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**Assessment Report
2002 Diamond Drilling Program
Mack Property**

Skeena Mining Division
British Columbia
NTS 104B 068,069, 078, 079
Latitude: 56° 37'
Longitude: 130° 30'

Owned by:

HOMESTAKE CANADA INC.
(a wholly owned subsidiary of Barrick Gold Corporation)

Work Performed By:

BARRICK GOLD CORPORATION
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GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

February 19, 2003

27,075

Abstract

The 2002 drilling program on the Mack property operated from August 20 to September 11, 2002. One hole was drilled to test a magnetic anomaly within the Bowser Lake Group sedimentary rocks east of Tom MacKay Lake on the Mack 20 claim. The hole cored 50m of conglomerate before passing into laminated mudstone. Andesite dykes and sills intruded the lower 150m of mudstone and comprised up to 30% of the rock. The andesite was magnetic and is considered to be the source of the magnetic anomaly. The hole was terminated at 992.12m. There were no significant results and no further work is recommended.

Table of Contents

Abstract.....	i
Introduction.....	1
Location and Access.....	1
Property Tenure.....	1
Physiography, Vegetation and Climate.....	1
History and Previous Work.....	1
Geology.....	5
Regional Geology.....	5
Property Geology.....	5
The 2002 Mack Exploration Program.....	8
Introduction.....	8
Drill Hole Summary.....	8
Geochemistry.....	8
Conclusion and Recommendations.....	11
References.....	12

List of Figures

Figure 1. Location Map.....	2
Figure 2. Claim Map.....	3
Figure 3. Geology Map.....	6
Figure 4. MP02-11 Cross Section.....	9

List of Tables

Table 1. Summary of Claim Data.....	4
Table 2. Stikinia Assemblage Description.....	5
Table 3. Mack Drill Hole Summary.....	8

List of Appendices

Appendix A. Statement of Expenditures	
Appendix B. Diamond Drill Log MP02-11	
Appendix C. Statement of Qualifications	
Appendix D. Assay Certificates and Analytical Process	

Introduction

This report is a summary of the drill hole MP02-11 that was completed on the Mack Property during the summer of 2002 by Barrick Gold Corporation.

Location and Access

The claims that comprise the Mack property lie approximately 83 km northwest of Stewart, British Columbia. The property is accessible by the paved Stewart-Cassiar Highway (37) which heads north from Meziadin Junction. The Eskay Creek mine road joins Highway 37 a few kilometers south of Bob Quinn. The Mack claims can be accessed by driving the 58.5 km gravel mine road constructed along the eastern flank of the Iskut River and utilizing a helicopter from there. The property is approximately 4.5 km southwest of the Eskay Creek minesite (Figure 1).

Property Tenure

The Mack property, consisting of 24 mineral claims, totaling 43 units was grouped with other adjacent Eskay Creek claims and mining leases in the Skeena and Liard Mining Divisions. All of the grouped claims are held wholly or partially by Homestake Canada Inc., a wholly owned subsidiary of Barrick Gold Corporation. The location and configuration of the claims are shown in Figures 1 and 2. Current claim status and expiry dates are outlined in Table 1.

Physiography, Vegetation and Climate

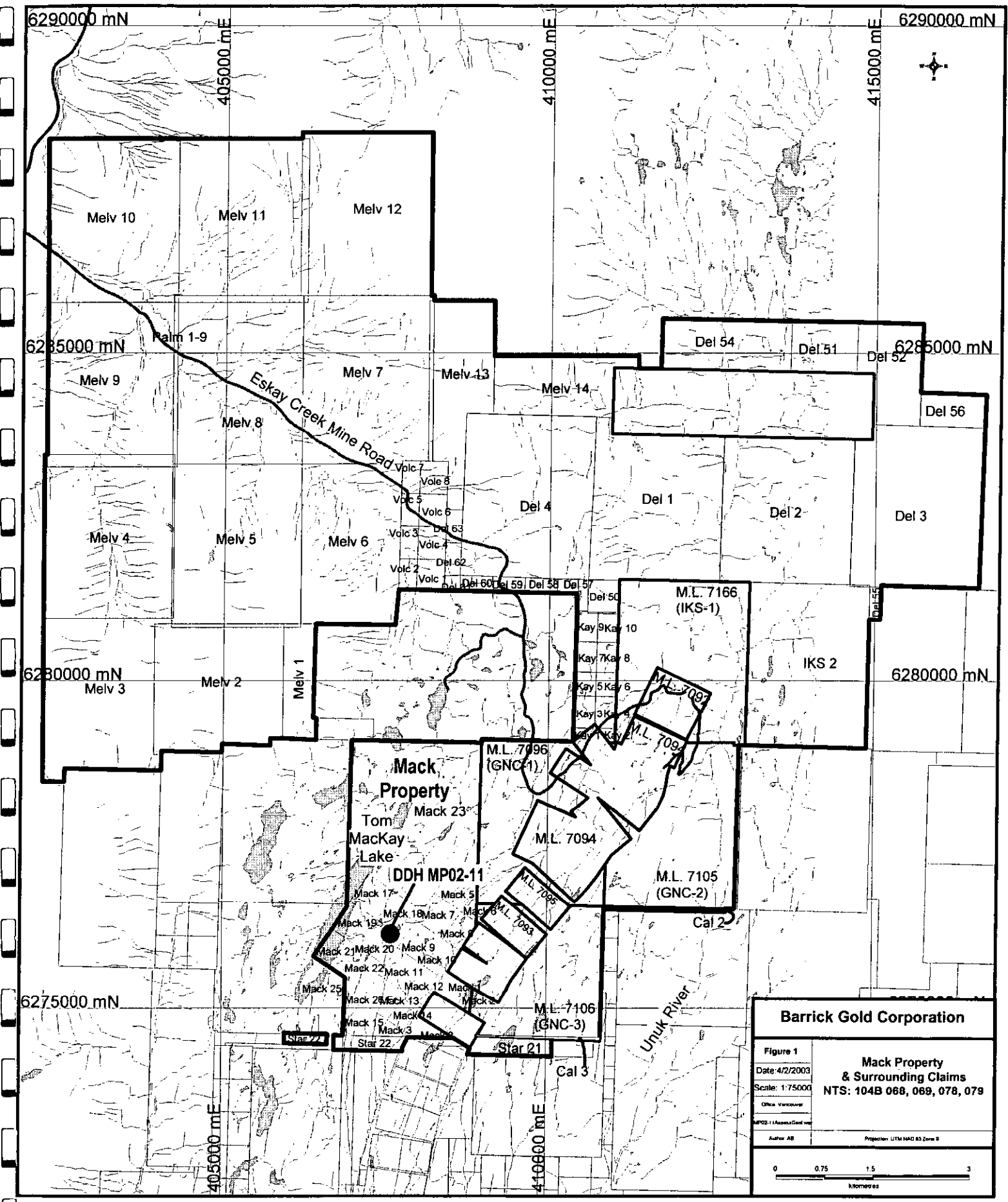
The area west and north of the Argillite Creek is characterized by the rolling NNE trending ridges and gullies of the Prout Plateau. Elevations range from 1300m to 960m.

Vegetation varies due to elevation, water supply and slope. At higher elevation, the vegetation consists of stunted balsam, heather and grasses. Steep areas are covered by slide alder, devil's club and skunk cabbage. At lower elevation, spruce, fir and hemlock prevail.

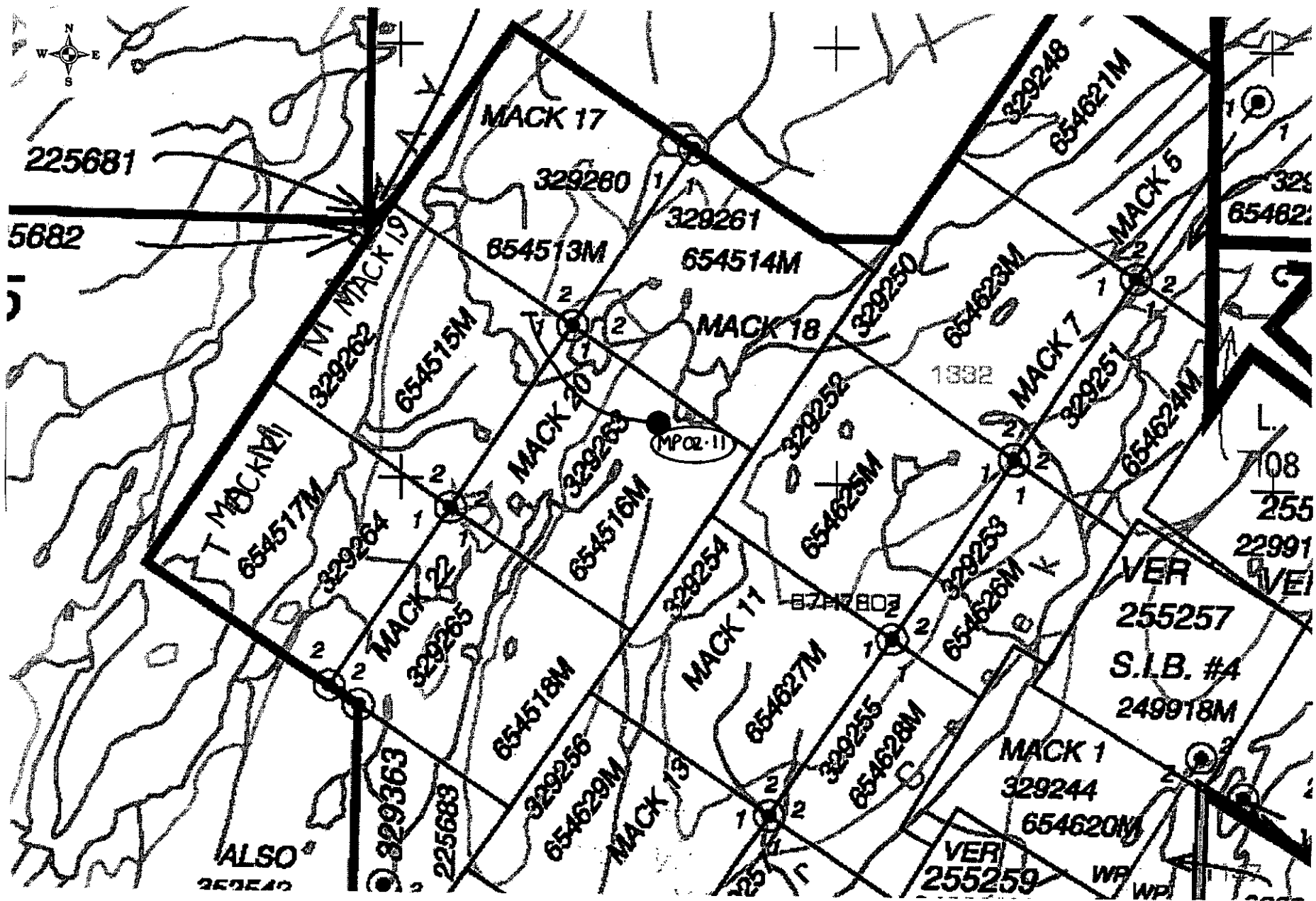
Annual precipitation at Eskay is heavy and ranges from 2-3.5 meters. Most of the precipitation falls as snow between the months of November and April. The accumulated snow pack does not fully disappear until early August.

