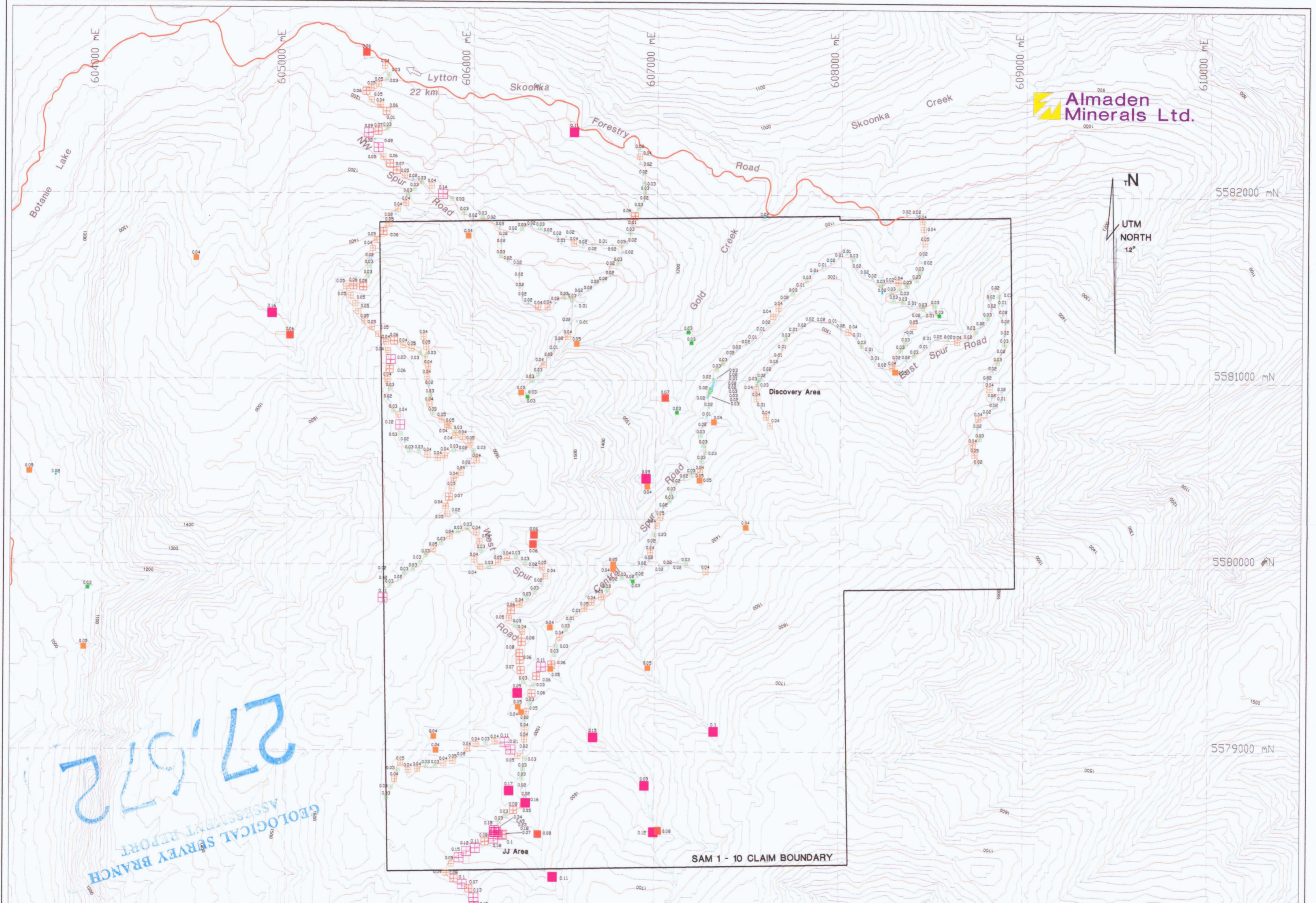
Drawn by WJ, JH
JAN. 2005

Plate 4



N

UTM
NORTH
12°



27,672
GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

SAM 1 - 10 CLAIM BOUNDARY

LEGEND

Mercury Values in Soils and Stream Sediments

Stream Sediment Sample	Soil Sample	Value Range (ppm)
Green square	Green square	0 - 0.03
Yellow square	Yellow square	0.03 - 0.04
Orange square	Orange square	0.04 - 0.06
Red square	Red square	0.06 - 0.09
Pink square	Pink square	0.09 - 0.49

Forestry Access Roads (some overgrown, unservicable)

Elevation contours in metres (interval 20m)

Stream

ALMADEN MINERALS LTD.
1108 - 750 West Pender Street Vancouver, British Columbia V6C 2T8