History and Previous Work

The Eskay Creek property and surrounding area has been the focus of many exploration programs which date back to 1932. Recent geological mapping has been done on selected areas of the Mack property by Barrick personnel. Other work includes geological mapping on the Mack property and Prout Plateau has been completed by Peter Lewis in 1995, a Master's thesis on the regional geology and facies interpretation by Roland Bartsch in 1993 and a Bachelor's thesis on the geology and structural complications of the Prout Plateau area by Matt Phillips in 1996.



Barrick Gold Corporation	
Figure 1	Mack Property & Surrounding Claims
Date: 4/2/2003	NTS: 104B 068, 069, 078, 079
Scale: 1:75000	
Office: Vancouver	
MP02-11 Assets/Claim	
Author: AB	Projection: UTM NAD 83 Zone 8



Claim Map
 Skeena Mining Division
 NTS 104B/9W-10E
 Figure 2

Table 1. Summary of Claim Data

Claim Name	Record #	Units	Area (ha)	Record Date	Expiry Date*
Mack 23	329241	20	500	1994.07.21	2012.07.21
Mack 1	329244	1	25	1994.07.21	2012.07.21
Mack 2	329245	1	25	1994.07.21	2012.07.21
Mack 3	329246	1	25	1994.07.21	2012.07.21
Mack 4	329247	1	25	1994.07.21	2012.07.21
Mack 5	329248	1	25	1994.07.21	2012.07.21
Mack 6	329249	1	25	1994.07.21	2012.07.21
Mack 7	329250	1	25	1994.07.21	2012.07.21
Mack 8	329251	1	25	1994.07.21	2012.07.21
Mack 9	329252	1	25	1994.07.21	2012.07.21
Mack 10	329253	1	25	1994.07.21	2012.07.21
Mack 11	329254	1	25	1994.07.21	2012.07.21
Mack 12	329255	1	25	1994.07.21	2012.07.21
Mack 13	329256	1	25	1994.07.21	2012.07.21
Mack 14	329257	1	25	1994.07.21	2012.07.21
Mack 15	329258	1	25	1994.07.21	2012.07.21
Mack 16	329259	1	25	1994.07.21	2012.07.21
Mack 17	329260	1	25	1994.07.21	2012.07.21
Mack 18	329261	1	25	1994.07.21	2012.07.21
Mack 19	329262	1	25	1994.07.21	2012.07.21
Mack 20	329263	1	25	1994.07.21	2012.07.21
Mack 21	329264	1	25	1994.07.21	2012.07.21
Mack 22	329265	1	25	1994.07.21	2012.07.21
Mack 26 FR	329363	1	25	1994.08.03	2012.08.03
Del 51	378529	16	75	2000.07.02	2008.07.02
Del 52	378530	16	75	2000.07.02	2008.07.02
Del 54	378532	20	125	2000.07.02	2008.07.02
Del 56	379748	12	300	2000.08.11	2008.08.11
Del 63	379755	1	250	2000.08.12	2010.08.12
Melv 1	392013	4	100	2002.02.22	2006.02.22
Melv 2	392014	16	400	2002.02.22	2006.02.22
Melv 3	392015	20	500	2002.02.22	2006.02.22
Melv 4	392016	20	500	2002.02.22	2006.02.22
Melv 5	392017	20	500	2002.02.23	2006.02.23
Melv 6	392018	20	500	2002.02.22	2006.02.23
Melv 7	392019	20	500	2002.02.22	2006.02.23
Melv 8	392020	20	500	2002.02.22	2006.02.23
Melv 9	392021	20	500	2002.02.22	2006.02.23
Melv 10	392022	20	500	2002.02.22	2006.02.23
Melv 11	392023	20	500	2002.02.22	2006.02.23
Melv 12	392024	20	500	2002.02.22	2006.02.23
Melv 13	392025	14	350	2002.02.22	2006.02.23
Melv 14	392026	15	375	2002.02.22	2006.02.23
Total:	43	357	8125		

* Expiry date is subject to government approval of assessment work covered by this report.

Geology

Regional Geology

The Eskay Creek area is underlain by rocks of the Mesozoic Stikinia and Bowser Overlap assemblages. Geologists of the British Columbia Geologic Survey and the Geological Survey of Canada have subdivided the Stikinia assemblage into two groups; the Bowser Lake and Hazelton groups. The Hazelton Group has been further divided into four rock formations: Unuk River Formation, Betty Creek Formation, Mt. Dilworth Formation and the Salmon River Formation. The following units in Table 2 are summarized from Anderson and Thorkelson (1990).

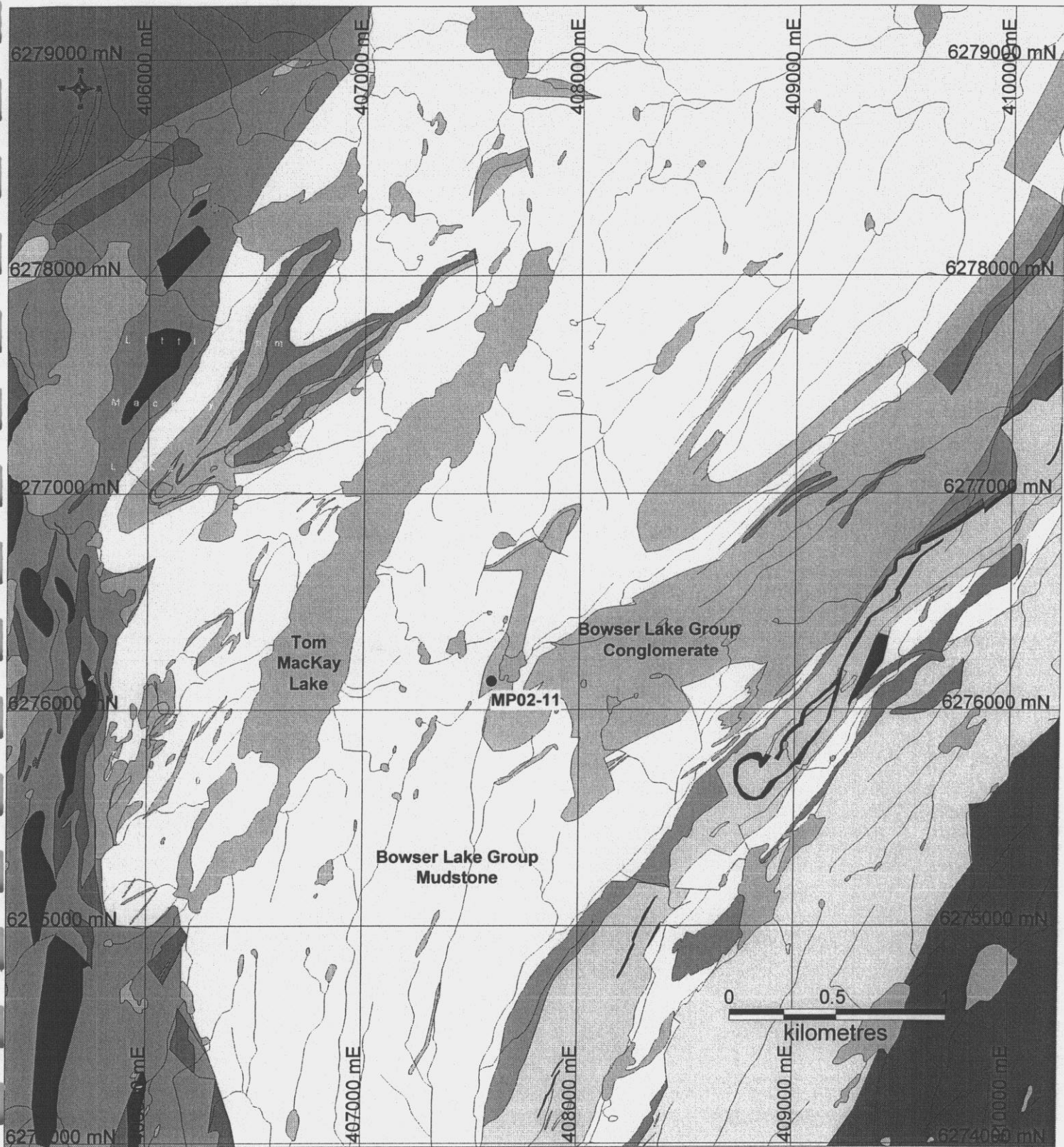
Table 2. Stikinia Assemblage Description

Formation/Group	Lithologies	Age (Ma)
Ashman Fm. (Bowser Lake Group)	Shale, siltstone, greywackes, quartz arenites and chert pebble conglomerates.	156-163 Ma
Salmon River Fm. (Hazelton Group)	(ii) black siliceous shale, white reworked tuff turbidite; pillow lava and limy to siliceous shale-siltstone; andesitic volcanics (i) thin belemnite-rich calcareous sandstone and mudstones.	163-187 Ma 187-193 Ma
Mount Dilworth Fm. (Hazelton Group)	White-maroon grey weathering welded to non-welded felsic tuff and tuff breccias. Commonly aphyric, flow-banded and spherulitic. Dacite-rhyolite composition.	?
Betty Creek Fm. (Hazelton Group)	Maroon to green volcanic siltstone, greywacke, breccia with common sedimentary structures and jasperoid veins.	193-196 Ma
Unuk River Fm. (Hazelton Group)	Rusty white-orange weathering, thinly bedded siliciclastic calcareous siltstone dominates the unit.	198 Ma

Property Geology

The Bowser Lake Group comprises a thick sequence of Middle Jurassic to Late Jurassic sedimentary rocks. Sediments are believed to be eroded from the uplifted surrounding volcanic terranes.

Stratigraphy in the Bowser Lake Group consists of monotonous sequences of black mudstones with grey siltstone laminae. Generally, pyrite is sporadic, occurring in occasional fragments and laminae. Fossils are rare and mainly consist of 1-2cm carbonate-replaced belemnites. The northern end of the Prout Plateau contains thick sequences of medium to coarse-grained pale grey conglomerates (Figure 3). Conglomerates are primarily clast-supported, poorly sorted with clast composition dominated by chert pebbles. Mapping by Phillips (1996) has identified rapid thickness changes within conglomerate over



**Barrick Gold Corporation
 Geology Map
 1:25 000 Scale
 Figure 3**

the extent of the Prout Plateau and the presence of graded bedding and cross-bedding. Locally the conglomerates grade into well sorted coarse sandstones.

The Prout Plateau is bounded to the east and west by regional scale faults that cut through both the Hazelton Group and Bowser Lake Group stratigraphy. The western edge of the Prout Plateau is bounded by the Unuk-Harrymel Fault while the eastern flank is bounded by the steeply northwest dipping Argillite Creek fault.

In this area both the Bowser Lake Group and Hazelton Group rocks have undergone significant amounts of east-west shortening. Shortening has been accommodated by varying amounts of faulting and folding. Mapping on the Mack and GNC claims has defined a series of syncline-anticline pairs with fold axes trending in a northeasterly direction and dipping moderately to the north. Folds are symmetric with interlimb angles of nearly 90° (Phillips, 1996).

The 2002 Mack Exploration Program

Introduction

The 2002 diamond drill program of the Mack property was initiated to test for the Hazelton Group stratigraphy below Bowser Lake Group for Eskay Creek style mineralization. This hole was targeting a magnetic anomaly within the Bowser sedimentary rocks. The depth to the Hazelton contact is considered to range from 450m to more than 950m.

Drill Hole Summary

A 4-man drill crew was mobilized by Hy-Tech Drilling in Smithers, B.C. Drilling was completed using a Tech-5000 hydraulic drill and NQ-2 sized core. Drilling on the Mack hole, MP02-11, commenced August 20, 2002 and was completed September 11, 2002.

Drilling crews and geologists worked out of the established Barrick Exploration Camp located at Km 45 on the Eskay Creek Mine access road. A Hughes 500D helicopter (from Northern Air Support of Kelona, B.C.) provided drill support. All diamond drill core was logged at the camp and then moved to the storage site at Km 44 along the Mine access road. Samples were shipped to Bondar Clegg in Vancouver.

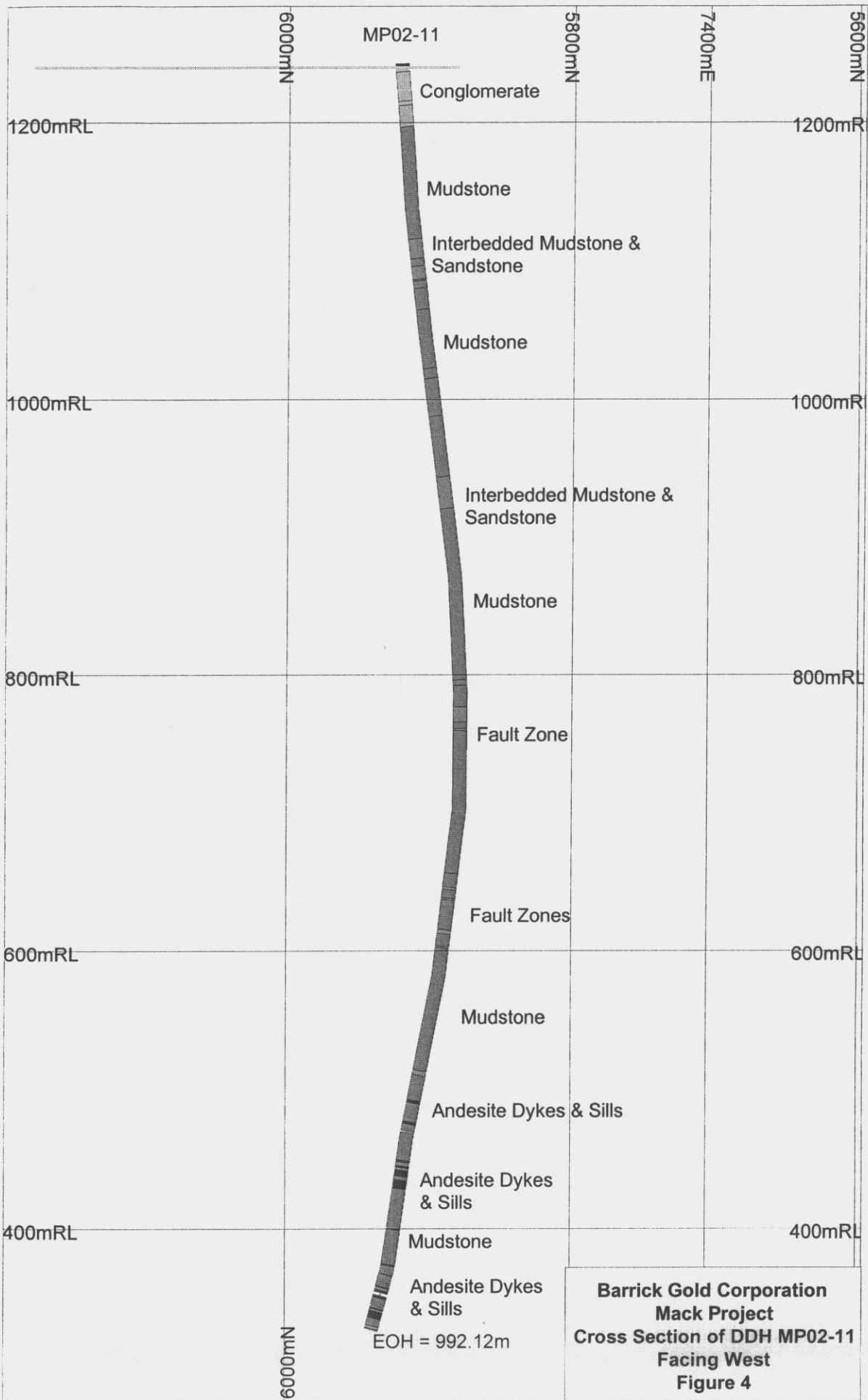
Drill core was logged directly into laptop computers using the program Lager. All lithologies are coded using a 4-character field and rock descriptions and structures are summarized into a memo field that is used to take detailed notes. When the diamond drill log is printed, all codes are translated into standard geology terms. The information was subsequently imported MapInfo for data plotting as maps and cross-sections.

Hole MP02-11 was collared in alpine terrain on the Mack 20 claim in the southwest Prout Plateau, 1 km east of Tom Mackay Lake. Drill hole specifics are tabulated below (Table 3) for the 2002 drilling. Bedding in the area dips at 56 degrees SE.

Table 3. Mack Drill Hole Summary

Hole Number	UTM Northing	UTM Easting	Elevation	Azimuth	Dip	Length
MP02-11	6276148.0 N	407593.0 E	1243 m	270°	-82°	992.12m

Hole MP02-11 (Figure 4) collared in 50m of conglomerate and sandstone of the Bowser Lake Group, the remainder of the hole was primarily mudstone with some interbedded siltstone. Andesite dykes and sills were cored starting at 805.35m and continued to the end of the hole. The conglomerate is the heterolithic, coarse conglomerate typical of Bowser Lake Group with white, gray or black rounded cherty pebble and minor irregularly shaped mudstone clasts. Within the conglomerate, clasts range from 1-25cm in size and may show some degree of size sorting. Locally, the conglomerate is volcanoclastic.



At 50m depth, laminated mudstone was cored and continued to the base of the hole. The mudstone was generally black with wispy light grey siltstone laminations. Up to 50% interbedded siltstone occurred over few 10m intervals in beds 0.5-5m thick. Bedding was variably oriented from 40-80 deg to ca. Rare flame structures and graded bedding indicated the sequence is upright. Quartz and carbonate veining occurred locally. A series of narrow andesite dykes and sills intruded the sequence between 805 and 980m and comprised 15% of the interval. The andesite was light to dark grey-green, fine crystalline, generally had sharp, chilled margins and ranged from 0.2 to 6m in thickness. Approximately 30% of the andesite showed hematite staining in spots up to 2mm and associated with calcite crystals. The andesite intrusive rocks are interpreted to account for the magnetic anomaly in this area. The hole was shut down in laminated mudstone of the Bowser Lake Group at 992.12m. No significant assays results were returned and the depth to the hanging wall sequence is unknown.

Conclusions and Recommendations

The MP02-11 diamond drill hole was drilled to test for Hazelton Group volcanic rocks and specifically the Eskay Creek Mine sequence underling the Bowser Basin. A magnetic anomaly was used to target the hole. The hole cored Bowser Lake Group stratigraphy of 50m of conglomerate underlain by mudstone to a depth of 992.12 meters. In the lower 187m, andesite dykes and sills comprised 30% of the rock. The andesite was magnetic and accounts for the magnetic anomaly. The depth to the Hazelton Group rocks is unknown. There were no significant results and no further work is recommended.

References

- Anderson, R.G. and Thorkelson, D.J. (1990): Mesozoic Stratigraphy and Setting for Some Mineral Deposits in the Iskut River Map Area, Northwestern British Columbia; in Current Research, Part E, *Geological Survey of Canada*, Paper 90-1F, pp. 131-139.
- Bartsch, R.D. (1993): Volcanic Stratigraphy and Lithochemistry of the Lower Jurassic Hazelton Group, Host to the Eskay Creek Precious Metal Volcanogenic Deposit, Northwestern British Columbia; unpublished M.Sc. thesis, *The University of British Columbia*, 178 pages.
- Lewis, P.D. (1995): Field Report: Mack Claims, TOK Claims Structural Geology; internal report prepared for Homestake Canada Inc, *Lewis GeoScience Services Inc.*, 15 pages.
- Phillips, M.R.A. (1996): The Structure and Stratigraphy of the Prout Plateau, Iskut River Map Area, Northwestern British Columbia; unpublished B.Sc. thesis, *The University of British Columbia*, 72 pages.