SAM PROPERTY
Kamloops Mining Division, B.C.
NTS 921/5,6 NAD27 UTM Grid

**SOIL AND STREAM SEDIMENT
SAMPLE
MERCURY RESULTS**

SCALE 1:15,000

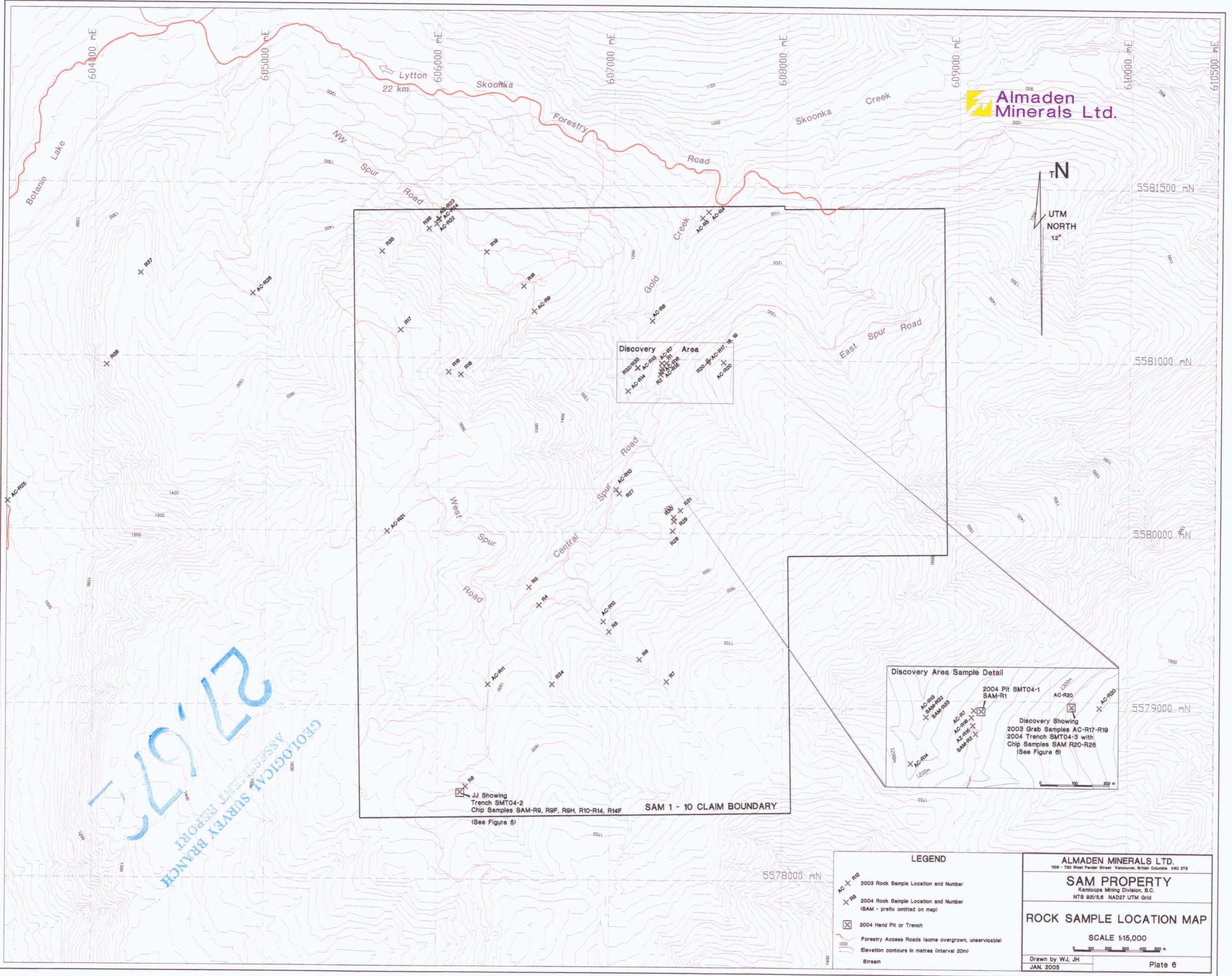
0 100 200 300 400 500 m

Drawn by WJ, JH
JAN. 2005

Plate 5

TN

UTM NORTH
12°



Discovery Area
R20/R25
AC-R17
AC-R18
R2
AC-R19
R21
AC-R20
R20-1/AC-R17, R18, R19
AC-R20

Discovery Area Sample Detail

AC-R18
SAM-R22
SAM-R23

2004 Pit SMT04-1
SAM-R1

AC-R20

AC-R17
AC-R18
AC-R19
SAM-R22

AC-R20

AC-R20

Discovery Showing
2003 Grab Samples AC-R17-R19
2004 Trench SMT04-3 with
Chip Samples SAM R20-R26
(See Figure 6)

JJ Showing
Trench SMT04-2
Chip Samples SAM-R9, R9F, R9H, R10-R14, R14F
(See Figure 5)

SAM 1 - 10 CLAIM BOUNDARY

27,673
GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

LEGEND

- AC-R17 R12 2003 Rock Sample Location and Number
- X R9 2004 Rock Sample Location and Number (SAM - prefix omitted on map)
- 2004 Hand Pit or Trench
- Forestry Access Roads (some overgrown, unservicable)
- Elevation contours in metres (interval 20m)
- Stream

ALMADEN MINERALS LTD.
108 - 750 West Pender Street Vancouver, British Columbia V6C 2T6