Appendix A

Statement of Expenditures

Statement of Expenditures

Barrick Gold Corporation

Project Name: Mack

TOTAL COSTS: \$150,466.70

Code: 905-10-2042-60000

Date of Expenditure: August 20 to September 11, 2002

Description	Period	Amount	Rate	Net
SALARIES				
Technical		<u>Days</u>		
A. Buschman - Proj. Geologist	Aug 20-Sept 11	23	\$280.00	\$6,440.00
Temporary/Seasonal/Contract				
B. McDowell - Geotechnician	Aug 20-Sept 11	23	\$180.00	\$4,140.00
			Subtotal:	\$10,580.00
DRILLING				
Incl. drilling supplies, fuel, etc.	Aug 20-Sept 11			\$105,371.18
			Subtotal:	\$105,371.18
ANALYSIS, ASSAY, METALLURGICAL				
Assays		<u>Samples</u>		
Whole Rock		46	\$8.58	\$394.68
		2	\$19.90	\$39.80
			Subtotal:	\$434.48
FIELD / CAMP				
Food and Accommodation		<u>Days</u>		
4 Drillers	Aug 20-Sept 11	92	\$42.74	\$3,932.08
A. Buschman	Aug 20-Sept 11	23	\$42.74	\$983.02
B. McDowell	Aug 20-Sept 11	23	\$42.74	\$983.02
			Subtotal:	\$5,898.12
TRANSPORTATION, AIR SUPPORT				
Helicopter (inc. fuel, mob/demob)	Aug 20-Sept 14	<u>Hours</u>		
		33.4	\$843.80	\$28,182.92
			Subtotal:	\$28,182.92
				TOTAL: \$150,466.70

Appendix B

Diamond Drill Log MP02-11

Barrick Gold Corporation

Eskay Creek Project

**Diamond Drill Log**

MP02-11

Mine North: 5921.42
 Mine East: 7466.17
 Length: 992.12
 Elevation: 1243.000

Mine Azimuth: 270.0 Start Dip: -82.0
 Date Started: 20/08/2002
 Date Completed: 11/09/2002
 Core Diameter: NQ

Logged By: AB
 Geotech By: BM
 Contractor: Hy-Tech
 Assayed By: Acme

Hole Summary:

This drill hole is testing a magnetic anomaly. The hole commenced drilling on August 20, 2002 and is planned to target the anomaly at a depth of 400-750 metres.

Drilling continued smoothly through conglomerates and mudstones of the Bowser group until 500.48 (2061-2068ft) when a fault was intersected. The structure extended to 502.0m and was making drilling conditions difficult. Two applications of cement were used and, after only intersecting 3-5 ft of cement of the second 100 foot batch, drilling continued smoothly.

At 638.19m (2061-2068ft) a similar fault was intersected and 100 ft of cement was placed in the hole.

The hole collared in conglomerates and sandstones of the Bowser Group but within 50 metres, changed to laminated mudstones. At 805m, the first of many andesite sills and dykes was cored. These andesite intrusive rocks are interpreted to account for the magnetic anomaly. The hole was shut down in laminated mudstone of the Bowser Lake Group at 992.12m. The depth to the Hanging Wall sequence is unknown.

The casing was left in upon completion and the hole was not grouted

Depth	Dip	True Azimuth	Mine Azimuth
-------	-----	--------------	--------------

GEOLOGICAL SUMMARY

From	To	Rocktype & Description	MP02-11
0.00	3.54	OVER	
3.54	5.95	BSSS	
5.95	27.73	BDCG	
27.73	30.94	BSSS	
30.94	46.50	BDCG	
46.50	128.89	BMLM	
128.89	143.21	BSIB	
143.21	149.05	BMLM	
149.05	158.80	BSIB	
158.80	160.00	BMLM	
160.00	165.47	BMLM	
165.47	181.16	BMLM	
181.16	225.55	BMLM	
225.55	232.98	BMLM	
232.98	261.21	BMLM	
261.21	306.44	BMLM	
306.44	330.10	BSIB	
330.10	462.08	BMLM	
462.08	466.34	BMLM	
466.34	483.11	BMLM	
483.11	495.45	BSIB	
495.45	500.48	BMLM	
500.48	502.00	GMFG	
502.00	616.76	BMLM	
616.76	628.19	BMLM	
628.19	630.33	GMFZ	
630.33	637.03	BMLM	
637.03	638.56	GMFG	
638.56	663.24	BMLM	

GEOLOGICAL SUMMARY

From	To	Rocktype & Description	MP02-11
955.18	957.67	BMLM	
957.67	959.71	DADK	
959.71	962.21	BMLM	
962.21	963.59	DADK	
963.59	964.39	BMLM	
964.39	964.57	DADK	
964.57	973.84	BMLM	
973.84	974.29	DADK	
974.29	976.18	BMLM	
976.18	982.18	DADK	
982.18	988.86	BMLM	
988.86	991.16	GMFZ	
991.16	992.12	BMLM	

From	To	Rocktype & Description	From	To	Sample	Au (g/t)	Ag (g/t)	Pb %	Zn %	Cu %	As %	Hg ppm	Sb %
0.00	3.54	OVER											
3.54	5.95	BSSS Sandstone coarsens upwards from a finer medium grained sand to a coarser medium grained sand (2.0 phi - 1.0 phi grain size.) There is a bedding plane at 3.68m of 56 deg.											
5.95	27.73	BDCG The contact with the sandstone is abrupt with a contact plane of 63 deg. The conglomerate coarsens downhole with the upper segments composed of ~ 50% clasts in a sandy-silty matrix. The clasts from the upper portion of the conglomerate are ~ 60% small 3-5mm diameter rounded quartz clasts and 40% 2-3cm diameter rounded mudstone clasts. As the conglomerate coarsens the composition of the clasts becomes 20% quartz, 50% mudstone, 15% andesitic volcanics, 10% siltstone, and 5% pale green fine-grained volcanics. In the upper half of the conglomerate there is intermittent quartz flooding of fractures in the rock. At 24.08m the unit changes from a conglomerate with large mud and andesite clasts with a sandy-silt matrix to a conglomerate with a fine-grained mud matrix with 0.5cm to 1cm diameter quartz clasts. The matrix/clast ratio is ~ 50-50 for this section. The section ends at 26.00m. The remainder of the conglomerate is similar to the finer conglomerate from the top of the unit.											
27.73	30.94	BSSS The contact between the conglomerate and the sandstone is an abrupt conformable contact between the conglomerate and a mudstone, which quickly coarsens to a sandstone over ~20cm. At 29.47m there is a bedding plane of 58 deg.											
30.94	46.50	BDCG The contact with the sandstone is gradational with the sandstone coarsening to a sandy matrix conglomerate over ~8cm. The conglomerate contains 10% quartz clasts and 90% mud clasts. The clasts are mostly rounded, with a few sub-angular mud clasts. The clast size increases downhole.											

From	To	Rocktype & Description	From	To	Sample	Au (g/t)	Ag (g/t)	Pb %	Zn %	Cu %	As %	Hg ppm	Sb %
		<p>At 33.53m there is a belemnite.</p> <p>Starting at 42.35m there are occasional 1-7cm thick laminations of mud interspaced 15-30cm apart. These continue to the end of the unit.</p> <p>At 43.32m the bedding of a mud lamination in the conglomerate is 36 deg.</p> <p>Near the contact there is ~5cm of calcite flooding.</p> <p>46.50 128.89 BMLM</p> <p>The contact between the conglomerate and the mudstone is abrupt and conformable, with a contact plane of 53 deg.</p> <p>The mudstone contains 5% silt interbedding in the form of 1-5mm thick laminations of silt.</p> <p>Continuing from the contact area for another 8m (to 54.50m) there is further calcite flooding, which makes up <5% of the rock for this section.</p> <p>From 61.27m to 61.57m there is broken mud fragments, with 10cm of gouge from 61.47m to 61.57m.</p> <p>At 72.24m there is a 64 deg bedding plane.</p> <p>At 85.34m there is a 1mm thick lamination of pyrite.</p> <p>From 95.56m to 95.86m there is broken mud fragments with the last 5cm being gouge.</p> <p>At 97.18m there is a 1cm thick pyrite lamination.</p> <p>At 110.95 there is a 1cm thick section of pyrite flooded into fractures in the mudstone.</p> <p>At 113.08m there is a 68 deg bedding plane.</p> <p>128.89 143.21 BSIB</p> <p>The contact between the mudstone and mudstone-siltstone interbedded units is conformable and gradual.</p> <p>The mudstone and siltstone have compositions of 50-50, with interlaminated beds 0.5cm to 5cm thick.</p> <p>At 139.90m there is a 63 deg bedding plane.</p> <p>143.21 149.05 BMLM</p> <p>The contact between BSIB and BMLM is gradual and conformable.</p> <p>The BMLM unit is 5-8%, which forms 1-5mm thick silt interbeds.</p> <p>At 143.60m there is 2cm thick pyrite vein.</p> <p>At 147.22m there is a 1cm thick pyrite lamination.</p>											

From	To	Rocktype & Description	From	To	Sample	Au (g/t)	Ag (g/t)	Pb %	Zn %	Cu %	As %	Hg ppm	Sb %
149.05	158.80	BSIB The contact between the BMLM and the BSIB is conformable and gradual. The interbedded silt and mudstone laminations are 0.5-2cm thick. At 152.10m there is a 65 deg bedding plane. At 157.89m there is wavy bedding of siltstone and mudstone.											
158.80	160.00	BMLM The contact between the BSIB and the BMLM is conformable and gradual. The BMLM is 10% siltstone in 1-5mm thick laminations.											
160.00	165.47	BMLM This interval is represented by a dark grey laminated mudstone and aprox. 5% silt laminations. The bedding of the mudstone is 69 deg off core axis (@ 160.32m). The fractures seen in the core are parallel to the bedding plane with 15 fractures per metre. Of note is 0.30m broken section (30 frac/m) with 0.10m of gouge almost mid-point in the section.											
165.47	181.16	BMLM Dark grey mudstone with ~5 to 10% silt laminations. The core of this interval is not broken or containing enough gouge to be classified as a fault-zone but the interval is fairly broken (30-35 fractures/metre) and the fractures are more radom than previously seen but overall the fractures are parallel to the bedding (one 0.15m gouge section noted). The average core fragment is 0.06m long with a range of 0.03m to 0.15m. Also of note is the 0.10m section of carbonate vinning seen at 166.12m. From 167.90m on the bedding planes become graphitic. 12 pyrite laminations are scattered throughout this interval but increase in there occurrence near the end of the interval. Bedding = 68 degrees off core axis @ 168m											
181.16	225.55	BMLM Dark to medium grey mudstone laminations with silt laminae making up an average of 15% of the rock but in the last 2 to 3m of the interval the silt content increases gradually to aprox. 50% of the rock composition. The upper 4.77m has a fracture density near 40 frac/m (average core											

From	To	Rocktype & Description	From	To	Sample	Au (g/t)	Ag (g/t)	Pb %	Zn %	Cu %	As %	Hg ppm	Sb %
		<p>piece is ~7cm) with only one 0.10m thick rubbly/gouge portion but the fractur density drops to 7 frac/m and only one 0.10m section of gouge was noted.</p> <p>Bedding = 70 deg off core axis @ 186.27m = 76 deg off core axis @ 214.98m</p> <p>225.55 232.98 BMLM</p> <p>Mudstone laminae with aprox. 15% silt. The core of this interval is nearly obscured by the intense carbonate stockwork vining which makes up aprox. 50% of the core. The bedding planes are graphitic</p> <p>Bedding = 37 deg off core axis @ 227.07m</p> <p>Lower contact: sharp & marked by the disappearence of the stockwork vining.</p> <p>232.98 261.21 BMLM</p> <p>Mudstone laminations (dark-grey) with ~2% silt laminae. Fracture density = 10 fractures per metre with one section (0.50m long) marked by the increase in the density to 40 frac/m. Bedding planes graphitic. Carbonate vining rare near the end of the section (3 viens/metre).</p> <p>Bedding = 30 deg off core axis @ 235.79m = 10 deg off core axis @ 244.00m</p> <p>261.21 306.44 BMLM</p> <p>Mudstone laminations with 10-50% silt increasing with depth. Fracture density 5 frac/m but of note is the four 0.50m sections scattered throughout with <45 frac/m. Carbonate vining seems to have formed along fracture surfaces both parallel and sud-perpendicular to the bedding planes in a 20 cm section with 30 viens per metre. Only one 1cm thick bed of pyrite noted@ 297.83m</p> <p>Bedding = 70 degrees off core axis @ 293.30m = 70 degrees off core axis @ 294.40m</p> <p>Cleavage= 22 degrees off core axis @ 294.40m (vague)</p> <p>The mudstone increases in silt content from 5% to 50% over 4m starting at 302m. 306.00m there are 2-5mm wide siltstone laminations with pyrite flecks in them.</p> <p>The bedding at 304.59m is 65 deg.</p>											

From	To	Rocktype & Description	From	To	Sample	Au (g/t)	Ag (g/t)	Pb %	Zn %	Cu %	As %	Hg ppm	Sb %
306.44	330.10	<p>BSIB</p> <p>The mudstone-siltstone ratio is approximately 50-50 for the BSIB unit. The siltstone/mudstone laminations vary from 0.2cm to 10cm in width .</p> <p>There are wavy beds and some flame structures.</p> <p>317.87m has bedding at 68 deg.</p> <p>There is a pyrite bleb at 321.57m. From 321.57m to 324.35m the pyrite content in the siltstone is moderate. At 324.35m the pyrite content in the siltstone increases and there is calcite flooding over 30cm.</p> <p>From 324.35m to the lower contact, the mudstone content increases.</p>											
330.10	462.08	<p>BMLM</p> <p>At the contact there is 10cm of calcite flooding.</p> <p>In the metre after the contact the siltstone content is ~10%. Over the next 12 meters (to 342m) the siltstone content drops to less than 5%.</p> <p>332.00m bedding of 76 degrees.</p> <p>A pyrite band replaces a siltstone lamination at 342.38m.</p> <p>Over the range 342.77m to 343.00m the pyrite content in the siltstone is ~20% (siltstone content is ~20% of rock.)</p> <p>347.10m bedding of 70 deg.</p> <p>348.39m bedding of 72 deg, cleavage of 10 degrees.</p> <p>At 367.00m there is a 30cm long section of siltstone.</p> <p>367.20m bedding of 70 deg.</p> <p>At 368.20m there are pyrite bands and blebs that continue for 10cm.</p> <p>From 369.72m to 372.16m there is broken core. The graphite content is higher along the fractures. There is no gouge.</p> <p>There is a pyrite bleb at 376.90m.</p> <p>At 384.35m there is a 30cm long section of calcite flooding containing broken mudstone fragments ranging in size from 1cm diameter to 10cm diameter.</p> <p>At 384.96 there is a 1mm wide pyrite band.</p> <p>From 383m to 391m the mudstone grain size increases, but remains fine enough to not be a siltstone.</p>											

From	To	Rocktype & Description	From	To	Sample	Au (g/t)	Ag (g/t)	Pb %	Zn %	Cu %	As %	Hg ppm	Sb %
		<p>391.36m bedding of 62 deg. There is also a reddish pyrite band 3mm wide.</p> <p>From 393m-400m the core is broken.</p> <p>399.29m bedding of 34 deg.</p> <p>400.81m bedding of 15 deg.</p> <p>From 408.74m onwards, there are 'bulls-eye-like' structures visible.</p> <p>At 421.84m there is a pyrite bleb 2cm in diameter.</p> <p>423.37m bedding of 20 deg.</p> <p>At 429.70m there is a pyrite bleb 1cm by 2cm.</p> <p>From 438.50m to 443.18m there is broken core that is graphitic along the fractures.</p> <p>From 448.67m to 451.00m there is broken core with intense calcite flooding.</p> <p>452.02m bedding of 19 deg.</p> <p>From 454.15m to 457.20m there is broken, graphitic core.</p> <p>459.94m bedding of 31 deg.</p> <p>From 462 to the end of the box (~ 463.75m) the core is broken.</p> <p>Bedding is 31 deg at 459m.</p> <p>462.08 466.34 BMLM</p> <p>This zone is a moderately rubbly fault zone (GMFZ). The core is badly broken and has more than 30 fractures per metre.</p> <p>Some very minor quartz veining occurs along fracture surfaces, veins are less than 0.3cm thick.</p> <p>466.34 483.11 BMLM</p> <p>The mudstone in this zone has near vertical bedding with relation to the core axis.</p> <p>Some evidence of soft sediment deformation is present in the lighter coloured laminations of siltstone (<5%).</p> <p>Bedding: 5 degrees at 475.79m.</p> <p>483.11 495.45 BSIB</p> <p>A zone of primarily mudstone with siltstone laminations that make up about 5% of the core.</p> <p>Quartz veining reappears in this zone sporadically, veins are typically less than 0.3cm thick.</p>											

From To Rocktype & Description

From	To	Sample	Au (g/t)	Ag (g/t)	Pb %	Zn %	Cu %	As %	Hg ppm	Sb %

Some of the fracture surfaces are mildly graphitic.
 Bedding: 15 deg at 485.85m.
 Bedding: 5 deg at 494.69m.
 Cleavage: 40 deg at 494.69m.
 The bedding begins to steepen around 490.73m.

495.45 500.48 BMLM

Another zone of faulting (GMFZ), surfaces are more graphitic than previous fault zones. Rock is badly broken, fractures per metre cannot be counted. Some very minor quartz veining occurs in some fracture surfaces (< 0.2cm thick).

500.48 502.00 GMFG

A badly faulted (GMFG) zone of mudstone, approximately 60% gouge material. Any fragments that do exist are less than 0.3cm in diameter, the rest of the material is clay like gouge of fine mudstone chips.

502.00 616.76 BMLM

Interval composed of a well laminated medium grey mudstone with silt laminae making up an average of 20% of the overall core (but ranging from 10% to 50%). The silt % increases to ~50% at 594.97m the end of the interval.
 Fracture density is ~7 fractures per metre and pyrite laminations are rare (only 2 observed = 1 @ 586.44m and the 2nd @ 594.397m).
 Carbonate veining is also rare as only 2 veins exist over ~10m and the veining dominantly follows bedding planes.

- Bedding = 43 deg off of core axis @ 517.55m.
- Bedding = 65 deg off of core axis @ 530.96m.
- Cleavage= 39 deg off of core axis @ 530.96m.
- Bedding = 55 deg off of core axis @ 547.29m.
- Bedding = 47 deg off of core axis @ 551.99m.
- Cleavage= 23 deg off of core axis @ 551.99m.
- Bedding = 55 deg off of core axis @ 580.64m.

From	To	Rocktype & Description	From	To	Sample	Au (g/t)	Ag (g/t)	Pb %	Zn %	Cu %	As %	Hg ppm	Sb %
		<p>Cleavage= 21 deg off of core axis @ 580.64m.</p> <p>Bedding = 52 deg off of core axis @ 608.99m.</p> <p>Cleavage= 24 deg off of core axis @ 608.99m.</p> <p>Bedding = 52 deg off of core axis @ 615.39m.</p> <p>Cleavage= 17 deg off of core axis @ 615.39m.</p> <p>Lower Contact (LCT) marked by the gradual increase in the fracture density.</p> <p>616.76 628.19 BMLM</p> <p>Heavily fractured (but not enough to be considered faulted), medium-grey, laminated mudstone, with an average of 20% silt overall. Fracture density is ~40 Fractures/metre with two, one metre long sections of 20 frac/m. The fractures seemed to have a random orientation.</p> <p>Viening density (stockwork) is up to 50 viens over a metre but the overall density of the viens is ~ 10 viens/metre.</p> <p>Of note is the 1 pyrite bed that the interval's cleavage/bedding measurements were taken off of (@ 622.10) and graphitic nature of the cleavage planes.</p> <p>Bedding = 70 deg off of core axis @ 622.10.</p> <p>Cleavage= 17 deg off of core axis @ 622.10.</p> <p>Bedding = 70 deg off of core axis @ 626.97.</p> <p>Lower Contact (LCT) sharp and marked by the occurrence of rubble.</p> <p>628.19 630.33 GMFZ</p> <p>A rubbly mudstone fault zone with very graphitic fracture planes.</p> <p>There was one 1/2 metre section of rubbly gouge at the top of the interval (@ 628.30m). Core fragments range from 0.10m to 0.01m in size with the average fragment being ~0.01m in size.</p> <p>Carbonate viening in the interval is stockwork and has a density of 20 viens/metre.</p> <p>The lower contact (LCT) is marked by the gradual decrease in fracture density.</p> <p>630.33 637.03 BMLM</p> <p>Interval composed of a laminated medium-grey mudstone with a fracture density of 30frac/m. Fractures follow bedding and cleavage planes (note: fracture planes are very graphitic). Carbonate vieni</p> <p>has a density of 25 viens/m.</p>											