SAM PROPERTY
Kamloops Mining Division, B.C.
NTS 92/5,6 NAD27 UTM Grid

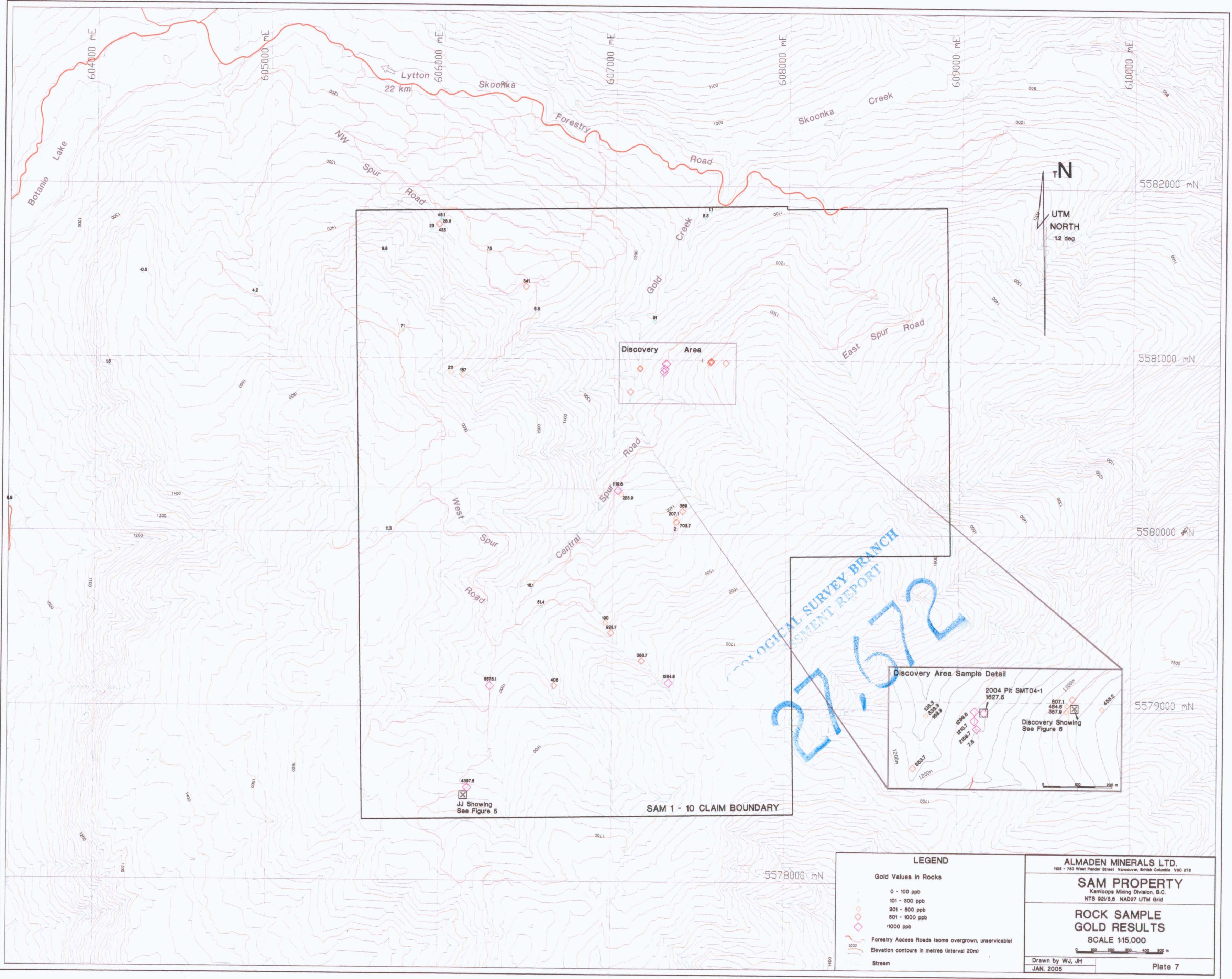
ROCK SAMPLE LOCATION MAP

SCALE 1:15,000

0 100 200 300 400 500 600 m

Drawn by WJ, JH
JAN. 2005

Plate 6



UTM
NORTH
12 deg

Discovery Area

Discovery Area Sample Detail

2004 Pit SMT04-1
1827.6

Discovery Showing
See Figure 6

SAM 1 - 10 CLAIM BOUNDARY

27,572

LEGEND

Gold Values in Rocks

- 0 - 100 ppb
- 101 - 300 ppb
- 301 - 500 ppb
- 501 - 1000 ppb
- >1000 ppb

Forestry Access Roads (some overgrown, unservicable)

Elevation contours in metres (interval 20m)

Stream

ALMADEN MINERALS LTD.
108 - 750 West Pender Street Vancouver, British Columbia V6C 2T8

SAM PROPERTY
Kamloops Mining Division, B.C.
NTS 821/5.8 NAD27 UTM Grid

ROCK SAMPLE GOLD RESULTS
SCALE 1:15,000

0 100 200 300 400 500 m

Drawn by WJ, JH
JAN. 2005

Plate 7