From	To	Rocktype & Description	From	To	Sample	Au (g/t)	Ag (g/t)	Pb %	Zn %	Cu %	As %	Hg ppm	Sb %
		Rubble sections 0.20-0.30m long scattered throughout											
637.03	638.56	GMFG Very soft, gouged and broken. 60 - 70 % mudstone											
638.56	663.24	BMLM Laminated mudstone. Bedding angle of 50' (taken @ 649.53 m) with 80% mudstone concentration. Small section of broken, graphitic core from 642.52 - 643.13 m. Pyrite bedding planes @ 650.94 and 652.88 m. Silt bedding averages in thickness between 0.2 and 1 cm, and rarely as thick as 5 cm. Bedding planes range from 0.5 to 3 cm apart.											
663.24	666.60	GMFZ Very broken, soft gouged fault.											
666.60	676.66	BMLM Silt bedding averaging 0.1 to 0.3 cm thick with 1 cm spacing (90% mudstone concentration overall), some silt bedding rarely as thick as 1.5 to 4 cm thick. 25 deg angle of bedding (taken @ 669.49 m). some faulting and minor gouging at lower end of zone.											
676.66	678.18	GMFG Zone of broken core. Minor gouging through 20 % of zone. pyrite bedding @ 675.13 m.											
678.18	780.59	BMLM Silt bedding averaging 0.2 to 3 cm thick at 3 to 10 cm spacing (85% mudstone concentration overall). Bedding shallows from approx. 25 deg near top of zone to 0 deg by 711.10 m, than increases to 80 d by 758.65 m. Pyrite bedding @ 680.92 m, 683.06 m, 689.15 m, 740.36 m and 742.49 m. Andesite layer from 761.70 to 762.15 m.											
780.59	784.56	GMFZ Broken fault zone, gouging occurs in 40% of zone.											
784.56	805.35	BMLM Silt beds averaging between 0.1 and 0.3 cm thick and 1 cm spacing with occasional thicker silt beds to 1 cm. Silt comprises 20-30% of interval. Bedding angle shallows from 80' near top of zone to 32' by 800.10 m.											

From To Rocktype & Description

From	To	Sample	Au (g/t)	Ag (g/t)	Pb %	Zn %	Cu %	As %	Hg ppm	Sb %
804.00	805.28	200608	0	0.40	0	0.06	0.01	0	0.20	0
805.28	806.37	200609	0	0.10	0	0.01	0.01	0	0.21	0
806.37	807.45	200610	0	0.10	0	0.02	0.01	0	0.30	0
807.45	809.00	200611	0	0.20	0	0.02	0.01	0	0.13	0
814.00	815.00	200612	0	0.20	0	0.02	0.01	0	0.14	0
822.00	823.23	200613	0	0.20	0	0.02	0.01	0	0.10	0
823.23	824.23	200614	0	0.10	0	0.01	0.01	0	0.06	0
824.23	825.26	200615	0	0.10	0	0.01	0.01	0	0.04	0
825.26	826.19	200616	0	0.20	0	0.02	0.01	0	0.15	0

Pyrite bedding @ 796.75 m and 797.97m.

805.35 807.45 DADK

Andesite sill.

Chilled margins present but very fine grained crystals throughout. Multiple andesitic pulses (secondary with a chilled margin ~ 0.4 cm thick) occur within the dyke.

This sill is not magnetic.

Sill contains medium grained, hematite-stained calcite crystals.

Calcite veining throughout the sill, range in size from sub mm to 1 cm, the larger veins are at 30 deg, the smaller ones meander and have no common orientation

Top contact 31deg at 805.35, contact regular

Bottom contact 30 deg at 807.45 contact irregular

807.72 823.23 BMLM

Silt bedding averaging 0.1 cm thick with 0.5 cm spacing (90% mudstone concentration overall). Bedding angle of 13 deg (taken @ 815.04).

823.23 825.26 DADK

Andesite sill

Very fine grained with chill margins (6cm true thickness) at upper and lower contact

Hematite stained calcite crystals (ave sub-mm to 2mm in size and comprise 10% of rock), magnetic, darker staining away from margin, light green on margin.

Top contact at 823.23 at 16 deg

Bottom contact at 825.26 at 16 deg

True thickness of sill about 25 cm.

Trace disseminated py throughout this section, most notable at 823.48 and 824.30.

825.40 831.19 BMLM

Mudstone, 15-20% siltstone ranging in size from mm - 1cm (ave 0.5cm) bedding at 17 deg.

From	To	Rocktype & Description	From	To	Sample	Au (g/t)	Ag (g/t)	Pb %	Zn %	Cu %	As %	Hg ppm	Sb %
		Calcite vein ranging from mm - 1cm, frequency of > 30cm											
831.19	832.26	VQZV Quartz vein, brecciated mudstone incorporated within the vein.											
832.26	854.10	BMLM Mudstone,											
			853.00	854.10	200617	0	0.20	0	0.02	0.01	0	0.12	0
			854.10	855.26	200618	0	0.10	0	0.02	0.01	0	0.06	0
		25-30% silt, pyrite beds at 839.72 and 850.24, bedding at 846.43m 75 deg, silt thickness mm - 1.5 cm - ave 0.5cm											
854.10	854.30	DADK Andesite dike Calcite present with some hematite staining, comprises up to 10% of section. Approx true thickness 10 cm Top contact 40 deg, contact sharp, 0.5 cm calcite vein present at contact Bottom contact 44 deg, contact sharp with calcite < 0.5 cm calcite vein present Chill margins grade to lighter green.											
854.30	855.22	BMLM Mudstone Bedding mm-0.5cm - ave 0.3cm											
855.22	855.44	DADK Andesite Dike Top contact 45 deg and sharp Bottom contact 43 deg and irregular Chill margins grade to lighter green and are less then 0.5 cm 10% calcite cryatals present	855.26	857.00	200619	0	0.20	0	0.03	0.01	0	0.10	0
855.44	858.45	BMLM Mudstone Bedding mm- 0.5 cm ave 0.3 cm Calcite veins periodically troughout section, ranging in size from mm to 1 cm (ave 0.5 cm)	857.00	858.45	200620	0	0.30	0	0.04	0.01	0	0.10	0

From	To	Rocktype & Description	From	To	Sample	Au (g/t)	Ag (g/t)	Pb %	Zn %	Cu %	As %	Hg ppm	Sb %
		Silt bedding at intervals of 0.5 to 1 cm	858.45	859.64	200621	0	0.10	0	0.01	0.01	0	0.02	0
858.45	859.64	DADK											
		Andesite dike											
		Margins grade to a lighter green											
		Top contact 40 deg and sharp, calcite present at contact											
		Bottom contact 40 deg and sharp with calcite present											
859.84	861.84	BMLM	859.64	861.00	200622	0	0.50	0	0.06	0.01	0	0.11	0
		Mudstone											
		Slit beds mm- 1cm- ave 0.5cm, 15-20% silt	861.00	861.84	200623	0	0.30	0	0.03	0.01	0	0.07	0
861.84	866.48	DADK											
		Andesite dike											
		Chill margins grade to a lighter green											
		20% mudstone with calcite and quartz veins with py, ranging in size from mm - 1 cm	862.76	863.28	200625	0	0.20	0	0.03	0.01	0	0.03	0
		Small (mm size) calcite crystals throughout, 10 % of interval	863.28	864.46	200626	0	0.05	0	0.01	0.01	0	0.05	0
		Trace disseminated py in dyke.											
866.48	869.54	BMLM	864.46	865.41	200627	0	0.30	0	0.04	0.01	0	0.06	0
		Mudstone											
		Pyrite at 867.16 and 866.69	865.41	866.48	200628	0	0.10	0	0.01	0.01	0	0.04	0
		Slit beds mm- 2 cm - ave 1 cm	866.48	867.18	200629	0	0.20	0	0.03	0.01	0	0.04	0
869.54	876.00	DADK											
		Andesite dike	867.18	868.00	200630	0	0.20	0	0.03	0.01	0	0.05	0
		20% mudstone, pyrite at 870.40 and 871.73	868.00	869.45	200631	0	0.30	0	0.04	0.01	0	0.06	0
		Calcite crystals, mm size, make up 20% of section, some hermitite staining	869.45	871.12	200632	0	0.20	0	0.03	0.01	0	0.05	0
		Chlorite/calcite slickenside in the mudstone and dike	871.12	871.76	200633	0	0.40	0	0.06	0.01	0	0.04	0
876.00	907.39	BMLM											
		Mudstone,											
		Bedding at 888.49 at 53 degrees, pyrite at 898.25 and 876.91, silt 25-30%, bedding thickness mm-1.5cm - ave 0.5cm											
907.39	907.90	DADK											
		Andesite sill,											

From	To	Rocktype & Description	From	To	Sample	Au (g/t)	Ag (g/t)	Pb %	Zn %	Cu %	As %	Hg ppm	Sb %
		Chill margins grade to lighter green Minor mudstone Calcite crystals, mm size, make up 20% of section, some hematite staining 907.90 935.13 BMLM Mudstone Pyrite at 920.13, quartz and pyrite mixed throughout this section, silt mm-2 cm - ave 0.5 cm, silt content 30%											
		935.13 936.04 DADK Andesite dyke Chill margins grade to lighter green Minor mudstone present <1% Calcite crystals											
		936.04 943.64 BMLM Mudstone Silt bed mm- 2cm in size (ave 0.5 cm), occur at irregular interval (0.5 - 10 cm), bedding at 940.29m is 86 deg and 40 deg at 942.22m Py crystals at 942.93 m Calcite and quartz veining at irregular intervals, mm - 2cm in size at different orientations between core axis and bedding											
		943.64 943.90 DADK Andesite dyke Contact irregular with clast of mudstone incorporated along margin											
		943.90 954.47 BMLM Mudstone Massive Py throughout section but most notable at 944.16 m 945.00 m Silt bedding 949.83m is 60 deg, mm - 2cm (ave 0.5) Quartz and calcite veining mm- 2cm, irregular orientation, veins meander											
			953.44	954.47	200634	0	0.10	0	0.02	0.01	0	0.11	0
			954.47	955.18	200635	0	0.10	0	0.01	0.01	0	0.04	0
		Graphitic texture present											

From	To	Rocktype & Description	From	To	Sample	Au (g/t)	Ag (g/t)	Pb %	Zn %	Cu %	As %	Hg ppm	Sb %
954.47	955.18	DADK Andesite sill Calcite crystals with hematite staining throughout section Contacts, top and bottom, are sharp at about 32 deg Chill margins grade to lighter green											
955.18	957.67	BMLM Mudstone Highly fractured and faulted, 15 cm sections of broken rock throughout. Small 20 cm andesite dike at 955.59 - 956.00, contact irregular Graphitic texture Quartz and calcite veining at irregular intervals, ranging in thickness from mm - 2 cm (ave 0.5cm), no specific orientation	955.18	956.28	200636	0	0.10	0	0.02	0.01	0	0.10	0
956.28	957.67		956.28	957.67	200637	0	0.20	0	0.02	0.01	0	0.09	0
957.67	959.71	DADK Andesite dike Top contact irregular, bottom contact sharp Chill margins grade to lighter green Small calcite crystals throughout section, some hematite stained, 10% of section Euhedral crystal, probably apatite or augite altered to chlorite, makes up about 1-2% of section Plagioclase altered to chlorite, makes up about 1-2% of section	957.67	958.77	200638	0	0.20	0	0.02	0.01	0	0.06	0
958.77	959.71		958.77	959.71	200639	0	0.20	0	0.02	0.01	0	0.06	0
959.71	962.21	BMLM Mudstone Bedding 51 deg at 959.87m Silt beds range in size from mm - 1.5 cm, make up about 20% Calcite and quartz veining occur throughout at irregular intervals and orientation	959.71	961.17	200640	0	0.60	0	0.07	0.01	0	0.11	0
961.17	962.21		961.17	962.21	200641	0	0.20	0	0.03	0.01	0	0.08	0
962.21	963.59	DADK Andesite dike Both top and bottom contacts are irregular Quartz and calcite veins at random orientation Py, massive at 962.74											

From To Rocktype & Description

From	To	Sample	Au (g/t)	Ag (g/t)	Pb %	Zn %	Cu %	As %	Hg ppm	Sb %
962.21	963.01	200642	0	0.20	0	0.02	0.01	0	0.04	0
963.01	963.59	200643	0	0.10	0	0.01	0.01	0	0.04	0
963.59	964.57	200644	0	0.30	0	0.03	0.01	0	0.11	0
972.80	973.84	200645	0	0.20	0	0.04	0	0	0.07	0
973.84	974.29	200646	0	0.10	0	0.01	0	0	0.02	0

Small calcite crystals make up 5-10% of section

963.59 964.39 BMLM

Mudstone

20% mudstone, pyrite at 870.40 and 871.73

Calcite crystals, mm size, make up 20% of section, some hematite staining

964.39 964.57 DADK

Andesite dike

Contact irregular with clasts of mudstone mixed in at the margins

Calcite vein mm in size running at various angles from core axis

Magnetic

964.57 973.84 BMLM

Mudstone

Black grey colour

Bedding oriented between 25 - 30 deg

Silt bed, range in size from mm - < 0.5 cm, make up about 5 - 10% of interval.

Calcite and quartz veining occur throughout at irregular intervals and orientation; comprise about 10% of section. Veining occurs at various angles to core axis with some (~ 50% of veins in this

section) sub parallel to core axis, about 10% are sinuous and meander, the rest are blebs of quartz and calcite

Small andesite sill at 966.38 - 966.57m, green grey colour, massive, hematite stained calcite crystals (1-2% of sill)

Graphitic texture throughout

973.84 974.29 DADK

Small massive andesite sill

Green grey colour

Calcite crystals (1-2% of sill), minor hematite staining on some of the crystals

Calcite/Quartz veining at random orientation and interval

974.29 976.18 BMLM

Mudstone

From	To	Rocktype & Description	From	To	Sample	Au (g/t)	Ag (g/t)	Pb %	Zn %	Cu %	As %	Hg ppm	Sb %
		Black grey colour											
		Bedding oriented between 25 - 30 deg	974.29	975.23	200647	0	0.10	0	0.02	0	0	0.03	0
		Silt bed range in size from mm - < 0.5 cm, make up about 5 - 10%.											
		Calcite and quartz veining occur throughout at irregular intervals and orientation, make up about 10% of section, veining occurs at various angles to core axis, large 24 cm thick quartz /calcite vei											
		at 975.45m.											
		Graphitic texture throughout											
		976.18 982.18 DADK	975.23	976.18	200648	0	0.10	0	0.01	0	0	0.03	0
		Large (~6m) massive andesite dike	976.18	977.18	200649	0	0.10	0	0.01	0.01	0	0.04	0
		Green grey colour											
		Calcite crystals (1-2% of silt), minor hematite staining on some of the crystals	977.18	978.18	200650	0	0.05	0	0.01	0	0	0.03	0
		Calcite/Quartz veining at random orientation and interval											
		Laminated mudstone intervals between 20 - 55 cm in length, bedding 65 deg at 976m	979.18	980.45	200651	0	0.10	0	0.01	0.01	0	0.08	0
		Minor (1-2%) feldspar blebs											
		Magnetic	980.45	981.30	200652	0	0.10	0	0.02	0	0	0.07	0
		982.18 988.86 BMLM	981.30	982.18	200653	0	0.10	0	0.01	0	0	0.05	0
		Mudstone											
		Black grey colour	982.18	983.33	200654	0	0.10	0	0.01	0	0	0.03	0
		Bedding oriented between 25 - 30 deg											
		Silt beds range in size from mm - < 0.5 cm, make up about 5 - 10%, one large massive silt bed at 982.82 - 983.33											
		Calcite and quartz veining occur throughout at irregular intervals and orientation, make up about 10% of section, veining occurs at various angles to core axis, large 24 cm quartz /calcite vein at											
		975.45m											
		Graphitic texture throughout											
		988.86 991.16 GMFZ											
		Mudstone fault zone											
		Graphitic tecture											

From	To	Rocktype & Description	From	To	Sample	Au (g/t)	Ag (g/t)	Pb %	Zn %	Cu %	As %	Hg ppm	Sb %
		Calcite veining throughout, random orientation and interval, sinuous, meandering and offset, make up about 5% of section 5cm gouge zone throughout section 991.16 992.12 BMLM Mudstone Black grey colour Bedding oriented between 25 - 30 deg Silt bed range in size from mm - < 0.5 cm, make up about 5 % Calcite and quartz veining occur throughout at irregular intervals and orientation, make up about 5% Graphitic texture throughout END of HOLE 992.12											

Appendix C

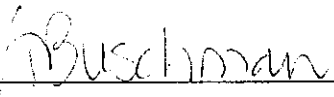
Statement of Qualifications

STATEMENT OF QUALIFICATIONS

I, ALETHA BUSCHMAN, of Vancouver, British Columbia, do hereby certify that:

1. I am presently employed by Barrick Gold Corporation of 951-409 Granville Street, Vancouver, British Columbia as a Project Geologist.
2. I graduated from Carleton University, Ottawa, Ontario in 1992 and hold a B.Sc. (Honours) in geology.
3. I have been employed in my profession as an Exploration Geologist since graduation.
4. I have no interest in the property described herein, nor in the securities of any company associated with the property, nor do I have any plans to acquire any such interest.

Signed at Vancouver, British Columbia this 13 day of January, 2003.



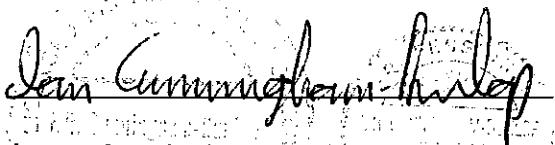
Aletha M. Buschman, B.Sc.(Hons)

STATEMENT OF QUALIFICATIONS

I, IAN R. CUNNINGHAM-DUNLOP, of the City of North Vancouver, Province of British Columbia do hereby certify that:

1. I am a professional geologist residing at 2537 Sechelt Drive, North Vancouver, British Columbia, V7H 1N7.
2. I am a graduate of Queen's University, Kingston, Ontario (1984) and hold a B Sc. (Eng.) degree in geological engineering.
3. I have been practicing as a geologist for over 20 years.
4. I am a member of the Association of Professional Engineers of Ontario and the Association of Professional Engineers and Geoscientists of B.C.
5. I am presently employed as a Senior Geologist by Homestake Canada Inc, a wholly owned subsidiary of Barrick Gold Corp, with offices at 951-409 Granville Street, Vancouver, B.C. V6C 1T2.
6. I am familiar with the material covered by this report having personally supervised the 2002 field program.
7. I do not have any direct or indirect interest in the Mack Property nor do I expect to receive any in return for conducting the work or preparing this report
8. Permission is granted for the use of this report, in whole or in part, for assessment and qualification requirements, but not for advertising purposes.

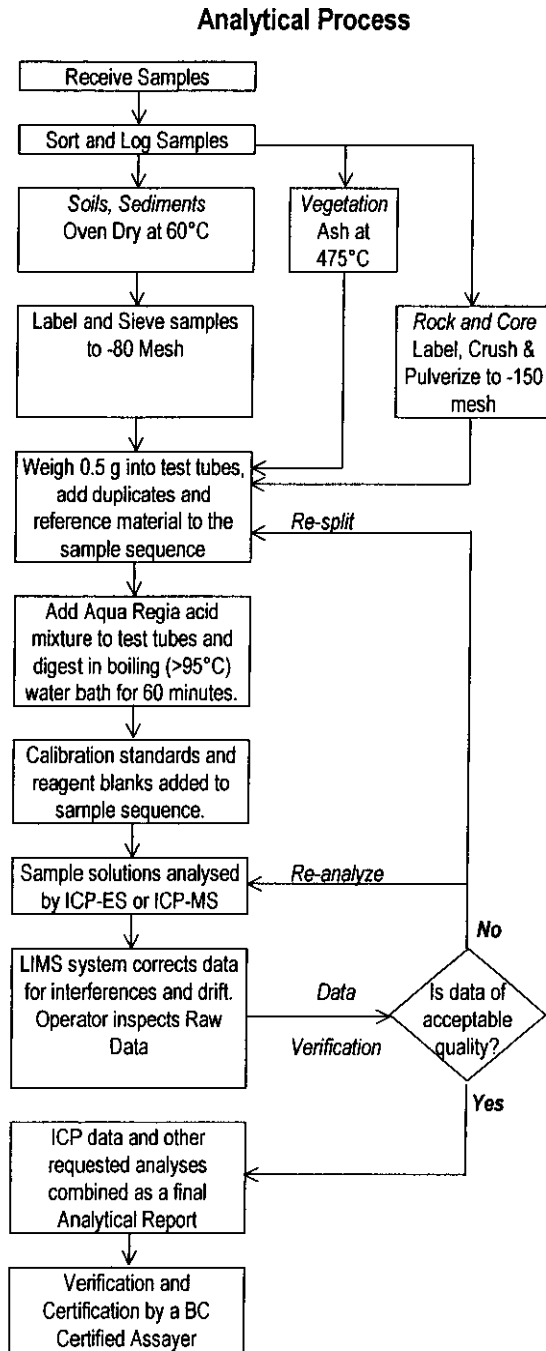
Signed at Vancouver, British Columbia, this 23rd day of January, 2003.


Ian R. Cunningham-Dunlop, P. Eng.

Appendix D

Assay Certificates and Analytical Process

METHODS AND SPECIFICATIONS FOR ANALYTICAL PACKAGE GROUP 1D & 1DX - ICP ANALYSIS – AQUA REGIA



Comments

Sample Preparation

Soil or sediment is dried (60°C) and sieved to -80 mesh (-177 µm). Vegetation is dried (60°C) and pulverized or ashed (475°C). Moss-mats are dried (60°C), pounded and sieved to yield -80 mesh sediment. Rock and drill core is jaw crushed to 70% passing 10 mesh (2 mm), a 250 g aliquot is riffle split and pulverized to 95% passing 150 mesh (100 µm) in a mild-steel ring-and-puck mill. Aliquots of 0.5 g are weighed into test tubes. QA/QC protocol includes inserting two duplicates of pulp to measure analytical precision, a coarse (10 mesh) rejects duplicate to measure method precision (trench and drill core samples only) and an aliquot of in-house reference material STD DS3 to measure accuracy in each analytical batch of 34 samples.

Sample Digestion

Aqua Regia, a 2:2:2 mixture of ACS grade concentrated HCl, concentrated HNO₃ and de-mineralised H₂O, is added to each sample. Samples are digested for one hour in a hot water bath (>95°C). QA/QC protocol requires simultaneous digestion of two reagent blanks randomly inserted in each batch.

Sample Analysis

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

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

Data Evaluation

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

WHOLE ROCK ICP ANALYSIS

Homestake Canada Inc. PROJECT ESKAY CREEK #149 File # A204200

P.O. Box 164, 951 - 409 G, Vancouver BC V6C 1T2



SAMPLE#	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	Ba	Ni	Sr	Zr	Y	Nb	Sc	LOI	TOT/C	TOT/S	Th	SUM
	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	ppm	%
12638	83.15	7.93	.37	.09	.82	.41	5.34	.05	.02	<.01	.008	5369	<20	111	125	57	<10	1	1.2	.18	.13	-	100.02
13701	41.43	14.54	12.46	7.63	7.60	2.79	.71	1.98	.83	.11	.035	599	148	1249	143	25	26	21	9.6	1.50	.82	2.10	99.98
13702	45.49	15.36	10.50	6.59	7.87	3.35	.83	1.97	.87	.09	.012	771	58	1146	136	25	24	21	6.8	.91	.67	3.55	99.99
STANDARD SO-17/CSB	61.60	13.77	5.91	2.36	4.71	4.21	1.46	.61	1.00	.39	.445	405	21	323	346	27	17	23	3.4	2.42	5.32	11.30	100.00

GROUP 4A - 0.200 GM SAMPLE BY LIBO2 FUSION, ANALYSIS BY ICP-ES. LOI BY LOSS ON IGNITION.
 TOTAL C & S BY LECO. (NOT INCLUDED IN THE SUM)
 - SAMPLE TYPE: CORE R150 60C

DATE RECEIVED: OCT 2 2002 DATE REPORT MAILED: *Oct 17/02* SIGNED BY: *C.L.* D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



SAMPLE#	Au ppb	Ag ppm	Pb ppm	Zn ppm	Cu ppm	As ppm	Hg ppm	Sb ppm	Al %	B ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	S %	Sc ppm	Sr ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm
D 200640	<.5	.6	15.1	707	59.0	16.8	.11	3.7	1.75	1	91	.2	.89	10.3	11.5	49.8	4.15	6	.15	9	1.12	426	9.7	.039	95.6	.045	1.41	4.9	79	1.7	.002	.3	.2	71	.3
D 200641	<.5	.2	10.6	260	56.6	16.2	.08	2.2	1.14	3	100	.1	8.95	3.3	9.7	18.6	4.04	4	.12	7	1.78	1972	8.2	.035	37.2	.135	1.27	5.2	855	.9	.002	.3	.2	49	1.1
D 200642	<.5	.2	8.1	176	79.9	11.5	.04	.4	2.38	1	231	.2	7.36	3.5	27.4	57.6	6.25	10	.08	24	3.28	1626	1.6	.122	49.7	.297	1.04	8.7	903	1.5	.020	<.1	.3	150	.1
D 200643	<.5	.1	2.9	129	53.7	8.5	.04	.2	2.79	2	395	.1	4.39	.5	29.3	54.7	7.52	13	.05	27	3.86	1346	.8	.174	32.8	.361	.47	9.3	327	1.4	.041	<.1	.3	222	.1
D 200644	<.5	.3	23.7	334	69.3	14.4	.11	2.4	1.59	5	142	.3	1.18	3.3	13.5	32.8	3.70	6	.20	17	1.07	444	6.9	.046	66.2	.066	1.40	4.6	125	4.6	.003	.3	.6	46	.6
STANDARD DS4	28.8	.3	33.0	157	137.7	24.3	.30	4.9	1.70	1	145	4.7	.59	5.5	11.0	175.4	3.31	6	.16	17	.63	760	6.9	.033	35.0	.089	.09	3.8	26	3.7	.084	1.2	5.9	78	3.6

Sample type: CORE R150 60C.



GEOCHEMICAL ANALYSIS CERTIFICATE

Homestake Canada Inc. PROJECT ESKAY CREEK #132 File # A203907

P.O. Box 164, 951 - 409 G, Vancouver BC V6C 1T2

SAMPLE#	Au	Ag	Pb	Zn	Cu	As	Hg	Sb	Al	B	Ba	Bi	Ca	Cd	Co	Cr	Fe	Ga	K	La	Mg	Mn	Mo	Na	Ni	P	S	Sc	Sr	Th	Ti	Tl	U	V	W
	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	%	ppm	ppm	ppm	%	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	
SI	<.5	<.1	.8	9	.5	1.4	<.01	.5	.01	<1	4	<.1	.11	<.1	<.1	2.4	.05	<1	.01	<1	<.01	2	.3	.531	.1	<.001	<.05	.1	2	<.1	<.001	<.1	<.1	1	.4
D 200645	<.5	.2	16.7	367	49.3	9.1	.07	1.6	1.79	1	106	.3	2.26	3.4	10.7	34.8	3.49	6	.17	9	1.07	494	5.1	.045	52.8	.060	.93	4.1	247	3.3	.002	.2	.5	41	1.8
D 200646	<.5	.1	4.1	119	49.6	5.9	.02	.2	2.83	<1	170	.1	3.26	.4	28.3	53.9	6.36	13	.08	25	3.24	982	1.2	.205	43.1	.318	.40	8.0	361	2.1	.007	<.1	.5	183	.1
D 200647	<.5	.1	8.1	152	21.3	4.3	.03	.6	1.49	1	134	.2	.93	1.3	5.8	12.5	2.13	4	.23	14	.76	259	4.5	.045	22.5	.097	.29	3.9	91	2.6	.001	.2	.3	17	.6
D 200648	<.5	.1	10.0	138	21.3	5.5	.03	.8	1.34	<1	173	.2	1.70	1.3	5.9	16.6	2.18	4	.20	9	.75	347	5.3	.044	23.6	.054	.48	3.2	117	1.3	.001	.1	.1	17	1.2
D 200649	<.5	.1	.8	123	52.9	4.9	.04	.1	2.24	<1	126	<.1	4.37	.4	31.0	54.8	6.24	9	.05	18	3.37	1341	1.0	.186	74.9	.312	.33	10.4	330	1.0	.122	<.1	.2	178	.2
D 200650	.7	<.1	.8	101	40.2	3.8	.03	.1	2.08	<1	497	<.1	4.02	.4	24.0	40.1	5.58	8	.14	17	2.66	1057	1.3	.224	41.5	.249	.23	8.9	324	1.0	.160	.1	.1	138	.2
D 200651	<.5	.1	2.4	122	53.0	9.5	.08	.1	2.49	<1	296	.1	3.79	.4	33.6	53.6	6.62	10	.08	22	3.39	1178	1.1	.180	58.0	.291	.46	10.4	287	1.4	.094	.1	.2	192	.3
D 200652	<.5	.1	10.5	164	46.9	9.6	.07	.8	2.19	2	173	.2	2.37	1.1	17.9	39.4	4.86	7	.13	13	1.91	667	2.9	.071	49.2	.142	.69	8.1	168	2.1	.012	.2	.3	95	.1
RE D 200652	<.5	.1	10.4	162	44.3	10.0	.07	.8	2.14	4	161	.2	2.28	1.1	17.0	38.5	4.95	7	.12	12	1.94	675	3.0	.073	47.6	.137	.64	8.4	161	2.1	.012	.2	.3	90	.1
RRE D 200652	<.5	.1	10.6	175	47.3	10.1	.06	.8	2.22	1	164	.2	2.16	1.2	18.6	41.8	5.12	8	.17	12	1.83	697	3.0	.072	50.5	.136	.67	8.2	165	2.1	.012	.2	.3	89	.2
D 200653	<.5	.1	8.1	123	46.3	10.0	.05	.6	2.33	3	240	.1	3.40	.4	21.3	39.0	5.15	9	.16	22	2.27	833	1.9	.132	44.0	.216	.54	7.9	242	2.3	.017	.1	.4	128	.1
D 200654	<.5	.1	6.5	110	19.5	3.7	.03	.3	2.17	2	121	.1	1.48	.6	6.3	9.7	3.71	6	.18	12	1.22	444	4.4	.041	17.2	.124	.18	4.3	147	2.4	.001	.2	.2	28	.1
STANDARD DS4	26.0	.3	30.6	160	121.3	26.0	.28	4.7	1.80	<1	138	4.9	.53	5.4	11.1	162.9	3.16	6	.16	16	.61	744	6.5	.031	34.2	.086	<.05	3.8	26	3.8	.087	1.1	6.3	77	3.6

GROUP 1DX - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-MS.
 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: CORE R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 19 2002 DATE REPORT MAILED: *Sept 24/02* SIGNED BY: *C. L.* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS